

Motor and Drives Price Book



TECO   **Westinghouse**

Effective: 06-14-15





QUALITY STATEMENT

TECO-Westinghouse Motor Company is committed to serving the needs of our customers BETTER THAN ANYONE ELSE by providing products and services that meet requirements, are delivered on time, and are priced to provide superior value. This is achieved through excellence in everything we do. Each task is performed in exact conformance to requirements, and precise processes and systems assure error-free performance in every activity of the business. Our focus is to exceed customer expectations. QUALITY IS THE CORE VALUE OF OUR BUSINESS.

POLITICA DE CALIDAD

TECO-Westinghouse Motor Company esta comprometido a servir las necesidades de nuestros clientes MEJOR QUE NADIE proporcionando productos y servicios que cumplen lo requerimientos, como tiempo de entrega y son evaluados a un valor superior. Esto se cumple a través de la excelencia en todo lo que hacemos. Cada objetivo es desarrollado con exacto cumplimiento de requerimientos y un proceso preciso de sistemas que aseguran un funcionamiento libre de error en cada actividad de la compañía. Nuestro objetivo es exceder las demandas de nuestros clientes. CALIDAD ES LA ESCENCIA DE NUESTRO NEGOCIO.

A handwritten signature in black ink that reads "Patrick M. Rogers".

Patrick M. Rogers

President

TECO-Westinghouse Motor Company

2/20/15

All data presented in this book is for reference only and subject to change without notice. For specific applications, certified dimensions, or additional performance data, etc., please contact your TECO-Westinghouse representative or call: 1-800-USE-TECO

GENERAL INFORMATION	
ONLINE SUBMITTAL DATA INSTRUCTIONS _____	5
CATALOG NUMBER REFERENCE GUIDE _____	6
CONTACT US _____	8
TECO-WESTINGHOUSE STOCK MOTOR AND CONTROL PRODUCTS WARRANTY POLICY _____	9
PROCEDURE FOR WARRANTY CLAIMS ON STOCK MOTORS AND CONTROL PRODUCTS _____	10
LOW VOLTAGE MOTORS	
SINGLE PHASE	
SINGLE PHASE (1/3 HP - 10 HP) _____	11
THREE PHASE ODP	
ROLLED STEEL ODP FAMILY INCLUDING UL FIRE PUMP CERTIFICATION _____	13
ROLLED STEEL ODP 56 FRAME (1/3 HP - 3 HP) _____	14
ROLLED STEEL ODP (1/4 HP - 40 HP) _____	15
ROLLED STEEL ODP JP/JM (1 HP - 40 HP) _____	16
ROLLED STEEL ODP WITH SGR NEMA PREMIUM (1 HP - 40 HP) _____	17
CAST IRON ODP NEMA PREMIUM INCLUDING UL FIRE PUMP CERTIFICATION (1 HP - 500 HP) _____	19
CAST IRON ODP NEMA PREMIUM WITH SGR (1 HP - 75 HP) _____	22
OIL WELL PUMP ODP (5 HP - 125 HP) _____	24
THREE PHASE TEFC	
3-PHASE FRACTIONAL HP TEFC (1/3 HP - 2 HP) _____	26
ROLLED STEEL TEFC, NEMA PREMIUM EFFICIENCY (1/4 HP - 10 HP) _____	28
ROLLED STEEL TEFC, NEMA PREMIUM EFFICIENCY WITH SGR (1 HP - 10 HP) _____	31
OIL WELL PUMP TEFC (5 HP - 125 HP) _____	32
MAX-SE™ ROUND BODY C-FACE (1 HP - 100 HP) _____	35
MAX-HT™ HIGH TORQUE CRUSHER DUTY TEFC (20 HP - 600 HP) _____	37
MAX-PE™ NEMA PREMIUM EFFICIENCY (1 HP - 200 HP) _____	40
MAX-PE™ NEMA PREMIUM EFFICIENCY WITH SGR (1 HP - 75 HP) _____	43
MAX-E1® FAMILY _____	45
MAX-E1® NEMA PREMIUM EFFICIENCY (3/4 HP - 800 HP) _____	46
MAX-E1® NEMA PREMIUM EFFICIENCY, FOOTED C-FACE (1 HP - 100 HP) _____	52
MAX-E1® NEMA PREMIUM EFFICIENCY, ROUND BODY C-FACE (1 HP - 100 HP) _____	52
MAX-E2/841® "LITE" NEMA PREMIUM EFFICIENCY (1 HP - 300 HP) _____	53
MAX-E2/841® FAMILY _____	55
MAX-E2/841® NEMA PREMIUM EFFICIENCY (1 HP - 500 HP) _____	56
MAX-E2/841® NEMA PREMIUM EFFICIENCY, FOOTED C-FACE (1 HP - 300 HP) _____	58
MAX-E2/841® NEMA PREMIUM EFFICIENCY, ROUND BODY C-FACE (1 HP - 100 HP) _____	58
STAINLESS STEEL WASHDOWN NEMA PREMIUM EFFICIENCY (1/2 HP - 10 HP) _____	59
CLOSED COUPLED PUMP JP/JM (3/4 HP - 50 HP) _____	61
TEXP EXPLOSION PROOF FAMILY _____	63
TEXP EXPLOSION PROOF NEMA PREMIUM EFFICIENCY (1 HP - 400 HP) _____	64
TEXP EXPLOSION PROOF NEMA PREMIUM EFFICIENCY FOOTED C-FACE (1 HP - 100 HP) _____	66
TEXP EXPLOSION PROOF NEMA PREMIUM EFFICIENCY ROUND BODY C-FACE (1 HP - 75 HP) _____	66
2 SPEED, 1 WINDING, VARIABLE TORQUE (100 HP - 300 HP) _____	67
KEYLESS SHAFT (200 HP - 800 HP) _____	69
METRIC PREMIUM EFFICIENCY (1 HP - 150 HP) _____	71

VERTICAL MOTORS HOLLOW SHAFT	
MAX-VH™ FAMILY INCLUDING UL FIRE PUMP CERTIFICATION	73
MAX-VH™ VERTICAL HOLLOW SHAFT, WPI (7.5 HP - 500 HP)	74
MAX-VHP™ VERTICAL HOLLOW SHAFT, NEMA PREMIUM EFFICIENCY, WPI (7.5 HP - 400 HP)	75
MAX-VH™ VERTICAL HOLLOW SHAFT TEFC (15 HP - 800 HP)	76
VERTICAL MOTORS SOLID SHAFT	
MAX-VS™ VERTICAL SOLID SHAFT WPI FAMILY	79
MAX-VS™ VERTICAL SOLID SHAFT, WPI (15 - 800 HP)	80
MAX-VS™ VERTICAL SOLID SHAFT WPI, NEMA PREMIUM EFFICIENCY (15 HP - 800 HP)	81
MAX-VS™ VERTICAL SOLID SHAFT, TEFC FAMILY	82
MAX-VS™ VERTICAL SOLID SHAFT TEFC (15 HP - 800 HP)	83
MAX-VS™ VERTICAL SOLID SHAFT,TEFC, NEMA PREMIUM (15 HP - 800 HP)	84
MAX-VS™ VERTICAL SOLID SHAFT TEFC, NEMA PREMIUM ROUND BODY P-BASE (7.5 HP - 100 HP)	85
MAX-VS™ VERTICAL SOLID SHAFT 841 TEFC, NEMA PREMIUM (7.5 HP - 100 HP)	87
COUPLING KITS	97
STEADY BUSHING KITS	98
MEDIUM VOLTAGE	
VERTICAL MOTORS WPI	
VERTICAL HOLLOW SHAFT WPI, NEMA PREMIUM (200 HP - 1000 HP)	89
VERTICAL SOLID SHAFT WPI, NEMA PREMIUM (200 HP - 1000 HP)	91
VERTICAL MOTORS TEFC	
VERTICAL HOLLOW SHAFT TEFC (200 HP - 800 HP)	93
VERTICAL SOLID SHAFT TEFC (200 HP - 800 HP)	95
COUPLING KITS	97
STEADY BUSHING KITS	98
HORIZONTAL MOTORS WPI	
GLOBAL-HD WPI, MEDIUM VOLTAGE ENERGY EFFICIENT (100 HP - 1250 HP)	99
GLOBAL-HD WPI, MEDIUM VOLTAGE NEMA PREMIUM (100 HP - 2000 HP)	102
HORIZONTAL MOTORS TEFC	
GLOBAL-PLUS TEFC, MEDIUM VOLTAGE NEMA PREMIUM EFFICIENCY (100 HP - 1750 HP)	104
GLOBAL-PLUS "IEC", MEDIUM VOLTAGE HIGH EFFICIENCY (800 HP - 2000 HP)	107
GLOBAL-PLUS TEFC, MEDIUM VOLTAGE ENERGY EFFICIENT (100 HP - 900 HP)	109
KITS	
COUPLING KITS	97
STEADY BUSHING KITS	98
C-FLANGE KITS	111
D-FLANGE KITS	112
P-BASE KITS, DRIP COVERS, AND PAINT	113
FACTORY MODIFICATIONS	
FACTORY MODIFICATION PRICING	114
FACTORY MODIFICATION DESCRIPTIONS	116
MODIFICATION DRAWING REQUIREMENTS	119
DIMENSIONS AC MACHINES	120

CUSTOM ENGINEERED LARGE MOTORS	
WORLD SERIES® MOTORS _____	122
WORLD SERIES® AIR CABINETS DESIGN LIST _____	124
SYNCHRONOUS MOTORS _____	126
DC MOTORS _____	127
SERVICE	
LARGE MOTOR REPAIR _____	128
RENEWAL PARTS AND ENGINEERED COMPONENTS _____	128
ENGINEERING SERVICES _____	128
REFERENCE	
DIMENSIONS FOR AC MACHINES _____	120
USEFUL FORMULAS _____	130
AC DRIVES	
DRIVE PACKAGING CAPABILITIES _____	132
L510 MICRO DRIVE (0.25 HP - 3 HP) _____	133
N3 COMPACT DRIVE (.5 HP - 75 HP) _____	136
A510 HEAVY DUTY DRIVE (1 HP - 270 HP) _____	140
E510 NEMA 4, 4X/12 (.5 HP - 25 HP) _____	145
F510 FAN & PUMP DUTY (5 HP - 250 HP) _____	150
EQ7 AC DRIVE (1 HP - 1000 HP) _____	154
BRAKE MODULES AND RESISTORS	
L510 _____	135
N3 _____	139
A510 _____	144
E510 _____	149
F510 _____	153
LINE REACTORS	
LINE REACTORS 3% IMPEDANCE 230V (1 HP - 150 HP) _____	158
LINE REACTORS 5% IMPEDANCE 230V (1 HP - 150 HP) _____	158
LINE REACTORS 3% IMPEDANCE 460V (1 HP - 800 HP) _____	159
LINE REACTORS 5% IMPEDANCE 460V (1 HP - 800 HP) _____	160
OUTPUT REACTORS/ LOW PASS FILTER COMBINATION 460V (1 HP - 600 HP) _____	161
SOLID STATE STARTERS	
TEAMMASTER™ MEDIUM VOLTAGE (650 HP - 3000 HP) _____	163
ADDITIONAL DRIVE INFORMATION	
DRIVE RMA RETURN PROCEDURE _____	165
ABBREVIATED APPLICATION CHECKLIST _____	166

ONLINE SUBMITTAL DATA INSTRUCTIONS

ONLINE INSTRUCTIONS

SUBMITTAL DATA

Submittal data consists of basic performance data, dimensional drawings, connection diagrams, and instruction manuals. Mechanical and electrical submittal data is available on many stock catalog motors through our website www.tecowestinghouse.com by following the three easy steps below. If additional submittal data is required, please contact your TECO-Westinghouse representative.

1. From our website homepage, www.tecowestinghouse.com, enter in the part or catalog number in the box in the middle of the page and then click on "Go".

(Note: If you have a TECO-Westinghouse motor and are looking for the performance data, please use the catalog number off the nameplate for your search. Ex: EP0102.)



2. A product listing page will appear about the motor. Click on the "Learn More" button and you will be taken to the download page. Here you will be able to print the available performance data, dimensional drawings, connection diagrams, and instruction manuals in PDF format for the motor you have selected. Links to the available information are listed at the bottom of the screen. **Click on the appropriate product link for the information that you need.**



3. Your results will look similar to the example shown to the right for the TECO-Westinghouse MAX-E1® NEMA Premium Efficiency Severe Duty TEFC motor, catalog # EP0102.

It's that easy!

  Westinghouse		INCLOSURE	
		SPECIFIC	
MODEL NO. 5950006 TYPE 454H4N		PERFORMANCE DATA 3-PHASE INDUCTION MOTOR	
MANIPULATE INFORMATION HP 250 FRAME 234600 2P 234600 2P 234600 1P 234600 2P 234600		NAME PLATE INFORMATION NO. AMPS/LOCKED ROTOR 100 NO. AMPS/FLA 100 NO. AMPS/CONT. 6.5	
VARIABLE TORQUE Hz 0-60 RPM 0-1800 TORQUE 0-1.25		OVERSPEED PROTECTION WITH CIRCUIT BREAKER (OPTIONAL) (SEE SPEC.) 1.25/1.5/1.75/2.0/2.25/2.5/2.75/3.0/3.25/3.5/3.75/4.0/4.25/4.5/4.75/5.0/5.25/5.5/5.75/6.0/6.25/6.5/6.75/7.0/7.25/7.5/7.75/8.0/8.25/8.5/8.75/9.0/9.25/9.5/9.75/10.0/10.25/10.5/10.75/11.0/11.25/11.5/11.75/12.0/12.25/12.5/12.75/13.0/13.25/13.5/13.75/14.0/14.25/14.5/14.75/15.0/15.25/15.5/15.75/16.0/16.25/16.5/16.75/17.0/17.25/17.5/17.75/18.0/18.25/18.5/18.75/19.0/19.25/19.5/19.75/20.0/20.25/20.5/20.75/21.0/21.25/21.5/21.75/22.0/22.25/22.5/22.75/23.0/23.25/23.5/23.75/24.0/24.25/24.5/24.75/25.0/25.25/25.5/25.75/26.0/26.25/26.5/26.75/27.0/27.25/27.5/27.75/28.0/28.25/28.5/28.75/29.0/29.25/29.5/29.75/30.0/30.25/30.5/30.75/31.0/31.25/31.5/31.75/32.0/32.25/32.5/32.75/33.0/33.25/33.5/33.75/34.0/34.25/34.5/34.75/35.0/35.25/35.5/35.75/36.0/36.25/36.5/36.75/37.0/37.25/37.5/37.75/38.0/38.25/38.5/38.75/39.0/39.25/39.5/39.75/40.0/40.25/40.5/40.75/41.0/41.25/41.5/41.75/42.0/42.25/42.5/42.75/43.0/43.25/43.5/43.75/44.0/44.25/44.5/44.75/45.0/45.25/45.5/45.75/46.0/46.25/46.5/46.75/47.0/47.25/47.5/47.75/48.0/48.25/48.5/48.75/49.0/49.25/49.5/49.75/50.0/50.25/50.5/50.75/51.0/51.25/51.5/51.75/52.0/52.25/52.5/52.75/53.0/53.25/53.5/53.75/54.0/54.25/54.5/54.75/55.0/55.25/55.5/55.75/56.0/56.25/56.5/56.75/57.0/57.25/57.5/57.75/58.0/58.25/58.5/58.75/59.0/59.25/59.5/59.75/60.0/60.25/60.5/60.75/61.0/61.25/61.5/61.75/62.0/62.25/62.5/62.75/63.0/63.25/63.5/63.75/64.0/64.25/64.5/64.75/65.0/65.25/65.5/65.75/66.0/66.25/66.5/66.75/67.0/67.25/67.5/67.75/68.0/68.25/68.5/68.75/69.0/69.25/69.5/69.75/70.0/70.25/70.5/70.75/71.0/71.25/71.5/71.75/72.0/72.25/72.5/72.75/73.0/73.25/73.5/73.75/74.0/74.25/74.5/74.75/75.0/75.25/75.5/75.75/76.0/76.25/76.5/76.75/77.0/77.25/77.5/77.75/78.0/78.25/78.5/78.75/79.0/79.25/79.5/79.75/80.0/80.25/80.5/80.75/81.0/81.25/81.5/81.75/82.0/82.25/82.5/82.75/83.0/83.25/83.5/83.75/84.0/84.25/84.5/84.75/85.0/85.25/85.5/85.75/86.0/86.25/86.5/86.75/87.0/87.25/87.5/87.75/88.0/88.25/88.5/88.75/89.0/89.25/89.5/89.75/90.0/90.25/90.5/90.75/91.0/91.25/91.5/91.75/92.0/92.25/92.5/92.75/93.0/93.25/93.5/93.75/94.0/94.25/94.5/94.75/95.0/95.25/95.5/95.75/96.0/96.25/96.5/96.75/97.0/97.25/97.5/97.75/98.0/98.25/98.5/98.75/99.0/99.25/99.5/99.75/100.0/100.25/100.5/100.75/101.0/101.25/101.5/101.75/102.0/102.25/102.5/102.75/103.0/103.25/103.5/103.75/104.0/104.25/104.5/104.75/105.0/105.25/105.5/105.75/106.0/106.25/106.5/106.75/107.0/107.25/107.5/107.75/108.0/108.25/108.5/108.75/109.0/109.25/109.5/109.75/110.0/110.25/110.5/110.75/111.0/111.25/111.5/111.75/112.0/112.25/112.5/112.75/113.0/113.25/113.5/113.75/114.0/114.25/114.5/114.75/115.0/115.25/115.5/115.75/116.0/116.25/116.5/116.75/117.0/117.25/117.5/117.75/118.0/118.25/118.5/118.75/119.0/119.25/119.5/119.75/120.0/120.25/120.5/120.75/121.0/121.25/121.5/121.75/122.0/122.25/122.5/122.75/123.0/123.25/123.5/123.75/124.0/124.25/124.5/124.75/125.0/125.25/125.5/125.75/126.0/126.25/126.5/126.75/127.0/127.25/127.5/127.75/128.0/128.25/128.5/128.75/129.0/129.25/129.5/129.75/130.0/130.25/130.5/130.75/131.0/131.25/131.5/131.75/132.0/132.25/132.5/132.75/133.0/133.25/133.5/133.75/134.0/134.25/134.5/134.75/135.0/135.25/135.5/135.75/136.0/136.25/136.5/136.75/137.0/137.25/137.5/137.75/138.0/138.25/138.5/138.75/139.0/139.25/139.5/139.75/140.0/140.25/140.5/140.75/141.0/141.25/141.5/141.75/142.0/142.25/142.5/142.75/143.0/143.25/143.5/143.75/144.0/144.25/144.5/144.75/145.0/145.25/145.5/145.75/146.0/146.25/146.5/146.75/147.0/147.25/147.5/147.75/148.0/148.25/148.5/148.75/149.0/149.25/149.5/149.75/150.0/150.25/150.5/150.75/151.0/151.25/151.5/151.75/152.0/152.25/152.5/152.75/153.0/153.25/153.5/153.75/154.0/154.25/154.5/154.75/155.0/155.25/155.5/155.75/156.0/156.25/156.5/156.75/157.0/157.25/157.	

CATALOG NUMBER REFERENCE GUIDE

EXAMPLE:

DHP 0754R

FIRST 1-3 SPACES (LETTERS) DESIGNATE THE MOTOR PRODUCT LINE

LOW VOLTAGE

S=	TEFC	- SINGLE PHASE (1/3 - 10 HP)
DS=	ODP	- ROLLED STEEL - 56 FRAME (1/3 - 3 HP)
DSP=	ODP	- ROLLED STEEL - 56 FRAME NEMA PREMIUM EFFICIENCY (1/3 - 3 HP)
DTP=	ODP	- ROLLED STEEL NEMA PREMIUM EFFICIENCY AND UL FIRE PUMP (1 - 40 HP)
DTP-G=	ODP	- ROLLED STEEL NEMA PREMIUM EFFICIENCY WITH SGR (1 - 40 HP)
DJM=	ODP	- ROLLED STEEL JM FRAME, EPACT, MOTOR AND UL FIRE PUMP (1/3 - 40 HP)
DJP=	ODP	- ROLLED STEEL JP FRAME, EPACT, MOTOR AND UL FIRE PUMP (1/3 - 40 HP)
DHP=	ODP	- CAST IRON NEMA PREMIUM EFFICIENCY AND UL FIRE PUMP (1 - 500 HP)
DHP-G=	ODP	- CAST IRON NEMA PREMIUM EFFICIENCY WITH SGR (1 - 75 HP)
Q=	ODP	- OIL WELL PUMP, NEMA DESIGN D TORQUE (5 - 125 HP)
QT=	TEFC	- OIL WELL PUMP, NEMA DESIGN D TORQUE (7.5 - 125 HP)
VH=	WPI	- MAX-VH VERTICAL HOLLOW SHAFT WPI AND UL FIRE PUMP (7.5 - 400 HP)
VHP=	WPI	- VERTICAL HOLLOW SHAFT WPI NEMA PREMIUM EFFICIENCY AND UL FIRE PUMP (7.5 - 400 HP)
G=	TEFC	- 56 FRAME (1/3 - 2 HP)
GV=	TEFC	- 56C FRAME - ROUND BODY (1/3 - 2 HP)
GH=	TEFC	- ROLLED STEEL 56 FRAME NEMA PREMIUM EFFICIENCY (1/3 - 2 HP)
GHV=	TEFC	- ROLLED STEEL ROUND BODY C-FACE NEMA PREMIUM EFFICIENCY (1/3 - 2 HP)
GP=	TEFC	- ROLLED STEEL NEMA PREMIUM EFFICIENCY (1 - 10 HP)
GP-G=	TEFC	- ROLLED STEEL NEMA PREMIUM EFFICIENCY WITH SGR (1 - 10 HP)
GPV=	TEFC	- ROLLED STEEL ROUND BODY C-FACE NEMA PREMIUM EFFICIENCY (1 - 10 HP)
NV=	TEFC	- EPACT EFFICIENT - ROUND BODY WITH C-FACE (1 - 100 HP)
NP=	TEFC	- NEMA PREMIUM EFFICIENCY (1 - 200 HP)
NP-G=	TEFC	- NEMA PREMIUM EFFICIENCY WITH SGR (1 - 200 HP)
CD=	TEFC	- CRUSHER DUTY (20 - 600 HP)
E=	TEFC	- HIGH EFF. 8-POLE MOTORS, ALL RATINGS ABOVE 500 HP (3/4 - 500 HP)
EP=	TEFC	- NEMA PREMIUM EFFICIENT (1 - 500 HP)
EPV=	TEFC	- NEMA PREMIUM ROUND BODY C-FACE (1 - 100 HP)
HH=	TEFC	- NEMA PREMIUM EFFICIENT IEEE 841 READY (1 - 300 HP)
HB=	TEFC	- NEMA PREMIUM EFFICIENT - IEEE 841 (1 - 500 HP)
HBV=	TEFC	- NEMA PREMIUM EFFICIENT - IEEE 841 ROUND BODY C-FACE (1 - 100 HP)
WP/WPV/WFP/WWV =	TEFC	- STAINLESS STEEL WASHDOWN WITH C-FACE NEMA PREMIUM (1/2 - 10 HP)
JMN=	TEFC	- JM FRAME EPACT EFFICIENT (3/4 - 50 HP)
JPN=	TEFC	- JP FRAME EPACT EFFICIENT (3/4 - 50 HP)
XV=	TEFC	- EXPLOSION PROOF - ROUND BODY WITH C-FACE (1-100 HP)
XP=	TEFC	- NEMA PREMIUM EXPLOSION PROOF (1-400 HP)

First 1-3 spaces list continued on next page>>

NEXT 3-4 SPACES (NUMBERS) DESIGNATE THE HORSEPOWER

"JH", "JF", and "P" MOTOR LINES ARE THE ONLY LINES THAT WILL HAVE 4 SPACES

IF "JH" HP <1000, USE A "0" IN THE 1ST SPACE - "0800" = 800 HP

IF HP IS <100, USE A "0" IN THE 1ST SPACE - "075" = 75 HP

IF HP <1, USE A "0" IN THE 1ST SPACE, FOLLOWED BY A "/", THEN THE BOTTOM NUMBER OF THE FRACTION - "0/3" = 1/3 HP

IF HP HAS A DECIMAL > 1, USE THE WHOLE NUMBER 1ST FOLLOWED BY A "/", THEN THE NUMBER AFTER THE DECIMAL - "7/5" = 7.5 HP

NEXT SPACE (NUMBER) DESIGNATES THE SPEED

2 = 2 POLE = 3600 OR 3000 RPM

4 = 4 POLE = 1800 OR 1500 RPM

6 = 6 POLE = 1200 OR 1000 RPM

8 = 8 POLE = 900 OR 750 RPM

NEXT SPACE IF OCCUPIED:

S = 4 POLE MOTOR WITH SHORT SHAFT (TS)

5 = MOTOR STOCKED STANDARD AS 575 VOLT

2 = MOTOR STOCKED STANDARD AS 200 VOLT

R = MOTOR STOCKED STANDARD WITH A DRIVE-END ROLLER BEARING

C = MOTOR STOCKED STANDARD WITH A C-FACE

CATALOG NUMBER REFERENCE GUIDE

Effective 06-14-15
Supersedes 05-01-13

FIRST 1-3 SPACES (LETTERS) DESIGNATE THE MOTOR PRODUCT LINE - Continued

LOW VOLTAGE

MP=	TEFC	-	METRIC MOTOR (IEC), CAST IRON IE3 (NEMA PREMIUM EFFICIENT), (1 HP - 150 HP / 3/4 KW - 112 KW)
EY=	TEFC	-	KEYLESS SHAFT ENERGY EFFICIENT, CAST IRON (200 - 800 HP)
VS=	WPI	-	VSS, 1800 / 1200 RPM, EPACT EFFICIENCY, HIGH THRUST (15 - 800 HP)
VSP=	WPI	-	VSS, 1800 / 1200 RPM, NEMA PREMIUM EFFICIENCY, HIGH THRUST (15 - 800 HP)
VHT=	TEFC	-	VHS, AEEH - EPACT, AEEHNNH - NEMA, 1800 / 1200 RPM, HIGH THRUST (15 - 800 HP)
VHTP=	TEFC	-	VHS, AEEH - NEMA PREMIUM EFFICIENCY, AEEHNNH - NEMA, 1800 / 1200 RPM, HIGH THRUST (15 - 800 HP)
VST=	TEFC	-	VSS, 1800 / 1200 RPM, EPACT EFFICIENCY, HIGH THRUST (15 - 800 HP)
EPV=	TEFC	-	VSS, 1800 / 1200 RPM, NEMA PREMIUM EFFICIENCY, NORMAL/MEDIUM THRUST (7.5 - 100 HP)
HBV=	TEFC	-	VSS, IEEE/841, 1800 / 1200 RPM, NEMA PREMIUM EFFICIENCY, MEDIUM THRUST (7.5 - 100 HP)

MEDIUM VOLTAGE

P=	ODP/WPI	-	STANDARD EFFICIENT (100-900 HP)
PG=	WPS	-	GLOBAL-HD NEMA PREMIUM (100 HP - 2000 HP)
KG/KF=	TEFC	-	NEMA PREMIUM EFFICIENCY (100-1750 HP)
JH/JF=	TEFC	-	PREMIUM EFFICIENT (800-2000 HP)
VHKP=	WPI	-	VHS, NEMA PREMIUM EFFICIENCY, HIGH THRUST
VSKP=	WPI	-	VSS, NEMA PREMIUM EFFICIENCY, HIGH THRUST
VHKT=	TEFC	-	VHS, EPACT EFFICIENCY, HIGH THRUST (150 HP - 800 HP)
VKTP=	TEFC	-	VSS, NEMA PREMIUM, P-BASE, HIGH THRUST (200 HP - 800 HP)
KD=	TEFC	-	GLOBAL-PLUS, ENERGY EFFICIENT, NEMA DESIGN C TORQUE, CRUSHER DUTY (100 HP - 900 HP)
VSKT=	TEFC	-	VSS, EPACT EFFICIENCY, HIGH THRUST (200 HP - 800 HP)

CONTACT US

Effective 06-14-15
Supersedes 05-01-13

STOCK MOTOR GROUP		Phone: 800-USE-TECO (873-2326)
T-Frame Documents:	tframedocs@tecowestinghouse.com	Drawings, Test Reports, Submittal Requests, Etc.
T-Frame Parts:	tframeparts@tecowestinghouse.com	Stock Parts Quotes and Availability
T-Frame Warranty:	tframewarranty@tecowestinghouse.com	Warranty Support
Customer Service:	customerservice@tecowestinghouse.com	Orders Status, Stock Checks, Quotes, Etc.
Purchase Orders Entry:	orders@tecowestinghouse.com	Orders Only
CONTROLS GROUP		Phone: 800-279-4007
Low Voltage Technical Support	controlstechsupport@tecowestinghouse.com	Technical Support, Submittal Information On Build Up Packages
Low Voltage Warranty	controlswarranty@tecowestinghouse.com	Controls Warranty Support For VFDs, Starters
Purchase Orders Entry	orders@tecowestinghouse.com	Orders Only
CENTRAL PHONE NUMBERS		
Stock Product Group Customer Service	1-800-873-8326	
Controls Group Customer Service	1-800-279-4007	

TECO-WESTINGHOUSE STOCK MOTOR AND CONTROL PRODUCTS WARRANTY POLICY

Effective 06-14-15
Supersedes 05-01-13

STANDARD WARRANTY INFORMATION

All TECO-Westingshouse brand Stock Motors and Low Voltage Control Products, such as Solid State Starters and AC Drives, ("control products") sold by TECO-Westingshouse Motor Company ("TWMC") are warranted to be free from defects in material and workmanship for a period of 36 months from the date of manufacture. A warranty of 36 months from the date of sale is applicable when a TWMC Low Voltage Control Product and a TWMC Inverter Duty Motor are purchased together. All MAX-E2/841® motors have a 5 year warranty.

This warranty is conditioned upon the installation, operation, and maintenance of the motors and control products in accordance with TWMC's recommendations or standard industry practice, and the motors and control products have at all times been operated or used under the normal operating conditions for which they were designed. This warranty will not be applicable to products that have been altered without written permission from TWMC.

TWMC shall, at its sole option and expense, either repair or replace, F.O.B. warehouse or TWMC designated service center, any such motor, motor part, or control product which is defective within the warranty period.

In the event of warranty claims, TWMC must be notified promptly following any motor or control product failure. The motor or control product shall be sent to a TWMC authorized service center for diagnosis on the cause of failure. For motor and control products, if the failure is due to defective material and/or workmanship, TWMC will replace or repair the defective motor, motor part, or control product at its discretion.

The repair or replacement of defective material and workmanship shall constitute complete fulfillment of TWMC's warranty liability whether the warranty claims are based on contract, tort (including negligence and strict liability), or otherwise. **THERE ARE NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE, AND ALL WARRANTIES ARISING FROM COURSE OF DEALING AND USAGE OF TRADE. UNDER NO CIRCUMSTANCES SHALL TECO-WESTINGHOUSE MOTOR COMPANY BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, INCLUDING FREIGHT.**

STOCK MOTOR AND CONTROL PRODUCTS RETURN POLICY

All returned goods are subject to prior approval and must be accompanied by a Return Material Authorization (RMA) number. These goods must be returned within 90 days, freight prepaid, in resalable condition and in original packaging. A 15% restocking fee will be applied. If upon receipt of RMA, goods are deemed not to be in resalable condition or in original packaging, then additional fees will be applied. **RETURNS ON MODIFIED MOTORS OR CONTROL PRODUCTS WILL NOT BE ALLOWED.**

PROCEDURE FOR WARRANTY CLAIMS ON STOCK MOTORS

Effective 06-14-15
Supercedes 05-01-13

WARRANTY CLAIMS

In the event of warranty claims, TECO-Westinghouse Motor Company must be notified promptly prior to any repairs or replacement of failed motors and/ or motor components. Original purchase information will be requested. The failed motor shall be sent to a TECO-Westinghouse authorized service center for diagnosis on the cause of the failure. If the failure is due to defective material and/ or workmanship, TECO-Westinghouse shall, at its sole option, either repair on a straight time basis, issue credit, or replace, FOB warehouse, any such motor or component that is defective within the warranty period. Failure to notify TECO-Westinghouse prior to performing repairs or providing replacements will result in denial of warranty claims.

Contact the TECO-Westinghouse Warranty Department at 512-218-7475.

AUTHORIZED SERVICE

Authorized service centers shall contact the TECO-Westinghouse Warranty Department for serial number verification to determine warranty status of the motor. If the motor is within the original warranty period, the service center shall dismantle and inspect the motor, and prepare a standard EASA Warranty Repair Report. Fax the report to the TECO-Westinghouse Warranty Department at 512-218-7475 for review of the failure and determination if the failure will be covered under terms of the TECO-Westinghouse standard warranty.

WARRANTY DETERMINATION

If the motor failure is determined to be a warranty failure, a Warranty Claim Authorization (WCA) number will be assigned to the claim. The WCA number represents the credit memo number for any motor not repaired, as well as the purchase order number for inspection, and/ or repair charges for motors to be replaced or repaired. Charges for inspections and/ or repairs to motors outside the warranty period or for failures not resulting from material or workmanship issues are the sole responsibility of the end user.

For Warranty Repairs: The original EASA Warranty Repair Report, along with pictures documenting the failure, shall be submitted to the TECO-Westinghouse Warranty Department, along with an invoice for all repair charges. All reports and invoices submitted require an RMA number for processing. Claims submitted without RMA numbers will be denied.

For Warranty Credit: The original EASA Warranty Repair Report, pictures, invoice and the original nameplate off the motor must be returned to the TECO-Westinghouse Warranty Department prior to issuance of credit. All claims and invoices submitted require a WCA number for processing. Claims submitted without WCA numbers will be denied. An invoice must be received for payment of inspection charges. Invoice only for inspection charges. Credit will be issued to the buyer's account for any motor determined not to be repairable.

Request for warranty replacements: Under special circumstances, TWMC Warranty Department can process replacement orders, if an exact replacement motor/ component is in stock. All such orders will be shipped FOB warehouse, and the customer will receive an invoice for the replacement. On receipt of the nameplate from the original failed motor, credit will be issued for the failed motor. Freight is not covered under warranty.

NOTE: If the cause of the failure is determined to not be a result of a manufacturer's defect, all expenses associated with inspection, repair, etc., will be the responsibility of others.

See page 165 for Control Products Return Procedure.

SINGLE PHASE



TYPE: BEGCFD, BECCFD, BECSFD

Effective 06-14-15
Supersedes 05-01-13



APPLICATIONS:

- Fans & Blowers
- Pumps
- Compressors
- Farm Equipment
- Machine Tools

FEATURES:

- 1/3 - 10 HP
- 1800 RPM
- Totally Enclosed Fan Cooled (IP44)
- High Torque Design
- 36 Month Warranty from Date of Manufacture
- 1 Phase – 60 Hz – 115/230V (3 HP and Larger are 230V Only)
- Capacitor Start, Induction Run – 1/3 to 1.5 HP
- Capacitor Start, Permanent Split Capacitor Run – 2 to 10 HP
- 1.15 Service Factor – Continuous
- Class B Insulation from 1/3 to 3 HP
- Class F Insulation from 5 to 10 HP
- Manual Reset Overload with Outside Rubber Boot
- Class B Temperature Rise
- Bi-Directional Rotation
- Rolled Steel Frame for 1/3 – 1 HP
- Cast Iron Frame for 1.5 – 10 HP
- Rolled Steel Terminal Box
- 1045 Carbon Steel Shaft
- Aluminum Die Cast Squirrel Cage Rotor Construction
- Paint System: Phenolic Rust Proof Base Plus Polyurethane Top Coat
- Paint Color: Green – Munsell 5G 4/ 4
- Double Shielded Bearings Pre-Packed with MULTEMP SRL Grease
- Rubber Flinger on Drive-End
- Grounding Terminal Inside Main Box
- Stainless Steel Nameplate on Frames 143T and Larger
- Motors are UL Recognized and CSA Approved

EXTRAS/ OPTIONS:

Please refer to pages 114 - 119 for common modifications that can be performed.

SINGLE PHASE



TYPE: BEGCFD, BECCFD, BECSFD

Effective 06-14-15
Supersedes 05-01-13

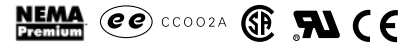


HP	RPM	FL EFF (%)	FL PF (%)	FRAME MATERIAL	FOOTED FRAME				FOOTED C-FACE			
					FRAME	CATALOG NO.	APPROX. SHIPPING WT. (lbs.)	LIST PRICE (\$)	FRAME	CATALOG NO.	APPROX. SHIPPING WT. (lbs.)	LIST PRICE (\$)
1/3	1800	51.0	47.0	RS	56	S0/34 ⁽¹⁾	29	353	56C	S0/34C ⁽¹⁾	29	511
1/2	1800	58.0	58.0	RS	56	S0/54 ⁽¹⁾	33	375	56C	S0/54C ⁽¹⁾	33	533
3/4	1800	65.0	63.0	RS	56	S0/74 ⁽¹⁾	38	398	56C	S0/74C ⁽¹⁾	38	556
1	1800	69.0	68.0	RS	56	S0014 ⁽¹⁾	38	427	56C	S0014C ⁽¹⁾	38	585
1.5	1800	70.0	63.0	CI	145T	S1/54 ⁽¹⁾	73	516	145TC	S1/54C ⁽¹⁾	73	674
2	1800	73.0	63.5	CI	182T	S0024 ⁽²⁾	120	718	182TC	S0024C ⁽²⁾	120	935
3	1800	74.0	63.0	CI	182T	S0034 ⁽²⁾⁽³⁾	120	816	182TC	S0034C ⁽²⁾⁽³⁾	120	1,033
5	1800	78.5	69.0	CI	184T	S0054 ⁽²⁾⁽³⁾	135	931	184TC	S0054C ⁽²⁾⁽³⁾	135	1,148
7.5	1800	80.0	84.5	CI	213T	S7/54 ⁽²⁾⁽³⁾	200	1,583	213TC	S7/54C ⁽²⁾⁽³⁾	200	1,807
10	1800	78.5	87.0	CI	215T	S0104 ⁽²⁾⁽³⁾	210	1,885	215TC	S0104C ⁽²⁾⁽³⁾	210	2,109

Notes:

- (1) BEGCFD and BECCFD are capacitor start, induction run.
- (2) BECSFD is capacitor start and permanent split capacitor run.
- (3) Ratings 3 HP and larger are 230V only.
- (4) Frame Material: RS = Rolled Steel CI = Cast Iron

ROLLED STEEL ODP FAMILY



TYPE: ASGHPE (56 FRAME), ASGH (140~280 FRAME) NEMA PREMIUM

Effective 06-14-15
Supersedes 05-01-13

TYPE: ASGA JP/JM EPACT



APPLICATIONS:

- Fans & Blowers
- Pumps
- HVAC Equipment
- Compressors
- Fire Pumps (See option below)



FEATURES:

- 1/4 - 40 HP
- 3600, 1800, 1200 RPM
- Open Drip Proof (IP22)
- Available in Horizontal Foot Mounted or JP/JM Frame Configurations
- Meets or Exceeds EISA Requirements
- Department of Energy Efficiency Certification #CC002A
- 36 Month Warranty from Date of Manufacture
- 60 Hz - 230/ 460V (Usable on 200V and 208V)
- 1.15 Service Factor – Continuous
- Class F Insulation with Phenolic Alkyd Resin Varnish
- Class B Temperature Rise
- NEMA Design B Torques
- Oversized Main Conduit Box Rotatable in 90 Degree Increments – F1 Mounted.
F2 Available for Frames 180T-280T – EPAct only (NEMA P Frame Not Centered). See EXTRAS/ OPTIONS Below
- Designed for 40°C Ambient Temperature - Note (1)
- Designed for 3300 ft. Elevation - Note (2)
- Bi-Directional Rotation
- Rolled Steel Frame and Conduit Box
- 1045 Carbon Steel Shaft
- Aluminum Die Cast Squirrel Cage Rotor Construction
- Paint System: Phenolic Rust Proof Base Plus Polyurethane Top Coat
- Paint Color: ASGA Light Gray - Munsell N5.0, ASGH Blue - Munsell 5PB 3/8
- Double Shielded Bearings Pre-Packed with MULTEMP SRL Grease
- Grounding Terminal Inside Main Box
- Stainless Steel Nameplate
- VFD Rated per NEMA MG1, Part 31, 4.4.2 - Note (3)(4)
- Speed Ranges: 20:1 VT, 10:1 CT
- 12 Leads - 7.5 HP and Up; 9 Leads for all Others
- Motors are UL Recognized, CSA Approved, and CE Marked
- **Precautions should be taken to eliminate or reduce shaft currents that may be imposed on the motor by the VFD as stated per NEMA MG1, Part 31.4.4.3. (Part 30 for ASGA and ASGA JP/JM).**

UL Fire Pump Features

- Complies with ANSI/UL 1004-5 "Fire Pump Motors." Certificate #20120717 - EX6569
- Available Option: Safety Red Epoxy Paint (Factory Modification #M18).

EXTRAS/ OPTIONS:

Please refer to pages 114 - 119 for common modifications that can be performed.

Notes:

- (1) Please consult factory for suitability in higher ambients.
- (2) Please consult factory for suitability in higher elevations.
- (3) Motor service factor is 1.0 when operated on a VFD.
- (4) Maximum lead length is 150 feet with a carrier frequency of 3 kHz. Addition of output reactor or filter may allow for increased carrier frequency. Please contact TWMC if lead length and carrier frequency surpass these values.

ROLLED STEEL ODP FIRE PUMP DUTY



TYPE: ASGA (56 FRAME) EPACT

Effective 06-14-15
Supercedes 05-01-13



HP	RPM	FRAME	FL EFF (%)	FL PF (%)	FL AMPS (230V)	APPROX. SHIPPING WT. (lbs.)	FIRE PUMP CATALOG NO.	FIRE PUMP LIST PRICE (\$)
1/3	3600	A56	68.0	73.8	1.24	21	DS0/32	243
1/3	1800	A56	75.5	73.0	1.13	22	DS0/34	259
1/3	1200	A56	75.5	67.2	1.23	22	DS0/36	348
1/2	3600	A56	72.0	73.8	1.76	22	DS0/52	259
1/2	1800	A56	77.0	68.8	1.77	22	DS0/54	285
1/2	1200	A56	75.5	65.5	1.89	23	DS0/56	378
3/4	3600	A56	75.5	74.2	2.51	35	DS0/72	291
3/4	1800	A56	75.5	70.0	2.66	23	DS0/74	316
3/4	1200	A56	75.5	63.2	2.94	26	DS0/76	384
1	3600	A56	74.0	74.0	3.40	25	DS0012	338
1	1800	A56	77.0	75.8	3.20	25	DS0014	338
1	1200	A56	77.0	70.8	3.40	32	DS0016	400
1.5	3600	A56	77.0	79.2	4.60	26	DS1/52	362
1.5	1800	A56	80.0	80.0	4.40	30	DS1/54	362
2	3600	A56	80.0	80.5	5.80	28	DS0022	384
2	1800	A56	81.5	82.0	5.60	35	DS0024	384
3	3600	A56	85.2	85.0	8.00	36	DS0032	464
3	1800	C56HZ	86.5	80.5	8.00	53	DS0034	415

Notes:

- (1) Fire Pump Duty Motor Purchase Option: Fire Safety Red epoxy paint (Mod M18B: PPG Pitt-Tech 90-306 Safety Red)
- (2) This product line is only available for Fire Pump Duty applications.

ROLLED STEEL ODP



TYPE: ASGHPE (56 FRAME), ASGH (140~280 FRAME) NEMA PREMIUM

Effective 06-14-15
Supersedes 05-01-13



HP	RPM	FRAME	FL EFF (%)	FL PF (%)	FL AMPS (230V)	APPROX. SHIPPING WT. (lbs.)	CATALOG NO.	LIST PRICE (\$)	FIRE PUMP CATALOG NO.	FIRE PUMP LIST PRICE (\$)
1/4	3600	A56	72.0	82.0	0.79	19	DSP0/42	243	~	~
1/4	1800	A56	72.0	73.0	0.89	20	DSP0/44	259	~	~
1/4	1200	A56	70.0	61.0	1.10	24	DSP0/46	348	~	~
1/3	3600	A56	72.0	82.0	1.06	21	DSP0/32	243	~	~
1/3	1800	A56	75.5	74.5	1.11	22	DSP0/34	259	~	~
1/3	1200	A56	75.5	61.0	1.42	22	DSP0/36	348	~	~
1/2	3600	A56	75.5	85.0	1.46	22	DSP0/52	259	~	~
1/2	1800	A56	78.2	81.0	1.48	22	DSP0/54	285	~	~
1/2	1200	A56	75.5	63.0	1.97	23	DSP0/56	378	~	~
3/4	3600	A56	78.5	80.5	2.22	35	DSP0/72	291	~	~
3/4	1800	A56	81.1	77.5	2.23	23	DSP0/74	316	~	~
3/4	1200	A56	81.7	67.5	2.55	26	DSP0/76	384	~	~
1	3600	A56	80.0	85.5	2.74	25	DSP0012	338	~	~
1	3600	143T	78.5	83.0	2.87	34	DTP0012	356	DTP0012FP	392
1	1800	A56	85.5	75.5	2.90	25	DSP0014	338	~	~
1	1800	143T	85.5	79.0	2.77	42	DTP0014	356	DTP0014FP	392
1	1200	A56	82.5	66.0	3.44	32	DSP0016	400	~	~
1	1200	145T	82.5	64.0	3.55	43	DTP0016	460	DTP0016FP	506
1.5	3600	A56	77.0	79.2	4.60	26	DSP1/52	362	~	~
1.5	3600	143T	85.5	83.0	3.96	34	DTP1/52	380	DTP1/52FP	418
1.5	1800	A56	86.5	80.5	4.03	30	DSP1/54	362	~	~
1.5	1800	145T	86.5	81.0	4.01	47	DTP1/54	394	DTP1/54FP	433
1.5	1200	182T	86.5	54.0	6.01	94	DTP1/56	487	DTP1/56FP	536
2	3600	A56	86.5	85.0	5.09	28	DSP0022	384	~	~
2	3600	145T	85.5	89.0	4.92	42	DTP0022	429	DTP0022FP	472
2	1800	A56	86.5	79.0	5.43	35	DSP0024	384	~	~
2	1800	145T	86.5	83.0	5.22	47	DTP0024	418	DTP0024FP	460
2	1200	184T	87.5	57.0	7.51	94	DTP0026	533	DTP0026FP	586
3	3600	A56	86.5	89.0	7.30	36	DSP0032	464	~	~
3	3600	145T	85.5	84.0	7.82	42	DTP0032	479	DTP0032FP	527
3	1800	C56HZ	86.9	80.0	8.08	53	DSP0034	415	~	~
3	1800	182T	89.5	73.0	8.60	94	DTP0034	460	DTP0034FP	506
3	1200	213T	88.5	69.0	9.20	158	DTP0036	744	DTP0036FP	818
5	3600	182T	87.5	88.0	12.20	94	DTP0052	543	DTP0052FP	597
5	1800	184T	89.5	75.5	13.90	94	DTP0054	576	DTP0054FP	634
5	1200	215T	89.5	73.0	14.30	158	DTP0056	898	DTP0056FP	988
7.5	3600	184T	88.5	90.0	17.60	94	DTP7/52	715	DTP7/52FP	787
7.5	1800	213T	91.0	81.0	19.10	158	DTP7/54	826	DTP7/54FP	909
7.5	1200	254T	90.2	77.0	20.20	292	DTP7/56	1340	DTP7/56FP	1474
10	3600	213T	90.2	85.5	24.30	158	DTP0102	898	DTP0102FP	988
10	1800	215T	91.7	84.0	24.30	158	DTP0104	979	DTP0104FP	1077
10	1200	256T	91.7	79.5	25.70	292	DTP0106	1531	DTP0106FP	1684
15	3600	215T	91.0	87.0	35.50	158	DTP0152	1,202	DTP0152FP	1,322
15	1800	254T	93.0	83.0	36.40	292	DTP0154	1,349	DTP0154FP	1,484
15	1200	284T	91.7	80.0	38.30	344	DTP0156	2,047	DTP0156FP	2,252
20	3600	254T	91.7	90.0	45.40	292	DTP0202	1,565	DTP0202FP	1,722
20	1800	256T	93.0	83.0	48.50	292	DTP0204	1,667	DTP0204FP	1,834
20	1200	286T	93.0	81.5	49.40	344	DTP0206	2,481	DTP0206FP	2,729
25	3600	256T	91.7	91.0	56.10	292	DTP0252	1,857	DTP0252FP	2,043
25	1800	284T	93.6	85.0	58.80	344	DTP0254	2,060	DTP0254FP	2,266
30	3600	284TS	92.4	90.0	67.60	344	DTP0302	2,296	DTP0302FP	2,526
30	1800	286T	94.1	86.0	69.40	415	DTP0304	2,421	DTP0304FP	2,663
40	3600	286TS	92.4	90.5	89.60	415	DTP0402	2,939	DTP0402FP	3,233

Notes:

(1) Fire Pump Duty Motor Purchase Option: Fire Safety Red epoxy paint (Mod M18B: PPG Pitt-Tech 90-306 Safety Red)

ROLLED STEEL ODP JP/JM EPACT



TYPE: ASGAJP/JM EPACT

Effective 06-14-15
Supercedes 05-01-13



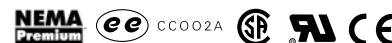
HP	RPM	FRAME	FL EFF (%)	FL PF (%)	FL AMPS (230V)	APPROX. SHIPPING WT. (lbs.)		CATALOG NO.		LIST PRICE (\$)	FIRE PUMP CATALOG NO.		FIRE PUMP LIST PRICE (\$)
						JP	JM	JP	JM		JP	JM	
1	1800	143JP/JM	82.5	78.5	2.90	40	40	DJP0014	DJM0014	387	DJP0014FP	DJM0014FP	426
1	1200	145JP/JM	80.0	72.5	3.20	45	45	DJP0016	DJM0016	485	DJP0016FP	DJM0016FP	534
1.5	3600	143JP/JM	82.5	82.8	4.10	40	40	DJP1/52	DJM1/52	422	DJP1/52FP	DJM1/52FP	464
1.5	1800	145JP/JM	84.0	84.0	4.00	47	47	DJP1/54	DJM1/54	422	DJP1/54FP	DJM1/54FP	464
1.5	1200	182JP/JM	84.0	55.0	6.08	90	83	DJP1/56	DJM1/56	501	DJP1/56FP	DJM1/56FP	551
2	3600	145JP/JM	84.0	83.5	5.30	45	45	DJP0022	DJM0022	431	DJP0022FP	DJM0022FP	474
2	1800	145JP/JM	84.0	81.0	5.50	50	49	DJP0024	DJM0024	431	DJP0024FP	DJM0024FP	474
2	1200	184JP/JM	85.5	62.0	7.10	93	89	DJP0026	DJM0026	555	DJP0026FP	DJM0026FP	611
3	3600	145JP/JM	84.0	87.0	7.70	50	50	DJP0032	DJM0032	546	DJP0032FP	DJM0032FP	601
3	1800	182JP/JM	86.5	78.0	8.30	113	95	DJP0034	DJM0034	485	DJP0034FP	DJM0034FP	534
3	1200	213JP/JM	86.5	71.0	9.20	155	146	DJP0036	DJM0036	776	DJP0036FP	DJM0036FP	854
5	3600	182JP/JM	85.5	90.0	12.20	95	78	DJP0052	DJM0052	679	DJP0052FP	DJM0052FP	747
5	1800	184JP/JM	87.5	81.5	13.10	113	108	DJP0054	DJM0054	573	DJP0054FP	DJM0054FP	630
5	1200	215JP/JM	87.5	72.0	14.90	155	146	DJP0056	DJM0056	1,075	DJP0056FP	DJM0056FP	1,183
7.5	3600	184JP/JM	87.5	91.0	17.60	100	78	DJP7/52	DJM7/52	810	DJP7/52FP	DJM7/52FP	891
7.5	1800	213JP/JM	88.5	85.0	18.70	155	140	DJP7/54	DJM7/54	824	DJP7/54FP	DJM7/54FP	906
7.5	1200	254JP/JM	88.5	81.0	19.60	265	265	DJP7/56	DJM7/56	1,330	DJP7/56FP	DJM7/56FP	1,463
10	3600	213JP/JM	88.5	88.0	24.00	167	165	DJP0102	DJM0102	1,041	DJP0102FP	DJM0102FP	1,145
10	1800	215JP/JM	89.5	86.5	24.20	180	150	DJP0104	DJM0104	916	DJP0104FP	DJM0104FP	1,008
10	1200	256JP/JM	90.2	81.0	25.60	290	275	DJP0106	DJM0106	1,551	DJP0106FP	DJM0106FP	1,706
15	3600	215JP/JM	89.5	87.5	35.90	167	165	DJP0152	DJM0152	1,374	DJP0152FP	DJM0152FP	1,511
15	1800	254JP/JM	91.0	88.0	35.10	265	257	DJP0154	DJM0154	1,356	DJP0154FP	DJM0154FP	1,492
15	1200	284JP/JM	90.2	83.0	37.50	375	365	DJP0156	DJM0156	1,981	DJP0156FP	DJM0156FP	2,179
20	3600	254JP/JM	90.2	91.0	45.60	265	250	DJP0202	DJM0202	1,620	DJP0202FP	DJM0202FP	1,782
20	1800	256JP/JM	91.0	88.0	46.80	275	265	DJP0204	DJM0204	1,689	DJP0204FP	DJM0204FP	1,858
20	1200	286JP/JM	91.0	84.0	49.00	410	405	DJP0206	DJM0206	2,537	DJP0206FP	DJM0206FP	2,791
25	3600	256JP/JM	91.0	91.0	56.50	300	275	DJP0252	DJM0252	1,974	DJP0252FP	DJM0252FP	2,171
25	1800	284JP/JM	91.7	86.0	59.40	375	365	DJP0254	DJM0254	1,991	DJP0254FP	DJM0254FP	2,190
30	3600	284JP/JM	91.0	89.0	69.40	370	350	DJP0302	DJM0302	2,240	DJP0302FP	DJM0302FP	2,464
30	1800	286JP/JM	92.4	86.5	70.30	395	370	DJP0304	DJM0304	2,334	DJP0304FP	DJM0304FP	2,567
40	3600	286JP/JM	91.7	88.0	92.80	395	370	DJP0402	DJM0402	3,057	DJP0402FP	DJM0402FP	3,363

Notes:

(1) Fire Pump Duty Motor Purchase Option: Fire Safety Red epoxy paint (Mod M18B: PPG Pitt-Tech 90-306 Safety Red)

ROLLED STEEL ODP

TYPE: ASGH (140~280 FRAME) NEMA PREMIUM
AEGIS® SHAFT GROUND RING INSTALLED



Effective 06-14-15
Supercedes 05-01-13



APPLICATIONS:

- Fans & Blowers
- Pumps
- Compressors
- HVAC Equipment

The AEGIS® SGR Bearing Protection Ring prevents electrical bearing fluting damage by safely diverting harmful shaft voltages and bearing currents to ground. Using proprietary electron Transport Technology™, the conductive microfibers™ inside the AEGIS® SGR provide the most reliable current diversion technology for shaft grounding with a "path of least resistance" to dramatically extend motor life. AEGIS® SGR Rings have a warranty of 1 year.

FEATURES:

- 1 - 40 HP
- 3600, 1800, 1200 RPM
- Open Drip Proof (IP22)
- Meets or Exceeds EISA Requirements
- Department of Energy Efficiency Certification #CC002A
- 36 Month Warranty from Date of Manufacture
- 60 Hz - 230/ 460V (Usable on 200V and 208V)
- 1.15 Service Factor – Continuous
- Class F Insulation with Phenolic Alkyd Resin Varnish
- Class B Temperature Rise
- NEMA Design B Torques
- Oversized Main Conduit Box Rotatable in 90 Degree Increments – F1 Mounted.
- Designed for 40°C Ambient Temperature - Note (1)
- Designed for 3300 ft. Elevation - Note (2)
- Bi-Directional Rotation
- Rolled Steel Frame and Conduit Box
- 1045 Carbon Steel Shaft
- Aluminum Die Cast Squirrel Cage Rotor Construction
- Paint System: Phenolic Rust Proof Base Plus Polyurethane Top Coat
- Paint Color: ASGH Blue - Munsell 5PB 3/8
- Double Shielded Bearings Pre-Packed with MULTEMP SRL Grease
- Grounding Terminal Inside Main Box
- Stainless Steel Nameplate
- VFD Rated per NEMA MG1, Part 31, 4.4.2 - Note (3)(4)
- Speed Ranges: 20:1 VT, 10:1 CT
- 12 Leads - 7.5 HP and Up; 9 Leads for all Others
- Motors are UL Recognized, CSA Approved, and CE Marked

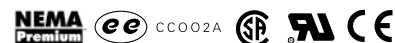
EXTRAS/ OPTIONS:

Please refer to pages 114 - 119 for common modifications that can be performed.

Notes:

- (1) Please consult factory for suitability in higher ambients.
- (2) Please consult factory for suitability in higher elevations.
- (3) Motor service factor is 1.0 when operated on a VFD.
- (4) Maximum lead length is 150 feet with a carrier frequency of 3 kHz. Addition of output reactor or filter may allow for increased carrier frequency. Please contact TWMC if lead length and carrier frequency surpass these values.

ROLLED STEEL ODP



**TYPE: ASGH (140~280 FRAME) NEMA PREMIUM
AEGIS SHAFT GROUND RING INSTALLED**

Effective 06-14-15
Supercedes 05-01-13



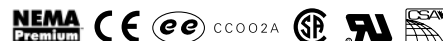
CATALOG NO.	HP	RPM	FRAME	FL EFF (%)	FL PF (%)	FL AMPS (230V)	APPROX. SHIPPING WT. (lbs.)	LIST PRICE (\$)
DTP0012G	1	3600	143T	78.5	83	2.87	34	453
DTP0014G	1	1800	143T	85.5	79	2.77	42	450
DTP0016G	1	1200	145T	82.5	64	3.55	43	570
DTP1/52G	1.5	3600	143T	85.5	83	3.96	34	479
DTP1/54G	1.5	1800	145T	82.5	81	4.01	47	489
DTP1/56G	1.5	1200	182T	86.5	54	6.01	94	629
DTP0022G	2	3600	145T	85.5	89	4.92	42	528
DTP0024G	2	1800	145T	86.5	83	5.22	47	517
DTP0026G	2	1200	184T	87.5	57	7.51	94	700
DTP0032G	3	3600	145T	85.5	84	7.82	42	587
DTP0034G	3	1800	182T	89.5	73	8.6	94	595
DTP0036G	3	1200	213T	88.5	69	9.2	158	975
DTP0052G	5	3600	182T	87.5	88	12.2	94	684
DTP0054G	5	1800	184T	89.5	75.5	13.9	94	714
DTP0056G	5	1200	215T	89.5	73	14.3	158	1,196
DTP7/52G	7.5	3600	184T	88.5	90	17.6	94	871
DTP7/54G	7.5	1800	213T	91	81	19.1	158	1,003
DTP7/56G	7.5	1200	254T	90.2	77	20.2	292	1,574
DTP0102G	10	3600	213T	90.2	85.5	24.3	158	1,085
DTP0104G	10	1800	215T	91.7	84	24.3	158	1,165
DTP0106G	10	1200	256T	91.7	79.5	25.7	292	1,761
DTP0152G	15	3600	215T	91	87	35.5	158	1,405
DTP0154G	15	1800	254T	93	83	36.4	292	1,584
DTP0156G	15	1200	284T	91.7	80	38.3	344	2,331
DTP0202G	20	3600	254T	91.7	90	45.4	292	1,817
DTP0204G	20	1800	256T	93	83	48.5	292	1,916
DTP0206G	20	1200	286T	93	81.5	49.4	344	2,797
DTP0252G	25	3600	256T	91.7	91	56.1	292	2,115
DTP0254G	25	1800	284T	93.6	85	58.8	344	2,346
DTP0302G	30	3600	284TS	92.4	90	67.6	344	2,572
DTP0304G	30	1800	286T	94.1	86	69.4	415	2,723
DTP0402G	40	3600	286TS	92.4	90.5	89.6	415	3,248

Notes:

- (1) AEGIS® SGR Rings have a warranty of 1 year.

CAST IRON ODP

TYPE: ASHH - NEMA PREMIUM



Effective 06-14-15
Supersedes 05-01-13



APPLICATIONS:

- Fans & Blowers
- Pumps
- Compressors
- HVAC Equipment
- Fire Pumps (See option below)



FEATURES:

- 1 - 500 HP
- 3600, 1800, 1200 RPM
- Open Drip Proof Enclosure (IP22 Rating)
- NEMA Premium Efficiency
- CE Mark on Nameplate
- Department of Energy Efficiency Certification #CC002A
- 36 Month Warranty from Date of Manufacture
- 60 Hz - 230/ 460V (Usable on 208V). 150 HP and Larger is 460V Only
- Available in 575V - Note (1)
- 1.15 Service Factor – Continuous
- Class F Insulation with Phenolic Alkyd Resin Varnish
- Class B Temperature Rise
- NEMA Design B Torques
- Oversized Main Conduit Box Rotatable in 90 Degree Increments – F1 Mounted. F2 Available – See EXTRAS/ OPTIONS Below
- Designed for 40°C Ambient Temperature - Note (2)
- Designed for 3300 ft. Elevation - Note (3)
- Bi-Directional Rotation
- Cast Iron Frame and End Brackets
- Rolled Steel Conduit Box
- 1045 Carbon Steel Shaft
- Aluminum Die Cast Squirrel Cage Rotor Construction
- Paint System: Phenolic Rust Proof Base Plus Polyurethane Top Coat
- Paint Color: Blue Gray – Munsell N5
- Vacuum De-Gassed Regreasable Ball (or Roller) Bearings on Frames 280TS - 5009 Using Polyrex EM Grease
- Double Shielded Bearings on Frames 140T-280T Pre-Packed with MULTEMP SRL Grease
- Labyrinth Type Metal Flinger on Both Ends for Frames 280TS - 5009
- Cast Iron Inner and Outer Bearing Caps for Frames 280TS - 5009
- Grounding Terminal Inside Main Box
- Stainless Steel Nameplate
- Inverter Duty Magnet Wire Rated per NEMA MG1, Part 31, 4.4.2 - Note (4)
- Speed Ranges: 20:1 VT, 10:1 CT
- 9 Leads - 5 HP and Below, 12 Leads - 7.5 HP to 125 HP, 6 Leads - 150 HP and Larger
- Motors are UL Recognized, CSA Approved, and CE Marked

UL Fire Pump Features

- Complies with ANSI/UL 1004-5 "Fire Pump Motors." Certificate #20120717 - EX6569
- Available Option: Safety Red Epoxy Paint (Factory Modification #M18).

EXTRAS/ OPTIONS:

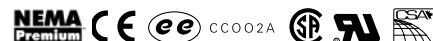
Please refer to pages 114 - 119 for common modifications that can be performed.

Notes:

- (1) TWMC carries minimal 575V stock. Please check availability to ensure required motors are in stock. Ratings may be available from our Canadian warehouses or from our factory. Pricing and leadtime may vary.
- (2) Please consult factory for suitability in higher ambients.
- (3) Please consult factory for suitability in higher elevations.
- (4) Motor service factor is 1.0 when operated on a VFD.

CAST IRON ODP

TYPE: ASHH - NEMA PREMIUM



Effective 06-14-15
Supersedes 05-01-13



HP	RPM	FRAME	FL EFF (%)	FL PF (%)	FL AMPS (460V)	APPROX. SHIPPING WT. (lbs.)	CATALOG NO.	LIST PRICE (\$)	FIRE PUMP CATALOG NO.	LIST PRICE (\$)
1	1800	143T	85.5	78	1.4	54	DHP0014	375	DHP0014FP	413
1	1200	145T	82.5	65.5	1.7	75	DHP0016	484	DHP0016FP	532
1.5	3600	143T	85.5	80	2.1	50	DHP1/52	400	DHP1/52FP	440
1.5	1800	145T	86.5	80.5	2.0	60	DHP1/54	415	DHP1/54FP	457
1.5	1200	182T	87.5	63	2.5	123	DHP1/56	513	DHP1/56FP	564
2	3600	145T	85.5	84.5	2.6	57	DHP0022	452	DHP0022FP	497
2	1800	145T	86.5	79.5	2.7	58	DHP0024	440	DHP0024FP	484
2	1200	184T	87.5	71	3.0	130	DHP0026	561	DHP0026FP	617
3	3600	145T	87.5	87	3.7	66	DHP0032	504	DHP0032FP	554
3	1800	182T	89.5	81	3.9	117	DHP0034	484	DHP0034FP	532
3	1200	213T	88.5	77	4.1	183	DHP0036	783	DHP0036FP	861
5	3600	182T	87.5	91	5.9	120	DHP0052	572	DHP0052FP	629
5	1800	184T	89.5	84.5	6.2	145	DHP0054	606	DHP0054FP	667
5	1200	215T	89.5	79	6.6	195	DHP0056	945	DHP0056FP	1,040
7.5	3600	184T	88.5	91.5	8.7	134	DHP7/52	753	DHP7/52FP	828
7.5	1800	213T	91	86	9.0	187	DHP7/54	869	DHP7/54FP	956
7.5	1200	254T	90.2	79	9.9	260	DHP7/56	1,410	DHP7/56FP	1,551
10	3600	213T	90.2	88	11.8	190	DHP0102	945	DHP0102FP	1,040
10	1800	215T	91.7	87	11.7	215	DHP0104	1,030	DHP0104FP	1,133
10	1200	256T	91.7	81	12.6	329	DHP0106	1,612	DHP0106FP	1,773
15	3600	215T	90.2	87.5	17.8	220	DHP0152	1,265	DHP0152FP	1,392
15	1800	254T	93	84.5	17.9	247	DHP0154	1,420	DHP0154FP	1,562
15	1200	284T	91.7	83	18.5	367	DHP0156	2,155	DHP0156FP	2,371
20	3600	254T	91	90.5	22.8	233	DHP0202	1,647	DHP0202FP	1,812
20	1800	256T	93	86.5	23.3	350	DHP0204	1,755	DHP0204FP	1,931
20	1200	286T	92.4	83.5	24.3	392	DHP0206	2,612	DHP0206FP	2,873
25	3600	256T	91.7	92	27.7	317	DHP0252	1,955	DHP0252FP	2,151
25	1800	284T	93.6	87	28.7	352	DHP0254	2,168	DHP0254FP	2,385
25	1200	324T	93	83	30.3	568	DHP0256	3,240	DHP0256FP	3,564
30	3600	284TS	92.4	90.5	33.6	405	DHP0302	2,417	DHP0302FP	2,659
30	1800	286T	94.1	87	34.3	429	DHP0304	2,548	DHP0304FP	2,803
30	1200	326T	93.6	83.5	35.9	640	DHP0306	3,641	DHP0306FP	4,005
40	3600	286TS	92.4	91.5	44.3	442	DHP0402	3,094	DHP0402FP	3,403
40	1800	324T	94.1	86.0	46.3	608	DHP0404	3,159	DHP0404FP	3,475
40	1200	364T	94.1	87.0	45.7	835	DHP0406	4,543	DHP0406FP	4,997
50	3600	324TS	93.0	86.0	58.5	552	DHP0502	3,810	DHP0502FP	4,191
50	1800	326T	94.5	85.0	58.3	629	DHP0504	3,541	DHP0504FP	3,895
50	1200	365T	94.1	86.0	57.8	766	DHP0506	5,383	DHP0506FP	5,921
60	3600	326TS	93.6	87.0	69.0	614	DHP0602	4,479	DHP0602FP	4,927
60	1800	364T	95.0	85.0	69.6	735	DHP0604	4,492	DHP0604FP	4,941
60	1200	404T	94.5	85.5	69.5	1100	DHP0606	6,468	DHP0606FP	7,115
75	3600	364TS	94.1	90.5	82.5	704	DHP0752	5,950	DHP0752FP	6,545
75	1800	365T	95.0	86.0	86.0	850	DHP0754	5,322	DHP0754FP	5,854
75	1800	365T	95.0	86.0	86.0	850	DHP0754R	5,322	DHP0754RFP	5,854
75	1200	405T	94.5	86.5	86.0	1210	DHP0756	7,752	DHP0756FP	8,527
75	1200	405T	94.5	86.5	86.0	1210	DHP0756R	7,752	DHP0756RFP	8,527

Notes:

- (1) To order 575V, please add "5" to the end of Catalog Number as shown, for example: "DHP00545" for 5 HP, 1800 RPM, 575V.
- (2) "R" = Motor stocked standard with a drive-end roller bearing
- (3) Fire Pump Duty Motor Purchase Option: Fire Safety Red epoxy paint (Mod M18B: PPG Pitt-Tech 90-306 Safety Red)

CAST IRON ODP

TYPE: ASHH - NEMA PREMIUM



Effective 06-14-15
Supersedes 05-01-13



HP	RPM	FRAME	FL EFF (%)	FL PF (%)	FL AMPS (460V)	APPROX. SHIPPING WT. (lbs.)	CATALOG NO.	LIST PRICE (\$)	FIRE PUMP CATALOG NO.	LIST PRICE (\$)
100	3600	365TS	94.1	90.5	109.9	761	DHP1002	7,892	DHP1002FP	8,681
100	1800	404T	95.4	85.5	114.8	961	DHP1004	6,827	DHP1004FP	7,510
100	1800	404T	95.4	85.5	114.8	961	DHP1004R	6,827	DHP1004RFP	7,510
100	1200	444T	95.0	82.0	120.0	1350	DHP1006	11,276	DHP1006FP	12,404
100	1200	444T	95.0	82.0	120.0	1350	DHP1006R	11,276	DHP1006RFP	12,404
125	3600	404TS	94.1	90.5	137.5	907	DHP1252	9,996	DHP1252FP	10,996
125	1800	405T	95.4	84.5	145.2	1109	DHP1254	8,554	DHP1254FP	9,409
125	1800	405T	95.4	84.5	145.2	1109	DHP1254R	8,554	DHP1254RFP	9,409
125	1200	445T	95.0	82.0	150.0	1605	DHP1256	13,195	DHP1256FP	14,515
125	1200	445T	95.0	82.0	150.0	1605	DHP1256R	13,195	DHP1256RFP	14,515
150	3600	405TS	94.5	90.5	164.0	1003	DHP1502 ⁽¹⁾	12,107	DHP1502FP ⁽¹⁾	13,318
150	1800	444T	95.8	86.0	170.0	1540	DHP1504 ⁽¹⁾	11,448	DHP1504FP ⁽¹⁾	12,593
150	1800	444T	95.8	86.0	170.0	1540	DHP1504R ⁽¹⁾	11,448	DHP1504RFP ⁽¹⁾	12,593
150	1200	445T	95.4	82.5	178.0	1705	DHP1506 ⁽¹⁾	15,616	DHP1506FP ⁽¹⁾	17,178
150	1200	445T	95.4	82.5	178.0	1705	DHP1506R ⁽¹⁾	15,616	DHP1506RFP ⁽¹⁾	17,178
200	3600	444TS	95.0	88.5	223.0	1324	DHP2002 ⁽¹⁾	15,681	DHP2002FP ⁽¹⁾	17,249
200	1800	445T	95.8	86.5	226.0	1577	DHP2004 ⁽¹⁾	14,014	DHP2004FP ⁽¹⁾	15,415
200	1200	447T	95.4	83.0	236.0	2010	DHP2006 ⁽¹⁾	20,785	DHP2006FP ⁽¹⁾	22,864
200	1200	447T	95.4	83.0	236.0	2010	DHP2006R ⁽¹⁾	20,785	DHP2006RFP ⁽¹⁾	22,864
250	3600	445TS	95.0	88.5	278.0	1470	DHP2502 ⁽¹⁾	19,069	DHP2502FP ⁽¹⁾	20,976
250	1800	447T	95.8	87.0	281.0	1806	DHP2504 ⁽¹⁾	19,839	DHP2504FP ⁽¹⁾	21,823
250	1800	447T	95.8	87.0	281.0	1806	DHP2504R ⁽¹⁾	19,839	DHP2504RFP ⁽¹⁾	21,823
250	1200	449T	95.8	83.0	296.0	2420	DHP2506 ⁽¹⁾	25,983	DHP2506FP ⁽¹⁾	28,581
250	1200	449T	95.4	83.0	296.0	2420	DHP2506R ⁽¹⁾	25,983	DHP2506RFP ⁽¹⁾	28,581
300	3600	445TS	95.4	89.0	331.0	1320	DHP3002 ⁽¹⁾	24,418	DHP3002FP ⁽¹⁾	26,860
300	1800	449T	95.8	87.5	335.0	2140	DHP3004 ⁽¹⁾	24,271	DHP3004FP ⁽¹⁾	26,698
300	1200	449TZ	95.8	87.0	338.0	2615	DHP3006 ⁽¹⁾	31,180	DHP3006FP ⁽¹⁾	34,298
350	3600	447TS	95.4	90.0	382.0	1590	DHP3502 ⁽¹⁾	27,431	DHP3502FP ⁽¹⁾	30,174
350	1800	449TZ	95.8	87.5	391.0	2310	DHP3504 ⁽¹⁾	28,320	DHP3504FP ⁽¹⁾	31,152
350	1200	5009B	95.8	85.0	404.0	3715	DHP3506 ⁽¹⁾	55,300	DHP3506FP ⁽¹⁾	60,830
400	3600	449TS	95.8	90.0	434.0	2055	DHP4002 ⁽¹⁾	31,308	DHP4002FP ⁽¹⁾	34,439
400	1800	449T	95.8	87.7	446.0	2445	DHP4004 ⁽¹⁾	32,365	DHP4004FP ⁽¹⁾	35,602
400	1200	5009B	95.8	84.5	463.0	3835	DHP4006 ⁽¹⁾	56,850	DHP4006FP ⁽¹⁾	62,535
450	3600	449TS	95.8	90.5	486.0	2125	DHP4502 ⁽¹⁾	36,000	DHP4502FP ⁽¹⁾	39,600
450	1800	5009B	96.2	88.0	498.0	3620	DHP4504 ⁽¹⁾	52,350	DHP4504FP ⁽¹⁾	57,585
450	1200	5009B	96.2	84.0	521.0	3960	DHP4506 ⁽¹⁾	64,750	DHP4506FP ⁽¹⁾	71,225
500	3600	449TS	95.8	91.2	536.0	2225	DHP5002 ⁽¹⁾	39,735	DHP5002FP ⁽¹⁾	43,709
500	1800	5009B	96.2	88.0	553.0	3790	DHP5004 ⁽¹⁾	57,950	DHP5004FP ⁽¹⁾	63,745
500	1200	5009B	96.2	84.0	579.0	4075	DHP5006 ⁽¹⁾	67,750	DHP5006FP ⁽¹⁾	74,525

Notes:

- (1) To order 575V, please add "5" to the end of Catalog Number as shown, for example: "DHP00545" for 5 HP, 1800 RPM, 575V.
- (2) Ratings 150 HP and larger are 460V only.
- (3) "R" = Motor stocked standard with a drive-end roller bearing.

CAST IRON ODP



TYPE: ASHH - NEMA PREMIUM

AEGIS SHAFT GROUND RING INSTALLED

Effective 06-14-15
Supersedes 05-01-13



APPLICATIONS:

- Fans & Blowers
- HVAC Equipment
- Pumps
- Compressors

The AEGIS® SGR Bearing Protection Ring prevents electrical bearing fluting damage by safely diverting harmful shaft voltages and bearing currents to ground. Using proprietary electron Transport Technology™, the conductive microfibers™ inside the AEGIS® SGR provide the most reliable current diversion technology for shaft grounding with a "path of least resistance" to dramatically extend motor life. AEGIS® SGR Rings have a warranty of 1 year.

FEATURES:

- 1 - 75 HP
- 3600, 1800, 1200 RPM
- Open Drip Proof Enclosure (IP22 Rating)
- NEMA Premium Efficiency
- CE Mark on Nameplate
- Department of Energy Efficiency Certification #CC002A
- 36 Month Warranty from Date of Manufacture
- 60 Hz - 230/ 460V (Usable on 208V). 150 HP and Larger is 460V Only
- Available in 575V - Note (1)
- 1.15 Service Factor – Continuous
- Class F Insulation with Phenolic Alkyd Resin Varnish
- Class B Temperature Rise
- NEMA Design B Torques
- Oversized Main Conduit Box Rotatable in 90 Degree Increments – F1 Mounted. F2 Available – See EXTRAS/ OPTIONS Below
- Designed for 40°C Ambient Temperature - Note (2)
- Designed for 3300 ft. Elevation - Note (3)
- Bi-Directional Rotation
- Cast Iron Frame and End Brackets
- Rolled Steel Conduit Box
- 1045 Carbon Steel Shaft
- Aluminum Die Cast Squirrel Cage Rotor Construction
- Paint System: Phenolic Rust Proof Base Plus Polyurethane Top Coat
- Paint Color: Blue Gray – Munsell N5
- Vacuum De-Gassed Regreasable Ball (or Roller) Bearings on Frames 280TS - 5009 Using Polyrex EM Grease
- Double Shielded Bearings on Frames 140T-280T Pre-Packed with MULTEMP SRL Grease
- Labyrinth Type Metal Flinger on Both Ends for Frames 280TS - 5009
- Cast Iron Inner and Outer Bearing Caps for Frames 280TS - 5009
- Grounding Terminal Inside Main Box
- Stainless Steel Nameplate
- Inverter Duty Magnet Wire Rated per NEMA MG1, Part 31, 4.4.2 - Note (4)
- Speed Ranges: 20:1 VT, 10:1 CT
- 9 Leads - 5 HP and Below, 12 Leads - 7.5 HP to 125 HP, 6 Leads - 150 HP and Larger
- Motors are UL Recognized, CSA Approved, and CE Marked

EXTRAS/ OPTIONS:

Please refer to pages 114 - 119 for common modifications that can be performed.

Notes:

- (1) TWMC carries minimal 575V stock. Please check availability to ensure required motors are in stock. Ratings may be available from our Canadian warehouses or from our factory. Pricing and leadtime may vary.
- (2) Please consult factory for suitability in higher ambients.
- (3) Please consult factory for suitability in higher elevations.
- (4) Motor service factor is 1.0 when operated on a VFD.

CAST IRON ODP



TYPE: ASHH - NEMA PREMIUM

AEGIS SHAFT GROUND RING INSTALLED

Effective 06-14-15
Supersedes 05-01-13



CATALOG NO.	HP	RPM	FRAME	FL EFF (%)	FL PF (%)	FL AMPS (460V)	APPROX. SHIPPING WT. (lbs.)	LIST PRICE (\$)
DHP0014G	1	1800	143T	85.5	78.0	1.40	54	477
DHP0016G	1	1200	145T	82.5	65.5	1.70	75	601
DHP1/52G	1.5	3600	143T	85.5	80.0	2.10	50	507
DHP1/54G	1.5	1800	145T	86.5	80.5	2.00	60	524
DHP1/56G	1.5	1200	182T	87.5	63.0	2.50	123	668
DHP0022G	2	3600	145T	85.5	84.5	2.60	57	565
DHP0024G	2	1800	145T	86.5	79.5	2.70	58	552
DHP0026G	2	1200	184T	87.5	71.0	3.00	130	800
DHP0032G	3	3600	145T	87.5	87.0	3.70	66	620
DHP0034G	3	1800	182T	89.5	81.0	3.90	117	650
DHP0036G	3	1200	213T	88.5	77.0	4.10	183	1,075
DHP0052G	5	3600	182T	87.5	91.0	5.90	120	750
DHP0054G	5	1800	184T	89.5	84.5	6.20	145	780
DHP0056G	5	1200	215T	89.5	79.0	6.60	195	1,250
DHP7/52G	7.5	3600	184T	88.5	91.5	8.70	134	923
DHP7/54G	7.5	1800	213T	91.0	86.0	9.00	187	1,150
DHP7/56G	7.5	1200	254T	90.2	79.0	9.90	260	1,669
DHP0102G	10	3600	213T	90.2	88.0	11.80	190	1,157
DHP0104G	10	1800	215T	91.7	87.0	11.70	215	1,236
DHP0106G	10	1200	256T	91.7	81.0	12.60	329	1,878
DHP0152G	15	3600	215T	90.2	87.5	17.80	220	1,498
DHP0154G	15	1800	254T	93.0	84.5	17.90	247	1,678
DHP0156G	15	1200	284T	91.7	83.0	18.50	367	2,485
DHP0202G	20	3600	254T	91.0	90.5	22.80	233	1,934
DHP0204G	20	1800	256T	93.0	86.5	23.30	350	2,042
DHP0206G	20	1200	286T	92.4	83.5	24.30	392	2,977
DHP0252G	25	3600	256T	91.7	92.0	27.70	317	2,257
DHP0254G	25	1800	284T	93.6	87.0	28.70	352	2,500
DHP026G	25	1200	324T	93.0	83.0	30.30	568	3,671
DHP0302G	30	3600	284TS	92.4	90.5	33.60	405	2,746
DHP0304G	30	1800	286T	94.1	87.0	34.30	429	2,903
DHP0306G	30	1200	326T	93.6	83.5	35.90	640	4,098
DHP0402G	40	3600	286TS	92.4	91.5	44.30	442	3,473
DHP0404G	40	1800	324T	94.1	86.0	46.30	608	3,581
DHP0406G	40	1200	364T	94.1	87.0	45.70	835	5,081
DHP0502G	50	3600	324TS	93.0	86.0	58.50	552	4,258
DHP0504G	50	1800	326T	94.5	85.0	58.30	629	3,989
DHP0506G	50	1200	365T	94.1	86.0	57.80	766	5,967
DHP0602G	60	3600	326TS	93.6	87.0	69.00	614	4,981
DHP0604G	60	1800	364T	95.0	85.0	69.60	735	5,024
DHP0606G	60	1200	404T	94.5	85.5	69.50	1,100	7,180
DHP0752G	75	3600	364TS	94.1	90.5	82.50	704	6,544
DHP0754G	75	1800	365T	95.0	86.0	86.00	850	5,898
DHP0756G	75	1200	405T	94.5	86.5	86.00	1,210	8,509

Notes:

- (1) To order 575V , please add "5" to the end of Catalog Number as shown, for example: "DHP00545" for 5 HP, 1800 RPM, 575V.
- (2) "R" = Motor stocked standard with a drive-end roller bearing.
- (3) Motors larger than 75 HP with SGR can be quoted and provided upon request

OIL WELL PUMP ODP



TYPE: ASFAFP STANDARD EFFICIENCY

Effective 06-14-15
Supersedes 05-01-13



APPLICATIONS:

- Oil Well Pumps
- Any Applications Requiring NEMA Design D Torques

FEATURES:

- 5 - 125 HP
- 1200 RPM
- Open Drip Proof Enclosure (IP22 Rating) with Rodent Screens
- Standard Efficient Design
- 36 Month Warranty from Date of Manufacture
- 60 Hz – 230/ 460/ 796V
- 1.15 Service Factor – Continuous
- Class F Insulation with Phenolic Alkyd Resin Varnish – 2 Dips and Bakes
- Class B Temperature Rise
- Standard with Klaxon 9700K Temperature Limiting Switch, 1 per Phase
- NEMA Design D Torques
- 5% Minimum Slip
- Oversized Main Conduit Box Rotatable in 90 Degree Increments – Fully Gasketed with NPT Threaded Entrance - F2 Mounted. F1 Available – See EXTRAS/ OPTIONS Below
- Designed for 40°C Ambient Temperature - Note (1)
- Designed for 3300 ft. Elevation - Note (2)
- Bi-Directional Rotation
- Cast Iron Frame, End Bells, and Conduit Box
- 1045 Carbon Steel Shaft
- Aluminum Die Cast Squirrel Cage Rotor Construction
- Paint System: Phenolic Rust Proof Base Plus Polyurethane Top Coat
- Paint Color: White
- Vacuum De-Gassed Regreasable Bearings for Frames 324T and Larger Using Polyrex EM Grease
- Double Shielded Bearings on Frames 215T-286T Pre-Packed with MULTEMP SRL Grease
- Labyrinth Type Metal Flinger on Both Ends for Frames 324T and Larger
- Cast Iron Inner and Outer Bearing Caps for Frames 324T and Larger
- Grounding Terminal Inside Main Box and on Frame
- Stainless Steel Nameplate
- 12 Leads
- **Precautions should be taken to eliminate or reduce shaft currents that may be imposed on the motor by the VFD as stated per NEMA MG1, Part 30.**

EXTRAS/ OPTIONS:

Please refer to pages 114 - 119 for common modifications that can be performed.

Notes:

- (1) Please consult factory for suitability in higher ambients.
- (2) Please consult factory for suitability in higher elevations.
- (3) All motors are NEMA Design D torque

OIL WELL PUMP ODP



TYPE: ASFAFP STANDARD EFFICIENCY

Effective 06-14-15
Supercedes 05-01-13



CATALOG NO.	HP	RPM	FRAME	FL EFF (%)	FL PF (%)	FL AMPS (460V)	APPROX. SHIPPING WT. (lbs.)	LIST PRICE (\$)
Q0056	5	1200	215T	81.5	77.0	7.45	205	1,154
Q0756	7.5	1200	254T	85.5	82.0	10.00	270	1,470
Q0106	10	1200	256T	85.5	85.0	12.90	335	1,797
Q0156	15	1200	284T	87.5	86.0	18.65	410	2,574
Q0206	20	1200	286T	85.5	89.0	24.60	453	3,175
Q0256	25	1200	324T	86.5	89.0	30.40	620	3,807
Q0306	30	1200	326T	86.5	90.0	36.10	700	4,121
Q0406	40	1200	365T	89.5	90.0	46.50	795	5,723
Q0506	50	1200	404T	88.5	89.5	59.10	1,075	7,053
Q0606	60	1200	404T	89.5	90.0	70.00	1,165	8,096
Q0756	75	1200	405T	88.5	91.0	87.50	1,245	9,606
Q1006R	100	1200	444T	86.5	82.0	132.00	1,585	12,636
Q1256R	125	1200	445T	87.0	82.0	164.00	1,725	13,693

Notes:

- (1) "R" = Motor stocked standard with a drive-end roller bearing.
- (2) All motors are NEMA Design D torque.

3-PHASE FRACTIONAL HP TEFC



TYPE: AEGA, FOOTED FRAME - HIGH EFFICIENCY

TYPE: AETACF, ROUND BODY C-FACE - HIGH EFFICIENCY

Effective 06-14-15
Supersedes 05-01-13



APPLICATIONS:

- Fans & Blowers
- Pumps
- Compressors
- HVAC Equipment

FEATURES:

- 1/3 - 2 HP
- 3600, 1800, 1200 RPM
- Totally Enclosed Fan Cooled Enclosure (IP44)
- 36 Month Warranty from Date of Manufacture
- Round Body C-Face Available for 1800 RPM and 3/4 HP at 1200 RPM (Type AETACF)
- 60 Hz - 230/ 460V (Usable on 200V and 208V)
- 1.15 Service Factor – Continuous
- Class F Insulation with Phenolic Alkyd Resin Varnish
- Class B Temperature Rise
- NEMA Design B Torques
- Oversized Main Conduit Box Rotatable in 90 Degree Increments – F1 Mounted
- Designed for 40°C Ambient Temperature - Note (1)
- Designed for 3300 ft. Elevation - Note (2)
- Bi-Directional Rotation
- Rolled Steel Frame and Conduit Box
- 1045 Carbon Steel Shaft
- Aluminum Die Cast Squirrel Cage Rotor Construction
- Paint System: Phenolic Rust Proof Base Plus Polyurethane Top Coat
- Paint Color: Gray – Munsell 10B 4/ 1.5
- Double Shielded Bearings Pre-Packed with MULTEMP SRL Grease
- Grounding Terminal Inside Main Box
- Mylar Nameplate
- Rubber Flinger on Drive-End
- 9 Leads
- **Precautions should be taken to eliminate or reduce shaft currents that may be imposed on the motor by the VFD as stated per NEMA MG1, Part 30.**

EXTRAS/ OPTIONS:

Please refer to pages 114 - 119 for common modifications that can be performed.

Notes:

- (1) Please consult factory for suitability in higher ambients.
- (2) Please consult factory for suitability in higher elevations.
- (3) 1 HP and larger are CSA certified and UL recognized. Motors below 1 HP are CSA certified only.

3-PHASE FRACTIONAL HP TEFC



TYPE: AEGA, FOOTED FRAME - HIGH EFFICIENCY

Effective 06-14-15
Supersedes 05-01-13

TYPE: AETACF, ROUND BODY C-FACE - HIGH EFFICIENCY

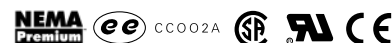


HP	RPM	FL EFF (%)	FL PF (%)	FL AMPS (230V)	FOOTED FRAME				ROUND BODY C-FACE			
					FRAME	CATALOG NUMBER	APPROX. SHIPPING WT (lbs.)	LIST PRICE (\$)	FRAME	CATALOG NUMBER	APPROX. SHIPPING WT. (lbs.)	LIST PRICE (\$)
1/3	3600	66.0	78.0	1.2	56	G0/32	24	259	~	~	~	~
1/3	1800	71.0	70.0	1.3	56	G0/34	26	305	56C	GV0/34C	27	349
1/3	1200	68.0	63.0	1.5	56	G0/36	26	415	~	~	~	~
1/2	3600	70.0	80.0	1.7	56	G0/52	26	292	~	~	~	~
1/2	1800	72.0	69.0	1.9	56	G0/54	26	349	56C	GV0/54C	32	396
1/2	1200	70.0	60.0	2.2	56	G0/56	30	452	~	~	~	~
3/4	3600	76.0	84.0	2.2	56	G0/72	26	317	~	~	~	~
3/4	1800	73.0	66.0	2.9	56	G0/74	30	376	56C	GV0/74V	32	416
3/4	1200	73.0	66.0	2.9	56	G0/76	32	471	56C	GV0/76C	37	416
1	3600	76.0	84.0	2.9	56	G0012	26	371	~	~	~	~
1	1800	77.0	71.0	3.4	56	G0014	33	394	56C	GV0014C	35	437
1	1200	75.0	70.0	3.8	56	G0016	35	500	~	~	~	~
1.5	3600	78.0	83.0	4.3	56	G1/52	30	399	~	~	~	~
1.5	1800	78.0	77.0	4.7	56	G1/54	39	431	56C	GV1/54C	40	467
1.5	1200	75.0	71.0	5.3	56	G1/56	39	566	~	~	~	~
2	3600	81.0	86.0	5.4	56	G0022	39	487	~	~	~	~
2	1800	78.5	76.0	6.3	56	G0024	39	453	56C	GV0024V	44	504

Notes:

- (1) Cast iron C-Face kits are available for Footed Base Mount motors. Please see factory modification page for appropriate adder.
- (2) This product line is not effected by the EISA Legislation and will not be discontinued.

ROLLED STEEL TEFC



TYPE: AEGH, AEGHPE, AEGHCF, AETHCF - NEMA PREMIUM

Effective 06-14-15
Supersedes 05-01-13



APPLICATIONS:

- Fans & Blowers
- Compressors
- Pumps
- HVAC Equipment

FEATURES:

- 1/4 - 10 HP
- 3600, 1800, 1200 RPM
- Totally Enclosed Fan Cooled Enclosure (IP44)
- 36 Month Warranty from Date of Manufacture
- Meets or Exceeds NEMA Premium Efficiency Levels
- 60 Hz - 230/ 460V (Usable on 200 & 208V)
- 1.15 Service Factor - Continuous
- Class F Insulation with Phenolic Alkyd Resin Varnish
- Class B Temperature Rise
- NEMA Design B Torques
- Oversized Main Conduit Box Rotatable in 90 Degree Increments - F1 Mounted
- Designed for 40°C Ambient Temperature - Note (1)
- Designed for 3300 ft. Elevation - Note (2)
- Bi-Directional Rotation
- Rolled Steel Frame, Fan Cover, and Conduit Box
- Cast Iron End Brackets
- 1045 Carbon Steel Shaft
- Aluminum Die Cast Squirrel Cage Rotor Construction
- Paint System: Phenolic Rust Proof Base Plus Polyurethane Top Coat
- Paint Color: Blue - Munsell 5PB 3/ 8
- Double Shielded Bearings Pre-Packed with MULTEMP SRL Grease
- Grounding Terminal Inside Main Box
- Stainless Steel Nameplate
- Inverter Duty Magnet Wire Capable of Withstanding Voltage Spikes of up to 2200 V
- Speed Ranges: 20:1 VT, 10:1 CT
- 9 Leads - 5 HP and Below, 12 Leads for 7.5 HP and larger

EXTRAS/ OPTIONS:

Please refer to pages 114 - 119 for common modifications that can be performed.

Notes:

- (1) Please consult factory for suitability in higher ambients.
- (2) Please consult factory for suitability in higher elevations.

ROLLED STEEL TEFC

TYPE: AEGH, AEGHPE - NEMA PREMIUM



Effective 06-14-15
Supersedes 05-01-13

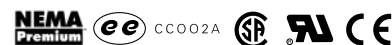


CATALOG NO.	HP	RPM	FL EFF (%)	FL PF (%)	FL AMPS (230V)	FRAME	APPROX SHIPPING WT. (lbs.)	LIST PRICE (\$)
GH0/42	1/4	3600	72.0	82.0	0.79	56	25	275
GH0/44	1/4	1800	72.0	73.0	0.89	56	27	326
GH0/46	1/4	1200	70.0	61.0	1.10	56	31	447
GH0/32	1/3	3600	74.0	78.5	1.07	56	25	285
GH0/34	1/3	1800	75.5	74.5	1.11	56	27	336
GH0/36	1/3	1200	72.0	61.0	1.42	56	31	457
GH0/52	1/2	3600	75.5	85.0	1.46	56	26	322
GH0/54	1/2	1800	78.2	81.0	1.48	56	30	384
GH0/56	1/2	1200	75.5	63.0	1.97	56	37	498
GH0/72	3/4	3600	78.5	80.5	2.22	56	28	349
GH0/74	3/4	1800	81.1	77.5	2.23	56	30	414
GH0/76	3/4	1200	81.7	67.5	2.55	56	38	519
GH0012	1	3600	80.0	85.5	2.74	56	31	402
GP0012	1	3600	80.0	85.5	2.74	143T	33	402
GH0014	1	1800	85.5	75.5	2.90	56	41	405
GP0014	1	1800	85.5	75.5	2.90	143T	41	405
GH0016	1	1200	82.5	66.0	3.44	56	45	524
GP0016	1	1200	82.5	66.0	3.44	145T	43	524
GH1/52	1.5	3600	85.5	83.0	3.96	56	35	462
GP1/52	1.5	3600	85.5	83.0	3.96	143T	33	462
GH1/54	1.5	1800	86.5	80.5	4.03	56	44	464
GP1/54	1.5	1800	86.5	80.5	4.03	145T	46	464
GP1/56	1.5	1200	87.5	55.0	5.84	182T	75	545
GH0022	2	3600	86.5	85.0	5.09	56	42	487
GP0022	2	3600	86.5	85.0	5.09	145T	41	487
GH0024	2	1800	86.5	79.0	5.48	56	46	494
GP0024	2	1800	86.5	79.0	5.48	145T	46	494
GP0026	2	1200	88.5	64.5	6.56	184T	97	615
GP0032	3	3600	87.5	87.5	7.34	182T	84	573
GP0034	3	1800	89.5	74.0	8.48	182T	69	560
GP0036	3	1200	89.5	68.0	9.23	213T	145	807
GP0052	5	3600	89.5	90.0	11.60	184T	97	709
GP0054	5	1800	89.5	80.0	13.10	184T	94	646
GP0056	5	1200	90.2	73.5	14.10	215T	189	1,156
GP7/52	7.5	3600	90.2	84.5	18.40	213T	141	958
GP7/54	7.5	1800	91.7	83.0	18.50	213T	135	961
GP0102	10	3600	91.0	86.0	23.90	215T	186	1,111
GP0104	10	1800	91.7	85.0	24.00	215T	183	1,156

Notes:

(1) Drip Covers are available for rigid base mount motors.

ROLLED STEEL TEFC



TYPE: AEGHCF, FOOTED C-FACE - NEMA PREMIUM

Effective 06-14-15
Supercedes 05-01-13

TYPE: AETHCF, ROUND BODY C-FACE - NEMA PREMIUM



HP	RPM	FL EFF (%)	FL PF (%)	FL AMPS (230V)	FRAME	FOOTED C-FACE		ROUND BODY C-FACE		LIST PRICE (\$)
						CATALOG NO.	APPROX SHIPPING WT. (lbs.)	CATALOG NO.	APPROX SHIPPING WT. (lbs.)	
1/4	3600	72.0	82.0	0.79	56C	GH0/42C	25	GHV0/42C	24	378
1/4	1800	72.0	73.0	0.89	56C	GH0/44C	27	GHV0/44C	26	398
1/4	1200	70.0	61.0	1.10	56C	GH0/46C	30	GHV0/46C	29	498
1/3	3600	74.0	78.5	1.07	56C	GH0/32C	30	GHV0/32C	29	388
1/3	1800	75.5	74.5	1.11	56C	GH0/34C	32	GHV0/34C	31	401
1/3	1200	72.0	61.0	1.42	56C	GH0/36C	36	GHV0/36C	35	503
1/2	3600	75.5	85.0	1.46	56C	GH0/52C	31	GHV0/52C	30	401
1/2	1800	77.0	73.5	1.65	56C	GH0/54C	35	GHV0/54C	34	455
1/2	1200	75.5	63.0	1.97	56C	GH0/56C	42	GHV0/56C	41	523
3/4	3600	78.5	80.5	2.22	56C	GH0/72C	33	GHV0/72C	32	425
3/4	1800	78.5	75.5	2.37	56C	GH0/74C	35	GHV0/74C	34	432
3/4	1200	78.5	72.0	2.48	56C	GH0/76C	42	GHV0/76C	41	545
1	3600	80.0	85.5	2.74	56C	GH0012C	35	GHV0012C	34	462
1	3600	80.0	85.5	2.74	143TC	GP0012C	35	GPV0012C	34	462
1	1800	85.5	75.5	2.90	56C	GH0014C	45	GHV0024C	44	466
1	1800	85.5	75.5	2.90	143TC	GP0014C	45	GPV0014C	44	466
1	1200	82.5	66.0	3.44	56C	GH0016C	42	GHV0016C	41	603
1	1200	82.5	66.0	3.44	145TC	GP0016C	42	GPV0016C	41	603
1.5	3600	85.5	83.0	3.96	56C	GH1/52C	39	GHV1/52C	38	531
1.5	3600	85.5	83.0	3.96	143TC	GP1/52C	39	GPV1/52C	38	531
1.5	1800	86.5	80.5	4.03	56C	GH1/54C	48	GHV1/54C	47	534
1.5	1800	86.5	80.5	4.03	145TC	GP1/54C	48	GPV1/54C	47	534
1.5	1200	87.5	55.0	5.84	182TC	GP1/56C	75	GPV1/56C	74	627
2	3600	86.5	85.0	5.09	56C	GH0022C	46	GHV0022C	45	560
2	3600	86.5	85.0	5.09	145TC	GP0022C	46	GPV0022C	45	560
2	1800	86.5	79.0	5.48	56C	GH0024C	49	GHV0024C	48	568
2	1800	86.5	79.0	5.48	145TC	GP0024C	49	GPV0024C	48	568
2	1200	88.5	64.5	6.56	184TC	GP0026C	132	GPV0026C	97	707
3	3600	87.5	87.5	7.34	182TC	GP0032C	130	GPV0032C	84	659
3	1800	89.5	74.0	8.48	182TC	GP0034C	135	GPV0034C	69	644
3	1200	89.5	68.0	9.23	213TC	GP0036C	164	GPV0036C	145	928
5	3600	89.5	90.0	11.60	184TC	GP0052C	135	GPV0052C	97	815
5	1800	89.5	80.0	13.10	184TC	GP0054C	135	GPV0054C	94	743
5	1200	90.2	73.5	14.10	215TC	GP0056C	210	GPV0056C	189	1,329
7.5	3600	90.2	84.5	18.40	213TC	GP7/52C	180	GPV7/52C	141	1,102
7.5	1800	91.7	83.0	18.50	213TC	GP7/54C	200	GPV7/54C	135	1,105
10	3600	91.0	86.0	23.90	215TC	GP0102C	220	GPV0102C	186	1,278
10	1800	91.7	85.0	24.00	215TC	GP0104C	219	GPV0104C	183	1,329

Notes:

- (1) Drip Covers are available for footed base mount motors.

ROLLED STEEL TEFC



TYPE: AEGH - NEMA PREMIUM

Effective 06-14-15
Supercedes 05-01-13

AEGIS SHAFT GROUND RING INSTALLED



APPLICATIONS:

- Fans & Blowers
- Pumps
- Compressors
- HVAC Equipment

The AEGIS® SGR Bearing Protection Ring prevents electrical bearing fluting damage by safely diverting harmful shaft voltages and bearing currents to ground. Using proprietary electron Transport Technology™, the conductive microfibers™ inside the AEGIS® SGR provide the most reliable current diversion technology for shaft grounding with a "path of least resistance" to dramatically extend motor life. AEGIS® SGR Rings have a warranty of 1 year.

FEATURES:

- 1 - 10 HP
- 3600, 1800, 1200 RPM
- Totally Enclosed Fan Cooled Enclosure (IP44)
- 36 Month Warranty from Date of Manufacture
- Meets or Exceeds NEMA Premium Efficiency Levels
- 60 Hz - 230/ 460V (Usable on 200 & 208V)
- 1.15 Service Factor - Continuous
- Class F Insulation with Phenolic Alkyd Resin Varnish
- Class B Temperature Rise
- NEMA Design B Torques
- Oversized Main Conduit Box Rotatable in 90 Degree Increments - F1 Mounted
- Designed for 40°C Ambient Temperature - Note (1)
- Designed for 3300 ft. Elevation - Note (2)
- Bi-Directional Rotation
- Rolled Steel Frame, Fan Cover, and Conduit Box
- Cast Iron End Brackets
- 1045 Carbon Steel Shaft
- Aluminum Die Cast Squirrel Cage Rotor Construction
- Paint System: Phenolic Rust Proof Base Plus Polyurethane Top Coat
- Paint Color: Blue - Munsell 5PB 3/ 8
- Double Shielded Bearings Pre-Packed with MULTEMP SRL Grease
- Grounding Terminal Inside Main Box
- Stainless Steel Nameplate
- Inverter Duty Magnet Wire Capable of Withstanding Voltage Spikes of up to 2200V
- Speed Ranges: 20:1 VT, 10:1 CT
- 9 Leads - 5 HP and Below, 12 Leads for 7.5 HP and larger

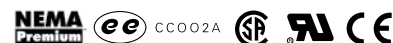
EXTRAS/ OPTIONS:

Please refer to pages 114 - 119 for common modifications that can be performed.

Notes:

- (1) Please consult factory for suitability in higher ambients.
- (2) Please consult factory for suitability in higher elevations.

ROLLED STEEL TEFC



TYPE: AEGH - NEMA PREMIUM EFFICIENCY
AEGIS SHAFT GROUND RING INSTALLED

Effective 06-14-15
 Supersedes 05-01-13



CATALOG NO.	HP	RPM	FL EFF (%)	FL PF (%)	FL AMPS (230V)	FRAME	APPROX SHIPPING WT. (lbs.)	LIST PRICE (\$)
GP0012G	1	3600	80.0	85.5	2.74	143T	33	509
GP0014G	1	1800	85.5	75.5	2.90	143T	41	513
GP0016G	1	1200	82.5	66.0	3.44	145T	43	646
GP1/52G	1.5	3600	85.5	83.0	3.96	143T	33	584
GP1/54G	1.5	1800	86.5	80.5	4.03	145T	46	587
GP1/56G	1.5	1200	87.5	55.0	5.84	182T	75	690
GP0022G	2	3600	86.5	85.0	5.09	145T	41	598
GP0024G	2	1800	86.5	79.0	5.48	145T	46	611
GP0026G	2	1200	88.5	64.5	6.56	184T	97	768
GP0032G	3	3600	87.5	87.5	7.34	182T	84	726
GP0034G	3	1800	89.5	74.0	8.48	182T	69	709
GP0036G	3	1200	89.5	68.0	9.23	213T	145	992
GP0052G	5	3600	89.5	90.0	11.60	184T	97	885
GP0054G	5	1800	89.5	80.0	13.10	184T	94	806
GP0056G	5	1200	90.2	73.5	14.10	215T	189	1,390
GP7/52G	7.5	3600	90.2	84.5	18.40	213T	141	1,174
GP7/54G	7.5	1800	91.7	83.0	18.50	213T	135	1,178
GP0102G	10	3600	91.0	86.0	23.90	215T	186	1,338
GP0104G	10	1800	91.7	85.0	24.00	215T	183	1,390

OIL WELL PUMP TEFC



TYPE: AEEAFP - STANDARD EFFICIENCY

Effective 06-14-15
Supersedes 05-01-13



APPLICATIONS:

- Oil Well Pumps
- Any Applications Requiring NEMA Design D Torques

FEATURES:

- 5 - 125 HP
- 1200 RPM
- Totally Enclosed Fan Cooled (IP 54)
- 36 Month Warranty from Date of Manufacture
- 60 Hz - 230/460V
- 1.15 Service Factor - Continuous
- Class F Insulation with Phenolic Alkyd Resin Varnish - 2 Dips and Bakes
- Class B Temperature Rise
- Standard with Klaxon 9700K Temperature Limiting Switch
- NEMA Design D Torques
- 5% Minimum Slip
- Oversized Main Conduit Box Rotatable in 90 Degree Increments - Fully Gasketed with NPT Threaded Inlet - F2 Mounted. F1 Available - See "EXTRA/OPTIONS" below
- Designed for 40°C Ambient Temperature - Note (1)
- Designed for 3300 ft. Elevation - Note (2)
- Bi-Directional Rotation
- Cast Iron Frame with two drain holes; Cast Iron End Brackets and Conduit Box
- 1045 Carbon Steel Shaft with key way and key
- Aluminum Die Cast Squirrel Cage Rotor Construction
- Paint System: Phenolic Rust Proof Base with Alkyd finish
- Paint Color: Blue Gray (Munsell N9.5)
- Vacuum De-Gassed Roller Bearings with Shell Alvania R3 LI-Base grease
- Double Shielded Bearings on Frames 215T-286T Pre-Packed with MULTEMP SRL Grease
- Labyrinth Type Metal Flinger on Both Ends for Frames 324T and Larger
- Cast Iron Inner and Outer Bearing Caps for Frames 324T and Larger
- Grounding Terminal Inside Main Box
- Stainless Steel Nameplate
- 6 or 12 Leads
- **Precautions should be taken to eliminate or reduce shaft currents that may be imposed on the motor by the VFD as stated per NEMA MG1, Part 30.**
- VFD Compatible

EXTRAS/ OPTIONS:

Please refer to pages 114 - 119 for common modifications that can be performed.

Notes:

- (1) Please consult factory for suitability in higher ambients.
- (2) Please consult factory for suitability in higher elevations.

OIL WELL PUMP TEFC



TYPE: AEEAFP - STANDARD EFFICIENCY

Effective 06-14-15
Supercedes 05-01-13



CATALOG NO.	HP	RPM	FRAME	FL EFF (%)	FL PF (%)	FL AMPS (460V)	APPROX. SHIPPING WT. (lbs.)	LIST PRICE (\$)
QT0056	5	1200	215T	84.0	81.5	6.80	155	1,450
QT07/56	7.5	1200	254T	83.0	83.0	10.00	270	1,700
QT0106	10	1200	256T	84.0	84.0	13.30	335	2,250
QT0156	15	1200	284T	85.5	88.0	18.70	410	2,800
QT0206	20	1200	286T	86.5	89.0	24.30	453	3,500
QT0256	25	1200	324T	87.5	88.0	30.40	620	4,100
QT0306	30	1200	326T	87.5	90.5	35.50	700	4,900
QT0406	40	1200	365T	87.5	89.0	47.50	795	6,600
QT0506	50	1200	404T	88.5	92.0	57.00	1,075	8,150
QT0606	60	1200	405T	87.5	84.0	68.40	1,165	9,250
QT0756	75	1200	444T	88.5	84.0	95.00	1,245	15,700
QT1006	100	1200	445T	87.0	86.0	121.00	1,585	19,200
QT1006R	100	1200	445T	87.0	86.0	121.00	1,585	19,200
QT1256	125	1200	447T	88.0	86.0	121.00	1,785	22,000
QT1256R	125	1200	447T	88.0	86.0	121.00	1785	22,000

Notes:

- (1) "R" = Motor stocked standard with a drive-end roller bearing.
- (2) All motors are NEMA Design D torque.

MAX-SE™ ROUND BODY C-FACE



TYPE AEVANE

Effective 06-14-15
Supersedes 05-01-13



APPLICATIONS:

- | | |
|------------------|---------------|
| ■ Fans & Blowers | ■ Compressors |
| ■ Pumps | ■ Mixers |
| ■ Crushers | ■ Conveyors |

FEATURES:

- 1 - 100 hp - Round Body C-Flange
- 3600, 1800 RPM
- Totally Enclosed Fan Cooled (IP54 Rating)
- Meets or Exceeds EPAct Efficiency Levels
- Department of Energy Efficiency Certification #CC002A
- 36 Month Warranty from Date of Manufacture
- 60 Hz - 230/ 460V (Usable on 208V).
- 1.15 Service Factor – Continuous
- 50 Hz Data on Nameplate – 190/ 380V at 1.0 S.F.
- Class F Insulation with Phenolic Alkyd Resin Varnish
- Class B Temperature Rise
- NEMA Design C Torques for 20 hp and Above, 4 and 6 Pole Speed – NEMA Design B for All Other Ratings
- Oversized Main Conduit Box Rotatable in 90 Degree Increments – Fully Gasketed with NPT Threaded Entrance
- Designed for 40°C Ambient Temperature - Note (1)
- Designed for 3300 ft. Elevation - Note (2)
- Factory Self-Certified for Class I, Division II, Groups B, C, D; Temp Code T3C, 400T and Below - Note (3)
- Bidirectional Rotation
- Cast Iron Frame, End Brackets, Main Conduit Box, and Rolled Steel Fan Cover
- Rolled Steel Fan Cover can be Modified to Add a Drip Cover
- 1045 Carbon Steel Shaft
- Aluminum Die Cast Squirrel Cage Rotor Construction
- Paint System: Phenolic Rust Proof Base Plus Polyurethane Top Coat
- Paint Color: Blue Gray – Munsell 7.5 BG 4/ 2
- Vacuum De-Gassed Re-greasable Ball Bearings on Frames 280TS-405T/ TS Using Polyrex EM Grease
- Double Shielded Bearings on Frames 140T-280T Pre-Packed with MULTEMP SRL Grease
- Automatic Grease Discharge Fitting on Re-Greasable Motors
- Labyrinth Type Metal Flinger on Both Ends for Frames 280TS to 405T/ TS
- Rubber Flinger on Drive-End for Frames 140T to 280T
- Grounding Terminal Inside Main Box
- Stainless Steel Nameplate
- VFD Rated per NEMA MG1, Part 30 - Note (4) and (5)
- Speed Ranges: 10:1 VT, 5:1 CT
- 9 Leads - 5 hp and Below, 12 Leads - 7.5 hp to 100 hp
- CE Mark on Nameplate, U.L. Recognized and CSA Approved
- **Precautions should be taken to eliminate or reduce shaft currents that may be imposed on the motor by the VFD as stated per NEMA MG1, Part 30.**

EXTRAS/ OPTIONS:

Please refer to pages 114 - 119 for common modifications that can be performed.

Notes:

- (1) Please consult factory for suitability in higher ambients.
- (2) Please consult factory for suitability in higher elevations.
- (3) Factory self-certification for 440T/ TS frames requires fan change. Please see modifications section. There is an additional charge for Division II nameplates.
- (4) Motor service factor is 1.0 when operated on a VFD.
- (5) Maximum lead length is 150 feet with a carrier frequency of 3 kHz. The addition of an output reactor or filter may allow for increased carrier frequency. Please contact TWMC if lead length and carrier frequency surpass these values.

MAX-SE™ ROUND BODY C-FACE



TYPE AEVANE



Effective 06-14-15
Supersedes 05-01-13

CATALOG NO.	HP	RPM	FRAME	FL EFF	FL PF	FL AMPS (460V)	APPROX. SHIPPING WT. (lbs.)	LIST PRICE (\$)
NV0012C	1	3600	143TC	77.0	84.5	1.44	85	360
NV0014C ⁽⁴⁾	1	1800	143TC	82.5	77.0	1.48	50	398
NV0016C	1	1200	145TC	80.0	63.3	3.69	56	479
NV1/52C	1.5	3600	143TC	82.5	85.0	2.01	50	424
NV1/54C ⁽⁴⁾	1.5	1800	145TC	84.0	80.5	2.08	54	446
NV1/56C	1.5	1200	182TC	85.5	66.5	4.94	79	507
NV0022C	2	3600	145TC	84.0	88.5	2.52	53	481
NV0024C	2	1800	145TC	84.0	82.5	2.70	80	487
NV0026C	2	1200	184TC	86.5	67.0	6.46	104	599
NV0032C	3	3600	182TC	85.5	90.0	3.65	135	573
NV0034C	3	1800	182TC	87.5	82.5	3.89	122	559
NV0036C	3	1200	213TC	89.5	76.5	8.39	158	883
NV0052C	5	3600	184TC	87.5	91.5	5.85	145	686
NV0054C	5	1800	184TC	87.5	86.5	6.20	150	653
NV0056C	5	1200	215TC	87.5	76.5	14.0	176	1,075
NV7/52C	7.5	3600	213TC	88.5	87.0	9.10	190	964
NV7/54C	7.5	1800	213TC	89.5	88.0	8.90	198	947
NV7/56C	7.5	1200	254TC	89.5	81.0	19.4	274	1,506
NV0102C	10	3600	215TC	89.5	90.0	11.6	218	1,113
NV0104C	10	1800	215TC	89.5	89.5	11.7	221	1,150
NV0106C	10	1200	256TC	89.5	92.5	25.4	324	1,810
NV0152C	15	3600	254TC	90.2	91.5	17.0	350	1,598
NV0154C	15	1800	254TC	91.0	88.0	17.6	365	1,568
NV0156C	15	1200	284TC	90.2	83.0	37.0	425	2,678
NV0202C	20	3600	256TC	90.2	92.0	22.6	375	1,971
NV0204C ⁽⁴⁾	20	1800	256TC	91.0	88.0	23.4	410	1,885
NV0206C	20	1200	286TC	90.2	83.5	49.7	470	3,202
NV0252C	25	3600	284TSC	91.0	90.5	28.4	444	2,473
NV0254C ⁽⁴⁾	25	1800	284TC	92.4	89.0	28.5	515	2,310
NV0256C	25	1200	324TC	91.7	91.5	62.6	606	3,860
NV0302C	30	3600	286TSC	91.0	91.0	33.9	555	2,956
NV0304C ⁽⁴⁾	30	1800	286TC	92.4	88.0	34.6	503	2,812
NV0306C	30	1200	326TC	91.7	80.5	76.1	699	4,373
NV0402C	40	3600	324TSC	91.7	89.5	45.7	625	3,614
NV0404C ⁽⁴⁾	40	1800	324TC	93.0	89.0	45.3	740	3,533
NV0406C	40	1200	364TC	93.0	86.5	93.1	766	5,522
NV0502C	50	3600	326TSC	92.4	90.5	56.0	706	4,757
NV0504C ⁽⁴⁾	50	1800	326TC	93.0	89.5	56.0	835	4,524
NV0506C	50	1200	365TC	93.0	85.5	118.0	837	6,833
NV0602C	60	3600	364TSC	93.0	93.0	65.0	910	6,251
NV0604C ⁽⁴⁾	60	1800	364TC	93.6	86.5	69.5	915	5,776
NV0606C	60	1200	404TC	93.6	88.0	136.0	972	1,672
NV0752C	75	3600	365TSC	93.0	93.5	81.0	871	8,058
NV0754C ^(C)	75	1800	365TC	94.1	87.5	85.5	1,035	7,202
NV0756C	75	1200	405TC	93.6	88.5	170.0	1304	9,776
NV1002C	100	3600	405TSC	93.6	91.5	109.5	1,203	11,279
NV1004C ⁽⁴⁾	100	1800	405TC	94.5	89.0	111.5	1,365	10,192

Notes:

- (1) See Page 113 for Drip Cover Adders.
- (2) See Page 115 for Drip Cover Factory Modifications.
- (3) Product is not effected by the EISA Legislation, therefore will not be discontinued.
- (4) Meets NEMA Design C torque

MAX-HT™ HIGH TORQUE CRUSHER DUTY TEFC



TYPE: AEEAGD - EPACT, DESIGN C

Effective 06-14-15
Supersedes 05-01-13



APPLICATIONS:

- Crushers
- Impactors
- Chippers/ Shredders
- Ball Mills/ Rolling Mills
- Any High Torque Application

FEATURES:

- 20 - 600 HP
- 1800, 1200, 900 RPM
- Totally Enclosed Fan Cooled (IP55 Rating)
- Meets EPAct Efficiency Design
- 36 Month Warranty from Date of Manufacture
- 60 Hz – 230/ 460V (Usable on 208V). 150 HP and Larger is 460V Only
- 50 Hz Data on Nameplate - 190/ 380V at 1.0 S.F. 150 HP and Larger is 380V at 1.0 S.F.
- Standard with Thermistors (PTC 140°C), 1 per Phase, Wired to a Separate Auxiliary Box
- 1.15 Service Factor – Continuous
- Class F Insulation with Phenolic Alkyd Resin Varnish – 2 Dips and Bakes
- Class B Temperature Rise
- NEMA Design C Torques - $\geq 200\%$ Starting Torque, $\geq 250\%$ Breakdown Torque
- Oversized Main Conduit Box Rotatable in 90 Degree Increments – Fully Gasketed with NPT Threaded Entrances - F1 Mounted.
- Designed for 40°C Ambient Temperature - Note (1)
- Designed for 3300 ft. Elevation - Note (2)
- Bi-Directional Rotation
- Cast Iron Frame, End Brackets, and Conduit Box
- Rolled Steel Fan Cover
- High Strength 4140 AISI Steel Shaft
- Locknut and Washer on NDE for Vertical Shaft Down Applications on 440 Frames and Larger
- Drain Holes/ Plugs on Both End Brackets for Vertical Applications
- Threaded One Way Breather Drains for Horizontal Applications
- Aluminum Die Cast Rotor Construction
- Paint System: Phenolic Rust Proof Base Plus Polyurethane Top Coat
- Paint Color: Blue Gray – 7.5 BG 3.5/0.5
- Vacuum De-Gassed Re-Greasable Bearings with Polyrex EM Grease
- Roller Bearing on Drive-End – 360T Frames and Larger is Optional
- Labyrinth Type Metal Grease Flinger on Both Ends
- Cast Iron Inner and Outer Bearing Caps – 320T Frames and Larger
- Grounding Terminal Inside Main Box and on Motor Foot
- Stainless Steel Nameplate
- 6 Leads
- Motors are CSA Approved
- **Precautions should be taken to eliminate or reduce shaft currents that may be imposed on the motor by the VFD as stated per NEMA MG1, Part 30.**
- VFD Compatible

EXTRAS/ OPTIONS:

Please refer to pages 114 - 119 for common modifications that can be performed.

Notes:

- (1) Please consult factory for suitability in higher ambients.
- (2) Please consult factory for suitability in higher elevations.

MAX-HT™ HIGH TORQUE CRUSHER DUTY TEFC

EPACT  

TYPE: AEEAGD - EPACT, DESIGN C

Effective 06-14-15
Supersedes 05-01-13



CATALOG NO.	HP	RPM	FRAME	FL EFF (%)	FL PF (%)	FL AMPS (460V)	APPROX. SHIPPING WT. (lbs.)	LIST PRICE (\$)
CD0204	20	1800	256T	94.1	85.0	23.4	395	1,898
CD0206	20	1200	286T	93.6	80.0	24.9	520	2,999
CD0208	20	900	324T	90.2	81.0	25.7	557	4,938
CD0254	25	1800	284T	93.6	80.0	28.5	510	2,357
CD0256	25	1200	324T	94.1	88.5	31.3	745	3,911
CD0258	25	900	326T	90.2	79.5	32.7	665	5,709
CD0304	30	1800	286T	94.1	88.5	34.6	545	2,860
CD0306	30	1200	326T	94.1	85.0	38.1	775	4,580
CD0308	30	900	364T	91.7	77.5	39.6	718	6,996
CD0404	40	1800	324T	94.1	85.0	45.3	710	3,700
CD0406	40	1200	364T	94.1	85.0	46.6	945	6,174
CD0408	40	900	365T	92.4	76.5	53.0	807	8,668
CD0504	50	1800	326T	94.1	85.0	56.0	795	4,805
CD0506	50	1200	365T	94.1	81.0	59.0	1,040	7,463
CD0508	50	900	404T	93.0	80.5	62.5	868	9,688
CD0604	60	1800	364T	94.1	89.0	69.5	870	6,505
CD0606	60	1200	404T	94.1	89.5	68.0	1,295	9,665
CD0608	60	900	405T	93.0	81.0	74.5	1,243	10,837
CD0754R	75	1800	365T	94.1	89.0	85.5	1,075	8,316
CD0756R	75	1200	405T	94.1	85.0	85.0	1,317	10,025
CD0758	75	900	444T	92.4	79.5	95.6	1,600	22,041
CD1004R	100	1800	405T	94.1	85.0	111.5	1,360	10,477
CD1006R	100	1200	444T	94.5	85.0	119	1,665	18,802
CD1008	100	900	445T	92.4	80.0	127	1,800	23,252
CD1254R	125	1800	444T	94.1	81.0	142	1,705	19,231
CD1256R	125	1200	445T	94.1	81.0	150	1,995	23,027
CD1258	125	900	447T	93.0	81.0	155	2,450	27,108
CD1258R	125	900	447TZ	93.0	81.0	155	2,450	27,108
CD1504R	150	1800	445T	94.1	89.5	168	1,865	20,148
CD1506R	150	1200	447TZ	94.1	89.5	171	2,363	25,167
CD1508	150	900	449T	93.0	81.5	185	2,800	31,506
CD1508R	150	900	449TZ	93.0	81.5	185	2,800	31,506
CD2004R	200	1800	447TZ	94.5	89.5	223	2,465	21,900
CD2006R	200	1200	449TZ	95.0	86.5	228	2,783	25,400
CD2006RZ	200	1200	505UZ	94.5	85.0	234	3,500	25,386
CD2008R	200	900	5007C	94.5	85.0	250	3,728	38,080
CD2504TR	250	1800	449TZ	94.5	81.0	281	2,708	22,780
CD2504TB	250	1800	449T	94.5	81.0	281	2,708	22,780
CD2504R	250	1800	5007C	94.5	89.5	281	3,570	25,386
CD2504RZ	250	1800	505UZ	94.5	89.5	283	3,150	24,750
CD2506TR	250	1200	449TZ	94.5	85.5	293	2,800	26,917
CD2506R	250	1200	5007C	94.5	85.5	293	3,500	27,978
CD2506RZ	250	1200	586/7	94.5	81.5	293	4,750	36,278
CD2508R	250	900	5009C	94.5	90.0	311	4,200	42,402

Notes:

- (1) Please consult factory for suitability in higher ambients.
- (2) Please consult factory for suitability in higher elevations.

MAX-HT™ HIGH TORQUE CRUSHER DUTY TEFC



TYPE: AEEAGD - EPACT, DESIGN C

Effective 06-14-15
Supercedes 05-01-13



CATALOG NO.	HP	RPM	FRAME	FL EFF (%)	FL PF (%)	FL AMPS (460V)	APPROX. SHIPPING WT. (lbs.)	LIST PRICE (\$)
CD3004TR	300	1800	449TZ	94.5	85.5	335	2,800	26,683
CD3004R	300	1800	5007C	94.5	90.0	334	3,585	28,336
CD3004RZ	300	1800	586/7	94.5	85.5	335	4,748	36,278
CD3006TR	300	1200	449TZ	95.1	90.0	351	3,100	32,582
CD3006R	300	1200	5009C	95.1	90.0	351	4,175	35,337
CD3006RZ	300	1200	586/7	95.1	85.5	350	5,100	41,711
CD3008R	300	900	5806C	94.1	81.0	368	5,093	52,832
CD3504TR	350	1800	449TZ	94.1	89.5	391	3,100	29,548
CD3504R	350	1800	5009C	94.5	89.5	389	3,945	31,563
CD3504RZ	350	1800	586/7	94.5	85.0	387	5,093	39,012
CD3506R	350	1200	5806C	94.5	85.0	407	4,750	42,540
CD3506RZ	350	1200	586/7	94.5	81.0	407	5,565	44,637
CD3508R	350	900	5808C	94.5	81.0	428	5,610	55,371
CD4004R	400	1800	5806C	94.5	89.5	443	4,748	40,207
CD4004RZ	400	1800	586/7	94.5	85.5	443	5,445	43,050
CD4006R	400	1200	5808C	94.5	85.5	464	5,100	47,753
CD4006RZ	400	1200	586/7	94.5	81.5	464	6,020	47,753
CD4008R	400	900	5808C	94.5	90.0	486	5,828	67,089
CD4504R	450	1800	5808C	94.5	90.0	495	5,093	44,765
CD4504RZ	450	1800	586/7	94.5	85.5	495	6,510	44,765
CD4506R	450	1200	5808C	94.5	90.0	521	5,565	51,871
CD5004R	500	1800	5808C	94.5	85.5	550	5,445	46,164
CD5006R	500	1200	5808C	95.1	90.0	579	6,020	55,165
CD6004R	600	1800	5808C	95.1	90.0	656	6,510	65,799
CD6006R	600	1200	5810C	95.1	85.5	691	6,898	79,125

Notes:

- (1) Please consult factory for suitability in higher ambients.
- (2) Please consult factory for suitability in higher elevations.

TYPE: AEHH8P, AEHH8PCF - NEMA PREMIUMEffective 06-14-15
Supersedes 05-01-13**APPLICATIONS:**

- | | |
|------------------|---------------|
| ■ Fans & Blowers | ■ Compressors |
| ■ Pumps | ■ Mixers |
| ■ Crushers | ■ Conveyors |

FEATURES:

- 1 - 200 HP
- 3600, 1800, 1200 RPM
- Totally Enclosed Fan Cooled (IP54 Rating)
- Meets or Exceeds NEMA Premium Efficiency Levels
- Department of Energy Efficiency Certificate #CC002A
- 36 Month Warranty from Date of Manufacture
- 60 Hz – 230/ 460V (Usable on 208V). 150 HP and Larger is 460V Only
- 1.15 Service Factor – Continuous
- 50 Hz Data on Nameplate - 190/ 380V at 1.0 S.F. 150 HP and Larger is 380V Only at 1.0 S.F.
- Class F Insulation with Phenolic Alkyd Resin Varnish – 2 Dips and Bakes
- Class B Temperature Rise
- NEMA Design B Torques as a Minimum, Design C motors are denoted with a subscript "C"
- Oversized Main Conduit Box Rotatable in 90 Degree Increments – Fully Gasketed F1 Mounted. F2 Available - See EXTRAS/OPTIONS Below
- Designed for 40°C Ambient Temperature - Note (1)
- Designed for 3300 ft. Elevation - Note (2)
- CSA Certified for Class 1, Div. 2, Groups B, C, D; Temp Code T3C, 440T and Below
- Bi-Directional Rotation
- Cast Iron Frame, End Brackets, Pressed Steel Fan Cover and Conduit Box
- Dual Drilled Feet - Longer Frames (i.e. 145T Drilled also for 143T)
- Provisions for Breather Drains for Vertical Mount, Plugged
- 1045 Carbon Steel Shaft
- Aluminum Die Cast Squirrel Cage Rotor Construction
- Paint System: Phenolic Rust Proof Base Plus Polyurethane Top Coat
- Paint Color: Blue Gray – Munsell 7.5 BG 3.5/ .05
- Vacuum De-Gassed Re-Greaseable Bearings for Frames 280TS-449T/TS with Polyrex EM Grease
- Double Shielded Bearings on Frames 140T-280T Pre-Packed with MULTEMP SRL Grease
- Automatic Grease Discharge on Frames on Re-Greaseable Motors
- Labyrinth Type Metal Flinger on Both Ends for Frames 280TS-449T/TS
- Cast Iron Inner and Outer Bearing Caps for Frames 280TS-449T/TS
- Rubber Flinger on Drive-End for Frames 140T - 280T
- Grounding Terminal Inside Main Box
- Stainless Steel Nameplate
- Inverter Duty Magnet Wire Capable of Withstanding Voltage Spikes of Up to 2200 Volts
- **Precautions should be taken to eliminate or reduce shaft currents that may be imposed on the motor by the VFD as stated per NEMA MG1, Part 31.4.4.3.**
- Speed Ranges: 20:1 VT, 10:1 CT
- 9 Leads - 5 HP and Below, 12 Leads 7.5 HP - 125 HP, 6 Leads - 150 HP and Larger
- CE Mark on Nameplate, U.L. Recognized and CSA Approved

EXTRAS/ OPTIONS:

Please refer to pages 114 - 119 for common modifications that can be performed.

Notes:

- (1) Please consult factory for suitability in higher ambients.
- (2) Please consult factory for suitability in higher elevations.
- (3) Motor service factor is 1.0 when operated on a VFD.

TYPE: AEHH8P, AEHH8PCF - FOOTED C-FACE, NEMA PREMIUM

Effective 06-14-15
Supercedes 05-01-13


HP	RPM	FL EFF (%)	FL PF (%)	FL AMPS (460V)	FOOTED FRAME				FOOTED C-FACE			
					FRAME	CATALOG NO.	SHIPPING WT. (lbs.)	LIST PRICE (\$)	FRAME	CATALOG NO.	SHIPPING WT. (lbs.)	LIST PRICE (\$)
1	3600	82.5	85.0	1.34	143T	NP0012	83	387	143TC	NP0012C	85	418
1	1800	85.5	73.0	1.50	143T	NP0014 ⁽¹⁾	48	394	143TC	NP0014C ⁽¹⁾	50	449
1	1200	82.5	65.5	1.73	145T	NP0016 ⁽¹⁾	90	500	145TC	NP0016C ⁽¹⁾	92	577
1.5	3600	84.0	83.5	2.00	143T	NP1/52	85	442	143TC	NP1/52C	87	500
1.5	1800	86.5	78.0	2.08	145T	NP1/54	78	444	145TC	NP1/54C	80	508
1.5	1200	87.5	63.5	2.53	182T	NP1/56 ⁽¹⁾	120	526	182TC	NP1/56C ⁽¹⁾	122	600
2	3600	86.5	86.0	2.52	145T	NP0022	62	469	145TC	NP0022C	64	544
2	1800	86.5	78.0	2.78	145T	NP0024	90	476	145TC	NP0024C	92	553
2	1200	88.5	70.5	3.00	184T	NP0026	132	589	184TC	NP0026C	134	680
3	3600	88.5	90.0	3.53	182T	NP0032	130	552	182TC	NP0032C	132	654
3	1800	89.5	84.0	3.74	182T	NP0034	135	537	182TC	NP0034C	137	624
3	1200	89.5	78.0	4.02	213T	NP0036 ⁽¹⁾	164	773	213TC	NP0036C ⁽¹⁾	166	987
5	3600	88.5	92.5	5.72	184T	NP0052	135	679	184TC	NP0052C	137	771
5	1800	89.5	85.5	6.12	184T	NP0054	133	618	184TC	NP0054C	135	683
5	1200	91.0	82.5	6.24	215T	NP0056	210	1,109	215TC	NP0056C	212	1,260
7.5	3600	91.0	89.0	8.67	213T	NP7/52	180	921	213TC	NP7/52C	182	1,066
7.5	1800	91.7	86.5	8.85	213T	NP7/54	200	919	213TC	NP7/54C	202	1,065
7.5	1200	91.0	80.5	9.59	254T	NP7/56 ⁽¹⁾	315	1,553	254TC	NP7/56C ⁽¹⁾	317	1,743
10	3600	91.0	89.5	11.5	215T	NP0102	220	1,071	215TC	NP0102C	222	1,239
10	1800	91.7	88.0	11.6	215T	NP0104	219	1,107	215TC	NP0104C	221	1,295
10	1200	91.0	80.5	12.8	256T	NP0106 ⁽¹⁾	340	1,886	256TC	NP0106C ⁽¹⁾	342	2,164
15	3600	92.4	91.5	16.6	254T	NP0152	325	1,500	254TC	NP0152C	327	1,745
15	1800	92.4	88.0	17.3	254T	NP0154	316	1,461	254TC	NP0154C	318	1,682
15	1200	92.4	83.5	18.2	284T	NP0156 ⁽¹⁾	530	2,597	284TC	NP0156C ⁽¹⁾	532	3,021
20	3600	92.4	92.5	21.9	256T	NP0202	380	1,911	256TC	NP0202C	382	2,235
20	1800	93.0	87.5	23.0	256T	NP0204 ⁽¹⁾	395	1,842	256TC	NP0204C ⁽¹⁾	397	2,135
20	1200	91.7	84.0	24.3	286T	NP0206 ⁽¹⁾	520	3,259	286TC	NP0206C ⁽¹⁾	522	3,825
25	3600	92.4	91.0	27.8	284TS	NP0252	460	2,436	284TSC	NP0252C	462	2,843
25	1800	93.6	86.0	29.1	284T	NP0254 ⁽¹⁾	510	2,266	284TC	NP0254C ⁽¹⁾	512	2,653
25	1800	93.6	86.0	29.1	284TS	NP0254S	510	2,266	~	~	~	~
25	1200	93.0	83.0	30.3	324T	NP0256 ⁽¹⁾	745	4,074	324TC	NP0256C ⁽¹⁾	747	4,751
30	3600	93.0	91.0	33.2	286TS	NP0302	508	2,875	286TSC	NP0302C	510	3,372
30	1800	93.6	87.5	34.3	286T	NP0304 ⁽¹⁾	545	2,750	286TC	NP0304C ⁽¹⁾	547	3,227
30	1800	93.6	87.5	34.3	286TS	NP0304S	545	2,750	~	~	~	~
30	1200	93.0	80.5	37.5	326T	NP0306 ⁽¹⁾	775	4,558	326TC	NP0306C ⁽¹⁾	777	5,372
40	3600	94.1	90.0	44.2	324TS	NP0402	650	3,808	324TSC	NP0402C	652	4,278
40	1800	94.1	86.0	46.3	324T	NP0404 ⁽¹⁾	710	3,695	324TC	NP0404C ⁽¹⁾	712	4,191
40	1800	94.1	86.0	46.3	324TS	NP0404S	710	3,695	~	~	~	~
40	1200	94.1	86.5	46.0	364T	NP0406 ⁽¹⁾	945	5,994	364TC	NP0406C ⁽¹⁾	947	6,814
50	3600	94.1	91.0	54.7	326TS	NP0502	775	5,104	326TSC	NP0502C	777	5,668
50	1800	94.5	87.0	56.9	326T	NP0504 ⁽¹⁾	795	4,681	326TC	NP0504C ⁽¹⁾	797	5,264
50	1800	94.5	87.0	56.9	326TS	NP0504S	795	4,681	~	~	~	~
50	1200	94.1	86.0	57.8	365T	NP0506 ⁽¹⁾	1,040	7,389	365TC	NP0506C ⁽¹⁾	1,042	8,241

Notes:

(1) Meets NEMA Design C Torque. All other motors are NEMA Design B Torque up to 100 HP.

TYPE: AEHH8P, AEHH8PCF - FOOTED C-FACE, NEMA PREMIUM

 Effective 06-14-15
 Supersedes 05-01-13


HP	RPM	FL EFF (%)	FL PF (%)	FL AMPS (460V)	FOOTED FRAME				FOOTED C-FACE			
					FRAME	CATALOG NO.	SHIPPING WT. (lbs.)	LIST PRICE (\$)	FRAME	CATALOG NO.	SHIPPING WT. (lbs.)	LIST PRICE (\$)
60	3600	94.1	93.0	64.20	364TS	NP0602	890	6,702	364TSC	NP0602C	892	7,429
60	1800	95.0	86.5	68.40	364T	NP0604 ⁽¹⁾	870	6,024	364TC	NP0604C ⁽¹⁾	872	6,848
60	1800	95.0	86.5	68.40	364TS	NP0604S ⁽¹⁾	870	6,024	~	~	~	~
60	1200	94.5	87.0	68.30	404T	NP0606 ⁽¹⁾	1,295	8,786	404TC	NP0606C ⁽¹⁾	1,297	9,922
75	3600	94.5	93.0	79.90	365TS	NP0752 ⁽¹⁾	970	8,578	365TSC	NP0752C ⁽¹⁾	972	9,510
75	1800	95.4	86.5	85.10	365T	NP0754 ⁽¹⁾	1,075	7,772	365TC	NP0754C ⁽¹⁾	1,077	8,615
75	1800	95.4	86.5	85.10	365TS	NP0754S ⁽¹⁾	1,075	7,772	~	~	~	~
75	1800	95.4	86.5	85.10	365T	NP0754R ⁽¹⁾	1,075	7,772	~	~	~	~
75	1200	94.5	86.5	85.90	405T	NP0756 ⁽¹⁾	1,317	10,443	405TC	NP0756C ⁽¹⁾	1,319	11,580
75	1200	94.5	86.5	85.90	405T	NP0756R ⁽¹⁾	1,317	10,443	~	~	~	~
100	3600	95.4	92.0	107.00	405TS	NP1002	1,286	11,586	405TSC	NP1002C	1,288	12,843
100	1800	95.4	87.5	112.00	405T	NP1004	1,360	10,801	405TC	NP1004C	1,362	12,073
100	1800	95.4	87.5	112.00	405TS	NP1004S	1,360	10,801	~	~	~	~
100	1800	95.4	87.5	112.00	405T	NP1004R	1,360	10,801	~	~	~	~
100	1200	95.0	82.5	119.00	444T	NP1006	1,665	13,339	~	~	~	~
100	1200	95.0	82.5	119.00	444T	NP1006R	1,665	13,339	~	~	~	~
125	3600	95.0	86.0	143.00	444TS	NP1252	1,530	14,501	444TSC	NP1252C	1,515	15,951
125	1800	95.4	84.0	146.00	444T	NP1254	1,705	13,600	444TC	NP1254C	1,520	14,960
125	1800	95.4	84.0	146.00	444TS	NP1254S	1,705	13,600	444TSC	NP1254CS	1,520	14,960
125	1800	95.4	84.0	146.00	444T	NP1254R	1,705	13,600	~	~	~	~
125	1200	95.0	83.0	148.00	445T	NP1256	1,860	17,541	445TC	NP1256C	1,620	19,295
125	1200	95.0	83.0	148.00	445T	NP1256R	1,860	17,541	~	~	~	~
150	3600	95.0	87.0	170.00	445TS	NP1502 ⁽²⁾	1,710	17,292	445TSC	NP1502C ⁽²⁾	1,610	19,021
150	1800	95.8	84.0	175.00	445T	NP1504 ⁽²⁾	1,865	15,452	445TC	NP1504C ⁽²⁾	1,700	16,997
150	1800	95.8	84.0	175.00	445TS	NP1504S ⁽²⁾	1,865	15,452	445TSC	NP1504CS ⁽²⁾	1,700	16,997
150	1800	95.8	84.0	175.00	445T	NP1504R ⁽²⁾	1,865	15,452	~	~	~	~
150	1200	95.8	83.5	176.00	447T	NP1506 ⁽²⁾	2,230	19,539	447TC	NP1506C ⁽²⁾	2,100	21,493
150	1200	95.8	83.5	176.00	447T	NP1506R ⁽²⁾	2,230	19,539	~	~	~	~
200	3600	95.4	87.0	226.00	447TS	NP2002 ⁽²⁾	2,015	23,684	447TSC	NP2002C ⁽²⁾	1,830	26,052
200	1800	96.2	84.5	230.00	447T	NP2004 ⁽²⁾	2,465	20,282	447TC	NP2004C ⁽²⁾	2,140	22,310
200	1800	96.2	84.5	230.00	447TS	NP2004S ⁽²⁾	2,465	20,282	447TSC	NP2004CS ⁽²⁾	2,140	22,310
200	1800	96.2	84.5	230.00	447T	NP2004R ⁽²⁾	2,465	20,282	~	~	~	~
200	1200	95.8	84.0	233.00	449T	NP2006 ⁽²⁾	2,625	25,554	449TC	NP2006C ⁽²⁾	2,390	28,109
200	1200	95.8	84.0	233.00	449T	NP2006R ⁽²⁾	2,625	25,554	~	~	~	~

Notes:

- (1) Meets NEMA Design C Torque. All other motors are NEMA Design B Torque up to 100 HP.
 (2) Ratings 150 HP and larger are 460V only.

TYPE: AEHH8P - NEMA PREMIUM**AEGIS SHAFT GROUND RING INSTALLED**Effective 06-14-15
Supersedes 05-01-13**APPLICATIONS:**

- Fans & Blowers
- Pumps
- Compressors
- HVAC Equipment

The AEGIS® SGR Bearing Protection Ring prevents electrical bearing fluting damage by safely diverting harmful shaft voltages and bearing currents to ground. Using proprietary electron Transport Technology™, the conductive microfibers™ inside the AEGIS® SGR provide the most reliable current diversion technology for shaft grounding with a "path of least resistance" to dramatically extend motor life. AEGIS® SGR Rings have a warranty of 1 year.

FEATURES:

- 1 - 75 HP
- 3600, 1800, 1200 RPM
- Totally Enclosed Fan Cooled (IP54)
- Meets or Exceeds NEMA Premium Efficiency Levels
- Department of Energy Efficiency Certificate #CC002A
- 36 Month Warranty from Date of Manufacture
- 60 Hz – 230/ 460V (Usable on 208V). 150 HP and Larger is 460V Only
- 1.15 Service Factor – Continuous
- 50 Hz Data on Nameplate - 190/ 380V at 1.0 S.F. 150 HP and Larger is 380V Only at 1.0 S.F.
- Class F Insulation with Phenolic Alkyd Resin Varnish – 2 Dips and Bakes
- Class B Temperature Rise
- NEMA Design B Torques as a Minimum, Design C motors are denoted with a subscript "C"
- Oversized Main Conduit Box Rotatable in 90 Degree Increments – Fully Gasketed F1 Mounted. F2 Available - See EXTRAS/OPTIONS Below
- Designed for 40°C Ambient Temperature - Note (1)
- Designed for 3300 ft. Elevation - Note (2)
- CSA Certified for Class 1, Div. 2, Groups B, C, D; Temp Code T3, 440T and Below
- Bi-Directional Rotation
- Cast Iron Frame, End Brackets, Pressed Steel Fan Cover and Conduit Box
- Dual Drilled Feet - Longer Frames (i.e. 145T Drilled also for 143T)
- Provisions for Breather Drains for vertical Mount, Plugged
- 1045 Carbon Steel Shaft
- Aluminum Die Cast Squirrel Cage Rotor Construction
- Paint System: Phenolic Rust Proof Base Plus Polyurethane Top Coat
- Paint Color: Blue Gray – Munsell 7.5 BG 3.5/ .05
- Vacuum De-Gassed Re-Greasable Bearings for Frames 280TS-449T/TS with Polyrex EM Grease
- Double Shielded Bearings on Frames 140T-280T Pre-Packed with MULTEMP SRL Grease
- Automatic Grease Discharge on Frames on Re-Greaseable Motors
- Labyrinth Type Metal Flinger on Both Ends for Frames 280TS-449T/TS
- Cast Iron Inner and Outer Bearing Caps for Frames 280TS-449T/TS
- Rubber Flinger on Drive-End for Frames 140T - 280T
- Grounding Terminal Inside Main Box
- Stainless Steel Nameplate
- Inverter Duty Magnet Wire Capable of Withstanding Voltage Spikes of Up to 2200 Volts
- Speed Ranges: 20:1 VT, 10:1 CT
- 9 Leads - 5 HP and Below, 12 Leads 7.5 HP - 125 HP, 6 Leads - 150 HP and Larger
- CE Mark on Nameplate, U.L. Recognized and CSA Approved

EXTRAS/ OPTIONS:

Please refer to pages 114 - 119 for common modifications that can be performed.

Notes:

- (1) Please consult factory for suitability in higher ambients.
- (2) Please consult factory for suitability in higher elevations.
- (3) Motor service factor is 1.0 when operated on a VFD.

**TYPE: AEHH8P - NEMA PREMIUM
AEGIS SHAFT GROUND RING INSTALLED**

Effective 06-14-15
Supercedes 05-01-13


CATALOG NO.	HP	RPM	FRAME	FL EFF (%)	FL PF (%)	FL AMPS (460V)	SHIPPING WT. (lbs.)	LIST PRICE (\$)
NP0012G	1	3600	143T	82.5	85.0	1.34	83	504
NP0014G ⁽¹⁾	1	1800	143T	85.5	73.0	1.50	48	522
NP0016G ⁽¹⁾	1	1200	145T	82.5	65.5	1.73	90	642
NP1/52G	1.5	3600	143T	84.0	83.5	2.00	85	573
NP1/54G	1.5	1800	145T	86.5	78.0	2.08	78	578
NP1/56G ⁽¹⁾	1.5	1200	182T	87.5	63.5	2.53	120	703
NP0022G	2	3600	145T	86.5	86.0	2.52	62	607
NP0024G	2	1800	145T	86.5	78.0	2.78	90	616
NP0026G	2	1200	184T	88.5	70.5	3.00	132	772
NP0032G	3	3600	182T	88.5	90.0	3.53	130	735
NP0034G	3	1800	182T	89.5	84.0	3.74	135	716
NP0036G ⁽¹⁾	3	1200	213T	89.5	78.0	4.02	164	991
NP0052G	5	3600	184T	88.5	92.5	5.72	135	881
NP0054G	5	1800	184T	89.5	85.5	6.12	133	809
NP0056G	5	1200	215T	91.0	82.5	6.24	210	1,387
NP7/52G	7.5	3600	213T	91.0	89.0	8.67	180	1,178
NP7/54G	7.5	1800	213T	91.7	86.5	8.85	200	1,173
NP7/56G ⁽¹⁾	7.5	1200	254T	91.0	80.5	9.59	315	1,912
NP0102G	10	3600	215T	91.0	89.5	11.50	220	1,340
NP0104G	10	1800	215T	91.7	88.0	11.60	219	1,380
NP0106G ⁽¹⁾	10	1200	256T	91.0	80.5	12.80	340	2,279
NP0152G	15	3600	254T	92.4	91.5	16.60	325	1,853
NP0154G	15	1800	254T	92.4	88.0	17.30	316	1,808
NP0156G ⁽¹⁾	15	1200	284T	92.4	83.5	18.20	530	3,107
NP0202G	20	3600	256T	92.4	92.5	21.90	380	2,309
NP0204G ⁽¹⁾	20	1800	256T	93.0	87.5	23.00	395	2,226
NP0206G ⁽¹⁾	20	1200	286T	91.7	84.0	24.30	520	3,842
NP0252G	25	3600	284TS	92.4	91.0	27.80	460	2,891
NP0254G ⁽¹⁾	25	1800	284T	93.6	86.0	29.10	510	2,718
NP0256G ⁽¹⁾	25	1200	324T	93.0	83.0	30.30	745	4,783
NP0302G	30	3600	286TS	93.0	91.0	33.20	508	3,381
NP0304G ⁽¹⁾	30	1800	286T	93.6	87.5	34.30	545	3,262
NP0306G ⁽¹⁾	30	1200	326T	93.0	80.5	37.50	775	5,299
NP0402G	40	3600	324TS	94.1	90.0	44.20	650	4,445
NP0404G ⁽¹⁾	40	1800	324T	94.1	86.0	46.30	710	4,345
NP0406G ⁽¹⁾	40	1200	364T	94.1	86.5	46.00	945	6,929
NP0502G	50	3600	326TS	94.1	91.0	54.70	775	5,896
NP0504G ⁽¹⁾	50	1800	326T	94.5	87.0	56.90	795	5,440
NP0506G ⁽¹⁾	50	1200	365T	94.1	86.0	57.80	1040	8,477
NP0602G	60	3600	364TS	94.1	93.0	64.20	890	7,674
NP0604G ⁽¹⁾	60	1800	364T	95.0	86.5	68.40	870	6,967
NP0606G ⁽¹⁾	60	1200	404T	94.5	87.0	68.30	1,295	10,101
NP0752G ⁽¹⁾	75	3600	365TS	94.5	93.0	79.90	970	9,761
NP0754G ⁽¹⁾	75	1800	365T	95.4	86.5	85.10	1,075	8,913
NP0756G ⁽¹⁾	75	1200	405T	94.5	86.5	85.90	1,317	11,941

Notes:

(1) Meets NEMA Design C Torque. All other motors are NEMA Design B Torque.

MAX-E1® FAMILY



TYPE: AEHE, AEHH8N, AEHH8NCF, AEUH8NDC - NEMA PREMIUM

Effective 06-14-15
Supersedes 05-01-13



APPLICATIONS:

- | | | |
|------------------|---------------|--------------------------------|
| ■ Fans & Blowers | ■ Compressors | ■ Any Severe Duty/ Petro-Chem/ |
| ■ Pumps | ■ Mixers | Pulp & Paper Application |
| ■ Crushers | ■ Conveyors | |

FEATURES:

- 3/4 - 800 HP
- 1 - 100 HP: Foot Mounted with C-Flange or Round Body C-Flange
- 3600, 1800, 1200, 900 RPM
- Totally Enclosed Fan Cooled (IP54 Rating; IP55 Ratings for Frames Sizes 5000 and Larger)
- NEMA Premium Efficient Ratings From 1 - 500 HP, Denoted Catalog Number Prefix of "EP" - Note (1)
- Department of Energy Efficiency Certification # CCO02A
- 36 Month Warranty from Date of Manufacture
- 3 Phase, 60 Hz, 230/ 460V (Usable on 208V) - 150 HP and Larger are 460V Only - Note (2)
- 575V Ratings Available, Denoted by a Catalog Number Suffix of "5" - Note (2)
- 1.15 Service Factor - Continuous
- Class F Insulation with Phenolic Alkyd Resin Varnish
- Class B Temperature Rise
- NEMA Design B Torques as a Minimum; Design C Motors are Denoted with a superscript "C"
- Oversized Main Conduit Box Rotatable in 90 Degree Increments - Fully Gasketed with NPT Threaded Entrance - F1 Mounted. F2 Available - See EXTRAS/ OPTIONS Below
- Fabricated Steel Main Lead Box on 5000 Frames and Larger, Cast Iron Main Lead Box for 440 Frames and Below
- Designed for 40°C Ambient Temperature and 3300 ft. Elevation - Note (3)
- CSA Certified for Class I, Division II, Groups B, C, D; Class II, Groups F & G. Non Sparking, Non Static Fan - Note (4)
- Bi-Directional Rotation Except 2 Pole Motors 5000 Frame and Larger Which are Uni-Directional CCW Facing the Drive-End. See EXTRAS/ OPTIONS Below if CW Rotation is Required.
- Cast Iron Frame, End Brackets, and Fan Cover
- Dual Drilled Feet - Longer Frames. (i.e. 145T Drilled Also for 143T) Through 449T Frames Only (5)
- 1045 Carbon Steel Shaft.
- Aluminum Die Cast Squirrel Cage Rotor Construction for Frames 5011 and Smaller.
- Copper/ Copper Alloy Rotor for Frames 5800-6800 Frames.
- Paint System: Phenolic Rust Proof Base Plus Polyurethane Top Coat
- Paint Color: Light Grey - Munsell N5.0
- Vacuum De-Gassed Re-Greaseable Ball Bearings (or Roller Type) on 280TS Frames and Larger with Polyrex EM Grease
- Single Shielded Bearings on Frames 140T-280T Pre-Packed with Polyrex EM Grease
- Automatic Grease Discharge Fittings on Frames with Re-Greaseable Motors
- Labyrinth Type Metal Flinger on Both Ends for Frames 280TS to 6800
- Rubber Flinger on Drive-End for Frames 140T to 280T
- Cast Iron Inner and Outer Bearing Caps on Both Ends for Frames 280TS to 6800
- Grounding Terminal Inside Main Box
- Stainless Steel Nameplate
- UL Recognized and CSA Approved for Inverter Duty per NEMA MG 1, Part 31, 4.4.2 - Note (6)
- Inverter Duty Magnet Wire Capable of Withstanding Voltage Spikes of Up to 2200 Volts
- **Precautions should be taken to eliminate or reduce shaft currents that may be imposed on the motor by the VFD as stated per NEMA MG1, Part 31.4.4.3.**
- Insulated Non-Drive End Bearing on 2-Pole Motors 600 HP and Larger
- Speed Ranges: 20:1 VT, 10:1 CT. 350 HP and Larger are 3:1 CT
- 9 Leads - 5 HP and Below, 12 Leads - 7.5 HP to 125 HP, 6 Leads - 150 HP and Larger
- Breather Drains in Both End Brackets for Vertical Mounts

EXTRAS/ OPTIONS:

Please refer to pages 114 - 119 for common modifications that can be performed.

Notes:

- (1) NEMA Premium Efficiency levels only applies to 1-500 HP, 3600, 1800, 1200 RPM.
- (2) 208V or the current rating will not appear on the motor nameplate. Please see Modification for Nameplate adder. TWMC carries minimal 575V stock. Please check availability to ensure required motors are in stock. Ratings may be available from our Canadian warehouses or factory. Pricing and lead time may vary.
- (3) Please consult factory for suitability in higher ambients and higher elevations.
- (4) Self-Certification applies to 600 HP and above.
- (5) EP3006, EP3502 and EP3504 are not dual drilled.
- (6) Motor service factor is 1.0 when operated on a VFD.

TYPE: AEHE, AEHH8N - NEMA PREMIUM

Effective 06-14-15
Supersedes 05-01-13



CATALOG NO.	HP	RPM	FRAME	FL EFF (%)	FL PF (%)	FL AMPS (460V)	APPROX. SHIPPING WT. (lbs.)	LIST PRICE (\$)
E0/78	3/4	900	145T	70.0	53.5	1.90	85	780
E0/785	3/4	900	145T	70.0	53.5	1.52	85	780
EP0012	1	3600	143T	82.5	85.0	1.34	65	423
EP00125	1	3600	143T	82.5	85.0	1.07	65	423
EP0014 ⁽⁷⁾	1	1800	143T	85.5	73.0	1.50	58	426
EP00145 ⁽⁷⁾	1	1800	143T	85.5	73.0	1.20	58	426
EP0016	1	1200	145T	82.5	65.5	1.73	83	552
EP00165	1	1200	145T	82.5	65.5	1.38	83	552
EP0018	1	900	182T	77.0	58.5	2.10	105	917
EP00185	1	900	182T	77.0	58.5	1.68	105	917
EP1/52	1.5	3600	143T	84.0	83.5	2.00	56	486
EP1/525	1.5	3600	143T	84.0	83.5	1.60	56	486
EP1/54	1.5	1800	145T	86.5	78.0	2.08	80	488
EP1/545	1.5	1800	145T	86.5	78.0	1.66	80	488
EP1/56	1.5	1200	182T	87.5	63.5	2.53	125	574
EP1/565	1.5	1200	182T	87.5	63.5	2.02	125	574
EP1/58	1.5	900	184T	78.5	60.5	3.00	125	1093
EP1/585	1.5	900	184T	78.5	60.5	2.40	125	1093
EP0022	2	3600	145T	86.5	86.0	2.52	95	513
EP00225	2	3600	145T	86.5	86.0	2.02	95	513
EP0024	2	1800	145T	86.5	78.0	2.78	68	520
EP00245	2	1800	145T	86.5	78.0	2.22	68	520
EP0026 ⁽⁷⁾	2	1200	184T	88.5	70.5	3.00	136	647
EP00265 ⁽⁷⁾	2	1200	184T	88.5	70.5	2.40	136	647
EP0028 ⁽⁷⁾	2	900	213T	85.5	68.0	3.22	173	1272
EP00285 ⁽⁷⁾	2	900	213T	85.5	68.0	2.50	173	1272
EP0032	3	3600	182T	88.5	90.0	3.53	125	603
EP00325	3	3600	182T	88.5	90.0	2.82	125	603
EP0034	3	1800	182T	89.5	84.0	3.74	130	589
EP00345	3	1800	182T	89.5	84.0	2.99	130	589
EP0036 ⁽⁷⁾	3	1200	213T	89.5	78.0	4.02	180	849
EP00365 ⁽⁷⁾	3	1200	213T	89.5	78.0	3.22	180	849
EP0038 ⁽⁷⁾	3	900	215T	85.5	66.0	5.00	192	1675
EP00385 ⁽⁷⁾	3	900	215T	85.5	66.0	4.00	192	1675
EP0052	5	3600	184T	88.5	92.5	5.72	145	746
EP00525	5	3600	184T	88.5	92.5	4.58	145	746
EP0054	5	1800	184T	89.5	85.5	6.12	150	680
EP00545	5	1800	184T	89.5	85.5	4.90	150	680
EP0056 ⁽⁷⁾	5	1200	215T	91.0	82.5	6.24	225	1217
EP00565 ⁽⁷⁾	5	1200	215T	91.0	82.5	4.99	225	1217
EP0058	5	900	254T	87.5	72.0	7.43	305	2279
EP00585	5	900	254T	87.5	72.0	5.94	305	2279
EP7/52	7.5	3600	213T	91.0	89.0	8.67	200	1,008
EP7/525	7.5	3600	213T	91.0	89.0	6.94	200	1,008
EP7/54	7.5	1800	213T	91.7	86.5	8.85	210	1,012
EP7/545	7.5	1800	213T	91.7	86.5	7.08	210	1,012
EP7/56 ⁽⁷⁾	7.5	1200	254T	91.0	80.5	9.59	325	1,712
EP7/565 ⁽⁷⁾	7.5	1200	254T	91.0	80.5	7.67	325	1,712
EP7/58 ⁽⁷⁾	7.5	900	256T	87.5	74.0	10.80	365	2,901
EP7/585 ⁽⁷⁾	7.5	900	256T	87.5	74.0	8.64	365	2,901

Notes:

- (1) D-Flanges are not available for these ratings. Dual Drilled Feet are not available for these ratings.
- (2) Stator will be form-wound.
- (3) "5" at the end of the catalog number denotes 575 volts.
- (4) "R" at the end of the Catalog number means motor has Roller Bearing on the Drive End.
- (5) (C) Meets NEMA Design C torque requirements

TYPE: AEHE, AEHH8N - NEMA PREMIUM

Effective 06-14-15
Supersedes 05-01-13



CATALOG NO.	HP	RPM	FRAME	FL EFF (%)	FL PF (%)	FL AMPS (460V)	APPROX. SHIPPING WT. (lbs.)	LIST PRICE (\$)
EP0102	10	3600	215T	91	89.5	11.50	235	1,169
EP01025	10	3600	215T	91.0	89.5	9.20	235	1,169
EP0104	10	1800	215T	91.7	88.0	11.60	265	1,217
EP01045	10	1800	215T	91.7	88.0	9.30	265	1,217
EP0106 ⁽⁷⁾	10	1200	256T	91.0	80.5	12.80	380	2,082
EP01065 ⁽⁷⁾	10	1200	256T	91.0	80.5	10.20	380	2,082
EP0108 ⁽⁷⁾	10	900	284T	90.2	73.5	14.10	445	3,655
EP01085 ⁽⁷⁾	10	900	284T	90.2	73.5	11.30	445	3,655
EP0152	15	3600	254T	92.4	91.5	16.60	345	1,653
EP01525	15	3600	254T	92.4	91.5	13.30	345	1,653
EP0154	15	1800	254T	92.4	88.0	17.30	360	1,609
EP01545	15	1800	254T	92.4	88.0	13.80	360	1,609
EP0156 ⁽⁷⁾	15	1200	284T	92.4	83.5	18.20	460	2,851
EP01565 ⁽⁷⁾	15	1200	284T	92.4	83.5	14.60	460	2,851
EP0158 ⁽⁷⁾	15	900	286T	90.2	78.0	20.00	510	4,794
EP01585 ⁽⁷⁾	15	900	286T	90.2	78.0	16.00	510	4,794
EP0202	20	3600	256T	92.4	92.5	21.90	405	2,102
EP02025	20	3600	256T	92.4	92.5	17.50	405	2,102
EP0204 ⁽⁷⁾	20	1800	256T	93.0	87.5	23.00	410	2,028
EP02045 ⁽⁷⁾	20	1800	256T	93.0	87.5	18.40	410	2,028
EP0206 ⁽⁷⁾	20	1200	286T	91.7	84.0	24.30	550	3,595
EP02065 ⁽⁷⁾	20	1200	286T	91.7	84.0	19.40	550	3,595
EP0208 ⁽⁷⁾	20	900	324T	91.0	81.0	25.40	585	5,780
EP02085 ⁽⁷⁾	20	900	324T	91.0	81.0	20.30	585	5,780
EP0252	25	3600	284TS	92.4	91.0	27.80	498	2,694
EP02525	25	3600	284TS	92.4	91.0	22.20	498	2,694
EP0254 ⁽⁷⁾	25	1800	284T	93.6	86.0	29.10	520	2,474
EP02545 ⁽⁷⁾	25	1800	284TS	93.6	86.0	29.10	520	2,474
EP02545 ⁽⁷⁾	25	1800	284T	93.6	86.0	23.30	520	2,474
EP0256 ⁽⁷⁾	25	1200	324T	93.0	83.0	30.30	725	4,456
EP02565 ⁽⁷⁾	25	1200	324T	93.0	83.0	24.20	725	4,456
EP0258 ⁽⁷⁾	25	900	326T	91.0	80.0	32.20	684	6,832
EP02585 ⁽⁷⁾	25	900	326T	91.0	80.0	25.80	684	6,832
EP0302	30	3600	286TS	93.0	91.0	33.20	530	3,204
EP03025	30	3600	286TS	93.0	91.0	26.70	530	3,204
EP0304 ⁽⁷⁾	30	1800	286T	93.6	87.5	34.30	558	3,043
EP03045 ⁽⁷⁾	30	1800	286TS	93.6	87.5	34.30	558	3,043
EP03045 ⁽⁷⁾	30	1800	286T	93.6	87.5	27.40	558	3,043
EP0306 ⁽⁷⁾	30	1200	326T	93.0	80.5	37.50	775	5,022
EP03065 ⁽⁷⁾	30	1200	326T	93.0	80.5	30.00	775	5,022
EP0308 ⁽⁷⁾	30	900	364T	93.0	78.0	38.70	898	7,945
EP03085 ⁽⁷⁾	30	900	364T	93.0	78.0	31.00	898	7,945
EP0402	40	3600	324TS	94.1	90.0	44.20	755	4,186
EP04025	40	3600	324TS	94.1	90.0	35.40	755	4,186
EP0404 ⁽⁷⁾	40	1800	324T	94.1	86.0	46.30	750	4,039
EP04045 ⁽⁷⁾	40	1800	324TS	94.1	86.0	46.30	750	4,039
EP04045 ⁽⁷⁾	40	1800	324T	94.1	86.0	37.00	750	4,039
EP0406 ⁽⁷⁾	40	1200	364T	94.1	86.5	46.00	1,025	6,587
EP04065 ⁽⁷⁾	40	1200	364T	94.1	86.5	36.80	1,025	6,587
EP0408 ⁽⁷⁾	40	900	365T	93.0	78.0	51.60	1,035	9,813
EP04085 ⁽⁷⁾	40	900	365T	93.0	78.0	41.30	1035	9,813

Notes:

- (1) D-Flanges are not available for these ratings. Dual Drilled Feet are not available for these ratings.
- (2) Stator will be form-wound.
- (3) "5" at the end of the catalog number denotes 575 volts.
- (4) "R" at the end of the Catalog number means motor has Roller Bearing on the Drive End.
- (5) Meets NEMA Design C torque requirements

TYPE: AEHE, AEHH8N - NEMA PREMIUM

Effective 06-14-15
Supersedes 05-01-13



CATALOG NO.	HP	RPM	FRAME	FL EFF (%)	FL PF (%)	FL AMPS (460V)	APPROX. SHIPPING WT. (lbs.)	LIST PRICE (\$)
EP0502	50	3600	326TS	94.1	91.0	54.7	815	5,580
EP0502S	50	3600	326TS	94.1	91.0	43.8	815	5,580
EP0504 ⁽⁷⁾	50	1800	326T	94.5	87.0	56.9	845	5,129
EP0504S ⁽⁷⁾	50	1800	326TS	94.5	87.0	56.9	845	5,129
EP0504S ⁽⁷⁾	50	1800	326T	94.5	87.0	45.5	845	5,129
EP0506 ⁽⁷⁾	50	1200	365T	94.1	86.0	57.8	1105	8,125
EP0506S ⁽⁷⁾	50	1200	365T	94.1	86.0	46.2	1105	8,125
EP0508 ⁽⁷⁾	50	900	404T	93.0	81.0	62.1	1098	11,578
EP0508S ⁽⁷⁾	50	900	404T	93.0	81.0	49.7	1098	11,578
EP0602	60	3600	364TS	94.1	93.0	64.2	960	7,353
EP0602S	60	3600	364TS	94.1	93.0	51.4	960	7,353
EP0604 ⁽⁷⁾	60	1800	364T	95.0	86.5	68.4	945	6,626
EP0604S ⁽⁷⁾	60	1800	364TS	95.0	86.5	68.4	945	6,626
EP0604S ⁽⁷⁾	60	1800	364T	95.0	86.5	54.7	945	6,626
EP0606 ⁽⁷⁾	60	1200	404T	94.5	87.0	68.3	1305	9,552
EP0606S ⁽⁷⁾	60	1200	404T	94.5	87.0	54.6	1305	9,552
EP0608 ⁽⁷⁾	60	900	405T	93.0	81.0	74.6	1410	13,414
EP0608S ⁽⁷⁾	60	900	405T	93.0	81.0	59.7	1410	13,414
EP0752	75	3600	365TS	94.5	93.0	79.9	995	9,391
EP0752S	75	3600	365TS	94.5	93.0	63.9	995	9,391
EP0754 ⁽⁷⁾	75	1800	365T	95.4	86.5	85.1	1045	8,463
EP0754S ⁽⁷⁾	75	1800	365TS	95.4	86.5	85.1	1045	8,463
EP0754S ⁽⁷⁾	75	1800	365T	95.4	86.5	68.1	1045	8,463
EP0754R ⁽⁷⁾	75	1800	365T	95.4	86.5	85.1	1045	8,463
EP0754SR ⁽⁷⁾	75	1800	365T	95.4	86.5	68.1	1045	8,463
EP0756 ⁽⁷⁾	75	1200	405T	94.5	86.5	85.9	1440	11,376
EP0756S ⁽⁷⁾	75	1200	405T	94.5	86.5	68.7	1440	11,376
EP0756R ⁽⁷⁾	75	1200	405T	94.5	86.5	85.9	1440	11,376
EP0756SR ⁽⁷⁾	75	1200	405T	94.5	86.5	68.7	1440	11,376
EP0758	75	900	444T	93.6	79.0	95.0	1790	16,933
EP0758S	75	900	444T	93.6	79.0	76.0	1790	16,933
EP0758R	75	900	444T	93.6	79.0	95.0	1833	16,933
EP0758SR	75	900	444T	93.6	79.0	76.0	1833	16,933
EP1002	100	3600	405TS	95.4	92.0	107.0	1386	12,737
EP1002S	100	3600	405TS	95.4	92.0	85.6	1386	12,737
EP1004 ⁽⁷⁾	100	1800	405T	95.4	87.5	112.0	1415	11,874
EP1004S ⁽⁷⁾	100	1800	405TS	95.4	87.5	112.0	1415	11,874
EP1004S ⁽⁷⁾	100	1800	405T	95.4	87.5	89.6	1415	11,874
EP1004R ⁽⁷⁾	100	1800	405T	95.4	87.5	112.0	1415	11,874
EP1004SR ⁽⁷⁾	100	1800	405T	95.4	87.5	89.6	1415	11,874
EP1006R	100	1200	444T	95.0	82.5	119.0	1783	14,615
EP1006S	100	1200	444T	95.0	82.5	95.2	1783	14,615
EP1006R	100	1200	444T	95.0	82.5	119.0	1783	14,615
EP1006SR	100	1200	444T	95.0	82.5	95.2	1783	14,615
EP1008	100	900	445T	93.6	79.0	127.0	2088	21,995
EP1008S	100	900	445T	93.6	79.0	101.6	2088	21,995
EP1008R	100	900	445T	93.6	79.0	127.0	2088	21,995
EP1008SR	100	900	445T	93.6	79.0	101.6	2088	21,995

Notes:

- (1) D-Flanges are not available for these ratings. Dual Drilled Feet are not available for these ratings.
- (2) Stator will be form-wound.
- (3) "5" at the end of the catalog number denotes 575 volts.
- (4) "R" at the end of the Catalog number means motor has Roller Bearing on the Drive End.
- (5) Meets NEMA Design C torque requirements

TYPE: AEHE, AEHH8N - NEMA PREMIUM

Effective 06-14-15
Supersedes 05-01-13



CATALOG NO.	HP	RPM	FRAME	FL EFF (%)	FL PF (%)	FL AMPS (460V)	APPROX. SHIPPING WT. (lbs.)	LIST PRICE (\$)
EP1252	125	3600	444TS	95.0	86.0	143.0	1,656	15,835
EP1252S	125	3600	444TS	95.0	86.0	114.0	1,656	15,835
EP1254	125	1800	444T	95.4	84.0	146.0	1,830	14,741
EP1254S	125	1800	444TS	95.4	84.0	146.0	1,830	14,741
EP1254S	125	1800	444T	95.4	84.0	117.0	1,830	14,741
EP1254R	125	1800	444T	95.4	84.0	146.0	1,830	14,741
EP1254SR	125	1800	444T	95.4	84.0	117.0	1,830	14,741
EP1256	125	1200	445T	95.0	83.0	148.0	2,193	19,182
EP1256S	125	1200	445T	95.0	83.0	118.0	2,193	19,182
EP1256R	125	1200	445T	95.0	83.0	148.0	2,193	19,182
EP1256SR	125	1200	445T	95.0	83.0	118.0	2,193	19,182
EP1258	125	900	447T	94.1	80.0	155.0	2,490	25,292
EP1258S	125	900	447T	94.1	80.0	124.0	2,490	25,292
EP1258R	125	900	447T	94.1	80.0	156.0	2,394	25,292
EP1258SR	125	900	447T	94.1	80.0	124.0	2,394	25,292
EP1502 ⁽¹⁾	150	3600	445TS	95.0	87.0	170.0	1,783	18,964
EP1502S ⁽¹⁾	150	3600	445TS	95.0	87.0	136.0	1,783	18,964
EP1504 ⁽¹⁾	150	1800	445T	95.8	84.0	175.0	2,005	16,982
EP1504S ⁽¹⁾	150	1800	445TS	95.8	84.0	175.0	2,005	16,982
EP1504S ⁽¹⁾	150	1800	445T	95.8	84.0	140.0	2,005	16,982
EP1504R ⁽¹⁾	150	1800	445T	95.8	84.0	175.0	2,005	16,982
EP1504SR ⁽¹⁾	150	1800	445T	95.8	84.0	140.0	2,005	16,982
EP1506 ⁽¹⁾	150	1200	447T	95.8	83.5	176.0	2,547	21,458
EP1506R ⁽¹⁾	150	1200	447T	95.8	83.5	141.0	2,547	21,458
EP1506S ⁽¹⁾	150	1200	447T	95.8	83.5	176.0	2,547	21,458
EP1506SR ⁽¹⁾	150	1200	447T	95.8	83.5	141.0	2,547	21,458
EP1508 ⁽¹⁾	150	900	449T	94.1	80.0	187.0	2,389	30,378
EP1508S ⁽¹⁾	150	900	449T	94.1	80.0	144.0	2,389	30,378
EP1508R ⁽¹⁾	150	900	449T	94.1	80.0	187.0	2,389	30,378
EP1508SR ⁽¹⁾	150	900	449T	94.1	80.0	144.0	2,389	30,378
EP2002 ⁽¹⁾	200	3600	447TS	95.4	87.0	226.0	2,444	25,973
EP2002S ⁽¹⁾	200	3600	447TS	95.4	87.0	181.0	2,444	25,973
EP2004 ⁽¹⁾	200	1800	447T	96.2	84.5	230.0	2,547	22,203
EP2004S ⁽¹⁾	200	1800	447TS	96.2	87.0	230.0	2,547	22,203
EP2004S ⁽¹⁾	200	1800	447T	96.2	84.5	184.0	2,547	22,203
EP2004R ⁽¹⁾	200	1800	447T	96.2	84.5	230.0	2,547	22,203
EP2004SR ⁽¹⁾	200	1800	447T	96.2	84.5	184.0	2,547	22,203
EP2006 ⁽¹⁾	200	1200	449T	95.8	84.0	233.0	2,785	28,028
EP2006S ⁽¹⁾	200	1200	449T	95.8	84.0	186.0	2,785	28,028
EP2006R ⁽¹⁾	200	1200	449T	95.8	84.0	233.0	2,785	28,028
EP2006SR ⁽¹⁾	200	1200	449T	95.8	84.0	186.0	2,785	28,028
EP2008T ⁽¹⁾	200	900	449T	94.5	80.0	248.0	2,706	35,922
EP2008ST ⁽¹⁾	200	900	449T	94.5	80.0	248.0	2,706	35,922
EP2008TR ⁽¹⁾	200	900	449T	94.5	80.0	248.0	2,706	35,922
EP2008STR ⁽¹⁾	200	900	449T	94.5	80.0	248.0	2,706	35,922
E2008 ⁽¹⁾	200	900	5007B	94.5	81.0	304.0	3400	38,215
E2008S ⁽¹⁾	200	900	5007B	94.5	81.0	304.0	3400	38,215
E2008R ⁽¹⁾	200	900	5007C	94.5	81.0	304.0	3400	38,215
E2008SR ⁽¹⁾	200	900	5007C	94.5	81.0	304.0	3400	38,215

Notes:

- (1) D-Flanges are not available for these ratings. Dual Drilled Feet are not available for these ratings.
- (2) Stator will be form-wound.
- (3) "S" at the end of the catalog number denotes 575 volts.
- (4) "R" at the end of the Catalog number means motor has Roller Bearing on the Drive End.

TYPE: AEHE, AEHH8N - NEMA PREMIUM

Effective 06-14-15
Supersedes 05-01-13



CATALOG NO.	HP	RPM	FRAME	FL EFF (%)	FL PF (%)	FL AMPS (460V)	APPROX. SHIPPING WT. (lbs.)	LIST PRICE (\$)
EP2502 ⁽¹⁾	250	3600	449TS	95.8	88.0	278.00	2547	33,849
EP2504 ⁽¹⁾	250	1800	449T	96.2	85.5	285.00	2720	28,550
EP2504S ⁽¹⁾	250	1800	449T	96.2	85.5	285.00	2720	28,550
EP2506 ⁽¹⁾	250	1200	449T	95.8	84.5	289.00	2925	29,353
EP2506R ⁽¹⁾	250	1200	449T	95.8	84.5	289.00	2,925	29,353
E2508 ⁽¹⁾	250	900	5009B	95.0	81.0	304.00	4,200	42,984
E2508R ⁽¹⁾	250	900	5009C	95.0	81.0	304.00	4,200	42,984
EP3002 ⁽¹⁾	300	3600	449TS	95.8	88.0	333.00	2,647	36,455
EP3004 ⁽¹⁾	300	1800	449T	96.2	85.5	342.00	2,855	29,897
EP3004R ⁽¹⁾	300	1800	449T	96.2	85.5	342.00	2,855	29,897
EP3006 ^(1,3)	300	1200	449T	95.8	84.5	349.00	3,430	30,784
EP3006R ^(1,3)	300	1200	449T	95.8	84.5	349.00	3,430	30,784
E3008 ⁽¹⁾	300	900	5009B	95.0	81.0	365.00	4,410	47,183
E3008R ⁽¹⁾	300	900	5009C	95.0	81.0	365.00	4,410	47,183
EP3502 ^(1,3)	350	3600	449TS	95.8	90.2	379.00	2,785	38,480
EP3504 ^(1,3)	350	1800	449T	96.2	88.0	387.00	3,280	32,346
EP3504R ^(1,3)	350	1800	449T	96.2	88.0	387.00	3,280	32,346
EP3506 ⁽¹⁾	350	1200	5011B	95.8	87.0	393.00	5,565	50,932
EP3506R ⁽¹⁾	350	1200	5011C	95.8	87.0	393.00	5,565	50,932
E3508 ⁽¹⁾	350	900	5011B	95.0	81.0	426.00	5,040	57,973
E3508R ⁽¹⁾	350	900	5011C	95.0	81.0	426.00	5,040	57,973
EP4002 ^(1,2)	400	3600	5009A	95.8	91.6	427.00	3,623	51,490
EP4002T ⁽¹⁾	400	3600	449TS	96.8	93.3	424.00	2,950	43,545
EP4004 ⁽¹⁾	400	1800	5009B	96.2	90.0	433.00	4,025	45,886
EP4004R ⁽¹⁾	400	1800	5009C	96.2	90.0	433.00	4,025	45,886
EP4006 ⁽¹⁾	400	1200	5011B	95.8	87.0	449.00	5,803	58,597
EP4006R ⁽¹⁾	400	1200	5011C	95.8	87.0	449.00	5,803	58,597
E4008 ⁽¹⁾	400	900	5808B	95.4	82.5	476.00	5,355	74,687
E4008R ⁽¹⁾	400	900	5808C	95.4	82.5	476.00	5,355	74,687
EP4502 ^(1,2)	450	3600	5011A	95.8	91.7	480.00	4,410	60,575
EP4504 ⁽¹⁾	450	1800	5011B	96.2	90.0	487.00	5,040	54,819
EP4504R ⁽¹⁾	450	1800	5011C	96.2	90.0	487.00	5,040	54,819
EP4506 ⁽¹⁾	450	1200	5808B	95.8	88.0	500.00	5,803	65,680
EP4506R ⁽¹⁾	450	1200	5808C	95.8	88.0	500.00	5,803	65,680
E4508 ⁽¹⁾	450	900	5808B	95.4	82.5	535.00	5,723	77,582
E4508R ⁽¹⁾	450	900	5808C	95.4	82.5	535.00	5,723	77,582

Notes:

- (1) D-Flanges are not available for these ratings. Dual Drilled Feet are not available for these ratings.
- (2) Stator will be form-wound.
- (3) "S" at the end of the catalog number denotes 575 volts.
- (4) "R" at the end of the Catalog number means motor has Roller Bearing on the Drive End.

TYPE: AEHE, AEHH8N - NEMA PREMIUM

Effective 06-14-15
Supersedes 05-01-13



CATALOG NO.	HP	RPM	FRAME	FL EFF (%)	FL PF (%)	FL AMPS (460V)	APPROX. SHIPPING WT. (lbs.)	LIST PRICE (\$)
EP5002 ^(1,2)	500	3600	5011A	95.8	91.7	533.00	4,830	63,570
EP5004 ⁽¹⁾	500	1800	5011B	96.2	90.0	541.00	5,250	60,227
EP5004R ⁽¹⁾	500	1800	5011C	96.2	90.0	541.00	5,250	60,227
EP5006 ⁽¹⁾	500	1200	5808B	95.8	88.0	555.00	6,330	71,086
EP5006R ⁽¹⁾	500	1200	5808C	95.8	88.0	555.00	6,330	71,086
E5008 ⁽¹⁾	500	900	5810B	95.6	83.0	590.00	6,300	83,031
E5008R ⁽¹⁾	500	900	5810C	95.6	83.0	590.00	6,300	83,031
E6002 ^(1,2,4)	600	3600	5810A	95.4	90.5	650.00	6,355	72,975
E6004 ⁽¹⁾	600	1800	5808B	95.5	90.0	654.00	6,360	68,099
E6004R ⁽¹⁾	600	1800	5808C	95.5	90.0	654.00	6,090	68,099
E6006 ⁽¹⁾	600	1200	5810B	95.6	86.8	677.00	6,720	80,584
E6006R ⁽¹⁾	600	1200	5810C	95.6	86.8	677.00	6,720	80,584
E6008 ⁽¹⁾	600	900	6808B	95.5	84.0	700.00	8,453	98,305
E6008R ⁽¹⁾	600	900	6808C	95.5	84.0	700.00	8,750	98,305
E7002 ^(1,2,4)	700	3600	5810A	95.5	90.5	758.00	6,500	80,449
E7004 ⁽¹⁾	700	1800	5810B	95.6	90.0	762.00	7,140	80,040
E7004R ⁽¹⁾	700	1800	5810C	95.6	90.0	762.00	7,140	80,040
E7006 ⁽¹⁾	700	1200	5810B	95.8	86.8	788.00	7,245	91,049
E7006R ⁽¹⁾	700	1200	5810C	95.8	86.8	788.00	7,245	91,049
E7008 ⁽¹⁾	700	900	6808B	95.6	84.0	816.00	8,925	105,385
E7008R ⁽¹⁾	700	900	6808C	95.6	84.0	816.00	8,925	105,385
E8002 ^(1,2,4)	800	3600	6808A	95.5	90.5	867.00	8,750	107,856
E8004 ⁽¹⁾	800	1800	5810B	95.6	90.5	866.00	7,613	85,750
E8004R ⁽¹⁾	800	1800	5810C	95.6	90.5	866.00	7,613	85,750
E8006 ⁽¹⁾	800	1200	6808B	96.0	87.0	897.00	8,000	103,401
E8006R ⁽¹⁾	800	1200	6808C	96.0	87.0	897.00	8,400	103,401
E8008 ⁽¹⁾	800	900	6808B	95.6	84.0	933.00	9,293	111,433
E8008R ⁽¹⁾	800	900	6808C	95.6	84.0	933.00	9,293	111,433

Notes:

- (1) D-Flanges are not available for these ratings. Dual Drilled Feet are not available for these ratings.
- (2) Stator will be form-wound.
- (3) "5" at the end of the catalog number denotes 575 volts.
- (4) "R" at the end of the Catalog number means motor has Roller Bearing on the Drive End.

TYPE: AEHH8NCF, FOOTED WITH C-FACE - NEMA PREMIUM

TYPE: AEUH8NDC, ROUND BODY WITH C-FACE - NEMA PREMIUM

Effective 06-14-15
Supersedes 05-01-13



HP	RPM	FRAME	FL EFF (%)	FL PF (%)	FL AMPS (460V)	APPROX. SHIPPING WT. (lbs.)	FOOTED C-FACE		ROUND BODY C-FACE	
							CATALOG NO.	LIST PRICE (\$)	CATALOG NO.	LIST PRICE (\$)
1	3600	143TC	82.5	85.0	1.34	59	EP0012C	503	EPV0012C	575
1	1800	143TC	85.5	73.0	1.50	59	EP0014C ⁽⁷⁾	531	EPV0014C ⁽⁷⁾	607
1	1200	145TC	82.5	65.5	1.73	88	EP0016C	689	EPV0016C	749
1.5	3600	143TC	84.0	83.5	2.00	59	EP1/52C	607	EPV1/52C	693
1.5	1800	145TC	86.5	78.0	2.08	65	EP1/54C	609	EPV1/54C	696
1.5	1200	182TC	87.5	63.5	2.53	133	EP1/56C	716	EPV1/56C	818
2	3600	145TC	86.5	86.0	2.52	65	EP0022C	641	EPV0022C	732
2	1800	145TC	86.5	78.0	2.78	65	EP0024C	649	EPV0024C	741
2	1200	184TC	88.5	70.5	3.00	145	EP0026C ⁽⁷⁾	806	EPV0026C ⁽⁷⁾	922
3	3600	182TC	88.5	90.0	3.53	100	EP0032C	751	EPV0032C	858
3	1800	182TC	89.5	84.0	3.74	100	EP0034C	734	EPV0034C	839
3	1200	213TC	89.5	78.0	4.02	191	EP0036C ⁽⁷⁾	1,059	EPV0036C ⁽⁷⁾	1,338
5	3600	184TC	88.5	92.5	5.72	120	EP0052C	886	EPV0052C	1,012
5	1800	184TC	89.5	85.5	6.12	120	EP0054C	843	EPV0054C	963
5	1200	215TC	91.0	82.5	6.24	239	EP0056C ⁽⁷⁾	1,405	EPV0056C ⁽⁷⁾	1,605
7.5	3600	213TC	91.0	89.0	8.67	175	EP7/52C	1,197	EPV7/52C	1,368
7.5	1800	213TC	91.7	86.5	8.85	175	EP7/54C	1,202	EPV7/54C	1,374
7.5	1200	254TC	91.0	80.5	9.59	345	EP7/56C ⁽⁷⁾	1,910	EPV7/56C ⁽⁷⁾	2,183
10	3600	215TC	91.0	89.5	11.5	198	EP0102C	1,387	EPV0102C	1,586
10	1800	215TC	91.7	88.0	11.6	198	EP0104C	1,405	EPV0104C	1,605
10	1200	256TC	91.0	80.5	12.8	403	EP0106C ⁽⁷⁾	2,247	EPV0106C ⁽⁷⁾	2,568
15	3600	254TC	92.4	91.5	16.6	310	EP0152C	1,888	EPV0152C	2,157
15	1800	254TC	92.4	88.0	17.3	310	EP0154C	1,833	EPV0154C	2,095
15	1200	284TC	92.4	83.5	18.2	488	EP0156C ⁽⁷⁾	3,146	EPV0156C ⁽⁷⁾	3,595
20	3600	256TC	92.4	92.5	21.9	350	EP0202C	2,292	EPV0202C	2,619
20	1800	256TC	93.0	87.5	23.0	350	EP0204C ⁽⁷⁾	2,219	EPV0204C ⁽⁷⁾	2,536
20	1200	286TC	91.7	84.0	24.3	583	EP0206C ⁽⁷⁾	3,932	EPV0206C ⁽⁷⁾	4,269
25	3600	284TSC	92.4	91.0	27.8	430	EP0252C	3,090	EPV0252C	3,254
25	1800	284TC	93.6	86.0	29.1	441	EP0254C ⁽⁷⁾	2,910	EPV0254C ⁽⁷⁾	3,065
25	1200	324TC	93.0	83.0	30.3	769	EP0256C ⁽⁷⁾	4,888	EPV0256C ⁽⁷⁾	5,147
30	3600	286TSC	93.0	91.0	33.2	469	EP0302C	3,562	EPV0302C	3,751
30	1800	286TC	93.6	87.5	34.3	490	EP0304C ⁽⁷⁾	3,427	EPV0304C ⁽⁷⁾	3,609
30	1200	326TC	93.0	80.5	37.5	822	EP0306C ⁽⁷⁾	5,393	EPV0306C ⁽⁷⁾	5,679
40	3600	324TSC	94.1	90.0	44.2	635	EP0402C	4,663	EPV0402C	4,910
40	1800	324TC	94.1	86.0	46.3	682	EP0404C ⁽⁷⁾	4,494	EPV0404C ⁽⁷⁾	4,733
40	1200	364TC	94.1	86.5	46.0	1,018	EP0406C ⁽⁷⁾	7,135	EPV0406C ⁽⁷⁾	7,513
50	3600	326TSC	94.1	91.0	54.7	710	EP0502C	6,067	EPV0502C	6,389
50	1800	326TC	94.5	87.0	56.9	744	EP0504C ⁽⁷⁾	5,618	EPV0504C ⁽⁷⁾	5,916
50	1200	365TC	94.1	86.0	57.8	1,172	EP0506C ⁽⁷⁾	8,651	EPV0506C ⁽⁷⁾	9,111
60	3600	364TSC	94.1	93.0	64.2	839	EP0602C	7,865	EPV0602C	8,034
60	1800	364TC	95.0	86.5	68.4	920	EP0604C ⁽⁷⁾	7,247	EPV0604C ⁽⁷⁾	7,403
60	1200	404TC	94.5	87.0	68.3	1,384	EP0606C ⁽⁷⁾	10,449	EPV0606C ⁽⁷⁾	10,674
75	3600	365TSC	94.5	93.0	79.9	903	EP0752C	9,887	EPV0752C	10,100
75	1800	365TC	95.4	86.5	85.1	1,050	EP0754C ⁽⁷⁾	8,988	EPV0754C ⁽⁷⁾	9,182
75	1200	405TC	94.5	86.5	85.9	1,527	EP0756C ⁽⁷⁾	12,191	EPV0756C ⁽⁷⁾	12,453
100	3600	405TSC	95.4	92.0	107.0	1,183	EP1002C	13,370	EPV1002C	13,658
100	1800	405TC	95.4	87.5	112.0	1,310	EP1004C ⁽⁷⁾	12,583	EPV1004C ⁽⁷⁾	12,854
125	3600	444TSC	95.0	86.0	143.0	1,645	EP1252C	17,350	~	~
125	1800	444TC	95.4	84.0	146.0	1,650	EP1254C	16,650	~	~
125	1200	445TC	95.0	83.0	148.0	1,750	EP1256C	20,585	~	~
150	3600	445TSC	95.0	87.0	170.0	1,740	EP1502C	20,100	~	~
150	1800	445TC	95.8	84.0	175.0	1,830	EP1504C	18,580	~	~
150	1200	447TC	95.8	83.5	176.0	2,230	EP1506C	22,800	~	~
200	3600	447TSC	95.4	87.0	226.0	1,960	EP2002C	26,810	~	~
200	1800	447TC	96.2	84.5	230.0	2,270	EP2004C	23,640	~	~
200	1200	449TC	95.8	84.0	233.0	2,520	EP2006C	28,500	~	~
250	3600	449TSC	95.8	88.0	278.0	2,400	EP2502C	33,500	~	~
250	1800	449TC	96.2	85.5	285.0	2,550	EP2504C	29,000	~	~
250	1200	449TC	95.8	84.5	289.0	2,630	EP2506C	29,695	~	~
300	3600	449TSC	95.8	88.0	333.0	2,640	EP3002C	35,750	~	~
300	1800	449TC	96.2	85.5	342.0	2,680	EP3004C	30,200	~	~

Notes:

- (1) D-Flanges are not available for these ratings. Dual Drilled Feet are not available for these ratings.
- (2) Stator will be form-wound.
- (3) "5" at the end of the catalog number denotes 575 volts.
- (4) "R" at the end of the Catalog number means motor has Roller Bearing on the Drive End.
- (5) (C) Meets NEMA Design C torque requirements

MAX-E2/841® LITE

TYPE: AEHH - NEMA PREMIUM



Effective 06-14-15
Supersedes 05-01-13



APPLICATIONS:

- | | | |
|------------------|---------------|---|
| ■ Fans & Blowers | ■ Compressors | ■ Any Severe Duty/ Petro-Chem Application |
| ■ Pumps | ■ Mixers | ■ Any Pulp & Paper Application |
| ■ Crushers | ■ Conveyors | ■ Marine Duty |

FEATURES:

- 1 - 300 HP
- 3600, 1800, 1200 RPM
- Totally Enclosed Fan Cooled (IP55 Rating)
- IEEE 841 Ready
- Meets GM 7E-TA Specifications
- Meets IEEE 45 Marine Duty
- NEMA Premium Efficient
- Department of Energy Efficiency Certification #CC002A
- 36 Month Warranty from Date of Manufacture
- 60 Hz, 460V Only
- 1.15 Service Factor – Continuous
- Class B Temperature Rise, Class F Insulation with Phenolic Alkyd Resin Varnish – 2 Dips and Bakes
- NEMA Design B Torques as a Minimum
- Oversized Main Conduit Box Rotatable in 90 Degree Increments – Fully Gasketed with NPT Threaded Entrance – F1 Mounted. F2 Available – See EXTRAS/ OPTIONS Below
- Designed for 40°C Ambient Temperature @ S.F. 1.15; Up to 440 Frame, Designed for 50°C Ambient Temperature @ S.F. 1.15; larger Frames with S.F. @ 1.0. - Note (1, 2)
- Designed for 3300 ft. Elevation - Note (2)
- CSA Certified for Class I, Division II, Groups B, C, D; Class II, Division 2, Groups F & G. Non Sparking, Non Static Fan
- Bi-Directional Rotation
- Cast Iron Frame, End Brackets, Fan Cover, and Main Conduit Box
- Dual Drilled Feet – Longer Frames. (i.e. 145T Drilled Also for 143T)
- 1045 Carbon Steel Shaft
- Aluminum Die Cast Squirrel Cage Rotor Construction
- Paint System: 2 Part Epoxy
- Paint Color: Blue – Munsell 5PB 3/8
- Vacuum De-Gassed Re-Greasable Ball Bearings Using Polyrex EM Grease
- Single Shielded Regreaseable Bearings with Polyrex Grease
- Automatic Grease Discharge Fittings on Frames
- Grounding Terminal Inside Main Box with Provisions for Grounding on Foot
- Stainless Steel Nameplate and Hardware
- Stainless Steel Automatic Breather Drains
- UL and CSA Approved for Inverter Duty per NEMA MG 1, Part 31 - Note (3)
- Inverter Duty Magnet Wire Capable of Withstanding Voltage Spikes of Up to 2200 Volts
- **Precautions should be taken to eliminate or reduce shaft currents that may be imposed on the motor by the VFD as stated per NEMA MG1, Part 31.4.4.3.**
- Speed Ranges: 60:1 VT; 20:1 CT Up to 200 HP
- 3 Leads Only
- Vibration Not to Exceed 0.08 Inches per Second
- Noise Level Not to Exceed 85 dB(A) at 1 Meter Unloaded

EXTRAS/ OPTIONS:

Please refer to pages 114 - 119 for common modifications that can be performed.

Notes:

- (1) Please consult factory for suitability in higher ambients.
- (2) Please consult factory for suitability in higher elevations.
- (3) Motor service factor is 1.0 when operated on a VFD.

MAX-E2/841® LITE



TYPE: AEHH - NEMA PREMIUM

Effective 06-14-15
Supersedes 05-01-13



CATALOG NO.	HP	RPM	FRAME	FL EFF (%)	FL PF (%)	FL AMPS (460V)	APPROX. SHIPPING WT. (lbs.)	LIST PRICE (\$)
HH0012	1	3600	143T	82.5	85.0	1.34	58	510
HH0014 ⁽¹⁾	1	1800	143T	85.5	73.0	1.50	58	488
HH0016	1	1200	145T	82.5	65.5	1.73	97	608
HH1/52	1.5	3600	143T	84.0	83.5	2.00	58	528
HH1/54	1.5	1800	145T	86.5	78.0	2.08	65	560
HH1/56	1.5	1200	182T	87.5	63.5	2.53	130	628
HH0022	2	3600	145T	86.5	86.0	2.52	78	572
HH0024	2	1800	145T	86.5	78.0	2.78	97	597
HH0026 ⁽¹⁾	2	1200	184T	88.5	70.5	3.00	150	721
HH0032	3	3600	182T	88.5	90.0	3.53	100	667
HH0034	3	1800	182T	89.5	84.0	3.74	130	673
HH0036 ⁽¹⁾	3	1200	213T	89.5	78.0	4.02	220	935
HH0052	5	3600	184T	88.5	92.5	5.72	140	832
HH0054	5	1800	184T	89.5	85.5	6.12	150	794
HH0056 ⁽¹⁾	5	1200	215T	91.0	82.5	6.24	235	1,359
HH7/52	7.5	3600	213T	91.0	89.0	8.67	202	1,121
HH7/54	7.5	1800	213T	91.7	86.5	8.85	202	1,127
HH7/56 ⁽¹⁾	7.5	1200	254T	91.0	80.5	9.59	323	1,885
HH0102	10	3600	215T	91.0	89.5	11.5	224	1,306
HH0104	10	1800	215T	91.7	88.0	11.6	224	1,341
HH0106 ⁽¹⁾	10	1200	256T	91.0	80.5	12.8	380	2,304
HH0152	15	3600	254T	92.4	91.5	16.6	323	1,829
HH0154	15	1800	254T	92.4	88.0	17.3	345	1,780
HH0156 ⁽¹⁾	15	1200	284T	92.4	83.5	18.2	540	3,098
HH0202	20	3600	256T	92.4	92.5	21.9	367	2,296
HH0204 ⁽¹⁾	20	1800	256T	93.0	87.5	23.0	425	2,243
HH0206 ⁽¹⁾	20	1200	286T	91.7	84.0	24.3	565	3,839
HH0252	25	3600	284TS	92.4	91.0	27.8	490	2,854
HH0254 ⁽¹⁾	25	1800	284T	93.6	86.0	29.1	555	2,684
HH0256 ⁽¹⁾	25	1200	324T	93.0	83.0	30.3	759	4,635
HH0302	30	3600	286TS	93.0	91.0	33.2	535	3,356
HH0304 ⁽¹⁾	30	1800	286T	93.6	87.5	34.3	656	3,317
HH0306 ⁽¹⁾	30	1200	326T	93.0	80.5	37.5	795	5,299
HH0402	40	3600	324TS	94.1	90.0	44.2	755	4,404
HH0404 ⁽¹⁾	40	1800	324T	94.1	86.0	46.3	740	4,247
HH0406 ⁽¹⁾	40	1200	364T	94.1	86.5	46.0	898	7,080
HH0502	50	3600	326TS	94.1	91.0	54.7	782	5,720
HH0504 ⁽¹⁾	50	1800	326T	94.5	87.0	56.9	845	5,215
HH0506 ⁽¹⁾	50	1200	365T	94.1	86.0	57.8	1,110	8,426
HH0602	60	3600	364TS	94.1	93.0	64.2	853	7,747
HH0604 ⁽¹⁾	60	1800	364T	95.0	86.5	68.4	955	7,475
HH0606 ⁽¹⁾	60	1200	404T	94.5	87.0	68.3	1,355	10,057
HH0752	75	3600	365TS	94.5	93.0	79.9	1,015	9,648
HH0754 ⁽¹⁾	75	1800	365T	95.4	86.5	85.1	1,040	9,377
HH0756 ⁽¹⁾	75	1200	405T	94.5	86.5	85.9	1,363	11,619
HH1002	100	3600	405TS	95.4	92.0	107.0	1,330	13,107
HH1004 ⁽¹⁾	100	1800	405T	95.4	87.5	112.0	1,385	12,093
HH1006	100	1200	444T	95.0	82.5	119.0	1,833	16,171
HH1252	125	3600	444TS	95.0	86.0	143.0	1,783	17,123
HH1254	125	1800	444T	95.4	84.0	146.0	1,833	15,900
HH1256	125	1200	445T	95.0	83.0	148.0	1,961	19,949
HH1502	150	3600	445TS	95.0	87.0	170.0	1,808	20,521
HH1504	150	1800	445T	95.8	84.0	175.0	2,037	18,516
HH1506	150	1200	447T	95.8	83.5	176.0	2,400	22,327
HH2002	200	3600	447TS	95.4	87.0	226.0	2,317	26,548
HH2004	200	1800	447T	96.2	84.5	230.0	2,426	22,960
HH2006	200	1200	449T	95.8	84.0	233.0	2,801	28,796
HH2502	250	3600	449TS	95.8	88.0	278.0	2,725	34,416
HH2504	250	1800	449T	96.2	85.5	285.0	2,710	29,277
HH2506	250	1200	449T	95.8	84.5	289.0	3,080	37,099
HH3002	300	3600	449TS	95.8	88.0	333.0	2,928	41,240
HH3004	300	1800	449T	96.2	85.5	342.0	2,980	35,320

Notes:

(1) Meets NEMA Design C torque

MAX-E2/841® FAMILY

TYPE: AEHH8B, AEHH8BCF, AEUH8BDC - NEMA PREMIUM



Effective 06-14-15
Supersedes 05-01-13



APPLICATIONS:

- | | | |
|------------------|---------------|--------------------------------|
| ■ Fans & Blowers | ■ Compressors | ■ Any Severe Duty/ Petro-Chem/ |
| ■ Pumps | ■ Mixers | Pulp & Paper Application |
| ■ Crushers | ■ Conveyors | |

FEATURES:

- 1 - 500 HP
- 3600, 1800, 1200, 900 RPM
- Totally Enclosed Fan Cooled IP56 (IP66 - Note (5))
- Meets or Exceeds IEEE 841 Standards - Note (1)
- Meets GM 7E-TA Specifications
- Meets IEEE 45 Marine Duty and ABS "Design Assessment" up to 150 HP
- NEMA Premium Efficient
- Department of Energy Efficiency Certification #CC002A
- 60 Month Warranty from Date of Manufacture
- 3 Phase, 60 Hz, 460V
- 1.15 Service Factor – Continuous
- Class B Temperature Rise, Class F Insulation with Phenolic Alkyd Resin Varnish – 2 Dips and Bakes
- NEMA Design B Torques as a Minimum, Design C Motors are Denoted with Subscript "C"
- Oversized Main Conduit Box Rotatable in 90 Degree Increments – Fully Gasketed with NPT Threaded Entrance – F1 Mounted. F2 Available – See EXTRAS/ OPTIONS Below
- Fabricated Steel Main Lead Box 447 Frames and Larger.
- Designed for 40°C Ambient Temperature @ 1.15 S.F.; S.F. Up to 440 Frames Designed for 50°C Ambient Temperature @ 1.15 S.F.; Larger Frames with Service Factor @ 1.0 - Note (1, 2)
- Designed for 3300 ft. Elevation - Note (2)
- CSA Certified for Class I, Division II, Groups B, C, D; Class II, Div. 2, Groups F & G. Non Sparking, Non Static Fan - Note (4)
- Bi-Directional Rotation
- Cast Iron Frame, End Brackets, Fan Cover, and Main Conduit Box
- Dual Drilled Feet – Longer Frames. (i.e. 145T Drilled Also for 143T)
- 1045 Carbon Steel Shaft
- Aluminum Die Cast Squirrel Cage Rotor Construction
- Paint System: 2 Part Epoxy
- Paint Color: Blue – Munsell 5PB 3/ 8
- Single Shielded Regreasable Bearings with Polyrex Grease
- Vacuum De-Gassed Re-Greasable Ball Bearings for Frames 280TS - 5808B Using Polyrex EM Grease
- Automatic Grease Discharge Fittings on Frames for Re-Greasable motors
- Grounding Terminal Inside Main Box with Provisions for Grounding on Frame
- Stainless Steel Nameplate and Hardware
- Stainless Steel Automatic Breather Drains (located at both end brackets for vertical mounts)
- UL Recognized and CSA Approved for Inverter Duty per NEMA MG 1, Part 31 - Note (3)
- Inverter Duty Magnet Wire Capable of Withstanding Voltage Spikes of Up to 2200 Volts
- **Precautions Should be Taken to Eliminate or Reduce Shaft Currents that May be Imposed on the Motor by the VFD.**
- Speed Ranges: 60:1 VT; 20:1 CT Up to 200 HP; 3:1 CT for 350 HP and Up
- 3 Leads Only
- Vibration Not to Exceed 0.08 Inches per Second
- Noise Level Not to Exceed 85 dB(A) at One Meter Unloaded
- INPRO™ Seals Installed on Both Ends

EXTRAS/ OPTIONS:

Please refer to pages 114 - 119 for common modifications that can be performed.

Notes:

- (1) Main conduit box on 444-449T/TS and larger is TWMC standard size.
- (2) Please consult factory for suitability in higher ambients and higher elevations.
- (3) Motor service factor is 1.0 when operated on a VFD.
- (4) HB3502, HB3504, and 5000 frames and larger are not dual drilled.
- (5) Please consult with factory about suitability for IP66 with VBXX seal mod.

TYPE: AEHH8B - NEMA PREMIUM

Effective 06-14-15
Supersedes 05-01-13



CATALOG NO.	HP	RPM	FRAME	FL EFF (%)	FL PF (%)	FL AMPS (460V)	APPROX. SHIPPING. WT. (lbs.)	LIST PRICE (\$)
HB0012	1	3600	143T	82.5	85.0	1.34	58	969
HB0014 ⁽²⁾	1	1800	143T	85.5	73.0	1.50	58	928
HB0016	1	1200	145T	82.5	65.5	1.73	97	1,013
HB0018	1	900	182T	77.0	58.5	2.10	115	1,223
HB1/52	1.5	3600	143T	84.0	83.5	2.00	58	958
HB1/54	1.5	1800	145T	86.5	78.0	2.08	65	970
HB1/56	1.5	1200	182T	87.5	63.5	2.53	130	1,120
HB1/58	1.5	900	184T	78.5	60.5	3.00	125	1,368
HB0022	2	3600	145T	86.5	86.0	2.52	78	978
HB0024	2	1800	145T	86.5	78.0	2.78	97	985
HB0026 ⁽²⁾	2	1200	184T	88.5	70.5	3.00	150	1,233
HB0028	2	900	213T	85.5	64.0	5.00	173	1,814
HB0032	3	3600	182T	88.5	90.0	3.53	100	1,154
HB0034	3	1800	182T	89.5	84.0	3.74	130	1,126
HB0036 ⁽²⁾	3	1200	213T	89.5	78.0	4.02	220	1,620
HB0038	3	900	215T	85.5	66.0	5.00	192	2,009
HB0052	5	3600	184T	88.5	92.5	5.72	140	1,345
HB0054	5	1800	184T	89.5	85.5	6.12	150	1,259
HB0056 ⁽²⁾	5	1200	215T	91.0	82.5	6.24	235	1,962
HB0058	5	900	254T	86.5	72.0	7.50	305	2,659
HB7/52	7.5	3600	213T	91.0	89.0	8.67	202	1,752
HB7/54	7.5	1800	213T	91.7	86.5	8.85	202	1,733
HB7/56 ⁽²⁾	7.5	1200	254T	91.0	80.5	9.59	323	2,754
HB7/58	7.5	900	256T	86.5	71.5	11.50	365	3,077
HB0102	10	3600	215T	91.0	89.5	11.5	224	1,874
HB0104	10	1800	215T	91.7	88.0	11.6	224	1,901
HB0106 ⁽²⁾	10	1200	256T	91.0	80.5	12.8	380	3,182
HB0108	10	900	284T	89.5	73.5	14.2	445	4,000
HB0152	15	3600	254T	92.4	91.5	16.6	323	2,703
HB0154	15	1800	254T	92.4	88.0	17.3	345	2,648
HB0156 ⁽²⁾	15	1200	284T	92.4	83.5	18.2	540	3,901
HB0158	15	900	286T	89.5	78.0	20.1	510	4,923
HB0202	20	3600	256T	92.4	92.5	21.9	367	3,232
HB0204 ⁽²⁾	20	1800	256T	93.0	87.5	23.0	425	3,120
HB0206 ⁽²⁾	20	1200	286T	91.7	84.0	24.3	565	4,596
HB0208	20	900	324T	90.2	81.0	25.6	585	5,759
HB0252	25	3600	284TS	92.4	91.0	27.8	490	3,816
HB0254 ⁽²⁾	25	1800	284T	93.6	86.0	29.1	555	3,689
HB0256 ⁽²⁾	25	1200	324T	93.0	83.0	30.3	759	5,758
HB0258	25	900	326T	90.2	79.5	25.6	684	6,500
HB0302	30	3600	286TS	93.0	91.0	33.2	535	4,062
HB0304 ⁽²⁾	30	1800	286T	93.6	87.5	34.3	656	3,963
HB0306 ⁽²⁾	30	1200	326T	93.0	80.5	37.5	795	6,131
HB0308	30	900	364T	93.0	77.5	39.0	898	8,814
HB0402	40	3600	324TS	94.1	90.0	44.2	755	5,547
HB0404 ⁽²⁾	40	1800	324T	94.1	86.0	46.3	740	5,434
HB0406 ⁽²⁾	40	1200	364T	94.1	86.5	46.0	898	9,137
HB0408	40	900	365T	91.7	76.5	53.4	1,035	10,818
HB0502	50	3600	326TS	94.1	91.0	54.7	835	6,590
HB0504 ⁽²⁾	50	1800	326T	94.5	87.0	56.9	835	6,088
HB0506 ⁽²⁾	50	1200	365T	94.1	86.0	57.8	963	10,292
HB0508	50	900	404T	93.0	80.5	53.4	1,098	12,314

Notes:

- (1) Motors are uni-directional, counter clockwise rotation, facing the drive-end side. To change direction of rotation please consult factory for adder.
- (2) Meets NEMA Design C torque. All other motors are NEMA B torque.

TYPE: AEHH8B - NEMA PREMIUM

Effective 06-14-15
Supersedes 05-01-13



CATALOG NO.	HP	RPM	FRAME	FL EFF (%)	FL PF (%)	FL AMPS (460V)	APPROX. SHIPPING WT. (lbs.)	LIST PRICE (\$)
HB0602	60	3600	364TS	94.1	93.0	64.2	920	10,067
HB0604 ⁽²⁾	60	1800	364T	95.0	86.5	68.4	930	9,568
HB0606 ⁽²⁾	60	1200	404T	94.5	87.0	68.3	1,201	11,631
HB0608	60	900	405T	93.0	81.0	74.6	1,410	13,364
HB0752	75	3600	365TS	94.5	93.0	79.9	1,005	11,405
HB0754 ⁽²⁾	75	1800	365T	95.4	86.5	85.1	1,040	10,645
HB0756 ⁽²⁾	75	1200	405T	94.5	86.5	85.9	1,363	12,840
HB0758	75	900	444T	93.6	79.0	95.6	1,790	16,705
HB1002	100	3600	405TS	95.4	92.0	107	1,330	14,432
HB1004 ⁽²⁾	100	1800	405T	95.4	87.5	112	1,385	13,108
HB1006	100	1200	444T	95.0	82.5	119	1,833	17,430
HB1008	100	900	445T	93.6	79.0	127	2,088	20,259
HB1252	125	3600	444TS	95.0	86.0	143	1,783	18,290
HB1254	125	1800	444T	95.4	84.0	146	1,833	17,381
HB1256	125	1200	445T	95.0	83.0	148	1,961	21,576
HB1258	125	900	447T	94.1	80.0	156	2,490	23,436
HB1502	150	3600	445TS	95.0	87.0	170	1,808	21,197
HB1504	150	1800	445T	95.8	84.0	175	2,037	19,269
HB1506	150	1200	447T	95.8	83.5	176	2,400	22,978
HB1508	150	900	449T	94.1	80.0	242	2,903	32,107
HB2002	200	3600	447TS	95.4	87.0	226	2,160	27,075
HB2004	200	1800	447T	96.2	84.5	230	2,426	23,132
HB2006	200	1200	449T	95.8	84.0	233	2,675	29,166
HB2008	200	900	449T	94.5	80.0	242	2,670	36,273
HB2502	250	3600	449TS	95.8	88.0	278	2,595	35,116
HB2504	250	1800	449T	96.2	85.5	285	2,801	31,548
HB2506	250	1200	449T	95.8	84.5	289	2,955	37,791
HB2508	250	900	5009B	95.0	81.0	304	4,200	55,777
HB3002	300	3600	449TS	95.8	88.0	333	2,928	43,497
HB3004	300	1800	449T	96.2	85.5	342	2,930	37,085
HB3006 ⁽²⁾	300	1200	449T	95.8	86.5	339	3,450	56,232
HB3008	300	900	5009B	95.0	81.0	365	4,410	58,514
HB3502 ⁽²⁾	350	3600	449TS	95.8	91.6	373	3,100	55,397
HB3504 ⁽²⁾	350	1800	449T	96.2	90.0	379	3,350	51,913
HB3506	350	1200	5011B	95.8	87.0	393	4,200	77,184
HB3508	350	900	5011B	95.0	81.0	426	5,040	81,043
HB4002 ⁽¹⁾	400	3600	5009A	95.8	91.6	427	3,450	76,400
HB4004	400	1800	5009B	96.2	90.0	433	3,700	71,099
HB4006	400	1200	5011B	95.8	87.0	449	4,900	85,011
HB4008	400	900	5808B	95.4	82.5	476	5,355	87,561
HB4502 ⁽¹⁾	450	3600	5011A	95.8	91.7	480	4,200	84,588
HB4504	450	1800	5011B	96.2	90.0	487	4,800	80,510
HB4506	450	1200	5808B	95.8	88.0	500	5,250	101,369
HB4508	450	900	5808B	95.4	82.5	535	5,723	105,423
HB5002 ⁽¹⁾	500	3600	5011A	95.8	91.7	533	4,600	93,063
HB5004	500	1800	5011B	96.2	90.0	541	5,000	85,644
HB5006	500	1200	5808B	95.8	88.0	555	5,600	103,997
HB5008	500	900	5810C	95.6	83.0	590	6,300	107,117

Notes:

- (1) Motors are unidirectional, counterclockwise facing the drive-end. To change direction of rotation please consult factory for adder.
(2) Meets NEMA Design C torque

TYPE: AEHH8BCF, FOOTED WITH C-FACE - NEMA PREMIUM

TYPE: AEUH8BDC, ROUND BODY C-FACE WITH CAST IRON DRIP COVER - NEMA PREMIUM

Effective 06-14-15
Supersedes 05-01-13



HP	RPM	FRAME	FL EFF (%)	FL PF (%)	FL AMPS (460V)	APPROX. SHIPPING WT. (lbs.)	FOOTED C-FACE		ROUND BODY C-FACE	
							CATALOG NO.	LIST PRICE (\$)	CATALOG NO.	LIST PRICE (\$)
1	3600	143TC	82.5	85.0	1.34	58	HB0012C	1,113	HBV0012C	1,173
1	1800	143TC	85.5	73.0	1.50	58	HB0014C ⁽¹⁾	1,107	HBV0014C ⁽¹⁾	1,168
1	1200	145TC	82.5	65.5	1.73	97	HB0016C	1,187	HBV0016C	1,248
1.5	3600	143TC	84.0	83.5	2.00	65	HB1/52C	1,125	HBV1/52C	1,186
1.5	1800	145TC	86.5	78.0	2.08	65	HB1/54C	1,176	HBV1/54C	1,240
1.5	1200	182TC	87.5	63.5	2.53	137	HB1/56C	1,370	HBV1/56C	1,457
2	3600	145TC	86.5	86.0	2.52	78	HB0022C	1,159	HBV0022C	1,224
2	1800	145TC	86.5	78.0	2.78	97	HB0024C	1,193	HBV0024C	1,256
2	1200	184TC	88.5	70.5	3.00	150	HB0026C ⁽¹⁾	1,547	HBV0026C ⁽¹⁾	1,631
3	3600	182TC	88.5	90.0	3.53	100	HB0032C	1,370	HBV0032C	1,457
3	1800	182TC	89.5	84.0	3.74	130	HB0034C	1,370	HBV0034C	1,457
3	1200	213TC	89.5	78.0	4.02	220	HB0036C ⁽¹⁾	2,164	HBV0036C ⁽¹⁾	2,268
5	3600	184TC	88.5	92.5	5.72	140	HB0052C	1,587	HBV0052C	1,669
5	1800	184TC	89.5	85.5	6.12	150	HB0054C	1,542	HBV0054C	1,626
5	1200	215TC	91.0	82.5	6.24	235	HB0056C ⁽¹⁾	2,324	HBV0056C ⁽¹⁾	2,425
7.5	3600	213TC	91.0	89.0	8.67	202	HB7/52C	2,067	HBV7/52C	2,175
7.5	1800	213TC	91.7	86.5	8.85	202	HB7/54C	2,101	HBV7/54C	2,208
7.5	1200	254TC	91.0	80.5	9.59	323	HB7/56C ⁽¹⁾	3,203	HBV7/56C ⁽¹⁾	3,339
10	3600	215TC	91.0	89.5	11.5	224	HB0102C	2,215	HBV0102C	2,317
10	1800	215TC	91.7	88.0	11.6	224	HB0104C	2,255	HBV0104C	2,360
10	1200	256TC	91.0	80.5	12.8	380	HB0106C ⁽¹⁾	3,706	HBV0106C ⁽¹⁾	3,834
15	3600	254TC	92.4	91.5	16.6	323	HB0152C	3,146	HBV0152C	3,285
15	1800	254TC	92.4	88.0	17.3	345	HB0154C	3,135	HBV0154C	3,274
15	1200	284TC	92.4	83.5	18.2	540	HB0156C ⁽¹⁾	4,539	HBV0156C ⁽¹⁾	4,704
20	3600	256TC	92.4	92.5	21.9	367	HB0202C	3,757	HBV0202C	3,883
20	1800	256TC	93.0	87.5	23.0	425	HB0204C ⁽¹⁾	3,706	HBV0204C ⁽¹⁾	3,834
20	1200	286TC	91.7	84.0	24.3	565	HB0206C ⁽¹⁾	5,476	HBV0206C ⁽¹⁾	5,623
25	3600	284TSC	92.4	91.0	27.8	490	HB0252C	4,287	HBV0252C	4,452
25	1800	284TC	93.6	86.0	29.1	555	HB0254C ⁽¹⁾	4,238	HBV0254C ⁽¹⁾	4,399
25	1200	324TC	93.0	83.0	30.3	759	HB0256C ⁽¹⁾	6,525	HBV0256C ⁽¹⁾	6,725
30	3600	286TSC	93.0	91.0	33.2	535	HB0302C	4,569	HBV0302C	4,725
30	1800	286TC	93.6	87.5	34.3	656	HB0304C ⁽¹⁾	4,569	HBV0304C ⁽¹⁾	4,725
30	1200	326TC	93.0	80.5	37.5	795	HB0306C ⁽¹⁾	6,984	HBV0306C ⁽¹⁾	7,177
40	3600	324TSC	94.1	90.0	44.2	755	HB0402C	6,326	HBV0402C	6,530
40	1800	324TC	94.1	86.0	46.3	740	HB0404C ⁽¹⁾	6,155	HBV0404C ⁽¹⁾	6,362
40	1200	364TC	94.1	86.5	46.0	898	HB0406C ⁽¹⁾	10,337	HBV0406C ⁽¹⁾	10,576
50	3600	326TSC	94.1	91.0	54.7	782	HB0502C	7,282	HBV0502C	7,467
50	1800	326TC	94.5	87.0	56.9	845	HB0504C ⁽¹⁾	7,122	HBV0504C ⁽¹⁾	7,309
50	1200	365TC	94.1	86.0	57.8	1,110	HB0506C ⁽¹⁾	12,006	HBV0506C ⁽¹⁾	12,213
60	3600	364TSC	94.1	93.0	64.2	853	HB0602C	11,133	HBV0602C	11,355
60	1800	364TC	95.0	86.5	68.4	955	HB0604C ⁽¹⁾	10,807	HBV0604C ⁽¹⁾	11,034
60	1200	404TC	94.5	87.0	68.3	1,355	HB0606C ⁽¹⁾	13,459	HBV0606C ⁽¹⁾	13,744
75	3600	365TSC	94.5	93.0	79.9	1,015	HB0752C	12,614	HBV0752C	12,807
75	1800	365TC	95.4	86.5	85.1	1,040	HB0754C ⁽¹⁾	12,061	HBV0754C ⁽¹⁾	12,266
75	1200	405TC	94.5	86.5	85.9	1,363	HB0756C ⁽¹⁾	14,652	HBV0756C ⁽¹⁾	14,918
100	3600	405TSC	95.4	92.0	107.0	1,330	HB1002C	15,829	HBV1002C	16,070
100	1800	405TC	95.4	87.5	112.0	1,385	HB1004C ⁽¹⁾	14,774	HBV1004C ⁽¹⁾	15,033

Notes:

(1) Meets NEMA Design C Torque. All other motors are NEMA B Torque.

STAINLESS STEEL WASHDOWN



TYPE: AEGP FOOTED C-FACE - NEMA PREMIUM

TYPE: AEGPCW ROUND BODY C-FACE - NEMA PREMIUM

Effective 06-14-15
Supersedes 05-01-13



APPLICATIONS:

- Any Application Where the Motor Will be Subjected to High Pressure Spray Down
- Marine Duty
- Food Processing, Seafood Processing, Packaging

FEATURES:

- 1/2 - 10 HP
- 3600, 1800 RPM
- Totally Enclosed Fan Cooled Enclosure (IP56) (IEEE 45)
- Rigid C-Flange and Round Body (footless) C-Face available
- EISA Compliant with the NEMA Premium Efficiencies (56 Frame - EPACT only)
- Department of Energy Efficiency Certificate #CC002A
- 36 Month Warranty from Date of Manufacture
- 60 Hz - 230/ 460V (Usable on 208V), 50 Hz - 190/ 380V Data Also Provided (1.0 Service Factor)
- 1.15 Service Factor – Continuous
- Class F Insulation with Phenolic Alkyd Resin Varnish - 2 Dips and Bakes
- Class B Temperature Rise
- NEMA Design B Torques
- Div 2, Group F,C,D; Temp Group T3B
- Stainless Steel Frame, End Brackets and Hardware
- Stainless Steel Oversized Main Conduit Box welded at F-3 location
- 304 Stainless Steel Shaft with Keyway and Key
- Designed for 40°C Ambient Temperature - Note (1)
- Designed for 3300 ft. Elevation - Note (2)
- Bi-Directional Rotation
- Two Drain Holes on Bottom of Frame and One in C-Flange
- Aluminum Die Cast Squirrel Cage Rotor Construction
- Double Sealed Bearings Pre-Packed with MULTEMP SRL Grease
- Contact Lip Type Seal on Both Drive End and Non-Drive End
- Grounding Terminal Inside Main Box
- Etched Nameplate on the Stainless Steel Frame
- Speed Ranges: 10:1 VT, 4:1 CT
- 9 Leads, with Solderless Lug Terminals
- Inverter Duty Magnet Wire Capable of Withstanding Voltage Spikes of Up to 2200 Volts
- **Precautions should be taken to eliminate or reduce shaft currents that may be imposed on the motor by the VFD as stated per NEMA MG1, Part 30.**

EXTRAS/ OPTIONS:

- Encapsulated Windings: Feature offered with the SSWD Motor. Please contact TWMC for pricing.
- Please refer to pages 114 - 119 for common modifications that can be performed.

Notes:

- (1) Please consult factory for suitability in higher ambients.
- (2) Please consult factory for suitability in higher elevations.

STAINLESS STEEL WASHDOWN



TYPE: AEGP FOOTED C-FACE - NEMA PREMIUM

TYPE: AEGPCW ROUND BODY C-FACE - NEMA PREMIUM

Effective 06-14-15
Supercedes 05-01-13



HP	RPM	FRAME	FL EFF (%)	FL PF (%)	FL AMPS (460V)	FOOTED C-FACE			ROUND BODY C-FACE		
						CATALOG NO.	APPROX. SHIPPING WT. (lbs.)	LIST PRICE (\$)	CATALOG NO.	APPROX. SHIPPING WT. (lbs.)	LIST PRICE (\$)
1/2	3600	A56C	72.0	82.0	1.6	WP0/52C	37	710	WPV0/52C	34	710
1/2	1800	A56C	74.0	72.5	1.8	WP0/54C	37	725	WPV0/54C	34	725
3/4	3600	A56C	75.5	82.0	2.3	WP0/72C	39	775	WPV0/72C	37	775
3/4	1800	A56C	75.5	74.0	2.5	WP0/74C	39	800	WPV0/74C	37	800
1	3600	A56C	77.0	90.0	2.8	WFP0012C	37	955	~	~	~
1	3600	143TC	77.0	90.0	2.8	WP0012C	46	955	WPV0012C	44	955
1	1800	B56C	85.5	70.0	3.2	WFP0014C	44	985	WV0014C	40	1,000
1	1800	143TC	85.5	70.0	3.2	WP0014C	46	985	WPV0014C	44	985
1.5	3600	B56C	84.0	90.0	4.0	WFP1/52C	45	1,035	~	~	~
1.5	3600	143TC	84.0	90.0	4.0	WP1/52C	50	1,035	WPV1/52C	47	1,035
1.5	1800	C56C	86.5	73.0	4.4	WFP1/54C	55	1,022	~	~	~
1.5	1800	145TC	86.5	73.0	4.4	WP1/54C	58	1,022	WPV1/54C	52	1,022
2	3600	C56C	85.5	91.0	4.8	WFP0022C	52	1,238	~	~	~
2	3600	145TC	85.5	91.0	4.8	WP0022C	58	1,238	WPV0022C	52	1,238
2	1800	C56C	86.5	75.0	6.0	WFP0024C	62	1,215	~	~	~
2	1800	145TC	86.5	75.0	6.0	WP0024C	65	1,215	WPV0024C	60	1,215
3	3600	182TC	86.5	88.0	7.4	WP0032C	80	2,345	WPV0032C	75	2,345
3	1800	182TC	89.5	78.0	8.0	WP0034C	115	2,390	WPV0034C	110	2,390
5	3600	184TC	88.5	91.0	12.2	WP0052C	128	2,730	WPV0052C	123	2,730
5	1800	184TC	89.5	85.0	12.5	WP0054C	128	2,750	WPV0054C	123	2,750
7.5	3600	213TC	89.5	85.0	19.0	WP7/52C	175	4,228	WPV7/52C	170	4,228
7.5	1800	213TC	91.7	82.0	18.6	WP7/54C	190	4,650	WPV7/54C	185	4,650
10	3600	215TC	90.2	87.0	24.4	WP0102C	210	4,283	WPV0102C	205	4,283
10	1800	215TC	91.7	84.0	24.4	WP0104C	225	4,847	WPV0104C	220	4,847

CLOSED COUPLED PUMP JP/JM



TYPE: AEEAJP, AEEAJM - EPACT

Effective 06-14-15
Supersedes 05-01-13



APPLICATIONS:

- Pumps

FEATURES:

- 3/4 - 50 HP
- 3600, 1800, 1200 RPM
- Totally Enclosed Fan Cooled (IP54)
- JP and JM Shaft Configurations
- Meets or Exceeds EPAct Efficiency Levels and EISA Legislation
- Department of Energy Efficiency Certificate # CC002A
- 36 Month Warranty from Date of Manufacture
- 60 Hz - 230/ 460V (Usable on 208V)
- 1.15 Service Factor – Continuous
- 50 Hz Data on Nameplate - 190/ 380V at 1.0 S.F.
- Class F Insulation with Phenolic Alkyd Resin Varnish
- Class B Temperature Rise
- NEMA Design B Torques
- Oversized Main Conduit Box Rotatable in 90 Degree Increments - Fully Gasketed with NPT Threaded Entrance - F1 Mounted. F2 Available - See EXTRAS/ OPTIONS Below
- Designed for 40°C Ambient Temperature - Note (1)
- Designed for 3300 ft. Elevation - Note (2)
- Factory Self-Certified for Class 1, Div. 2, Groups B, C, D; Temp Code T3C, 400T and Below - Note (3)
- Bi-Directional Rotation
- Cast Iron Frame, End Brackets, Main Conduit Box and Rolled Steel Fan Cover
- 1045 Carbon Steel Shaft
- Aluminum Die Cast Squirrel Cage Rotor Construction
- Paint System: Phenolic Rust Proof Base Plus Polyurethane Top Coat
- Paint Color: Dark Gray – Munsell 7.5 BG 4/2
- Vacuum De-Gassed Re-Greasable Bearings Frames 324JM/JP ~ 365JM/JP with Polyrex EM Grease
- Double Shielded Bearings on Frames 140JM/JP ~ 280JM/JP Pre-Packed with MULTEMP SRL Grease
- Labyrinth Type Metal Flinger on Both Ends for Frames 324JM/JP ~ 365JM/JP
- Cast Iron Inner and Outer Bearing Caps for Frames 324JM/JP ~ 365JM/JP
- Rubber Flinger on Drive-End for Frames 140JM/JP ~ 280JM/JP
- Grounding Terminal Inside Main Box
- Stainless Steel Nameplate
- VFD Rated per NEMA MG1, Part 30 - Note (4) and (5)
- Speed Ranges: 10:1 VT, 5:1 CT
- 9 Leads - 5 HP and Below, 12 Leads 7.5 HP Larger
- CE Mark on Nameplate, CSA Approved
- **Precautions should be taken to eliminate or reduce shaft currents that may be imposed on the motor by the VFD as stated per NEMA MG1, Part 30.**

EXTRAS/ OPTIONS:

Please refer to pages 114 - 119 for common modifications that can be performed.

Notes:

- (1) Please consult factory for suitability in higher ambients.
- (2) Please consult factory for suitability in higher elevations.
- (3) Factory self-certified for 440T/TS frames requires fan change. Please see modifications section. There is an additional charge for Division II Nameplate - See modifications section.
- (4) Motor service factor is 1.0 when operated on a VFD.
- (5) Maximum lead length is 150 feet with a carrier frequency of 3kHz. Addition of output reactor or filter may allow for increased carrier frequency. Please consult TWMC if lead length and carrier frequency surpass these values.

CLOSED COUPLED PUMP JP/JM



TYPE: AEEAJP, AEEAJM - EPACT

Effective 06-14-15
Supercedes 05-01-13



JP CATALOG NO.	JM CATALOG NO.	HP	RPM	FRAME	FL EFF (%)	FL PF (%)	FL AMPS (460V)	JP APPROX. SHIPPING WT. (lbs.)	JM APPROX. SHIPPING WT. (lbs.)	LIST PRICE (\$)
JPN0/76	JMN0/76	3/4	1200	143JP/JM	74.0	65.5	1.50	101	101	551
JPN0014	JMN0014	1	1800	143JP/JM	82.5	77.0	1.48	60	80	466
JPN0016 ⁽¹⁾	JMN0016 ⁽¹⁾	1	1200	145JP/JM	80.0	63.5	1.85	110	110	579
JPN1/52	JMN1/52	1.5	3600	143JP/JM	82.5	85.0	2.01	79	75	483
JPN1/54	JMN1/54	1.5	1800	145JP/JM	84.0	80.5	2.08	47	58	513
JPN1/56 ⁽¹⁾	JMN1/56 ⁽¹⁾	1.5	1200	182JP/JM	85.5	66.5	2.47	139	139	612
JPN0022	JMN0022	2	3600	145JP/JM	84.0	88.5	2.52	81	80	551
JPN0024	JMN0024	2	1800	145JP/JM	84.0	82.5	2.70	85	75	551
JPN0026 ⁽¹⁾	JMN0026 ⁽¹⁾	2	1200	184JP/JM	86.5	67.0	3.23	152	152	685
JPN0032	JMN0032	3	3600	182JP/JM	85.5	90.0	3.65	108	105	644
JPN0034	JMN0034	3	1800	182JP/JM	87.5	82.5	3.89	110	105	626
JPN0036 ⁽¹⁾	JMN0036 ⁽¹⁾	3	1200	213JP/JM	87.5	76.5	4.20	184	184	841
JPN0052	JMN0052	5	3600	184JP/JM	87.5	91.5	5.85	125	165	806
JPN0054	JMN0054	5	1800	184JP/JM	87.5	86.5	6.20	130	120	736
JPN0056 ⁽¹⁾	JMN0056 ⁽¹⁾	5	1200	215JP/JM	87.5	76.5	7.00	223	210	1,256
JPN7/52	JMN7/52	7.5	3600	213JP/JM	88.5	87.0	9.10	178	180	994
JPN7/54	JMN7/54	7.5	1800	213JP/JM	89.5	88.0	8.90	143	180	958
JPN7/56 ⁽¹⁾	JMN7/56 ⁽¹⁾	7.5	1200	254JP/JM	89.5	81.0	9.70	287	310	1,696
JP0102	JMN0102	10	3600	215JP/JM	89.5	90.0	11.6	205	205	1,164
JPN0104	JMN0104	10	1800	215JP/JM	89.5	89.5	11.7	235	230	1,140
JPN0106 ⁽¹⁾	JMN0106 ⁽¹⁾	10	1200	256JP/JM	89.5	82.5	12.7	342	325	2,112
JPN0152	JMN0152	15	3600	254JP/JM	90.2	91.5	17.0	281	246	1,641
JPN0154	JMN0154	15	1800	254JP/JM	91.0	88.0	17.6	340	330	1,614
JPN0156 ⁽¹⁾	JMN0156 ⁽¹⁾	15	1200	284JP/JM	90.2	83.0	18.8	450	470	2,764
JPN0202	JMN0202	20	3600	256JP/JM	90.2	92.0	22.6	370	307	2,097
JPN0204	JMN0204	20	1800	256JP/JM	91.0	88.0	23.4	370	370	2,025
JPN0206 ⁽¹⁾	JMN0206 ⁽¹⁾	20	1200	286JP/JM	90.2	83.5	24.9	513	520	3,591
JPN0252	JMN0252	25	3600	284JP/JM	91.0	90.5	28.4	515	470	2,504
JPN0254	JMN0254	25	1800	284JP/JM	92.4	89.0	28.5	431	431	2,382
JPN0256 ⁽¹⁾	JMN0256 ⁽¹⁾	25	1200	324JP/JM	91.7	81.5	31.3	660	660	4,322
JPN0302	JMN0302	30	3600	286JP/JM	91.0	91.0	33.9	565	535	3,049
JPN0304	JMN0304	30	1800	286JP/JM	92.4	88.0	34.6	574	560	2,865
JPN0306 ⁽¹⁾	JMN0306 ⁽¹⁾	30	1200	326JP/JM	91.7	80.5	38.1	671	671	4,970
JPN0402	JMN0402	40	3600	324JP/JM	91.7	89.5	45.7	695	695	4,037
JPN0404	JMN0404	40	1800	324JP/JM	93.0	89.0	45.3	715	730	3,863
JPN0406 ⁽¹⁾	JMN0406 ⁽¹⁾	40	1200	364JP/JM	93.0	86.5	46.6	785	785	6,610
JPN0502	JMN0502	50	3600	326JP/JM	92.4	90.5	56.0	671	671	5,357
JPN0504	JMN0504	50	1800	326JP/JM	93.0	89.5	56.0	741	741	4,914
JPN0506 ⁽¹⁾	~	50	1200	365JP/JM	93.0	85.5	59.0	913	~	7,644

Notes:

(1) Please refer to the factory for availability.

TEXP EXPLOSION PROOF FAMILY

TYPE: AEHHXU, AEHHXF, AEUHXF - NEMA PREMIUM



Effective 06-14-15
Supersedes 05-01-13



APPLICATIONS:

- Grain Elevators
- Pumps
- Blowers
- Applications Where Explosive Gases are Present
- Applications Where Explosive Dusts/ Grains are Present

FEATURES:

- 1 - 400 HP is Foot Mounted. 1 - 100 HP is Foot Mounted with C-Flange. 1 - 75 HP is Round Body with C-Flange.
- 3600, 1800, 1200, 900 RPM
- Totally Enclosed Fan Cooled - Explosion Proof (IP55 Rating)
- UL & CSA Listed for Class I, Division I, Group C & D Through 20 HP and Class II, Groups E, F & G, Temp Code T3B. All others are Class 1, Group D, Class 2, Groups, E,F,G, Temp Code T3B.
- UL File #: E84757
- CSA File #: 64671
- NEMA Premium Efficient Design
- Meets or Exceeds EPA Efficiency Levels on the Round Body C-Face Design
- Department of Energy Efficiency Certification #CC002A
- 36 Month Warranty from Date of Manufacture
- 60 Hz - 230/ 460V (Usable on 208V). 150 HP and Larger is 460V Only
- 1.15 Service Factor – Continuous
- Class F Insulation with Phenolic Alkyd Resin Varnish
- Standard with Klaxon 9700K Temperature Limiting Switch, 1 per Phase
- Class B Temperature Rise
- NEMA Design B Torques
- Oversized Main Conduit Box Rotatable in 90 Degree Increments – Fully Gasketed with NPT Threaded Entrance – F1 Mounted.
- Designed for 40°C Ambient Temperature - Note (1)
- Designed for 3300 ft. Elevation - Note (2)
- Bi-Directional Rotation
- Cast Iron Frame, Fan Cover, End Bells, and Main Conduit Box. Capable of Withstanding Explosion Force as Required by UL.
- Stainless Steel Breather Drains with Bronze Filters
- 1045 Carbon Steel Shaft
- Aluminum Die Cast Squirrel Cage Rotor Construction
- Paint System: Phenolic Rust Proof Base Plus Polyurethane Top Coat
- Paint Color: Dark Blue – Munsell 5PB 4.5/ 2
- Vacuum De-Gassed Regreasable Bearings on Frames 280TS - 5009B Using Polyrex EM Grease
- Double Shielded Bearings on Frames 140T-280T Pre-Packed with MULTEMP SRL Grease
- Brass Flinger on Both Ends
- Cast Iron Inner and Outer Bearing Caps for Frames 280TS - 5009B
- Grounding Terminal Inside Main Box
- Stainless Steel Nameplate
- UL Listed for Inverter Duty - Note (3)
- Inverter Duty Magnet Wire Capable of Withstanding Voltage Spikes of Up to 2200 Volts
- Speed Ranges: VT = 3 - 60 Hz CT for 140 - 210 frames = 10 - 60 Hz.
CT for 250 - 320 frames = 13 - 60 Hz CT for 260 - 440 frames = 16 - 60 Hz
- 9 Leads for 5 HP and Below, 12 Leads for 100 HP to 125 HP, 6 Leads for 150 HP and Up
- **Precautions should be taken to eliminate or reduce shaft currents that may be imposed on the motor by the VFD as stated per NEMA MG1, Part 31.4.4.3.**

EXTRAS/ OPTIONS:

Please refer to pages 114 - 119 for common modifications that can be performed. - Note (4)

Notes:

- (1) Please consult factory for suitability in higher ambients.
- (2) Please consult factory for suitability in higher elevations.
- (3) Motor service factor is 1.0 when operated on a VFD.
- (4) EXTRAS/ OPTIONS are limited on TEXP products.

TEXP EXPLOSION PROOF



TYPE: AEHHXU - NEMA PREMIUM

Effective 06-14-15
Supercedes 05-01-13



CATALOG NO.	HP	RPM	FRAME	FL EFF (%)	FL PF (%)	FL AMPS (460V)	APPROX. SHIPPING WT. (lbs.)	LIST PRICE (\$)
XP0014	1	1800	143T	85.5	68.0	1.61	64	695
XP0016	1	1200	145T	82.5	66.0	1.72	93	806
XP0018	1	900	182T	77.0	58.5	2.08	108	1,125
XP1/52	1.5	3600	143T	84.0	84.0	1.99	78	791
XP1/54	1.5	1800	145T	86.5	75.5	2.15	80	788
XP1/56	1.5	1200	182T	87.5	63.0	2.55	125	873
XP1/58	1.5	900	184T	78.5	60.5	2.96	120	1,261
XP0022	2	3600	145T	85.5	87.0	2.52	68	819
XP0024	2	1800	145T	86.5	78.0	2.78	80	782
XP0026	2	1200	184T	88.5	69.0	3.07	148	1,009
XP0028	2	900	213T	84.0	64.0	3.48	187	1,840
XP0032	3	3600	182T	87.5	90.0	3.57	130	944
XP0034	3	1800	182T	89.5	81.0	3.87	135	948
XP0036	3	1200	213T	89.5	80.0	3.92	240	1,276
XP0038	3	900	215T	85.5	66.0	4.98	211	2,109
XP0052	5	3600	184T	88.5	91.0	5.81	153	1,165
XP0054	5	1800	184T	89.5	84.0	6.23	145	1,096
XP0056	5	1200	215T	90.2	81.0	6.41	235	1,643
XP0058	5	900	254t	86.5	72.0	7.52	330	2,779
XP7/52	7.5	3600	213T	89.5	87.0	9.02	235	1,579
XP7/54	7.5	1800	213T	91.7	86.5	8.85	200	1,544
XP7/56	7.5	1200	254T	91.0	82.0	9.41	365	2,145
XP7/58	7.5	900	256T	86.5	81.5	9.96	376	3,311
XP0102	10	3600	215T	90.2	87.0	11.90	250	1,662
XP0104	10	1800	215T	91.7	87.5	11.70	265	1,799
XP0106	10	1200	256T	91.0	81.5	12.60	420	2,627
XP0108	10	900	284T	89.5	73.5	14.20	488	4,203
XP0152	15	3600	254T	91.0	92.0	16.80	400	2,162
XP0154	15	1800	254T	92.4	85.0	17.90	390	2,484
XP0156	15	1200	284T	91.7	83.0	18.50	575	3,587
XP0158	15	900	286T	89.5	78.0	20.10	530	4,787
XP0202	20	3600	256T	91.0	92.0	22.40	440	2,914
XP0204	20	1800	256T	93.0	85.5	23.60	455	2,912
XP0206	20	1200	286T	91.7	84.0	24.30	600	4,066
XP0208	20	900	324T	90.2	81.0	25.60	708	6,490
XP0252	25	3600	284TS	91.7	92.0	27.70	460	3,425
XP0254	25	1800	284T	93.6	85.0	29.40	585	3,599
XP0256	25	1200	324T	93.0	83.0	30.30	825	5,009
XP0258	25	900	326T	90.2	79.5	32.60	781	7,265
XP0302	30	3600	286TS	92.4	92.0	33.00	583	4,044
XP0304	30	1800	286T	93.6	85.5	34.30	565	4,168
XP0306	30	1200	326T	93.0	83.0	36.40	787	6,120
XP0308	30	900	364T	91.7	77.5	39.50	946	9,356
XP0402	40	3600	324TS	93.0	91.0	44.30	805	5,702
XP0404	40	1800	324T	94.1	85.5	46.60	708	5,925
XP0406	40	1200	364T	94.1	86.0	46.30	980	8,047
XP0408	40	900	365T	91.7	76.5	53.40	1,019	11,362

TEXP EXPLOSION PROOF

TYPE: AEHHXU - NEMA PREMIUM



Effective 06-14-15
Supersedes 05-01-13



CATALOG NO.	HP	RPM	FRAME	FL EFF (%)	FL PF (%)	FL AMPS (460V)	APPROX. SHIPPING WT. (lbs.)	LIST PRICE (\$)
XP0502	50	3600	326TS	93.6	91.0	55.0	890	7,152
XP0504	50	1800	326T	94.5	85.5	57.9	925	6,827
XP0506	50	1200	365T	94.1	83.5	59.6	1,125	8,124
XP0508	50	900	404T	93.0	80.5	62.5	1,287	10,209
XP0602	60	3600	364TS	93.6	93.0	64.5	1,015	8,472
XP0604	60	1800	364T	95.0	88.0	67.2	1,010	8,447
XP0606	60	1200	404T	94.5	86.0	69.1	1,322	11,783
XP0608	60	900	405T	93.0	81.0	74.6	1,408	14,360
XP0752	75	3600	365TS	93.6	93.0	80.7	1,085	10,077
XP0754	75	1800	365T	95.4	88.0	83.6	1,110	9,900
XP0756	75	1200	405T	94.5	86.5	85.9	1,540	13,839
XP0758	75	900	444T	93.0	79.0	95.6	1,650	18,134
XP1002	100	3600	405TS	94.5	92.0	108.0	1,495	15,608
XP1004	100	1800	405T	95.4	90.0	109.0	1,545	13,836
XP1006	100	1200	444T	94.1	83.0	118.0	1,920	18,301
XP1006R	100	1200	444T	94.1	83.0	118.0	1,920	18,301
XP1008	100	900	445T	91.7	79.0	127.0	1,800	19,377
XP1252	125	3600	444TS	95.0	86.0	143.0	1,800	20,753
XP1254	125	1800	444T	95.4	85.0	144.0	1,970	19,269
XP1254R	125	1800	444T	95.4	85.0	144.0	1,970	19,269
XP1256	125	1200	445T	95.0	84.0	147.0	2,100	24,513
XP1256R	125	1200	445T	95.0	84.0	147.0	2,100	24,513
XP1502 ⁽¹⁾	150	3600	445TS	95.0	87.0	170.0	1,940	24,089
XP1504 ⁽¹⁾	150	1800	445T	95.8	85.0	173.0	2,120	23,406
XP1504R ⁽¹⁾	150	1800	445T	95.8	84.0	173.0	2,120	23,406
XP1506	150	1200	447T	95.8	84.5	174.0	2,120	39,088
XP2002	200	3600	447TS	95.4	89.0	221.0	2,300	36,794
XP2004	200	1800	447T	96.2	87.0	224.0	2,620	36,694
XP2006	200	1200	449T	95.8	85.0	230.0	2,850	40,480
XP2502	200	3600	449TS	95.8	89.8	272.0	2,720	38,728
XP2504	200	1800	449T	96.2	88.0	277.0	2,870	39,513
XP3002	300	3600	449TS	95.8	90.2	325.0	2,920	40,492
XP3004	300	1800	449T	96.2	88.0	332.0	2,950	40,132
XP3502 ⁽³⁾	350	3600	5009	95.8	88	388.7	4,200	52,913
XP3504 ⁽³⁾	350	1800	5009	96.2	87.7	388.4	4,400	52,550
XP4002 ⁽³⁾	400	3600	5009	95.8	88.3	442.7	4,350	77,500
XP4004 ⁽³⁾	400	1800	5009	96.2	87.7	443.9	4,500	72,100

Notes:

- (1) Ratings 150 HP and larger are 460V only.
- (2) (R) Motor stocked standard with a drive-end roller bearing.

TEXP EXPLOSION PROOF



TYPE: AEHHXF FOOTED C-FACE - NEMA PREMIUM

TYPE: AEUHXF ROUND BODY C-FACE - NEMA PREMIUM

Effective 06-14-15
Supersedes 05-01-13



HP	RPM	FRAME	FL EFF (%)	FL PF (%)	FL AMPS (460V)	FOOTED C-FACE			ROUND BODY C-FACE		
						CATALOG NO.	APPROX. SHIPPING WT. (lbs.)	LIST PRICE (\$)	CATALOG NO.	APPROX. SHIPPING WT. (lbs.)	LIST PRICE (\$)
1	1800	143TC	85.5	73.0	1.5	XP0014C	64	983	XV0014C	64	870
1	1200	145TC	82.5	65.5	1.7	XP0016C	93	1,121	XV0016C ⁽¹⁾	100	992
1.5	3600	143TC	84.0	83.5	2.0	XP1/52C	78	1,101	XV1/52C ⁽¹⁾	104	974
1.5	1800	145TC	86.5	78.0	2.1	XP1/54C	80	1,060	XV1/54C	100	938
1.5	1200	182TC	87.5	63.5	2.5	XP1/56C	125	1,181	XV1/56C ⁽¹⁾	154	1,045
2	3600	145TC	86.5	86.0	2.5	XP0022C	68	1,142	XV0022C ⁽¹⁾	110	1,011
2	1800	145TC	86.5	78.0	2.8	XP0024C	80	1,095	XV0024C	110	969
2	1200	184TC	88.5	70.5	3.0	XP0026C	148	1,355	XV0026C ⁽¹⁾	150	1,199
3	3600	182TC	88.5	90.0	3.5	XP0032C	130	1,271	XV0032C ⁽¹⁾	150	1,125
3	1800	182TC	89.5	84.0	3.7	XP0034C	135	1,280	XV0034C	150	1,133
3	1200	213TC	89.5	78.0	4.0	XP0036C	240	1,618	XV0036C	240	1,432
5	3600	184TC	88.5	92.5	5.7	XP0052C	153	1,494	XV0052C	170	1,322
5	1800	184TC	89.5	85.5	6.1	XP0054C	145	1,485	XV0054C	160	1,314
5	1200	215TC	91.0	82.5	6.2	XP0056C	235	2,136	XV0056C ⁽¹⁾	270	1,890
7.5	3600	213TC	91.0	89.0	8.7	XP7/52C	235	2,002	XV7/52C ⁽¹⁾	230	1,772
7.5	1800	213TC	91.7	86.5	8.9	XP7/54C	200	2,092	XV7/54C	250	1,851
7.5	1200	254TC	91.0	80.5	9.6	XP7/56C	365	2,707	XV7/56C ⁽¹⁾	360	2,396
10	3600	215TC	91.0	89.5	11.5	XP0102C	250	2,254	XV0102C	285	1,995
10	1800	215TC	91.7	88.0	11.6	XP0104C	241	2,435	XV0104C	235	2,155
10	1200	256TC	91.0	80.5	12.8	XP0106C	420	3,289	XV0106C ⁽¹⁾	430	2,911
15	3600	254TC	92.4	91.5	16.6	XP0152C	400	2,724	XV0152C ⁽¹⁾	390	2,411
15	1800	254TC	92.4	88.0	17.3	XP0154C	390	3,023	XV0154C ⁽¹⁾	435	2,675
15	1200	284TC	92.4	83.5	18.2	XP0156C	575	4,464	XV0156C ⁽¹⁾	560	3,950
20	3600	256TC	92.4	92.5	21.9	XP0202C	440	3,634	XV0202C ⁽¹⁾	420	3,216
20	1800	256TC	93.0	87.5	23.0	XP0204C	455	3,647	XV0204C	460	3,227
20	1200	286TC	91.7	84.0	24.3	XP0206C	600	5,078	XV0206C	604	4,702
25	3600	284TSC	92.4	91.0	27.8	XP0252C	460	4,369	XV0252C ⁽¹⁾	513	4,045
25	1800	284TC	93.6	86.0	29.1	XP0254C	585	4,461	XV0254C	640	4,131
25	1200	324TC	93.0	83.0	30.3	XP0256C	825	6,945	XV0256C	780	6,431
30	3600	286TSC	92.4	91.0	33.2	XP0302C	583	5,217	XV0302C ⁽¹⁾	551	4,831
30	1800	286TC	93.6	87.5	34.3	XP0304C	565	5,193	XV0304C	617	4,808
30	1200	326TC	93.0	80.5	37.5	XP0306C	787	8,057	XV0306C ⁽¹⁾	859	7,460
40	3600	324TSC	94.1	90.0	44.2	XP0402C	805	7,408	XV0402C ⁽¹⁾	760	6,859
40	1800	324TC	94.1	86.0	46.3	XP0404C	708	7,440	XV0404C	790	6,889
40	1200	364TC	94.1	86.5	46.0	XP0406C	980	10,656	XV0406C	1040	9,867
50	3600	326TSC	94.1	91.0	54.7	XP0502C	890	8,576	XV0502C ⁽¹⁾	840	7,941
50	1800	326TC	94.5	87.0	56.9	XP0504C	925	8,447	XV0504C	865	7,821
50	1200	365TC	94.1	86.0	57.8	XP0506C	1,125	12,996	XV0506C	1120	12,033
60	3600	364TSC	94.1	93.0	64.2	XP0602C	1,015	10,787	XV0602C ⁽¹⁾	1000	9,988
60	1800	364TC	95.0	86.5	68.4	XP0604C	1,010	11,046	XV0604C	1010	10,228
60	1200	404TC	94.5	87.0	68.3	XP0606C	1,322	15,269	~	~	~
75	3600	365TSC	94.5	93.0	79.9	XP0752C	1,085	14,295	XV0752C ⁽¹⁾	1085	13,236
75	1800	365TC	95.4	86.5	85.1	XP0754C	1,110	13,320	XV0754C	1110	12,333
75	1200	405TC	94.5	86.5	85.9	XP0756C	1,540	16,569	~	~	~
100	3600	405TSC	95.4	92.0	107.0	XP1002C	1,495	18,194	~	~	~
100	1800	405TC	95.4	87.5	112.0	XP1004C	1,545	16,569	~	~	~

Notes:

(1) Motor stocked standard with a drive-end roller bearing.

2 SPEED, 1 WINDING, VARIABLE TORQUE



TYPE: AECA - HIGH EFFICIENCY

Effective 06-14-15
Supersedes 05-01-13



APPLICATIONS:

- Fans & Blowers
- Pumps
- Cooling Towers

FEATURES:

- 100 - 300 HP
- 1800/ 900 RPM
- 2 Speed, 1 Winding - Variable Torque
- Totally Enclosed Fan Cooled (IP55)
- High Efficiency Severe Duty
- 36 Month Warranty from Date of Manufacture
- 60 Hz, 460 Volt Only
- 1.15 Service Factor - Continuous
- Class F Insulation with Phenolic Alkyd Resin Varnish - Two Dips and Bakes
- Class B Temperature Rise
- NEMA Design B Torques as a Minimum
- Oversized Main Conduit Box Rotatable in 90 Degree Increments - Fully Gasketed with NPT Threaded Entrance - F1 Mounted. F2 Available - See EXTRAS/ OPTIONS Below
- Designed for 40°C Ambient Temperature - Note (1)
- Designed for 3300 ft. Elevation - Note (2)
- Self-Certified for Class 1, Div. 2, Groups B, C, D; Temp Code T3C, Non Sparking, Non Static Fan - Note (3)
- Bi-Directional Rotation
- Cast Iron Frame, End Brackets, Fan Cover, and Main Conduit Box (4)
- Dual Drilled Feet - Longer Frames
- 1045 Carbon Steel Shaft
- Aluminum Die Cast Squirrel Cage Rotor Construction
- Paint System: 2 Part Epoxy
- Paint Color: Blue Gray - Munsell 7.5BG 4/ 2
- Epoxy Coated Internals
- Vacuum De-Gassed Re-Greasable Bearings with Polyrex EM Grease
- Automatic Grease Discharge on Frames on Re-Greasable Motors
- Grounding Terminal Inside Main Box with Provisions for Grounding on Frame.
- Stainless Steel Nameplate and Hardware
- Stainless Steel Automatic Breather Drain
- 6 Leads Only
- Noise Level Not to Exceed 85 dB(A) at 1 Meter Unloaded

EXTRAS/ OPTIONS:

Please refer to pages 114 - 119 for common modifications that can be performed.

Notes:

- (1) Please consult factory for suitability in higher ambients.
- (2) Please consult factory for suitability in higher elevations.
- (3) Additional charge for Division II nameplate - See Modification Pricing.
- (4) 5000 frames will have a steel fan cover.

2 SPEED, 1 WINDING, VARIABLE TORQUE



TYPE: AECA - HIGH EFFICIENCY

Effective 06-14-15
Supercedes 05-01-13



CATALOG NO.	HP	RPM	FRAME	FL EFF (%)	FL PF (%)	FL AMPS (460V)	APPROX. SHIPPING WT. (lbs.)	LIST PRICE (\$)
CP1004/8	100 / 25	1800/900	444T	92.5 / 88.0	90.0 / 62.0	112 / 42.9	1,855	19,404
CP1254/8	125 / 31	1800/900	445T	92.5 / 88.0	90.0 / 62.0	141 / 53.2	2,105	23,770
CP1504/8	150 / 37	1800/900	447T	93.0 / 90.0	90.0 / 62.0	168 / 62.9	2,647	29,106
CP2004/8	200 / 50	1800/900	449T	93.5 / 90.0	90.5 / 62.0	221 / 83.9	2,820	34,927
CP2504/8	250 / 62.5	1800/900	449T	94.0 / 90.0	90.5 / 62.0	275 / 105	2,820	43,659
CP3004/8	300 / 75	1800/900	5009B	94.5 / 92.0	91.0 / 72.0	327 / 106	4,125	47,540

KEYLESS SHAFT MOTOR

TYPE: AEHESY - ENERGY EFFICIENT



Effective 06-14-15
Supersedes 05-01-13



APPLICATIONS:

- | | | |
|------------------|---------------|-------------------------------|
| ■ Fans & Blowers | ■ Compressors | ■ Any Severe Duty/ Petro-Chem |
| ■ Pumps | ■ Mixers | Pulp & Paper Application |

FEATURES:

- 200 - 800 HP
- 1800, 1200, 900 RPM
- Totally Enclosed Fan Cooled (IP54), (IP55 Ratings for Frames Sizes 5000 and larger)
- NEMA Premium Efficient Ratings on 447/449 Frames; 5000 Frames & Above are High Efficiency
- Department of Energy Efficiency Certificate # CC002A
- 36 Month Warranty from Date of Manufacture
- 3 Phase - 60 Hz - 460V
- 1.15 Service Factor - Continuous
- Class F Insulation with Phenolic Alkyd Resin Varnish
- Class B Temperature Rise
- NEMA Design B Torques as a Minimum, Design C motors are denoted with a subscript "C"
- Oversized Fabricated Steel Main Conduit Box Rotatable in 90 Degree Increments - Fully Gasketed with NPT Threaded Entrance on 5000 Frames and Larger. Cast Iron Main Conduit Box on 440 Frames. F1 Mounted. F2 Available - See "EXTRAS/OPTIONS" Below
- Designed for 40°C Ambient Temperature and 3300 ft elevation - Note (1)
- CSA Certified for Class 1, Div. 2, Groups B, C, D Temp Code T3C, Non Sparking, Non Static Fan
- Bi-Directional Rotation
- Cast Iron Frame, End Brackets, and Fan Cover
- 4140 Carbon Steel Shaft - keyless
- Aluminum Die Cast Squirrel Cage Rotor Construction for Frames 5011 and Smaller.
- Copper/Copper Alloy Rotor Construction for 5800 - 6800 Frames
- Paint System: Phenolic Rust Proof Base Plus Polyurethane Top Coat
- Paint Color: Light Gray - Munsell N5.0
- Vacuum De-Gassed Re-Greasable Ball Bearings (or Roller Type) on 440TZ Frames and Larger with Polyrex EM Grease
- Automatic Grease Discharge Fittings on all Frames
- Labyrinth Type Metal Flinger on Both Ends for Frames 440TZ - 6800
- Cast Iron Inner and Outer Bearing Caps for Frames 440TZ - 6800
- Grounding Terminal Inside Main Box
- Stainless Steel Nameplate
- UL Recognized and CSA Approved for Inverter Duty per NEMA MG1, Part 31
- Inverter Duty Magnet Wire Capable of Withstanding Voltage Spikes of up to 2200 Volts (Note 2)
- Precautions should be taken to eliminate or reduce shaft currents that may be imposed on the motor by the VFD as stated per NEMA MG1, Part 31.4.4.3.
- Speed Ranges: 20:1 VT, 10:1 CT 350 HP and larger are 3:1 CT
- All motors will have 6 leads

EXTRAS/ OPTIONS:

Please refer to pages 114 - 119 for common modifications that can be performed.

Notes:

- (1) Please consult factory for suitability in higher ambients.
- (2) Motor service factor is 1.0 when operated on a VFD.

KEYLESS SHAFT MOTOR



TYPE: AEHESY - ENERGY EFFICIENT

Effective 06-14-15
Supersedes 05-01-13



CATALOG NO.	HP	RPM	FRAME	FL EFF (%)	FL PF (%)	FL AMPS (460V)	SHAFT DIAMETER (in.)	APPROX. SHIPPING WT. (lbs.)	LIST PRICE (\$)
EY2006	200	1200	449TZ	95.8	84.0	233.00	3.875	2,400	45,811
EY2008	200	900	449TZ	94.5	80.0	248.00	3.875	2,906	51,136
EY2504	250	1800	449TZ	96.2	88.0	277.00	3.875	2,620	46,232
EY2506	250	1200	449TZ	95.8	84.5	289.00	3.875	2,774	46,350
EY2508	250	900	5009UZ	94.5	81.0	304.00	5.00	4,100	55,048
EY3004	300	1800	449TZ	96.2	88.0	332.00	3.875	2,750	46,850
EY3006	300	1200	449TZ	95.8	84.5	347.00	3.875	2,950	47,500
EY3008	300	900	5009UZ	94.6	81.0	365.00	5.00	4,250	59,220
EY3504	350	1800	449TZ	96.2	88.0	387.00	3.875	3,137	47,250
EY3506	350	1200	5011UZ	95.0	88.0	393.00	5.00	4,780	67,430
EY3508	350	900	5011UZ	94.8	81.0	426.00	5.00	4,900	70,679
EY4004	400	1800	5009UZ	95.2	90.0	433.00	5.00	3,900	57,417
EY4006	400	1200	5011UZ	95.0	88.0	449.00	5.00	5,100	72,943
EY4008	400	900	5808UZ	94.8	82.0	476.00	5.75	5,450	97,775
EY4504	450	1800	5011UZ	95.2	90.0	487.00	5.00	4,950	66,240
EY4506	450	1200	5808UZ	95.0	88.0	500.00	5.75	5,450	86,823
EY4508	450	900	5808UZ	95.0	82.5	535.00	5.75	6,200	100,064
EY5004	500	1800	5011UZ	95.3	90.0	541.00	5.75	5,200	71,029
EY5006	500	1200	5808UZ	95.4	86.5	555.00	5.75	5,750	92,480
EY5008	500	900	5810UZ	95.2	82.5	590.00	5.75	6,800	107,468
EY6004	600	1800	5808UZ	95.5	90.0	654.00	5.75	6,000	89,738
EY6006	600	1200	5810UZ	95.6	86.8	677.00	5.75	6,600	107,989
EY6008	600	900	6808UZ	95.5	84.0	700.00	5.75	8,350	120,188
EY7004	700	1800	5810UZ	95.6	90.0	762.00	5.75	6,950	105,051
EY7006	700	1200	5810UZ	95.8	86.8	788.00	5.75	7,100	123,842
EY7008	700	900	6808UZ	95.6	84.0	816.00	5.75	8,700	128,631
EY8004	800	1800	5810UZ	95.6	90.5	866.00	5.75	7,450	112,345
EY8006	800	1200	6808UZ	96.0	87.0	897.00	5.75	8,200	134,617
EY8008	800	900	6808UZ	95.6	84.0	933.00	5.75	8,950	138,201

METRIC PREMIUM EFFICIENCY

TYPE: AESV3W - IE3 PREMIUM EFFICIENT



Effective 06-14-15
Supersedes 05-01-13



APPLICATIONS:

- Fans & Blowers
- Pumps
- Compressors
- Any Application that Requires IEC Mounting Dimensions

FEATURES:

- 1 - 150 HP (0.75 - 112 kW)
- 3600, 1800, 1200 RPM
- Totally Enclosed Fan Cooled (IP55)
- Meets or Exceeds EISA Efficiency Levels
- Department of Energy Efficiency Certificate # CC002A
- 36 Month Warranty from Date of Manufacture
- 60 Hz - 230/460V
- 1.15 Service Factor - Continuous
- 50 Hz Data on Nameplate - 190/380V at 1.0 S.F.
- Class F Insulation with Phenolic Alkyd Resin Varnish
- Class B Temperature Rise
- Oversized Main Conduit Box Rotatable in 90 Degree Increments - F3 Location.
- Designed for 40°C Ambient Temperature - Note (1)
- Designed for 3300 ft. Elevation - Note (2)
- Bi-Directional Rotation
- Cast Iron Frame, End Brackets and Main Conduit Box.
- Rolled Steel Fan Cover
- Standard with Tapped Shaft
- 1045 Carbon Steel Shaft
- Aluminum Die Cast Squirrel Cage Rotor Construction
- Paint System: Phenolic Rust Proof Base Plus Polyurethane Top Coat
- Paint Color: Gray - Munsell 5PB 3/8
- Vacuum De-Gassed Re-Greasable Bearings Frames 180-250 with Polyrex EM Grease
- Double Shielded Bearings on Frames 80-160 Pre-Packed with MULTEMP SRL Grease
- Cast Iron Inner and Outer Bearing Caps for Frames (180-2 Pole Frame Only) to 250
- V Ring Oil Seal on Both Ends
- Grounding Terminal Inside Main Box
- Stainless Steel Nameplate
- 9 Leads - 5.5 HP and Below, 12 Leads 7.5 HP and Above
- UL Recognized and CSA Approved for Inverter Duty per NEMA MG1, Part 31 - Note (4)
- Inverter Duty Magnet Wire Capable of Withstanding Voltage Spikes of up to 2200 Volts
- Speed Ranges: 20:1 VT, 10:1 CT

EXTRAS/ OPTIONS:

Please refer to pages 114 - 119 for common modifications that can be performed.

Notes:

- (1) Please consult factory for suitability in higher ambients.
- (2) Motor service factor is 1.0 when operated on a VFD.

METRIC PREMIUM EFFICIENCY



TYPE: AESV3W - IE3 PREMIUM EFFICIENT

Effective 06-14-15
Supercedes 05-01-13



CATALOG NO.	KW	HP	RPM	FRAME	FL EFF (%)	FL PF (%)	FL AMPS (460V)	APPROX. SHIPPING WT. (lbs.)	LIST PRICE (\$)
MP0012	0.75	1	3600	80M	77.0	84.0	1.5	18	420
MP0014	0.75	1	1800	80M	85.5	74.5	1.5	21	422
MP0016	0.75	1	1200	90S	82.5	70.0	1.6	28	504
MP1/52	1.1	1.5	3600	80M	84.0	85.0	1.9	20	471
MP1/54	1.1	1.5	1800	90S	86.5	81.0	2.0	27	471
MP1/56	1.1	1.5	1200	112M	87.5	64.0	2.5	31	597
MP0022	1.5	2	3600	90S	85.5	89.5	2.5	25.5	504
MP0024	1.5	2	1800	90L	86.5	75.0	2.9	28.5	501
MP0026	1.5	2	1200	112M	88.5	69.0	3.1	43.5	651
MP0032	2.2	3	3600	90L	86.5	89.0	3.6	29	606
MP0034	2.2	3	1800	100L	89.5	83.5	3.7	39.5	587
MP0036	2.2	3	1200	112M	89.5	67.5	4.1	53.5	847
MP0042	3	4	3600	100L	88.5	88.0	4.8	41.5	742
MP0044	3	4	1800	100L	89.5	78.5	5.4	42	686
MP0046	3	4	1200	132S	89.5	78.5	5.4	75	1,167
MP5/52	4	5.5	3600	112M	88.5	91.0	6.2	51.5	776
MP5/54	4	5.5	1800	112M	89.5	81.5	6.9	53	709
MP5/56	4	5.5	1200	132M	89.5	79.5	7.1	91.5	1,181
MP7/52	5.5	7.5	3600	132S	89.5	86.5	8.9	73	1,013
MP7/54	5.5	7.5	1800	132S	91.7	85.0	8.9	75.5	1,026
MP7/56	5.5	7.5	1200	132M	91.0	74.5	10.2	91	1,674
MP0102	7.5	10	3600	132S	90.2	87.5	11.9	76	1,167
MP0104	7.5	10	1800	132M	91.7	85.5	12.0	93	1,222
MP0106	7.5	10	1200	160M	91.0	81.5	12.7	135	1,993
MP0152	11	15	3600	160M	91.0	92.5	16.4	130	1,674
MP0154	11	15	1800	160M	92.4	87.0	17.2	130	1,685
MP0156	11	15	1200	160L	91.7	81.5	18.5	150	2,696
MP0202	15	20	3600	160M	91.0	92.5	22.4	130	2,076
MP0204	15	20	1800	160L	93.0	86.5	23.4	150	2,102
MP0206	15	20	1200	180L	91.7	93.0	24.7	205	3,401
MP0252	18.5	25	3600	160L	91.7	93.0	27.2	140	2,735
MP0254	18.5	25	1800	180M	93.6	82.5	30.1	195	2,557
MP0256	18.5	25	1200	200L	93.0	82.0	30.4	270	4,620
MP0302	22	30	3600	180M	91.7	90.0	32.0	180	3,171
MP0304	22	30	1800	180L	93.6	84.0	33.6	205	3,123
MP0306	22	30	1200	200L	93.0	82.0	34.6	290	4,909
MP0402	30	40	3600	200L	92.4	91.0	42.8	265	4,698
MP0404	30	40	1800	200L	94.1	89.5	42.8	285	4,578
MP0406	30	40	1200	225M	94.1	86.5	44.2	385	6,944
MP0502	37	50	3600	200L	93.0	91.0	52.5	300	5,699
MP0504	37	50	1800	225S	94.5	86.5	54.3	350	5,966
MP0506	37	50	1200	250M	94.1	88.0	53.6	460	9,753
MP0602	45	60	3600	225M	93.6	93.5	61.7	340	7,649
MP0604	45	60	1800	225M	95.0	86.5	65.7	360	7,029
MP0606	45	60	1200	280S	94.5	85.5	69.5	600	11,369
MP0752	55	75	3600	250M	93.6	93.0	75.9	465	11,096
MP0754	55	75	1800	250M	95.4	88.0	78.7	480	10,029
MP0756	55	75	1200	280M	94.5	84.5	87.9	660	10,965
MP1002	75	100	3600	280S	94.1	89.5	111.0	585	15,138
MP1004	75	100	1800	280S	95.4	87.5	112.0	620	11,953
MP1006	75	100	1200	315S	95.0	84.0	117.0	900	14,006
MP1252	93	125	3600	280M	95.0	89.5	138.0	615	15,226
MP1254	93	125	1800	280M	95.4	88.5	139.0	690	14,280
MP1256	93	125	1200	315M	95.0	84.5	146.0	960	18,418
MP1502	112	150	3600	315S	95.0	91.0	162.0	860	18,157
MP1504	112	150	1800	315S	95.8	88.0	167.0	960	16,225
MP1506	112	150	1200	315M	95.8	84.5	173.0	1160	20,516

MAX-VH™ FAMILY



TYPE: AMRC - P BASE HIGH THRUST EPACT LV

TYPE: AMRCNH - P BASE HIGH THRUST NEMA PREMIUM LV

Effective 06-14-15
Supersedes 05-01-13



APPLICATIONS:

- Deep Well Turbine Pumps
- Fluid Handling Systems

- Irrigation
- Water/ Waste Water

- Fire Pumps



FIRE SAFETY

FEATURES:

- 7.5 - 500 HP
- 1800 RPM
- High Thrust Vertical Hollow Shaft with P-base
- Weather Protected Type 1 (WPI) Enclosure
- Standard with Coupling and Gib Key
- Standard with Ball Type Non-Reverse Ratchet
- Standard with 120V Space Heaters in Main Lead Box
- AMRC meets or exceeds EPAct Efficiency Levels. AMRCNH is NEMA Premium Efficient.
- 36 Month Warranty from Date of Manufacture
- 60 Hz, 230/460 V; 460, 575V; 150 HP and Larger are 460V Only; 50 HZ, 190/380V data will also be on nameplate
- 1.15 Service Factor - Continuous on Sine Wave Power, 1.0 S.F. on Pulse Width Modulation (PWM)
- Class F Insulation with Phenolic Alkyd Resin Varnish - 2 Dips and Bakes
- Class B Temperature Rise
- NEMA Design B Torques for All Ratings
- Oversized Main Conduit Box Rotatable in 90 Degree Increments - Fully Gasketed with NPT Threaded Entrance
- Designed for 40°C Ambient Temperature - Note (1)
- Designed for 3300 ft. Elevation - Note (2)
- CCW Rotation when Viewed from Top
- Cast Iron Frame, End Brackets, and Main Conduit Box
- Fabricated Steel Drip Cover
- 1045 Hollow Carbon Steel Shaft
- Aluminum Die Cast Squirrel Cage Rotor Construction
- Paint System: Phenolic Rust Proof Base Plus Polyurethane Top Coat
- Paint Color: Blue Gray - Munsell 7.5BG 3.5/0.5
- Guide Bearings: 213TP - 286TP frames are Double Shielded
- Guide Bearings: 324TP - 449TP frames are Re-Greasable with Polyrex EM Grease
- Thrust Bearings: 213TP - 286TP frames are Re-Greasable Angular Contact with Polyrex EM Grease
- Thrust Bearings: 324TP - 449TP frames are Oil Lubricated Angular Contact with Site Glass
- Oil Requirements for 324TP-405TP - 145 to 175 S.S.U. @ 100°F
- Oil Requirements for 444TP-449TP - 300 S.S.U. @ 100°F
- Grounding Terminal Inside Main Box
- Stainless Steel Nameplate and Rodent Screens
- 9 Leads (PWS on 230V) on 210TP to 365TP; 12 Leads (PWS on 230V) on 404TP to 405TP;
6 Leads (PWS on 460V) on 444TP to 5810P
- Inverter Duty - 4:1 Variable Torque with NRR. 10:1 C.T., 20:1 VT without NRR Using Braking in VFD
- **Precautions should be taken to eliminate or reduce shaft currents that may be imposed on the motor by the VFD as stated per NEMA MG1, Part 31.4.4.3 for AMRCNH (Part 30 on AMRC)**

UL Fire Pump Features

- Complies with ANSI/UL 1004-5 "Fire Pump Motors." Certificate #20120717 - EX6569
- Available Option: Safety Red Epoxy Paint (Factory Modification #M18)

EXTRAS/ OPTIONS:

Please refer to pages 114 - 119 which show common modifications that can be performed.

Notes:

- (1) Please consult factory for suitability in higher ambients.
- (2) Please consult factory for suitability in higher elevations.
- (3) The MAX-VHP (AMRCNH) catalog items are NEMA Premium Efficient

MAX-VH™ VERTICAL HOLLOW SHAFT WPI



TYPE: AMRC - P BASE, HIGH THRUST, EPACT, LV

Effective 06-14-15
Supercedes 05-01-13



HP	RPM	FRAME	FL EFF (%)	FL PF (%)	FL AMPS @ 460V	DOWN THRUST (lbs.)	BD DIM (in.)	CD DIM (in.)	BX DIM (in.)	APPROX. SHIPPING WT. (lbs.)	CAT. NO.	LIST PRICE (\$)	FIRE PUMP CATALOG NO.	FIRE PUMP LIST PRICE (\$)
7.5	1800	213TP	88.5	85.0	9.35	2,600	10.0	20.25	1.001	227	VH7/54	2,750	VH7/54FP	3,025
10	1800	215TP	89.5	86.5	12.10	2,600	10.0	20.25	1.001	241	VH0104	3,000	VH0104FP	3,300
15	1800	254TP	91.0	88.0	17.50	3,350	10.0	23.38	1.001	349	VH0154	3,750	VH0154FP	4,125
20	1800	256TP	91.0	88.0	23.40	3,350	10.0	23.38	1.001	373	VH0204	3,975	VH0204FP	4,373
25	1800	284TP	91.7	86.0	29.70	3,350	10.0	24.73	1.001	480	VH0254	4,575	VH0254FP	5,033
30	1800	286TP	92.4	86.5	35.10	3,350	10.0	24.73	1.001	525	VH0304	4,900	VH0304FP	5,390
40	1800	324TP	93.0	88.0	45.70	5,700	16.5	28.22	1.118	716	VH0404	7,930	VH0404FP	8,723
50	1800	326TP	93.0	88.0	57.00	5,700	16.5	28.22	1.118	777	VH0504	8,346	VH0504FP	9,180
60	1800	364TP	93.6	84.5	71.00	6,000	16.5	31.16	1.118	892	VH0604	11,751	VH0604FP	12,926
75	1800	365TP	94.1	84.5	88.50	6,000	16.5	31.16	1.118	989	VH0754	12,847	VH0754FP	14,131
100	1800	404TP	94.1	86.0	115.50	7,900	16.5	36.94	1.501	1,278	VH1004	15,530	VH1004FP	17,083
125	1800	405TP	94.5	87.5	141.50	7,900	16.5	36.94	1.501	1,398	VH1254	16,279	VH1254FP	17,907
150	1800	444TP	95.0	86.0	172.00	10,700	16.5	44.78	1.501	1,815	VH1504	24,855	VH1504FP	27,340
200	1800	445TP	95.0	86.5	228.00	10,700	16.5	44.78	1.501	1,815	VH2004	25,490	VH2004FP	28,039
250	1800	445TP	95.4	86.5	284.00	13,400	20.0	44.78	1.688	2,312	VH2504	34,651	VH2504FP	38,116
300	1800	447TP	95.4	87.5	337.00	13,400	20.0	49.78	1.688	2,841	VH3004	38,655	VH3004FP	42,520
350	1800	447TP	95.4	88.0	390.00	13,300	20.0	49.78	1.688	3,335	VH3504	49,175	VH3504FP	54,092
400	1800	449TP	95.4	88.5	444.00	13,200	20.0	53.91	1.938	3,818	VH4004	54,690	VH4004FP	60,159
450	1800	5009	96.2	89.1	495.50	31,000	20.0	57.06	2.376	3,940	VH4504	72,268	VH4504FP	79,494
500	1800	5009	96.2	89.2	550.00	30,900	20.0	57.1	2.376	4,070	VH5004	79,898	VH5004FP	87,887

Notes:

- (1) Although the BD on the 280TP frames is 10.0", the AK and AJ dimensions match that of the 12.0" BD: AJ = 9.125", and AK = 8.25"
- (2) **Alternate coupling kits available to give additional BX combinations, please specify the coupling diameter when ordering.**
- (3) Steady bushing kits available
- (4) Down thrust based on an L10 bearing life of 8,800 hours
- (5) Fire Pump Duty Motor Purchase Option: Fire Safety Red epoxy paint (Mod M18B: PPG Pitt-Tech 90-306 Safety Red)

MAX-VHP™ VERTICAL HOLLOW SHAFT WPI



TYPE: AMRCNH - P BASE, HIGH THRUST, NEMA PREMIUM, LV

Effective 06-14-15
Supersedes 05-01-13



HP	RPM	FRAME	FL EFF (%)	FL PF (%)	FL AMPS @ 460V	DOWN THRUST (lbs.)	BD DIM (in.)	CD DIM (in.)	BX DIM (in.)	APPROX. SHIPPING WT. (lbs.)	CAT. NO.	LIST PRICE (\$)	FIRE PUMP CATALOG NO.	FIRE PUMP LIST PRICE (\$)
7.5	1800	213TP	91.0	81.0	10.85	2,600	10.0	20.25	1.001	227	VHP7/54	4,124	VHP7/54FP	4,536
10	1800	215TP	91.7	84.0	14.04	2,600	10.0	20.25	1.001	241	VHP0104	4,347	VHP0104FP	4,782
15	1800	254TP	93.0	83.0	20.36	3,350	10.0	23.38	1.001	349	VHP0154	5,213	VHP0154FP	5,734
20	1800	256TP	93.0	83.0	27.14	3,350	10.0	23.38	1.001	373	VHP0204	5,591	VHP0204FP	6,150
25	1800	284TP	93.6	85.0	34.45	3,350	10.0	24.73	1.001	480	VHP0254	6,653	VHP0254FP	7,318
30	1800	286TP	94.1	86.0	40.77	3,350	10.0	24.73	1.001	525	VHP0304	6,952	VHP0304FP	7,647
40	1800	324TP	94.1	86.0	53.07	5,700	16.5	28.22	1.118	716	VHP0404	9,951	VHP0404FP	10,946
50	1800	326TP	94.5	85.0	66.12	5,700	16.5	28.22	1.118	777	VHP0504	10,438	VHP0504FP	11,482
60	1800	364TP	95.0	85.0	82.36	6,000	16.5	31.16	1.118	892	VHP0604	12,574	VHP0604FP	13,831
75	1800	365TP	95.0	86.0	102.66	6,000	16.5	31.16	1.118	989	VHP0754	13,000	VHP0754FP	14,300
100	1800	404TP	95.4	85.5	133.98	7,900	16.5	36.94	1.501	1,278	VHP1004	18,500	VHP1004FP	20,350
125	1800	405TP	95.4	84.5	164.14	7,900	16.5	36.94	1.501	1,398	VHP1254	19,900	VHP1254FP	21,890
150	1800	444TP	95.8	86.0	171.00	10,700	16.5	44.78	1.501	1,815	VHP1504	31,500	VHP1504FP	34,650
200	1800	445TP	95.8	86.5	225.00	10,700	16.5	44.78	1.501	1,815	VHP2004	33,000	VHP2004FP	36,300
250	1800	445TP	95.8	86.5	284.00	13,400	20.0	44.78	1.688	2,312	VHP2504	40,000	VHP2504FP	44,000
300	1800	447TP	95.8	87.5	337.00	13,400	20.0	49.78	1.688	2,841	VHP3004	50,000	VHP3004FP	55,000
350	1800	447TP	95.8	88.0	390.00	13,300	20.0	49.78	1.688	3,335	VHP3504	55,000	VHP3504FP	60,500
400	1800	449TP	95.8	88.5	444.00	13,200	20.0	53.91	1.938	3,818	VHP4004	60,000	VHP4004FP	66,000
450	1800	5009P	96.2	89.1	492.0	31,000	24.5	57.9	2.376	3,940	VHP4504	72,268	VHP4504FP	~
500	1800	5009P	96.2	89.2	546.0	30,900	24.5	57.87	2.376	4,070	VHP5004	79,898	VHP5004FP	~

Notes:

- (1) Although the BD on the 280TP frames is 10.0", the AK and AJ dimensions match that of the 12.0" BD: AJ = 9.125", and AK = 8.25"
- (2) **Alternate coupling kits available to give additional BX combinations, please specify the coupling diameter when ordering.**
- (3) Steady bushing kits available.
- (4) Down thrust based on an L10 bearing life of 8,800 hours.
- (5) Motors come standard with space heaters 120 Volt Single Phase
- (6) Fire Pump Duty Motor Purchase Option: Fire Safety Red epoxy paint (Mod M18B: PPG Pitt-Tech 90-306 Safety Red)

MAX-VH™ VERTICAL HOLLOW SHAFT TEFC



TYPE: AEEH - EPACT, P-BASE, HIGH THRUST, VFD RATED, LV

TYPE: AEEH NH - NEMA PREMIUM, P-BASE, HIGH THRUST, VFD RATED, LV

Effective 06-14-15
Supercedes 05-01-13



APPLICATIONS:

- Deep Well Turbine Pumps
- Irrigation
- Water/ Waste Water

FEATURES:

- 15 - 800 HP
- 1800, 1200 RPM
- Totally Enclosed Fan Cooled (IPW44)
- Complies with NEMA Design Standards: MG-1. MG-13. AEEH Meets or Exceeds EPACT Efficiency Levels. AEEH NH Meets or Exceeds NEMA Efficiency Levels as Defined by MG-1 Up to 500 HP
- 36 Month Warranty from Date of Manufacture
- 60 Hz - 230/460V (Usable on 208V), 460V; 150 HP and Larger is 460V Only
- 1.15 Service Factor - Continuous
- Class F Insulation with 2 dip Phenolic Alkyd Resin Varnish
- Class B Temperature Rise
- NEMA Design B torque for all ratings
- Oversized Fabricated Steel Main Conduit Box Rotatable in 90 Degree Increments - Fully Gasketed with NPT Threaded Inlet
- Standard with 120V Space Heaters in Main Lead Box
- Designed for 40°C Ambient Temperature - Note (1)
- Designed for 3300 ft. Elevation - Note (2)
- Counter Clockwise Rotation as viewed from top of motor (coupling end)
- Cast Iron Frame, End Brackets, Main Conduit Box and Rolled Steel Fan Cover
- Carbon Steel Shaft
- Aluminum Die Cast Squirrel Cage Rotor Construction
- CSA Certified for Class 1, Div. 2, Groups B, C, D; Temp Code T3C [1.5 to 10 HP]; T3A [15 to 75 HP]; T3 [100 to 150 HP]; T2D [200 to 250 HP]; Non Sparking, Non Static Fan - Note (6)
- CSA Certified for Class 1, Div. 2, Groups B, C, D; Temp Code T3C, Non Sparking, Non Static Fan
- Paint System: Phenolic Rust Proof Base Plus Polyurethane Top Coat
- Paint Color: Blue Gray - Munsell 7.5 BG 4/2
- Guide Bearings: 254TP - 286TP frames are Single Shielded Pre-Packed with MULTEMP SRL Grease
- Guide Bearings: 324TP - 6808P frames are Re-Greasable with Polyrex EM Grease
- Thrust Bearings: 254TP - 286TP frames are Re-Greasable Angular Contact with Polyrex EM Grease
- Thrust Bearings: 324TP - 449TP frames are Oil Lubricated Angular Contact with Site Glass
- Thrust Bearings: 5007P - 6808P frames are Oil Lubricated Angular Contact or Spherical Thrust bearing with Site Glass
- Oil Requirements for 254TP - 405TP frames: 145 to 175 S.S.U. @ 100F
- Oil Requirements for 444TP - 6808P frames: 300 S.S.U. @ 100F
- Automatic Grease Discharge Fittings on Frames with Re-Greasable Motors
- Labyrinth Type Metal Flinger on Both Ends for Frames 280TP-6800P
- Rubber Flinger on Drive-End for Frames 250 - 280TP
- Grounding Terminal Inside Main Box
- Stainless Steel Nameplate
- VFD Rated per NEMA MG1, Part 30 - Note (4) and (5)
- Speed Ranges: 10:1 VT, 5:1 CT
- 9 Leads (PWS on 230V) for 210TP-365TP; 12 Leads (PWS on 230V) for 404TP-405TP; 6 Leads (PWS on 460V) for 444TP-6808P
- CE Mark on Nameplate, U.L. Recognized and CSA Approved
- **Precautions should be taken to eliminate or reduce shaft currents that may be imposed on the motor by the VFD as stated per NEMA MG1, Part 30.4.4.3.**
- Ball Type NRR with interchangeable size BX on couplings

EXTRAS/ OPTIONS:

Please refer to pages 114 - 119 which show common modifications that can be performed.

Notes:

- (1) Please consult factory for suitability in higher ambients.
- (2) Please consult factory for suitability in higher elevations.
- (3) Motor service factor is 1.0 when operated on a VFD.
- (4) Maximum lead length is 150 feet with a carrier frequency of 3kHz. Addition of output reactor or filter may allow for increased carrier frequency. Please consult TWMC if lead length and carrier frequency surpass these values.
- (5) Please consult factory for proper size BX dimension on Coupling
- (6) For larger ratings with Div. 2 certification please contact the factory

MAX-VH™ VERTICAL HOLLOW SHAFT TEFC



TYPE: AEEH - EPACT, HIGH THRUST, VFD RATED, LV

Effective 06-14-15
Supersedes 05-01-13



CAT. NO.	HP	RPM	FRAME	FL EFF (%)	FL PF (%)	FL AMPS @460V	DOWN THRUST (lbs.)	BD DIM (in.)	CD DIM (in.)	BX DIM (in.)	APPROX. SHIPPING WT. (lbs.)	LIST PRICE (\$)
VHT0154	15	1800	254TP	91.0	88.0	17.9	3,350	10.00	22.40	1.001	350	4,338
VHT0156	15	1200	284TP	91.7	83.5	18.7	3,850	10.00	24.00	1.001	520	6,684
VHT0204	20	1800	256TP	91.7	87.5	23.8	3,350	10.00	24.10	1.001	450	4,676
VHT0206	20	1200	286TP	91.0	84.0	24.9	3,850	10.00	25.50	1.001	558	7,343
VHT0254	25	1800	284TP	93.0	86.0	29.7	3,350	10.00	24.00	1.001	520	6,471
VHT0256	25	1200	324TP	92.4	83.0	31.0	5,200	16.50	27.60	1.001	720	10,345
VHT0304	30	1800	286TP	93.0	87.5	35.0	3,350	10.00	25.50	1.118	558	7,109
VHT0306	30	1200	326TP	92.4	80.5	38.4	5,200	16.50	29.10	1.118	780	10,993
VHT0404	40	1800	324TP	93.6	86.0	47.2	4,500	16.50	27.60	1.118	720	10,345
VHT0406	40	1200	364TP	93.6	86.5	46.9	6,600	16.50	30.25	1.118	900	16,168
VHT0504	50	1800	326TP	94.1	87.0	58.0	4,500	16.50	29.10	1.118	780	10,993
VHT0506	50	1200	365TP	93.6	86.0	59.0	6,600	16.50	31.25	1.118	970	17,780
VHT0604	60	1800	364TP	94.5	86.5	69.5	6,000	16.50	30.25	1.118	900	16,168
VHT0606	60	1200	404TP	94.1	87.0	40.5	9,000	16.50	38.87	1.118	1,050	21,011
VHT0754	75	1800	365TP	94.5	86.5	86.5	6,000	16.50	31.25	1.118	970	17,780
VHT0756	75	1200	405TP	94.1	86.5	87.5	9,000	16.50	40.39	1.118	1,150	22,950
VHT1004	100	1800	405TP	94.5	87.5	114.5	7,900	16.50	40.38	1.501	1,990	23,277
VHT1006	100	1200	444TP	94.1	83.5	119.0	11,200	16.50	43.00	1.501	1,990	30,798
VHT1254	125	1800	444TP	94.5	87.5	142.0	10,200	16.50	40.67	1.501	2,020	29,886
VHT1256	125	1200	445TP	94.5	85.7	145.0	11,100	16.50	45.00	1.501	2,080	34,010
VHT1504	150	1800	445TP	95.0	88.0	168.0	10,100	16.50	42.64	1.501	2,120	33,321
VHT1506	150	1200	447TPH	95.0	86.5	171.0	13,000	20.00	45.94	1.501	2,540	44,446
VHT2004	200	1800	447TPH	95.0	88.4	223.0	11,900	20.00	45.94	1.501	2,470	46,419
VHT2006	200	1200	449TPH	95.0	84.7	233.0	12,900	20.00	53.94	1.688	2,780	50,042
VHT2504	250	1800	449TPH	95.4	89.0	276.0	11,800	20.00	53.94	1.688	2,820	49,570
VHT2506	250	1200	449TPH	95.0	85.2	289.0	12,800	20.00	53.94	1.688	2,970	65,776
VHT3004	300	1800	5007P	95.0	90.0	328.0	12,800	20.00	55.75	1.938	3,540	65,308
VHT3006	300	1200	5009P	95.0	87.5	338.0	13,900	20.00	61.76	2.188	3,800	78,371
VHT3504	350	1800	5009P	95.2	90.0	382.0	12,500	20.00	61.76	2.188	4,020	78,140
VHT3506	350	1200	5808PH	95.0	88.0	392.0	22,600	24.50	62.00	2.188	5,700	122,459
VHT4004	400	1800	5808PH	95.2	90.0	437.0	12,400	24.50	62.00	1.938	4,200	80,144
VHT4006	400	1200	5808PH	95.0	88.0	448.0	22,400	24.50	62.00	2.188	5,950	125,597
VHT4504	450	1800	5808PH	95.2	90.0	492.0	11,900	24.50	62.00	2.188	5,990	121,292
VHT4506	450	1200	5808PH	95.2	86.5	511.0	22,300	24.50	62.00	2.438	6,150	130,622
VHT5004	500	1800	5808PH	95.3	90.0	545.0	11,700	24.50	62.00	2.438	6,210	124,402
VHT5006	500	1200	5808P	95.4	86.5	567.0	22,100	30.50	62.00	2.438	6,600	134,118
VHT6004	600	1800	5810P	95.5	90.0	654.0	11,500	30.50	67.20	2.438	6,680	133,419
VHT6006	600	1200	5810P	95.6	86.8	677.0	22,000	30.50	67.20	2.501	7,090	137,558
VHT7004	700	1800	5810P	95.6	90.0	762.0	11,400	30.50	67.20	2.501	7,070	136,583
VHT7006	700	1200	6806P	95.8	86.8	788.0	30,200	36.00	66.70	2.501	8,670	157,334
VHT8004	800	1800	6808P	95.6	90.5	866.0	10,900	36.00	74.20	2.501	9,220	157,334

MAX-VH™ VERTICAL HOLLOW SHAFT TEFC



TYPE: AEEH NH - HIGH THRUST, VFD RATED, NEMA PREMIUM, LV

Effective 06-14-15
Supersedes 05-01-13



CAT. NO.	HP	RPM	FRAME	FL EFF (%)	FL PF (%)	FL AMPS @460V	DOWN THRUST (lbs.)	BD DIM (in.)	CD DIM (in.)	BX DIM (in.)	APPROX. SHIPPING WT. (lbs.)	LIST PRICE (\$)
VHTP0154	15	1800	254TP	92.4	88.0	17.30	3,350	10.00	22.40	1.001"	350	5,051
VHTP0156	15	1200	284TP	92.4	83.5	18.20	3,850	10.00	24.00	1.001"	460	6,684
VHTP0204	20	1800	256TP	93.0	87.5	23.00	3,350	10.00	24.10	1.001"	450	5,444
VHTP0206	20	1200	286TP	91.7	84.0	24.30	3,850	10.00	25.50	1.001"	550	7,343
VHTP0254	25	1800	284TP	93.6	86.0	29.10	3,350	10.00	24.00	1.001"	520	7,783
VHTP0256	25	1200	324TP	93.0	83.0	30.30	5,200	16.50	27.00	1.001"	725	10,345
VHTP0304	30	1800	286TP	93.6	87.5	34.30	3,350	10.00	27.60	1.118"	558	8,549
VHTP0306	30	1200	326TP	93.0	80.5	37.50	5,200	16.50	29.00	1.118"	725	10,993
VHTP0404	40	1800	324TP	94.1	86.0	46.30	4,500	16.50	27.60	1.118"	720	12,440
VHTP0406	40	1200	364TP	94.1	86.5	46.00	6,600	16.50	30.25	1.118"	898	16,168
VHTP0504	50	1800	326TP	94.5	87.0	56.90	4,500	16.50	29.10	1.118"	780	13,220
VHTP0506	50	1200	365TP	94.1	86.0	57.80	6,600	16.50	31.25	1.118"	1,025	17,780
VHTP0604	60	1800	364TP	95.0	86.5	68.40	6,000	16.50	30.25	1.118"	900	19,443
VHTP0606	60	1200	404TP	94.5	87.0	68.30	9,000	16.50	38.87	1.118"	1,210	21,011
VHTP0754	75	1800	365TP	95.4	86.5	85.10	6,000	16.50	31.25	1.118"	970	21,383
VHTP0756	75	1200	405TP	94.5	86.5	85.90	9,000	16.50	40.38	1.118"	1,340	22,950
VHTP1004	100	1800	405TP	95.4	87.5	112.00	7,900	16.50	40.38	1.501"	1,415	27,993
VHTP1006	100	1200	444TP	95.0	82.5	119.00	11,200	16.50	43.03	1.501"	1,990	30,798
VHTP1254	125	1800	444TP	95.4	84.0	146.00	10,200	16.50	43.03	1.501"	2,020	34,648
VHTP1256	125	1200	445TP	95.0	83.0	148.00	11,100	16.50	45.00	1.501"	2,080	41,744
VHTP1504	150	1800	445TP	95.8	84.0	175.00	10,100	16.50	45.00	1.501"	2,120	39,678
VHTP1506	150	1200	447TPH	95.8	83.5	176.00	13,000	20.00	45.94	1.501"	2,540	51,527
VHTP2004	200	1800	447TPH	96.2	84.5	230.00	11,900	20.00	45.94	1.501"	2,470	53,815
VHTP2006	200	1200	449TPH	95.8	84.0	233.00	12,900	20.00	53.94	1.688"	2,780	68,015
VHTP2504	250	1800	449TPH	96.2	85.5	285.00	11,800	20.00	53.94	1.688"	2,820	58,015
VHTP2506	250	1200	449TPH	95.8	84.5	289.00	12,800	20.00	53.94	1.688"	2,970	78,507
VHTP3004	300	1800	5007P	96.2	85.5	342.00	12,800	20.00	55.75	1.938"	3,540	69,760
VHTP3006	300	1200	5009P	95.8	86.5	339.00	13,900	20.00	61.76	2.188"	3,800	88,296
VHTP3504	350	1800	5009P	96.2	90.0	379.00	12,500	20.00	61.76	2.188"	4,020	74,959
VHTP3506	350	1200	5808PH	95.8	87.0	393.00	22,600	24.50	62.00	2.188"	5,700	97,972
VHTP4004	400	1800	5009P	96.2	90.0	433.00	12,400	24.50	62.00	1.938"	4,200	89,597
VHTP4006	400	1200	5808PH	95.8	87.0	449.00	22,400	24.50	62.00	2.188"	5,950	124,450
VHTP4504	450	1800	5808PH	96.2	90.0	433.00	11,900	24.50	62.00	2.188"	5,990	100,156
VHTP4506	450	1200	5808PH	95.8	87.0	449.00	22,300	24.50	62.00	2.438"	6,150	129,440
VHTP5004	500	1800	5808PH	96.2	90.0	541.00	11,700	24.50	62.00	2.438"	6,210	107,075
VHTP5006	500	1200	5808P	95.8	88.0	555.00	22,100	30.50	62.00	2.438"	6,600	142,758
VHTP6004	600	1800	5810P	95.5	90.0	654.00	11,500	30.50	67.20	2.438"	6,680	128,928
VHTP6006	600	1200	5810P	95.6	86.8	677.00	22,000	30.50	67.20	2.501"	7,090	174,560
VHTP7004	700	1800	5810P	95.6	90.0	762.00	11,400	30.50	67.20	2.501"	7,070	148,446
VHTP7006	700	1200	5810P	95.8	86.8	788.00	30,200	36.00	66.70	2.501"	8,670	174,560
VHTP8004	800	1800	5810P	95.6	90.5	866.00	10,900	36.00	74.20	2.501"	9,220	168,420

MAX-VS™ VERTICAL SOLID SHAFT WPI FAMILY



TYPE: AMRCEC - P BASE, HIGH THRUST, EPACT, LV

TYPE: AMRCED - P BASE, HIGH THRUST, NEMA PREMIUM, LV

Effective 06-14-15
Supercedes 05-01-13



APPLICATIONS:

- Deep Well Turbine Pumps
- Irrigation
- Water/ Waste Water

FEATURES:

- 15 - 800 HP
- 1800, 1200 RPM
- Open Drip Proof (IP22), Weather Protected (WPI)
- AMRCEC Meets or Exceeds EPACT Efficiency Levels. AMRCED Meets NEMA Premium Efficiency Levels as Defined by NEMA MG-1 up to 500 HP
- Department of Energy Efficiency Certificate # CC002A
- 36 Month Warranty from Date of Manufacture
- 60 Hz - 230/460V (Usable on 208V), 460V, 575V; 150 HP and Larger is 460V Only; 50 HZ, 190/380V Data Will Also be on Nameplate
- 1.15 Service Factor - Continuous
- 50 Hz Data on Nameplate - 190/380V at 1.0 S.F.
- Class F Insulation with Phenolic Alkyd Resin Varnish
- Class B Temperature Rise
- NEMA Design B Torque for All Ratings
- Oversized Main Conduit Box Rotatable in 90 Degree Increments - Fully Gasketed with NPT Threaded Inlet
- Designed for 40°C Ambient Temperature - Note (1)
- Designed for 3300 ft. Elevation - Note (2)
- Counter Clockwise Rotation Viewed From Top of Motor
- Cast Iron Frame, End Brackets, Main Conduit Box and Rolled Steel Fan Cover
- Rolled Steel Fan Cover can be Modified to Add a Drip Cover, Please See the Modification Page
- 1045 Carbon Steel Shaft
- Aluminum Die Cast Squirrel Cage Rotor Construction
- Paint System: Phenolic Rust Proof Base Plus Polyurethane Top Coat
- Paint Color: Munsell 7.5 B 3.5/0.5
- Guide Bearings: 213VP - 286VP Frames are Single Shielded
- Guide Bearings: 324VP - 5800VP Frames are Re-Greasable with Polyrex EM Grease
- Thrust Bearings: 213VP - 286VP Frames are Re-Greasable Angular Contact with Polyrex EM Grease
- Thrust Bearings: 324VP - 449VP Frames are Oil Lubricated Angular Contact with Site Glass
- Thrust Bearings, Oversized Angular Contact, or Spherical Thrust Bearing are Oil Lubricated with Site Glass on 5810 Frames and Larger
- Oil Requirements for 324VP - 405VP Frames: 145 to 175 S.S.U. @ 100F
- Oil Requirements for 444VP - 5810VP Frames: 300 S.S.U. @ 100F
- Automatic Grease Discharge Fittings on Frames with Re-Greasable Motors
- Labyrinth Type Metal Flinger on Both Ends for Frames 320VP & Up
- Rubber Flinger on Drive-End for Frames 210 - 280VP
- Grounding Terminal Inside Main Box
- Stainless Steel Nameplate
- VFD Rated per NEMA MG1, Part 30 - Note (4) and (5)
- Speed Ranges: 10:1 VT, 5:1 CT
- 9 Leads (PWS on 230V) for 210VP-365VP; 12 Leads (PWS on 230V) for 404VP-405VP; 6 Leads (PWS on 460V) for 444VP-5810VP
- CE Mark on Nameplate, U.L. Recognized and CSA Approved
- **Precautions should be taken to eliminate or reduce shaft currents that may be imposed on the motor by the VFD as stated per NEMA MG1, Part 30.4.4.3.**
- Ball Type NRR available

EXTRAS/ OPTIONS:

Please refer to pages 114 - 119 which show common modifications that can be performed.

Notes:

- (1) Please consult factory for suitability in higher ambients.
- (2) Please consult factory for suitability in higher elevations.
- (3) Motor service factor is 1.0 when operated on a VFD.
- (4) Maximum lead length is 150 feet with a carrier frequency of 3kHz. Addition of output reactor or filter may allow for increased carrier frequency. Please consult TWMC if lead length and carrier frequency surpass these values.
- (5) Please consult factory on available NRR

MAX-VS™ VERTICAL SOLID SHAFT WPI



TYPE: AMRCEC - P BASE, HIGH THRUST, EPACT, LV

Effective 06-14-15
Supercedes 05-01-13



CAT. NO.	HP	RPM	FRAME	FL EFF (%)	FL PF (%)	FL AMPS @460V	DOWN THRUST (lbs.)	AG DIM (in.)	APPROX. SHIPPING WT. (lbs.)	LIST PRICE (\$)
VS0154	15	1800	254VP	91.0	88.0	17.50	3,350	26.91	309	3,292
VS0204	20	1800	256VP	91.0	88.0	23.40	3,350	26.91	330	3,629
VS0254	25	1800	284VP	91.7	86.0	29.70	3,350	28.25	425	4,905
VS0304	30	1800	286VP	92.4	86.5	35.10	3,350	28.25	465	5,397
VS0404	40	1800	324VP	93.0	88.0	45.70	5,700	32.71	634	7,512
VS0504	50	1800	326VP	93.0	88.0	57.00	5,700	32.71	689	7,946
VS0604	60	1800	364VP	93.6	84.5	71.00	6,000	35.89	791	11,209
VS0606	60	1200	404VP	93.6	86.5	69.50	9,000	42.32	1,094	15,456
VS0754	75	1800	365VP	94.1	84.5	88.50	6,000	35.89	877	11,946
VS0756	75	1200	405VP	93.6	86.5	86.50	9,000	42.32	1,158	16,356
VS1004	100	1800	404VP	94.1	86.0	115.50	7,900	42.32	1,094	13,591
VS1006	100	1200	444VP	94.1	82.0	121.00	12,000	50.40	1,450	21,767
VS1254	125	1800	405VP	94.5	87.5	141.50	7,900	42.32	1,239	14,759
VS1256	125	1200	445VP	94.5	82.0	152.00	11,900	50.40	1,650	23,827
VS1504	150	1800	444VP	95.0	86.0	172.00	10,700	50.40	1,530	20,481
VS1506	150	1200	445VP	95.0	82.5	179.00	11,800	50.40	1,890	25,393
VS2004	200	1800	445VP	95.0	86.5	228.00	10,700	50.40	1,820	24,623
VS2006	200	1200	447VP	95.0	83.0	238.00	14,900	55.80	2,130	24,623
VS2504	250	1800	447VP	95.4	86.5	284.00	13,400	50.80	1,940	31,686
VS2506	250	1200	447VP	95.0	83.0	297.00	14,700	55.80	2,660	40,552
VS3004	300	1800	447VP	95.4	87.5	337.00	13,400	55.80	2,470	35,210
VS3006	300	1200	449VP	94.7	79.0	375.00	11,360	59.93	3,320	50,566
VS3504	350	1800	447VP	95.4	88.0	390.00	13,300	55.80	2,900	45,321
VS3506	350	1200	5009VP	95.8	82.4	418.00	33,900	60.68	4,050	56,281
VS4004	400	1800	449VP	95.4	88.5	444.00	13,200	59.93	3,320	49,503
VS4006	400	1200	5009VP	95.8	85.0	464.00	33,800	59.93	4,270	69,352
VS4504	450	1800	5009VP	96.2	89.1	495.50	31,000	60.68	4,050	62,228
VS4506	450	1200	5808VP	95.8	84.7	524.00	33,600	61.47	5,310	75,871
VS5004	500	1800	5009VP	96.2	89.2	550.00	30,900	60.68	4,170	68,924
VS5006	500	1200	5808VP	95.8	85.4	577.00	33,500	61.47	5,430	81,205
VS6004	600	1800	5808VP	96.2	90.6	650.00	30,400	61.47	5,470	75,683
VS6006	600	1200	5810VP	95.8	85.0	695.50	33,300	68.95	5,600	89,248
VS7004	700	1800	5808VP	96.2	91.1	754.00	30,200	68.95	5,880	85,441
VS7006	700	1200	5810VP	95.0	85.7	805.00	33,100	68.95	5,830	97,176
VS8004	800	1800	5810VP	95.4	91.0	863.00	30,100	68.95	6,180	93,542
VS8006	800	1200	5810VP	95.0	86.1	916.00	32,900	68.95	6,210	107,157

MAX-VS™ VERTICAL SOLID SHAFT WPI



TYPE: AMRCD - P BASE, HIGH THRUST, NEMA PREMIUM, LV

Effective 06-14-15
Supersedes 05-01-13



CAT. NO.	HP	RPM	FRAME	FL EFF (%)	FL PF (%)	FL AMPS @460V	DOWN THRUST (lbs.)	AG DIM (in.)	APPROX. SHIPPING WT. (lbs.)	LIST PRICE (\$)
VSP0154	15	1800	254VP	93.0	83.0	18.2	3,350	26.91	309	4,256
VSP0204	20	1800	256VP	93.0	83.0	24.2	3,350	26.91	330	5,048
VSP0254	25	1800	284VP	93.6	85.0	29.4	3,350	28.25	425	5,836
VSP0304	30	1800	286VP	94.1	86.0	34.7	3,350	28.25	465	6,325
VSP0404	40	1800	324VP	94.1	86.0	46.3	5,700	32.71	634	8,825
VSP0504	50	1800	326VP	94.5	85.0	58.5	5,700	32.71	689	10,277
VSP0604	60	1800	364VP	95.0	85.0	69.5	6,000	35.89	791	12,412
VSP0606	60	1200	404VP	94.5	85.5	69.5	9,000	42.32	1,094	15,456
VSP0754	75	1800	365VP	95.0	86.0	86.0	6,000	35.89	877	13,742
VSP0756	75	1200	405VVP	94.5	86.5	86.0	9,000	42.32	1,239	16,356
VSP1004	100	1800	404VVP	95.4	85.5	115.0	7,900	42.32	1,133	15,878
VSP1006	100	1200	444VVP	95.0	82.0	120.0	12,000	50.40	1,450	21,767
VSP1254	125	1800	405VVP	95.4	84.5	145.0	7,900	42.32	1,158	18,810
VSP1256	125	1200	445VVP	95.0	82.0	150.0	11,900	50.40	1,650	23,827
VSP1504	150	1800	444VVP	95.0	86.0	172.0	10,700	50.40	1,530	23,986
VSP1506	150	1200	445VVP	95.4	82.5	178.0	11,800	50.40	1,890	25,393
VSP2004	200	1800	445VVP	95.0	86.5	228.0	10,700	50.40	1,820	26,757
VSP2006	200	1200	447VVP	95.4	83.0	236.0	14,900	55.80	2,130	27,589
VSP2504	250	1800	447VP	95.8	86.5	283.0	13,400	55.80	1,940	34,248
VSP2506	250	1200	447VP	95.8	83.0	295.0	14,700	55.80	2,660	40,552
VSP3004	300	1800	447VP	95.8	87.5	335.0	13,400	55.80	2,470	39,647
VSP3006	300	1200	449VP	94.7	79.0	375.0	11,360	64.93	3,320	50,566
VSP3504	350	1800	447VVP	95.8	88.0	388.0	13,300	55.80	2,900	50,786
VSP3506	350	1200	5009VP	95.8	84.5	405.0	33,900	61.00	4,050	56,281
VSP4004	400	1800	449VVP	95.8	88.5	442.0	13,200	59.93	3,320	54,605
VSP4006	400	1200	5009VP	95.8	85.0	460.0	33,800	61.00	4,270	69,352
VSP4504	450	1800	5009VP	96.2	89.1	492.0	31,000	61.00	4,050	67,228
VSP4506	450	1200	5808VP	95.8	84.7	519.0	33,600	61.50	5,310	75,871
VSP5004	500	1800	5009VP	96.2	89.2	546.0	30,900	61.00	4,170	71,924
VSP5006	500	1200	5808VP	95.8	85.4	572.0	33,500	61.50	5,430	81,205
VSP6004	600	1800	5808VP	96.2	90.6	645.0	30,400	61.47	5,470	80,733
VSP6006	600	1200	5808VP	95.8	85.0	690.0	33,300	61.47	5,600	89,248
VSP7004	700	1800	5810VP	96.2	91.1	748.0	30,200	68.95	5,880	87,938
VSP7006	700	1200	5810VP	95.8	85.7	798.0	33,100	68.95	5,830	97,176
VSP8004	800	1800	5810VP	96.2	91.0	856.0	30,100	68.95	6,180	93,546
VSP8006	800	1200	5810VP	95.8	86.1	908.0	32,900	68.95	6,210	107,157

MAX-VS™ VERTICAL SOLID SHAFT TEFC FAMILY



TYPE: AEEHEC - EPACT, P-BASE, HIGH THRUST, LV

TYPE: AEEHED - NEMA PREMIUM, P-BASE, HIGH THRUST, LV

Effective 06-14-15
Supersedes 05-01-13



APPLICATIONS:

■ Deep Well Turbine Pumps ■ Irrigation ■ Water/ Waste Water

FEATURES:

- 15 - 800 HP
- 1800, 1200 RPM
- Totally Enclosed Fan Cooled (IPW44)
- AEEHEC Meets or Exceeds EPACT Efficiency Levels. AEEHED Meets NEMA Premium Efficiency Levels as Defined by NEMA MG-1 up to 500 HP
- Complies with NEMA Design Standards: MG-1
- 36 Month Warranty from Date of Manufacture
- 60 Hz - 230/460V (Usable on 208V), 460V; 150 HP and Larger is 460V Only
- 1.15 Service Factor - Continuous
- Oversized angular thrust bearing installed
- Class F Insulation with 2 dip Phenolic Alkyd Resin Varnish
- Class B Temperature Rise
- NEMA Design B torque for all ratings
- Oversized Fabricated Steel Main Conduit Box Rotatable in 90 Degree Increments - Fully Gasketed with NPT Threaded inlet
- Designed for 40°C Ambient Temperature - Note (1)
- Designed for 3300 ft. Elevation - Note (2)
- Counter Clockwise Rotation as viewed from top of motor (coupling end)
- Cast Iron Frame, End Brackets, Main Conduit Box and Rolled Steel Fan Cover
- Carbon Steel Shaft
- Aluminum Die Cast Squirrel Cage Rotor Construction
- Paint System: Phenolic Rust Proof Base Plus Polyurethane Top Coat
- Paint Color: Blue Gray - Munsell 7.5 BG 4/2
- Guide Bearings: 254VP - 286VP frames are Single Shielded
- Guide Bearings: 324VP - 6808P frames are Re-Greasable with Polyrex EM Grease
- Thrust Bearings: 254VP - 286VP frames are Re-Greasable Angular Contact with Polyrex EM Grease
- Thrust Bearings: 324VP - 449VP frames are Oil Lubricated Angular Contact with Site Glass
- Thrust Bearings: 5009P - 6808P frames are Oil Lubricated Angular Contact or Spherical Thrust bearing with Site Glass
- Oil Requirements for 254VP - 405VP frames: 145 to 175 S.S.U. @ 100F
- Oil Requirements for 444VP - 6808VP frames: 300 S.S.U. @ 100F
- Automatic Grease Discharge Fittings on Frames with Re-Greasable Motors
- Labyrinth Type Metal Flinger on Both Ends for Frames 280VP-6800VP
- Rubber Flinger on Drive-End for Frames 250 - 280VP
- Grounding Terminal Inside Main Box
- Stainless Steel Nameplate
- VFD Rated per NEMA MG1, Part 30 - Note (4) and (5)
- Speed Ranges: 10:1 VT, 5:1 CT
- 9 Leads(PWS on 230V)- 210-365VP; 12 Leads(PWS on 230V)- 404-405VP; 6 Leads(PWS on 460V) on 444VP-6808V
- CE Mark on Nameplate, U.L. Recognized and CSA Approved
- **Precautions should be taken to eliminate or reduce shaft currents that may be imposed on the motor by the VFD as stated per NEMA MG1, Part 30.4.4.3.**
- Ball Type NRR available

EXTRAS/ OPTIONS:

Please refer to pages 114 - 119 which show common modifications that can be performed.

Notes:

- (1) Please consult factory for suitability in higher ambients.
- (2) Please consult factory for suitability in higher elevations.
- (3) Motor service factor is 1.0 when operated on a VFD.
- (4) Maximum lead length is 150 feet with a carrier frequency of 3kHz. Addition of output reactor or filter may allow for increased carrier frequency. Please consult TWMC if lead length and carrier frequency surpass these values.
- (5) Please consult factory on available NRR

MAX-VS™ VERTICAL SOLID SHAFT TEFC



TYPE: AEEHEC - EPACT, P-BASE, HIGH THRUST, LV

Effective 06-14-15
Supersedes 05-01-13



CAT. NO.	HP	RPM	FRAME	FL EFF (%)	FL PF (%)	FL AMPS @460V	DOWN THRUST (lbs.)	AG DIM (in.)	APPROX. SHIPPING WT. (lbs.)	LIST PRICE (\$)
VST0154	15	1800	254VP	91.0	88.0	17.9	3,350	26.75	350	3,946
VST0204	20	1800	256VP	91.7	87.5	23.8	3,350	25.75	450	4,244
VST0254	25	1800	284VP	93.0	86.0	29.7	3,350	25.85	520	6,007
VST0304	30	1800	286VP	93.0	87.5	35.0	3,350	27.34	558	8,795
VST0404	40	1800	324VP	93.6	86.0	47.2	4,500	29.80	720	9,610
VST0504	50	1800	326VP	94.1	87.0	58.0	4,500	31.30	780	10,213
VST0604	60	1800	364VP	94.5	86.5	69.5	6,000	32.80	900	14,695
VST0754	75	1800	365VP	94.5	86.5	86.5	6,000	33.80	970	16,168
VST1004	100	1800	405VP	94.5	87.5	114.5	7,900	43.20	1,415	21,156
VST1254	125	1800	444VP	94.5	87.5	142.0	10,200	52.50	2,050	30,708
VST1504	150	1800	445VP	95.0	88.0	168.0	10,100	54.50	2,150	34,416
VST1506	150	1200	447VP	95.0	86.5	171.0	13,000	59.00	2,110	44,928
VST2004	200	1800	447VP	95.0	88.4	223.0	11,900	59.00	2,530	45,025
VST2006	200	1200	449VP	95.0	84.7	233.0	12,900	64.00	2,850	49,700
VST2504	250	1800	449VP	95.4	89.0	276.0	11,800	64.00	2,890	47,504
VST2506	250	1200	5007VP	95.0	85.2	289.0	12,800	64.00	3,040	73,694
VST3004	300	1800	5007VP	95.0	90.0	328.0	12,800	60.25	3,580	59,957
VST3006	300	1200	5009VP	95.0	87.5	338.0	13,900	72.60	3,880	80,261
VST3504	350	1800	5009VP	95.2	90.0	382.0	12,500	66.20	4,080	64,423
VST3506	350	1200	5806VP	95.0	88.0	392.0	22,600	66.60	5,800	109,656
VST4004	400	1800	5009VP	95.2	90.0	437.0	12,400	66.20	4,260	82,490
VST4006	400	1200	5808VP	95.0	88.0	448.0	22,400	71.50	6,040	119,689
VST4504	450	1800	5808VP	95.2	90.0	492.0	11,900	71.70	6,000	103,076
VST4506	450	1200	5808VP	95.2	86.5	511.0	22,300	71.50	6,250	122,895
VST5004	500	1800	5808VP	95.3	90.0	545.0	11,700	71.70	6,220	105,282
VST5006	500	1200	5808VP	95.4	86.5	567.0	22,100	76.60	6,770	141,612
VST6004	600	1800	5810VP	95.5	90.0	654.0	11,500	76.80	6,770	107,389
VST6006	600	1200	6806VP	95.6	86.8	677.0	21,800	76.60	7,260	155,961
VST7004	700	1800	5810VP	95.6	90.0	762.0	11,300	76.80	7,160	133,294
VST7006	700	1200	6806VP	95.8	86.8	788.0	30,000	79.25	8,830	179,335
VST8004	800	1800	6808VP	95.6	90.5	866.0	10,800	85.90	9,340	164,497
VST8006	800	1200	6808VP	96.0	87.0	897.0	29,800	86.70	9,710	188,660

MAX-VS™ VERTICAL SOLID SHAFT TEFC



TYPE: AEEHED - P-BASE, HIGH THRUST, NEMA PREMIUM LV

Effective 06-14-15
Supercedes 05-01-13



CAT. NO.	HP	RPM	FRAME	FL EFF (%)	FL PF (%)	FL AMPS @460V	DOWN THRUST (lbs.)	AG DIM (in.)	APPROX. SHIPPING WT. (lbs.)	LIST PRICE (\$)
VSTP0154	15	1800	254VP	91.0	88.0	17.90	3,350	26.75	350	6,120
VSTP0204	20	1800	256VP	91.7	87.5	23.80	3,350	25.75	450	6,400
VSTP0254	25	1800	284VP	93.0	86.0	29.70	3,350	25.85	520	6,385
VSTP0304	30	1800	286VP	93.0	87.5	35.00	3,350	27.34	558	9,127
VSTP0404	40	1800	324VP	93.6	86.0	47.20	4,500	29.80	720	13,771
VSTP0504	50	1800	326VP	94.1	87.0	58.00	4,500	31.30	780	14,308
VSTP0604	60	1800	364VP	94.5	86.5	69.50	6,000	32.80	900	14,695
VSTP0754	75	1800	365VP	94.5	86.5	86.50	6,000	33.80	970	16,527
VSTP1004	100	1800	405VP	94.5	87.5	114.50	7,900	43.20	1,415	23,766
VSTP1006	100	1200	444VP	95.0	79.8	123.00	10,000	52.56	1,980	34,044
VSTP1254	125	1800	444VP	94.5	87.5	142.00	10,200	52.50	2,050	33,562
VSTP1256	125	1200	445VP	95.0	79.0	155.00	10,000	54.53	2,090	35,889
VSTP1504	150	1800	445VP	95.0	88.0	168.00	10,100	54.50	2,150	38,244
VSTP1506	150	1200	447VP	95.0	86.5	171.00	13,000	59.00	2,110	52,054
VSTP2004	200	1800	447VP	95.0	88.4	223.00	11,900	59.00	2,530	44,845
VSTP2006	200	1200	449VP	95.0	84.7	233.00	12,900	64.00	2,850	61,678
VSTP2504	250	1800	449VP	95.4	89.0	276.00	11,800	64.00	2,890	56,934
VSTP2506	250	1200	5007VP	95.0	85.2	289.00	12,800	64.00	3,040	78,400
VSTP3004	300	1800	5007VP	95.0	90.0	328.00	12,800	60.25	3,580	71,749
VSTP3006	300	1200	5009VP	95.0	87.5	338.00	13,900	72.60	3,880	88,388
VSTP3504	350	1800	5009VP	95.2	90.0	382.00	12,500	66.20	4,080	77,096
VSTP3506	350	1200	5806VP	95.0	88.0	392.00	22,600	66.60	5,800	115,434
VSTP4004	400	1800	5009VP	95.2	90.0	437.00	12,400	66.20	4,260	96,570
VSTP4006	400	1200	5808VP	95.0	88.0	448.00	22,400	71.50	6,040	127,333
VSTP4504	450	1800	5808VP	95.2	90.0	492.00	11,900	71.70	6,000	112,043
VSTP4506	450	1200	5808VP	95.2	86.5	511.00	22,300	71.50	6,250	142,630
VSTP5004	500	1800	5808VP	95.3	90.0	545.00	11,700	71.70	6,220	114,444
VSTP5006	500	1200	5808VP	95.4	86.5	567.00	22,100	76.60	6,770	150,648
VSTP6004	600	1800	5810VP	95.5	90.0	654.00	11,500	76.80	6,770	134,939
VSTP6006	600	1200	6806VP	95.6	86.8	677.00	21,800	76.60	7,260	163,309
VSTP7004	700	1800	5810VP	95.6	90.0	762.00	11,300	76.80	7,160	154,690
VSTP7006	700	1200	6806VP	95.8	86.8	788.00	30,000	79.25	8,830	188,660
VSTP8004	800	1800	6808VP	95.6	90.5	866.00	10,800	85.90	9,340	175,006
VSTP8006	800	1200	6808VP	96.0	87.0	897.00	29,800	86.70	9,710	196,650

MAX-VS™ VERTICAL SOLID SHAFT TEFC



TYPE: AEUH8NDP - ROUND BODY P-BASE, NEMA PREMIUM, NORMAL THRUST, LV

Effective 06-14-15
Supercedes 05-01-13



APPLICATIONS:

- Centrifugal Pumps
- Pulp and Paper
- Petro-Chemical
- Water/ Waste Water

FEATURES:

- 7.5 - 100 HP
- Round Body P-Base
- 3600, 1800, 1200 RPM
- Totally Enclosed Fan Cooled (IP54)
- NEMA Premium Efficient Ratings From 7.5-100 HP, Denoted by Catalog Prefix "EP" - Note (1)
- Department of Energy Efficiency Certificate # CC002A
- 36 Month Warranty from Date of Manufacture
- 3 Phase 60 Hz - 230/460V (Usable on 208V) - Note (2)
- 1.15 Service Factor - Continuous
- Class F Insulation with Phenolic Alkyd Resin Varnish
- Class B Temperature Rise
- NEMA Design B Torques as a Minimum, Design C motors are denoted with a subscript "C"
- Oversized Main Conduit Box Rotatable in 90 Degree Increments - Fully Gasketed with NPT Threaded
- Designed for 40°C Ambient Temperature and 3300 ft elevation - Note (2)
- CSA Certified for Class 1, Div. 2, Groups B, C, D; Temp Code T3C, Non Sparking, Non Static Fan
- Bi-Directional Rotation
- Cast Iron Frame, End Brackets, Fan Cover, Main Conduit Box, and Drip Cover
- 1045 Carbon Steel Shaft
- Aluminum Die Cast Squirrel Cage Rotor Construction
- Paint System: Phenolic Rust Proof Base Plus Polyurethane Top Coat
- Paint Color: Light Gray - Munsell N5.0
- Guide Bearings: 213 HP - 405 HP Frames are Single Shielded
- Thrust Bearings: 213 HP - 405 HP Frames are Re-Greasable Angular Contact with Polyrex EM Grease
- Automatic Grease Discharge Fittings on Frames with Re-Greasable Motors
- Labyrinth Type Metal Flinger on Both Ends for Frames 320HP & Up
- Rubber Flinger on Drive-End for Frames 210HP - 280HP
- Single Shielded Guide Bearings on Frames 213HP - 405HP Pre-Packed with Polyrex EM Grease
- Automatic Grease Discharge Fittings on Frames with Re-Greasable Motors
- Cast Iron Inner and Outer Bearing Caps
- Grounding Terminal Inside Main Box
- Stainless Steel Nameplate
- UL Recognized and CSA Approved for Inverter Duty per NEMA MG1, Part 31 - Note (4)
- Inverter Duty Magnet Wire Capable of Withstanding Voltage Spikes of up to 2200 Volts
- **Precautions should be taken to eliminate or reduce shaft currents that may be imposed on the motor by the VFD as stated per NEMA MG1, Part 31.4.4.3. - Note (4)**
- Speed Ranges: 20:1 VT, 10:1 CT
- 12 Leads
- Breather Drains in both End Brackets for Vertical Mounts.

EXTRAS/ OPTIONS:

Please refer to pages 114 - 119 which show common modifications that can be performed.

Notes:

- (1) NEMA Premium Efficiency Levels only applies
- (2) TWMC carries minimal 575V stock, please check availability to ensure required motors are in stock. Ratings may be available from our Canadian Warehouses at a higher price or from our factory with a longer lead time. Pricing and lead time may vary.
- (3) Please consult factory for suitability in higher elevations and higher ambients.
- (4) Motor service factor is 1.0 when operated on a VFD.
- (5) HP shaft is same as VP shaft dimensions per NEMA MG-1

MAX-VS™ VERTICAL SOLID SHAFT TEFC



TYPE: AEUH8NDP - ROUND BODY P-BASE, NEMA PREMIUM, NORMAL THRUST, LV

Effective 06-14-15
Supercedes 05-01-13



CAT. NO.	HP	RPM	FRAME	FL EFF (%)	FL PF (%)	FL AMPS @460V	DOWN THRUST (lbs.)	AG DIM (in.)	APPROX. SHIPPING WT. (lbs.)	LIST PRICE (\$)
EPV7/52P	7.5	3600	213HP	91.0	89.0	8.67	580	19.96	175	1,778
EPV7/54P	7.5	1800	213HP	91.7	86.5	8.85	850	19.96	175	1,786
EPV7/56P ⁽¹⁾	7.5	1200	254HP	91.0	80.5	9.59	975	26.03	358	2,838
EPV0102P	10	3600	215HP	91.0	89.5	11.50	640	21.46	198	2,062
EPV0104P	10	1800	215HP	91.7	88.0	11.60	900	21.46	198	2,087
EPV0106P ⁽¹⁾	10	1200	256HP	91.0	80.5	12.80	1,100	27.76	418	3,338
EPV0152P	15	3600	254HP	92.4	91.5	16.60	740	26.03	310	2,804
EPV0154P	15	1800	254HP	92.4	88.0	17.30	950	26.03	310	2,724
EPV0156P ⁽¹⁾	15	1200	284HP	92.4	83.5	18.20	1,200	29.12	506	4,674
EPV0202P	20	3600	256HP	92.4	92.5	21.90	840	27.76	350	3,405
EPV0204P ⁽¹⁾	20	1800	256HP	93.0	87.5	23.00	1,050	27.76	350	3,297
EPV0206P ⁽¹⁾	20	1200	286HP	91.7	84.0	24.30	1,320	30.36	605	5,550
EPV0252P ⁽¹⁾	25	3600	284HP	92.4	91.0	27.80	900	27.75	490	4,230
EPV0254P ⁽¹⁾	25	1800	284HP	93.6	86.0	29.10	1,200	29.12	441	3,985
EPV0256P ⁽¹⁾	25	1200	324HP	93.0	83.0	30.30	1,375	32.57	798	6,691
EPV0302P	30	3600	286HP	93.0	91.0	33.20	960	29.25	469	4,876
EPV0304P ⁽¹⁾	30	1800	286HP	93.6	87.5	34.30	1,250	30.62	490	4,692
EPV0306P ⁽¹⁾	30	1200	326HP	93.0	80.5	37.50	1,430	34.00	853	7,383
EPV0404P ⁽¹⁾	40	1800	324HP	94.1	86.0	46.30	1,325	32.57	682	6,153
EPV0406P ⁽¹⁾	40	1200	364HP	94.1	86.5	46.00	1,520	31.07	1,078	9,767
EPV0504P ⁽¹⁾	50	1800	326HP	94.5	87.0	56.90	1,400	34.07	744	7,691
EPV0506P ⁽¹⁾	50	1200	365HP	94.1	86.0	57.80	1,600	36.46	1,215	11,844
EPV0604P ⁽¹⁾	60	1800	364HP	95.0	86.5	68.40	1,450	35.48	920	9,624
EPV0606P ⁽¹⁾	60	1200	404HP	94.5	87.0	68.30	1,660	39.55	1,436	13,876
EPV0754P ⁽¹⁾	75	1800	365HP	95.4	86.5	85.10	1,500	36.46	651	11,937
EPV0756P ⁽¹⁾	75	1200	405HP	94.5	86.5	85.90	1,190	37.80	1,584	16,189
EPV1004P ⁽¹⁾	100	1800	405HP	95.4	87.5	112.00	1,550	37.80	1,310	16,710

Notes:

- (1) Meets NEMA Design C torque requirements
- (2) Grease lube standard ball bearing on DE unless angular contact is needed for all ratings

MAX-VS™ VERTICAL SOLID SHAFT 841 TEFC



TYPE: AEUH8BDP - IEEE/ 841, NEMA PREMIUM, P BASE, LV

Effective 06-14-15
Supersedes 05-01-13



APPLICATIONS:

- | | | |
|---------------------|------------------|----------------------|
| ■ Centrifugal Pumps | ■ Petro-Chemical | ■ Water/ Waste Water |
| ■ Pulp and Paper | | |

FEATURES:

- 7.5 - 100 HP
- 3600, 1800, 1200 RPM
- Totally Enclosed Fan Cooled (IP55)
- Meets or Exceeds IEEE 841 Standards - Note (1)
- Meets GM 7E-TA Specifications
- Meets IEEE 45 Marine Duty and ABS "Design Assessment" up to 150 HP
- NEMA Premium Efficient
- Department of Energy Certificate # CC002A
- 60 Month Warranty from Date of Manufacture
- 3 phase, 60 Hz, 460 Volt
- 1.15 Service Factor - Continuous @ 50°C Ambient Temperature.
- Class B Temperature Rise; Class F Insulation with Phenolic Alkyd Resin Varnish - Two Dips and Bakes
- NEMA Design B Torques as a Minimum, Design C motors are denoted with a subscript "C"
- Oversized Main Conduit Box Rotatable in 90 Degree Increments - Fully Gasketed with NPT Threaded Entrance - F1 Mounted. F2 Available - See "EXTRAS/OPTIONS" Below
- Designed for 40°C Ambient Temperature @ SF 1.15; Up to 400 frame, Designed for 50°C Ambient Temperature @ SF 1.15; Note (3)
- Designed for 3300 ft. Elevation - Note (3)
- CSA Certified for Class 1, Div. 2, Groups B, C, D; Temp Code T3C, Non Sparking, Non Static Fan
- Bi-Directional Rotation
- Cast Iron Frame, End Brackets, Fan Cover, Main Conduit Box, and Drip Cover
- 1045 Carbon Steel Shaft
- Aluminum Die Cast Squirrel Cage Rotor Construction
- Paint System: 2 Part Epoxy
- Paint Color: Blue - Munsell 5PB 3/8
- Guide Bearings: 213HP - 286HP Frames are Single Shielded Re-Greasable with Polyrex EM Grease
- Guide Bearings: 324HP - 405HP Frames are Re-Greasable with Polyrex EM Grease
- Thrust Bearings: 213HP - 405HP Frames are Re-Greasable Angular Contact with Polyrex EM Grease
- Vacuum De-Gassed Re-Greasable Bearings Frames 213HP - 405 HP with Polyrex EM Grease
- Automatic Grease Discharge fittings on Frames for Re-Greasable Motors
- Grounding Terminal Inside Main Box with Provisions for Grounding on Foot
- Stainless Steel Nameplate and Hardware
- Stainless Steel Automatic Breather Drain (Located at Both End Brackets for Vertical Mounts)
- UL Recognized and CSA Approved for Inverter Duty per NEMA MG1, Part 31 - Note (3)
- Inverter Duty Magnet Wire Capable of Withstanding Voltage Spikes of up to 2200 Volts- See Note (4)
- **Precautions should be taken to eliminate or reduce shaft currents that may be imposed on the motor by the VFD, as stated by NEMA MG-1 Part 31.4.4.3.**
- Speed Ranges: 20:1 VT, 10:1 CT
- 3 Leads Only
- Vibration Not to Exceed 0.08 Inches Per Second
- Noise Level Not to Exceed 85 dB(A) at 1 Meter Unloaded
- INPRO™ Seals Installed on Both Ends

EXTRAS/ OPTIONS:

Please refer to pages 114 - 119 which show common modifications that can be performed.

Notes:

- (1) NEMA Premium Efficiency levels only applies.
- (2) Please consult factory for suitability in higher elevations and higher ambients.
- (3) Motor service factor is 1.0 when operated on a VFD.
- (4) HP shaft is same as VP shaft dimensions per NEMA MG-1.

MAX-VS™ VERTICAL SOLID SHAFT 841 TEFC



TYPE: AEUH8BDP - IEEE/ 841, NEMA PREMIUM, P BASE, LV

Effective 06-14-15
Supercedes 05-01-13



CAT. NO.	HP	RPM	FRAME	FL EFF (%)	FL PF (%)	FL AMPS @460V	DOWN THRUST (lbs.)	AG DIM (in.)	APPROX. SHIPPING WT. (lbs.)	LIST PRICE (\$)
HBV7/52P	7.5	3600	213HP	91.0	89.0	8.67	580	19.96	202	2,575
HBV7/54P	7.5	1800	213HP	91.7	86.5	8.85	850	19.96	202	2,662
HBV7/56P ⁽¹⁾	7.5	1200	254HP	91.0	80.5	9.59	975	26.03	323	3,784
HBV0102P	10	3600	215HP	91.0	89.5	11.50	640	21.46	224	2,817
HBV0104P	10	1800	215HP	91.7	88.0	11.60	900	21.46	224	2,860
HBV0106P ⁽¹⁾	10	1200	256HP	91.0	80.5	12.80	1100	27.76	380	4,334
HBV0152P	15	3600	254HP	92.4	91.5	16.60	740	26.03	323	3,785
HBV0154P	15	1800	254HP	92.4	88.0	17.30	950	26.03	345	3,775
HBV0156P ⁽¹⁾	15	1200	284HP	92.4	83.5	18.20	1200	29.12	540	5,274
HBV0202P	20	3600	256HP	92.4	92.5	21.90	840	27.76	367	4,305
HBV0204P ⁽¹⁾	20	1800	256HP	93.0	87.5	23.00	1050	27.76	425	4,355
HBV0206P ⁽¹⁾	20	1200	286HP	91.7	84.0	24.30	1320	30.362	565	6,323
HBV0252P	25	3600	284HP	92.4	91.0	27.80	900	27.75	490	4,956
HBV0254P ⁽¹⁾	25	1800	284HP	93.6	86.0	29.10	1200	29.12	555	5,052
HBV0256P ⁽¹⁾	25	1200	324HP	93.0	83.0	30.30	1375	32.57	759	6,991
HBV0302P	30	3600	286HP	93.0	91.0	33.20	960	29.25	535	5,425
HBV0304P ⁽¹⁾	30	1800	286HP	93.6	87.5	34.30	1250	30.62	656	6,465
HBV0306P ⁽¹⁾	30	1200	326HP	93.0	80.5	37.50	1430	34	795	9,457
HBV0404P ⁽¹⁾	40	1800	324HP	94.1	86.0	46.30	1325	32.57	740	8,849
HBV0406P ⁽¹⁾	40	1200	364HP	94.1	86.5	46.00	1520	31.07	898	12,316
HBV0504P ⁽¹⁾	50	1800	326HP	94.5	87.0	56.90	1400	34.07	845	9,431
HBV0506P ⁽¹⁾	50	1200	365HP	94.1	86.0	57.80	1600	36.46	1,110	13,953
HBV0604P ⁽¹⁾	60	1800	364HP	95.0	86.5	68.40	1450	35.48	955	12,507
HBV0606P ⁽¹⁾	60	1200	404HP	94.5	87.0	68.30	1660	39.55	1,355	15,444
HBV0754P ⁽¹⁾	75	1800	365HP	95.4	86.5	85.10	1500	36.46	1,040	14,006
HBV0756P ⁽¹⁾	75	1200	405HP	94.5	86.5	85.90	1190	37.8	1,363	16,658
HBV1004P ⁽¹⁾	100	1800	405HP	95.4	87.5	112.00	1550	37.8	1,385	16,773

Notes:

- (1) Meets NEMA Design C torque requirements
- (2) For all motors grease lube standard ball bearing on DE unless angular contact is needed

VERTICAL HOLLOW SHAFT WPI - MEDIUM VOLTAGE



TYPE: AMRKNH - NEMA PREMIUM, HIGH THRUST

Effective 06-14-15
Supersedes 05-01-13



APPLICATIONS:

■ Deep Well Turbine Pumps ■ Irrigation ■ Water/ Waste Water

FEATURES:

- 200 - 1000 HP
- 1800, 1200, 900 RPM
- Open Drip Proof (IP22), NEMA Weather Protected (WPI)
- AMRKNH Meets or Exceeds NEMA Premium Efficiency Levels Up to 500 HP; 600 HP and Above is High Efficiency
- Department of Energy Efficiency Certificate # CC002A
- 36 Month Warranty from Date of Manufacture
- 60 Hz - 2300/4160V
- 1.15 Service Factor - Continuous
- Class F Insulation with VPI Epoxy Resin Varnish
- Class B Temperature Rise
- NEMA Design B Torques for 200 HP and larger, 4, 6, & 8 Pole Speeds
- Oversized Fabricated Steel Main Conduit Box Rotatable in 90 Degree Increments - Fully Gasketed with NPT Threaded Inlet
- Designed for 40°C Ambient Temperature - Note (1)
- Designed for 3300 ft. Elevation - Note (2)
- Oversized Angular Contact or Spherical Thrust Bearing
- Counter Clockwise Rotation Viewed from Top of Motor
- Cast Iron Frame, End Brackets, Main Conduit Box and Rolled Steel Fan Cover
- Rolled Steel Fan Cover has a Drip Cover
- 1045 Carbon Steel Shaft
- Copper Bar Squirrel Cage Rotor Construction
- Paint System: Phenolic Rust Proof Base Plus Polyurethane Top Coat
- Paint Color: Munsell 7.5 B 3.5/0.5
- Vacuum De-Gassed Re-Greasable Ball Bearings Frames -5007P & up with Polyrex EM Grease
- Guide Bearings: 5009P - 5810P frames are Re-Greasable with Polyrex EM Grease
- Thrust Bearings: 5009P - 5810P frames are Oil Lubricated Angular Contact or Spherical Thrust Bearing with Site Glass
- Oil Requirements for 5009P - 5810P frames: 300 S.S.U. @ 100°F
- Grease Discharge Fittings on Frames with Re-Greasable Motors
- Labyrinth Type Metal Flinger on Lower End Bracket
- Grounding Terminal Inside Main Box
- Stainless Steel Nameplate
- VFD Rated per NEMA MG1, Part 31 - Note (3)
- Speed Ranges: 10:1 VT, 4:1 CT
- 6 Leads
- UL Recognized and CSA Approved
- **Precautions Should Be Taken to Eliminate or Reduce Shaft Currents that May Be Imposed on the Motor By the VFD as Stated Per NEMA MG1, Part 30.4.4.3.**
- Ball Type NRR provided with interchangeable couplings

EXTRAS/ OPTIONS:

Please refer to pages 114 - 119 which show common modifications that can be performed.

Notes:

- (1) Please consult factory for suitability in higher ambients.
- (2) Please consult factory for suitability in higher elevations.
- (3) Motor service factor is 1.0 when operated on a VFD.

VERTICAL HOLLOW SHAFT WPI - MEDIUM VOLTAGE



TYPE: AMRKNH - NEMA PREMIUM, HIGH THRUST

Effective 06-14-15
Supercedes 05-01-13



CAT. NO.	HP	RPM	FRAME	FL EFF (%)	FL PF (%)	FL AMPS @4160V	DOWN THRUST (lbs.)	BD DIM (in.)	CD DIM (in.)	BX DIM (in.)	APPROX. SHIPPING WT. (lbs.)	LIST PRICE (\$)
VHHP2006	200	1200	5009	94.5	79.0	28.0	34,100	20	57	1.688	3,420	67,984
VHHP2008	200	900	5009	93.6	74.2	32.0	39,700	20	57	1.938	4,110	79,191
VHHP2504	250	1800	5009	95.0	84.0	32.0	31,100	20	57	1.688	3,510	62,171
VHHP2506	250	1200	5009	95.0	79.0	34.5	33,900	20	57	1.938	3,730	75,705
VHHP3004	300	1800	5009	95.0	84.0	39.0	31,100	20	57	1.938	3,610	64,687
VHHP3006	300	1200	5009	95.0	77.9	41.0	33,900	24.5	57	2.188	4,020	76,675
VHHP3504	350	1800	5009	95.0	83.8	48.1	31,100	24.5	57	2.188	3,630	69,047
VHHP3506	350	1200	5009	95.0	75.9	53.4	33,900	24.5	57	2.188	4,010	84,653
VHHP4004	400	1800	5009	95.0	83.5	55.1	31,100	24.5	57	1.938	3,710	72,758
VHHP4006	400	1200	5009	95.0	76.6	60.3	33,800	24.5	57	2.188	4,880	85,891
VHHP4504	450	1800	5009	95.0	83.6	62.0	31,000	24.5	57	2.188	3,810	87,137
VHHP4506	450	1200	5806	95.0	81.2	63.8	33,700	24.5	55.4	2.438	4,510	91,900
VHHP5004	500	1800	5009	95.0	84.3	68.4	30,900	24.5	57	2.438	3,980	89,165
VHHP5006	500	1200	5806	95.0	79.2	73.0	33,600	24.5	55.4	2.438	4,610	112,670
VHHP6004	600	1800	5808	95.0	83.5	82.9	30,600	24.5	61.3	2.438	5,240	101,958
VHHP6006	600	1200	5808	95.0	80.3	86.4	33,400	30.5	61.3	2.501	5,660	108,400
VHHP7004	700	1800	5810	95.0	83.0	97.5	30,400	30.5	68.75	2.501	5,650	114,380
VHHP7006	700	1200	5808	95.0	81.6	99.2	33,300	30.5	61.3	2.501	5,340	133,742
VHHP8004	800	1800	5810	95.0	83.8	110.2	30,300	30.5	68.75	2.501	5,900	126,358
VHHP8006	800	1200	5810	95.0	81.7	113.1	33,100	30.5	67.75	2.937	5,720	143,748
VHHP9004	900	1800	5810	95.0	94.9	122.4	30,200	30.5	68.75	2.937	6,160	136,749
VHHP9006	900	1200	5810	95.0	82.5	126.0	33,000	30.5	68.75	3.187	5,960	152,035
VHHP10004	1000	1800	5810	95.0	87.4	132.2	30,100	30.5	68.75	3.187	6,510	145,188

Notes:

(1) Please consult factory for listings not shown.

VERTICAL SOLID SHAFT WPI - MEDIUM VOLTAGE



TYPE: AMRKED - NEMA PREMIUM, HIGH THRUST

Effective 06-14-15
Supersedes 05-01-13



APPLICATIONS:

■ Deep Well Turbine Pumps ■ Irrigation ■ Water/ Waste Water

FEATURES:

- 200 - 1000 HP
- 1800, 1200, 900 RPM
- Open Drip Proof (IP22), NEMA Weather Protected (WPI)
- AMRKED Meets or Exceeds NEMA Premium Efficiency Levels Up to 500 HP; 600 HP and Larger is High Efficiency
- Meets or Exceeds NEMA Premium Efficiency Levels
- Department of Energy Efficiency Certificate # CC002A
- 36 Month Warranty from Date of Manufacture
- 60 Hz - 2300/4160V
- 1.15 Service Factor - Continuous
- Class F Insulation with VPI Epoxy Resin Varnish
- Class B Temperature Rise
- NEMA Design B Torques for 150 HP and Larger, 4, 6, & 8 Pole Speeds
- Oversized Main Conduit Box Rotatable in 90 Degree Increments - Fully Gasketed with NPT Threaded inlet
- Designed for 40°C Ambient Temperature - Note (1)
- Designed for 3300 ft. Elevation - Note (2)
- Oversized Angular Contact or Spherical Thrust Bearing
- Counter Clockwise Rotation Viewed from Top of Motor
- Cast Iron Frame, End Brackets, Main Conduit Box and Rolled Steel Fan Cover
- Rolled Steel Fan Cover has a Drip Cover
- 1045 Carbon Steel Shaft
- Copper Bar Squirrel Cage Rotor Construction
- Paint System: Phenolic Rust Proof Base Plus Polyurethane Top Coat
- Paint Color: Munsell 7.5 B 3.5/0.5
- Vacuum De-Gassed Re-Greasable Ball Bearings Frames -5007VP & Up with Polyrex EM Grease
- Guide Bearings: 324VP - 5810VP Frames are Re-Greasable with Polyrex EM Grease
- Thrust Bearings: 5009VP - 5810VP Frames are Oil Lubricated Angular Contact or Spherical Thrust Bearing with Site Glass
- Oil Requirements for 444VP - 5810VP Frames: 300 S.S.U. @ 100°F
- Grease Discharge Fittings on Frames with Re-Greasable Motors
- Labyrinth Type Metal Flinger on Lower End Bracket
- Grounding Terminal Inside Main Box
- Stainless Steel Nameplate
- VFD Rated per NEMA MG1, Part 31 - Note (3)
- Speed Ranges: 10:1 VT, 4:1 CT
- 6 Leads
- UL Recognized and CSA Approved
- **Precautions Should Be Taken to Eliminate or Reduce Shaft Currents that May Be Imposed on the Motor by the VFD as stated per NEMA MG1, Part 30.4.4.3.**
- Ball Type NRR Provided

EXTRAS/ OPTIONS:

Please refer to pages 114 - 119 which show common modifications that can be performed.

Notes:

- (1) Please consult factory for suitability in higher ambients.
- (2) Please consult factory for suitability in higher elevations.
- (3) Motor service factor is 1.0 when operated on a VFD.

VERTICAL SOLID SHAFT WPI - MEDIUM VOLTAGE



TYPE: AMRKED - NEMA PREMIUM, HIGH THRUST

Effective 06-14-15
Supercedes 05-01-13



CAT. NO.	HP	RPM	FRAME	FL EFF (%)	FL PF (%)	FL AMPS @4160V	DOWN THRUST (lbs.)	AG DIM (in.)	APPROX. SHIPPING WT. (lbs.)	LIST PRICE (\$)
VSKP2006	200	1200	5007	94.5	79.0	28.0	34,100	59.60	3,620	64,619
VSKP2008	200	900	5009	93.6	74.2	32.0	39,700	60.68	4,210	76,355
VSKP2504	250	1800	5009	95.0	84.0	32.0	31,100	61.00	3,710	58,364
VSKP2506	250	1200	5009	95.0	79.0	34.5	33,900	61.00	3,730	71,835
VSKP2508	250	900	5009	95.0	76.1	38.9	39,500	60.68	4,570	79,176
VSKP3004	300	1800	5009	95.0	84.0	39.0	31,100	61.00	3,810	62,115
VSKP3006	300	1200	5009	95.0	77.9	41.0	33,900	61.00	4,230	75,705
VSKP3008	300	900	5808	95.0	76.2	45.2	39,300	61.47	5,520	87,457
VSKP3504	350	1800	5009	95.0	83.8	48.1	31,100	60.68	3,730	64,112
VSKP3506	350	1200	5009	95.0	75.9	53.4	33,900	60.68	4,110	80,204
VSKP4004	400	1800	5009	95.0	83.5	55.1	31,100	60.68	3,820	68,410
VSKP4006	400	1200	5009	95.0	76.6	60.3	33,800	60.68	4,190	84,450
VSKP4504	450	1800	5009	95.0	83.6	62.0	31,000	60.68	3,910	75,303
VSKP4506	450	1200	5806	95.0	81.2	63.8	33,700	55.56	4,630	86,875
VSKP5004	500	1800	5009	95.0	84.3	68.4	30,900	60.68	4,090	80,971
VSKP5006	500	1200	5806	95.0	79.2	73.0	33,600	55.56	4,730	92,645
VSKP6004	600	1800	5808	95.0	83.5	82.9	30,600	61.47	5,370	87,820
VSKP6006	600	1200	5808	95.0	80.3	86.4	33,400	61.47	5,180	100,066
VSKP7004	700	1800	5810	95.0	83.0	97.5	30,400	68.95	5,780	97,531
VSKP7006	700	1200	5806	95.0	81.6	99.2	33,300	55.56	5,460	123,007
VSKP8004	800	1800	5810	95.0	83.8	110.2	30,300	68.95	6,030	110,028
VSKP8006	800	1200	5810	95.0	81.7	113.1	33,100	68.95	5,850	130,107
VSKP9004	900	1800	5810	95.0	94.9	122.4	30,200	68.95	6,300	123,936
VSKP9006	900	1200	5810	95.0	82.5	126.0	33,000	68.95	6,090	147,059
VSKP10004	1000	1800	5810	95.0	87.4	132.2	30,100	68.95	6,650	139,261

Notes:

(1) Please consult factory for listings not shown.

VERTICAL HOLLOW SHAFT TEFC - MEDIUM VOLTAGE



TYPE: AEHC - HIGH THRUST, HIGH EFFICIENCY

Effective 06-14-15
Supersedes 05-01-13



APPLICATIONS:

■ Deep Well Turbine Pumps ■ Irrigation ■ Water/ Waste Water ■ Petro/Chemical

FEATURES:

- 200 - 800 HP
- 1800, 1200 RPM
- TEFC (IP55)
- High Efficiency Levels
- 36 Month Warranty from Date of Manufacture
- 60 Hz - 2300/4160V
- 1.15 Service Factor - Continuous
- Class F Insulation with VPI Epoxy Resin Varnish
- Class B Temperature Rise
- NEMA Design B Torques for 200 HP and Larger, 4, & 6 Pole Speeds
- Oversized Fabricated Steel Main Conduit Box Rotatable in 90 Degree Increments - Fully Gasketed with NPT Threaded inlet
- Designed for 40°C Ambient Temperature - Note (1)
- Designed for 3300 ft. Elevation - Note (2)
- Oversized Angular Contact or Spherical Thrust bearing installed
- Counter Clockwise Rotation viewed from top of motor
- Cast Iron Frame, End Brackets, and Rolled Steel Fan Cover
- Rolled Steel Fan Cover has a Drip Cover
- 1045 Carbon Steel Shaft
- Copper Bar Squirrel Cage Rotor Construction
- CSA Certified for Class 1, Div. 2, Groups B, C, D Temp Code T3, Non Sparking, Non Static Fan
- Paint System: Phenolic Rust Proof Base Plus Polyurethane Top Coat
- Paint Color: Munsell 7.5 B 3.5/0.5
- Guide Bearings: 254TP - 286TP frames are Double Shielded Pre-Packed with MULTEMP SRL Grease
- Guide Bearings: 324TP - 6808P frames are Re-Greasable with Polyrex EM Grease
- Thrust Bearings: 254TP - 286TP frames are Re-Greasable Angular Contact with Polyrex EM Grease
- Thrust Bearings: 324TP - 449TP frames are Oil Lubricated Angular Contact with Site Glass
- Thrust Bearings: 5007P - 6808P frames are Oil Lubricated Angular Contact or Spherical Thrust bearing with Site Glass
- Oil Requirements for 254TP - 405TP frames: 145 to 175 S.S.U. @ 100F
- Oil Requirements for 444TP - 6808P frames: 300 S.S.U. @ 100F
- Automatic Grease Discharge Fittings on Frames with Re-Greasable Motors
- Labyrinth Type Metal Flinger on Lower End Bracket
- Grounding Terminal Inside Main Box
- Stainless Steel Nameplate
- VFD Rated per NEMA MG1, Part 31 - Note (3)
- Speed Ranges: 10:1 VT, 4:1 CT
- 6 Leads
- UL Recognized and CSA Approved
- **Precautions should be taken to eliminate or reduce shaft currents that may be imposed on the motor by the VFD as stated per NEMA MG1, Part 30.4.4.3.**
- Ball Type NRR with Interchangeable Bearings

EXTRAS/ OPTIONS:

Please refer to pages 114 - 119 which show common modifications that can be performed.

Notes:

- (1) Please consult factory for suitability in higher ambients.
- (2) Please consult factory for suitability in higher elevations.
- (3) Motor service factor is 1.0 when operated on a VFD.

VERTICAL HOLLOW SHAFT TEFC - MEDIUM VOLTAGE



TYPE: AEHC - HIGH THRUST, HIGH EFFICIENCY

Effective 06-14-15
Supercedes 05-01-13



CAT. NO.	HP	RPM	FRAME	FL EFF (%)	FL PF (%)	FL AMPS @4160V	DOWN THRUST (lbs.)	BD DIM (in.)	CD DIM (in.)	BX DIM (in.)	APPROX. SHIPPING WT. (lbs.)	LIST PRICE (\$)
VHKT2006	200	1200	5009	95.0	86.0	26.6	14,400	24.5	57.2	1.688	3,700	86,710
VHKT2504	250	1800	5009	95.0	90.0	27.4	13,000	24.5	57.2	1.938	3,780	85,310
VHKT2506	250	1200	5009	95.0	86.0	33.2	14,200	24.5	57.2	1.688	3,980	94,760
VHKT3004	300	1800	5009	95.4	90.0	37.9	12,900	24.5	57.2	1.938	3,990	86,503
VHKT3006	300	1200	5808	95.0	86.2	39.8	23,200	30.5	62.09	1.938	5,530	112,664
VHKT3504	350	1800	5808	95.4	90.0	44.3	12,800	30.5	62.09	2.188	5,310	110,081
VHKT3506	350	1200	5808	95.0	86.3	46.3	23,000	30.5	62.09	2.188	5,960	129,055
VHKT4004	400	1800	5808	95.4	90.0	50.6	12,600	30.5	62.09	2.188	5,780	126,257
VHKT4006	400	1200	5808	95.0	86.3	53.0	22,900	30.5	62.09	1.938	6,300	137,745
VHKT4504	450	1800	5810	95.4	90.5	56.6	12,500	30.5	67.2	2.188	6,260	135,003
VHKT4506	450	1200	5810	95.4	86.5	59.0	22,800	30.5	67.2	2.188	6,560	145,494
VHKT5004	500	1800	5810	95.4	90.5	63.0	12,400	30.5	67.2	2.438	6,480	143,750
VHKT5006	500	1200	5810	95.4	86.5	66.0	22,700	30.5	67.2	2.438	6,880	160,188
VHKT6004	600	1800	5810	95.4	90.5	75.5	12,200	30.5	67.2	2.438	6,850	158,444
VHKT6006	600	1200	6808	95.8	87.2	78.0	30,800	36.5	74.21	2.438	9,120	183,916
VHKT7004	700	1800	6808	95.8	90.5	87.7	11,800	36.5	74.21	2.501	9,000	191,109
VHKT7006	700	1200	6808	95.8	87.2	31.4	30,500	36.5	74.21	2.501	9,630	218,262
VHKT8004	800	1800	6808	95.8	90.5	100.2	11,500	36.5	74.21	2.501	9,470	215,740

Notes:

(1) Please consult factory for listings not shown.

VERTICAL SOLID SHAFT TEFC - MEDIUM VOLTAGE



TYPE: AEHCEC - P-BASE, HIGH THRUST, HIGH EFFICIENCY

Effective 06-14-15
Supersedes 05-01-13



APPLICATIONS:

- Centrifugal Pumps
- Petro-Chemical
- Water/ Waste Water
- Pulp and Paper

FEATURES:

- 200 - 800 HP
- 1800, 1200 RPM
- Totally Enclosed Fan Cooled (IP54)
- Meets or Exceeds NEMA Premium Efficiency Levels.
- 36 Month Warranty from Date of Manufacture
- 60 Hz - 2300/4160V
- 1.15 Service Factor - Continuous
- Class F Insulation with VPI Epoxy Resin Varnish
- Class B Temperature Rise
- NEMA Design B Torques for 200 HP and Larger, 4 & 6 Pole Speeds
- Oversized Fabricated Steel Main Conduit Box Rotatable in 90 Degree Increments - Fully Gasketed with NPT Threaded inlet
- Designed for 40°C Ambient Temperature - Note (1)
- Designed for 3300 ft. Elevation - Note (2)
- Oversized angular contact or Spherical Thrust bearing installed
- Counter Clockwise Rotation viewed from top of motor
- Cast Iron Frame, End Brackets, Main Conduit Box and Rolled Steel Fan Cover
- Rolled Steel Fan Cover has a Drip Cover
- 1045 Carbon Steel Shaft
- Copper Bar Squirrel Cage Rotor Construction
- CSA Certified for Class 1, Div. 2, Groups B, C, D Temp Code T3, Non Sparking, Non Static Fan
- Paint System: Phenolic Rust Proof Base Plus Polyurethane Top Coat
- Paint Color: Munsell 7.5 B 3.5/0.5
- Guide Bearings: 5009P - 6808P frames are Re-Greasable with Polyrex EM Grease
- Thrust Bearings: 5009P - 6808P frames are Oil Lubricated Angular Contact or Spherical Thrust bearing with Site Glass
- Oil Requirements for 5009P - 6808P frames: 300 S.S.U. @ 100F
- Automatic Grease Discharge Fittings on Frames with Re-Greasable Motors
- Labyrinth Type Metal Flinger on Both Ends for Frames 320VP & Up
- Vacuum De-Gassed Re-Greasable Ball Bearings Frames -5007P & up with Polyrex EM Grease
- Grease Discharge Fittings on Frames with Re-Greasable Motors
- Labyrinth Type Metal Flinger on Lower End Bracket
- Grounding Terminal Inside Main Box
- Stainless Steel Nameplate
- VFD Rated Per NEMA MG1, Part 30 - Note (3) and (4)
- Speed Ranges: 10:1 VT, 4:1 CT
- 6 Leads
- UL Recognized and CSA Approved
- **Precautions should be taken to eliminate or reduce shaft currents that may be imposed on the motor by the VFD as stated per NEMA MG1, Part 30.4.4.3.**
- Ball Type NRR

EXTRAS/ OPTIONS:

Please refer to pages 114 - 119 which show common modifications that can be performed.

Notes:

- (1) Please consult factory for suitability in higher ambients.
- (2) Please consult factory for suitability in higher elevations.
- (3) Motor service factor is 1.0 when operated on a VFD.
- (4) Maximum lead length is 150 feet with a carrier frequency of 3kHz. Addition of output reactor or filter may allow for increased carrier frequency. Please consult TWMC if lead length and carrier frequency surpass these values. Please see "Modifications" section for details.

VERTICAL SOLID SHAFT TEFC - MEDIUM VOLTAGE



TYPE: AEHCEC - P-BASE, HIGH THRUST, HIGH EFFICIENCY

Effective 06-14-15
Supersedes 05-01-13



CAT. NO.	HP	RPM	FRAME	FL EFF (%)	FL PF (%)	FL AMPS @4160V	DOWN THRUST (lbs.)	AG DIM (in.)	APPROX. SHIPPING WT. (lbs.)	LIST PRICE (\$)
VSKT2006	200	1200	5009P	95.0	86.0	45.90	14,100	66.65	3,760	76,574
VSKT2504	250	1800	5009P	94.1	80.0	49.80	14,900	66.18	3,920	74,487
VSKT2506	250	1200	5009P	95.0	86.0	57.30	13,900	66.65	4,040	78,540
VSKT3004	300	1800	5009P	95.4	90.0	65.40	12,600	66.18	4,050	76,393
VSKT3006	300	1200	5808P	95.0	86.2	68.60	22,700	71.46	5,630	111,380
VSKT3504	350	1800	5808P	95.4	90.0	76.40	13,000	71.65	5,420	111,150
VSKT3506	350	1200	5808P	95.0	86.3	79.90	22,400	71.46	6,060	114,233
VSKT4004	400	1800	5808P	95.4	90.0	87.20	12,100	71.65	5,890	113,998
VSKT4006	400	1200	5808P	95.0	86.3	91.40	22,300	71.46	6,390	118,806
VSKT4504	450	1800	5810P	95.4	90.5	97.60	12,000	76.77	6,300	125,301
VSKT4506	450	1200	5810P	95.4	86.5	102.10	22,200	76.57	6,680	127,623
VSKT5004	500	1800	5810P	95.4	90.5	108.50	11,800	76.77	6,530	128,515
VSKT5006	500	1200	5810P	95.4	86.5	113.50	22,100	76.57	6,990	130,897
VSKT6004	600	1800	5810P	95.4	90.5	130.10	11,700	76.77	6,900	133,657
VSKT6006	600	1200	6808P	95.8	87.2	134.50	30,000	86.73	9,110	160,107
VSKT7004	700	1800	6808P	95.8	90.5	151.20	10,900	85.94	8,950	157,791
VSKT7006	700	1200	6808P	95.8	87.2	31.40	29,700	86.73	9,630	164,215
VSKT8004	800	1800	6808P	95.8	90.5	172.80	10,700	85.94	9,430	161,832

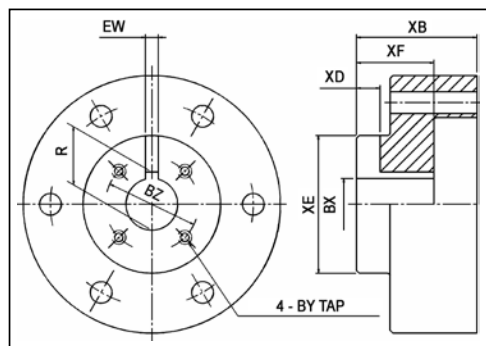
Notes:

(1) Please consult factory for listings not shown.

COUPLING KITS

FOR ALL VERTICAL HOLLOW SHAFT MOTORS

Effective 06-14-15
Supercedes 05-01-13



Notes:

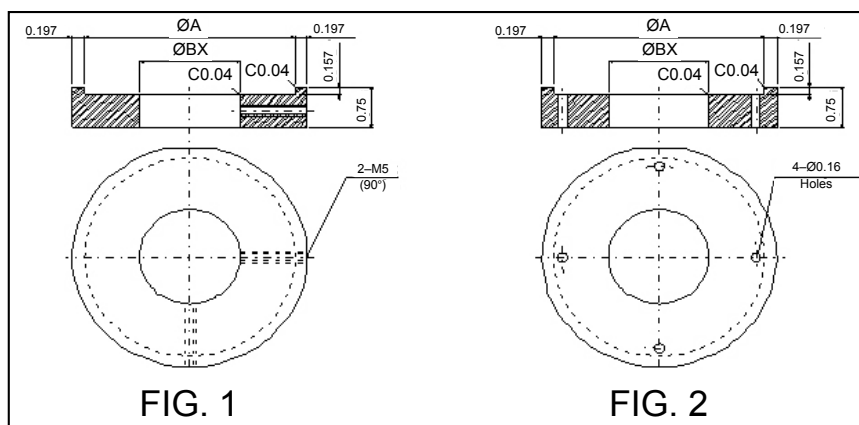
1. Tolerance on BX dimensions up to and including 1.500 inches diameter: +0.001 inches, -0.000 inches; Larger than 1.500 inches diameter: +0.0015 inches, -0.0000 inches.
2. Dimension EW tolerance: +0.002 inches, -0.000 inches.
3. Dimension R tolerance: +0.010 inches, -0.000 inches.
4. "*" in the table denotes the standard coupling size for each frame.
5. One coupling is included with motor price. If purchased separately use list pricing.
6. Please consult factory for listings not shown.

FRAME	BX	BY	BZ	EW	R	XB	XD	XE	XF	CATALOG NO.	LIST PRICE (\$)
213TP 215TP	0.751	NO. 10-32 UNF	1.375	0.188	0.845	1.75	0.406	2.00	1.125	AC210T-0.751	460
	0.876	NO. 10-32 UNF	1.375	0.188	0.97	1.75	0.406	2.00	1.125	AC210T-0.876	
	0.938	NO. 10-32 UNF	1.375	0.25	1.078	1.75	0.406	2.00	1.125	AC210T-0.938	
	*1.001	NO. 10-32 UNF	1.375	0.25	1.126	1.75	0.406	2.00	1.125	AC210T-1.001	
254TP 256TP	0.751	NO. 10-32 UNF	1.375	0.188	0.845	2.17	0.41	2.25	1.23	AC250T-0.751	613
	0.876	NO. 10-32 UNF	1.375	0.188	0.97	2.17	0.41	2.25	1.23	AC250T-0.876	
	1.001	NO. 10-32 UNF	1.375	0.25	1.126	2.17	0.41	2.25	1.23	AC250T-1.001	
	*1.188	1/4"-20 UNC	1.75	0.25	1.313	2.17	0.41	2.25	1.23	AC250T-1.188	
	1.251	1/4"-20 UNC	1.75	0.25	1.376	2.17	0.41	2.25	1.23	AC250T-1.251	
284TP 286TP	0.751	NO. 10-32 UNF	1.375	0.188	0.845	2.17	0.41	2.25	1.23	AC280T-0.751	613
	0.876	NO. 10-32 UNF	1.375	0.188	0.97	2.17	0.41	2.25	1.23	AC280T-0.876	
	1.001	NO. 10-32 UNF	1.375	0.25	1.126	2.17	0.41	2.25	1.23	AC280T-1.001	
	*1.188	1/4"-20 UNC	1.75	0.25	1.313	2.17	0.41	2.25	1.23	AC280T-1.188	
	1.251	1/4"-20 UNC	1.75	0.25	1.376	2.17	0.41	2.25	1.23	AC280T-1.251	
324TP 326TP	1.001	NO. 10-32 UNF	1.375	0.25	1.126	2.54	0.41	2.875	1.54	AC320T-1.001	920
	*1.188	1/4"-20 UNC	1.75	0.25	1.313	2.54	0.41	2.875	1.54	AC320T-1.188	
	1.251	1/4"-20 UNC	1.75	0.25	1.376	2.54	0.41	2.875	1.54	AC320T-1.251	
	1.438	1/4"-20 UNC	2.125	0.375	1.625	2.54	0.47	2.875	1.54	AC320T-1.438	
	1.501	1/4"-20 UNC	2.125	0.375	1.688	2.54	0.47	2.875	1.54	AC320T-1.501	
364TP 365TP	1.001	NO. 10-32 UNF	1.375	0.25	1.126	2.54	0.41	2.875	1.54	AC360T-1.001	920
	1.188	1/4"-20 UNC	1.75	0.25	1.313	2.54	0.41	2.875	1.54	AC360T-1.188	
	*1.251	1/4"-20 UNC	1.75	0.25	1.376	2.54	0.41	2.875	1.54	AC360T-1.251	
	1.438	1/4"-20 UNC	2.125	0.375	1.625	2.54	0.53	2.875	1.54	AC360T-1.251	
	1.501	1/4"-20 UNC	2.125	0.375	1.688	2.54	0.53	2.875	1.54	AC360T-1.501	
404TP 405TP	1.188	1/4"-20 UNC	1.75	0.25	1.313	2.76	0.53	3.15	1.50	AC400T-1.188	1,278
	1.251	1/4"-20 UNC	1.75	0.25	1.376	2.76	0.53	3.15	1.50	AC400T-1.251	
	1.438	1/4"-20 UNC	2.125	0.375	1.625	2.76	0.53	3.15	1.50	AC400T-1.438	
	*1.501	1/4"-20 UNC	2.125	0.375	1.688	2.76	0.53	3.15	1.50	AC400T-1.501	
	1.688	1/4"-20 UNC	2.5	0.375	1.891	2.76	0.53	3.15	1.50	AC400T-1.688	
444TP 445TP	1.751	1/4"-20 UNC	2.5	0.375	1.954	2.76	0.53	3.15	1.50	AC400T-1.751	2,150
	1.188	1/4"-20 UNC	1.75	0.25	1.304	4.35	0.406	3.74	2.875	AC444/5T-1.188	
	1.251	1/4"-20 UNC	1.75	0.25	1.367	4.35	0.406	3.74	2.875	AC444/5T-1.251	
	1.438	1/4"-20 UNC	2.125	0.375	1.605	4.35	0.531	3.74	2.875	AC444/5T-1.438	
	1.501	1/4"-20 UNC	2.125	0.375	1.669	4.35	0.531	3.74	2.875	AC444/5T-1.501	
	*1.688	1/4"-20 UNC	2.50	0.375	1.859	4.35	0.531	3.74	2.875	AC444/5T-1.688	
445TP20 447TP 449TP	1.751	1/4"-20 UNC	2.50	0.375	1.922	4.35	0.531	3.74	2.875	AC444/5T-1.751	2,350
	1.938	1/4"-20 UNC	2.50	0.50	2.16	4.35	0.688	3.74	2.875	AC444/5T-1.938	
	1.438	1/4"-20 UNC	2.125	0.375	1.605	4.74	0.531	4.725	3.071	AC447/9T-1.438	
	1.501	1/4"-20 UNC	2.125	0.375	1.669	4.74	0.531	4.725	3.071	AC447/9T-1.501	
	*1.688	1/4"-20 UNC	2.50	0.375	1.859	4.74	0.531	4.725	3.071	AC447/9T-1.688	
	1.751	1/4"-20 UNC	2.50	0.375	1.922	4.74	0.531	4.725	3.071	AC447/9T-1.751	
	1.938	1/4"-20 UNC	2.50	0.50	2.16	4.74	0.688	4.725	3.071	AC447/9T-1.938	
	2.001	3/8"-16 UNC	3.25	0.50	2.223	4.74	0.688	4.725	3.071	AC447/9T-2.001	
	2.063	3/8"-16 UNC	3.25	0.50	2.287	4.74	0.688	4.725	3.071	AC447/9T-2.063	
	*2.126	3/8"-16 UNC	3.25	0.50	2.35	4.74	0.688	4.725	3.071	AC447/9T-2.126	
	2.188	3/8"-16 UNC	3.25	0.50	2.414	4.74	0.688	4.725	3.071	AC447/9T-2.188	
	2.251	3/8"-16 UNC	3.25	0.50	2.477	4.74	0.688	4.725	3.071	AC447/9T-2.251	
	2.376	3/8"-16 UNC	3.25	0.625	2.651	4.74	0.813	4.725	3.071	AC447/9T-2.376	
	2.438	3/8"-16 UNC	3.25	0.625	2.714	4.74	0.813	4.725	3.071	AC447/9T-2.438	
	2.501	3/8"-16 UNC	3.25	0.625	2.778	4.74	0.813	4.725	3.071	AC447/9T-2.501	

STEADY BUSHING KITS

FOR ALL VERTICAL HOLLOW SHAFT MOTORS

Effective 06-14-15
Supersedes 05-01-13



FRAME	BX DIMENSION	TWMC CATALOG NO.	LIST PRICE (\$)
210TP	0.751	SB210-0.751	96
	0.876	SB210-0.876	96
	0.938	SB210-0.938	96
	1.001	SB210-1.001	96
250TP	0.751	SB250-0.751	96
	0.876	SB250-0.876	96
	1.001	SB250-1.001	96
	1.188	SB250-1.188	96
	1.251	SB250-1.251	96
280TP	0.751	SB280-0.751	96
	0.876	SB280-0.876	96
	1.001	SB280-1.001	96
	1.188	SB280-1.188	96
	1.251	SB280-1.251	96
320TP	1.001	SB320-1.001	125
	1.188	SB320-1.188	125
	1.251	SB320-1.251	125
	1.438	SB320-1.438	125
	1.501	SB320-1.501	125
360TP	1.001	SB360-1.001	125
	1.188	SB360-1.188	125
	1.251	SB360-1.251	125
	1.438	SB360-1.438	125
	1.501	SB360-1.501	125
400TP	1.188	SB400-1.188	144
	1.251	SB400-1.251	144
	1.438	SB400-1.438	144
	1.501	SB400-1.501	144
	1.688	SB400-1.688	144
	1.751	SB400-1.751	144

FRAME	BX DIMENSION	TWMC CATALOG NO.	LIST PRICE (\$)
444-445TP	1.188	SB444/5-1.188	173
	1.251	SB444/5-1.251	173
	1.438	SB444/5-1.438	173
	1.501	SB444/5-1.501	173
	1.688	SB444/5-1.688	173
	1.751	SB444/5-1.751	173
447-449TP	1.938	SB444/5-1.938	173
	1.438	SB447/9-1.438	192
	1.501	SB447/9-1.501	192
	1.688	SB447/9-1.688	192
	1.751	SB447/9-1.751	192
	1.938	SB447/9-1.938	192
	2.001	SB447/9-2.001	192
	2.063	SB447/9-2.063	192
	2.126	SB447/9-2.126	192
	2.188	SB447/9-2.188	192
	2.251	SB447/9-2.251	192
	2.376	SB447/9-2.376	192
	2.438	SB447/9-2.438	192
	2.501	SB447/92.501	192

Notes:

1. The frames 210TP, 250TP, and 280TP use Figure 1.
All other frames use Figure 2.
2. Please consult factory for listings not shown.

GLOBAL-HD WPI, MEDIUM VOLTAGE



TYPE: ASHA - ENERGY EFFICIENT

Effective 06-14-15
Supersedes 05-01-13



APPLICATIONS:

■ Pumps

■ Fans & Blowers

■ Compressors

FEATURES:

- 100 - 1250 HP
- 3600, 1800, 1200, 900 RPM Normally in Stock. Slower Speeds Available on Special Order.
- Weather Protected Type I Enclosure (IP23 rating)
- Energy Efficiency Design
- 36 Month Warranty from Date of Manufacture
- 60 Hz, 2300/ 4160V
- Standard with 120V Space Heaters Terminated in Separate Auxiliary Box
- Standard with 100 Ohm Platinum Stator RTDs, 2 per Phase, Terminated in Separate Auxiliary Box
- 1.15 Service Factor – Continuous
- Class F Insulation with VPI Treatment of Solventless Epoxy Varnish
- Class B Temperature Rise
- NEMA Design B Torques
- Oversized Fabricated Steel Main Conduit Box Rotatable in 90 Degree Increments – Fully Gasketed with NPT Threaded Entrances - F1 Mounted.
- Designed for 40°C Ambient Temperature - Note (1)
- Designed for 3300 ft. Elevation - Note (2)
- Bi-Directional Rotation Except 2 Pole Motors, 5000 Frame and Larger, which are Unidirectional CCW Facing the Drive-End. See EXTRAS/ OPTIONS Below if CW Rotation is Required.
- Cast Iron Frame and End Brackets
- 1045 Carbon Steel Shaft
- Copper/ Copper Alloy Rotor Construction for Frames 5800 - 6800. Aluminum Die-Cast Rotor Construction for All Others
- Paint System: Phenolic Rust Proof Base Plus Polyurethane Top Coat
- Paint Color: Dark Gray – Munsell 7.5BG 4/2
- Vacuum De-Gassed Re-greasable Ball Bearings Using Polyrex EM Grease
- Insulated Non-Drive End Bearing on 3600 RPM Motors, 600 HP and Larger
- Labyrinth Type Metal Grease Flinger on Both Ends
- Cast Iron Inner and Outer Bearing Caps
- Grounding Terminal Inside Main Box and on Motor Foot
- Stainless Steel Nameplate
- Suitable for Use on a VFD - Notes (3), (4), (5), & (6)
- 6 Leads
- Motors are CSA Approved
- **Precautions should be taken to eliminate or reduce shaft currents that may be imposed on the motor by the VFD as stated per NEMA MG1, Part 31.4.4.3.**

EXTRAS/ OPTIONS:

Please refer to pages 114 - 119 for common modifications that can be performed.

Notes:

- (1) Please consult factory for suitability in higher ambients.
- (2) Please consult factory for suitability in higher elevations.
- (3) Service factor is 1.0 when motor is used on a VFD.
- (4) An isolation transformer or other method of mitigating common mode voltages from motor terminals must be utilized.
- (5) Please contact TWMC for variable and constant torque speed ranges.
- (6) **Please refer to page 162 to check out our accompanying TEAMMaster™ starters.**

GLOBAL-HD WPI, MEDIUM VOLTAGE



TYPE: ASHA - ENERGY EFFICIENT

Effective 06-14-15
Supersedes 05-01-13



CATALOG NO.	HP	RPM	FRAME	FL EFF (%)	FL PF (%)	FL AMPS (2300V)	APPROX. SHIPPING WT. (lbs.)	LIST PRICE (\$)
P1002	100	3600	444TS	91.0	90.2	22.8	1,292	16,146
P1004	100	1800	444T	91.0	87.5	23.5	1,680	16,514
P1006R	100	1200	445T	91.0	80.0	25.7	2,205	20,814
P1008R ⁽⁴⁾	100	900	447TZ	91.0	77.0	26.7	1,943	25,491
P1252 ⁽⁴⁾	125	3600	444TS	91.0	90.2	28.5	1,370	19,022
P1254	125	1800	444T	91.0	87.5	29.4	1,490	18,672
P1256R ⁽⁴⁾	125	1200	447TZ	91.7	80.0	32.0	2,139	25,829
P1258R ⁽⁴⁾	125	900	449TZ	91.0	77.0	33.0	2,258	29,795
P1502	150	3600	445TS	91.7	90.2	34.0	1,450	21,542
P1504	150	1800	445T	91.7	87.5	35.0	1,645	21,891
P1506	150	1200	449TZ	91.7	80.0	38.0	2,547	29,441
P1508R ⁽⁴⁾	150	900	5007C	91.0	77.0	40.0	2,940	33,378
P2002	200	3600	447TS	91.7	90.2	45.0	1,733	26,500
P2004	200	1800	447T	91.7	87.5	47.0	2,050	25,482
P2004R	200	1800	447TZ	91.7	87.5	47.0	2,050	25,482
P2006R ⁽⁴⁾	200	1200	5007C	91.7	81.5	50.1	3,057	33,741
P2008R ⁽⁴⁾	200	900	5009C	91.7	78.5	52.0	3,833	40,564
P2502	250	3600	449TS	92.4	91.0	56.0	2,095	31,582
P2504	250	1800	449TZ	92.4	87.5	58.0	2,668	30,510
P2506	250	1200	5007B	92.4	84.0	60.3	3,362	39,489
P2506R	250	1200	5007C	92.4	84.0	60.3	3,362	39,489
P2508	250	900	5009B	92.4	78.5	64.5	3,990	47,032
P3002	300	3600	449TS	93.0	91.0	66.0	2,280	36,610
P3004	300	1800	5007B	93.0	88.5	68.3	3,255	35,176
P3004R	300	1800	5007C	93.0	88.5	68.3	3,255	35,176
P3006	300	1200	5009B	93.0	84.0	71.9	3,945	43,790
P3006R	300	1200	5009C	93.0	84.0	71.9	3,945	43,790
P3008R	300	900	5808C	93.0	80.0	75.5	4,515	52,765
P3502 ⁽¹⁾	350	3600	5007A	93.0	90.2	78.1	2,991	41,997
P3504	350	1800	5007B	93.6	88.5	79.1	3,465	40,201
P3506R	350	1200	5009C	93.0	84.0	83.9	3,938	48,812
P3508R ⁽⁴⁾	350	900	5808C	93.0	80.0	88.1	4,673	57,793
P4002 ⁽¹⁾	400	3600	5009A	93.6	90.5	88.4	3,485	46,306
P4004	400	1800	5009B	93.6	89.5	89.4	4,065	43,790
P4004R	400	1800	5009C	93.6	89.5	89.4	4,065	43,790
P4006R	400	1200	5808C	93.6	85.5	93.6	5,055	53,125
P4008	400	900	5808B	93.0	81.5	98.8	5,250	62,815
P4008R	400	900	5808C	93.0	81.5	98.8	5,250	62,815
P4502 ⁽¹⁾	450	3600	5808A	93.6	91.0	98.9	5,145	50,970
P4504	450	1800	5808B	93.6	88.5	102.0	4,200	47,378
P4506	450	1200	5808B	93.6	85.5	105.0	5,640	57,423
P4506R	450	1200	5808C	93.6	85.5	105.0	5,640	57,423
P4508R ⁽⁴⁾	450	900	5810C	93.0	82.5	110.0	5,565	67,946

Notes:

- (1) "R" at the end of the Catalog number means motor has Roller Bearing on the Drive End.
- (2) These ratings are not carried in stock please refer to factory for lead-time.

GLOBAL-HD WPI, MEDIUM VOLTAGE



TYPE: ASHA - ENERGY EFFICIENT

Effective 06-14-15
Supercedes 05-01-13



CATALOG NO.	HP	RPM	FRAME	FL EFF (%)	FL PF (%)	FL AMPS (2300V)	APPROX. SHIPPING WT. (lbs.)	LIST PRICE (\$)
P5002 ⁽¹⁾	500	3600	5808A	94.1	91.0	109.0	4,680	55,280
P5004	500	1800	5808B	94.1	89.5	111.0	5,115	50,970
P5006R	500	1200	5808B	94.1	85.5	116.0	6,038	61,735
P5008	500	900	5810B	93.6	82.5	121.0	6,325	72,503
P6002 ⁽¹⁾	600	3600	5808A	94.5	91.3	130.0	5,135	61,735
P6004	600	1800	5808B	94.1	89.5	133.0	5,418	57,423
P6004R	600	1800	5808C	94.1	89.5	133.0	5,418	57,423
P6006R	600	1200	5810B	94.1	86.5	138.0	6,120	67,839
P6008R ⁽⁴⁾	600	900	6806B	94.1	84.0	142.0	6,983	82,557
P7002 ⁽¹⁾	700	3600	5810A	94.5	91.7	151.0	5,410	66,765
P7004	700	1800	5808B	94.5	90.2	154.0	5,355	63,177
P7006R	700	1200	5810B	94.5	86.5	160.0	6,625	73,577
P7008	700	900	6808B	94.5	84.0	165.0	7,860	91,172
P8002 ⁽¹⁾	800	3600	5810A	95.0	91.7	172.0	5,475	69,993
P8004	800	1800	5810B	94.5	90.2	176.0	5,828	68,204
P8006R	800	1200	6806B	94.5	86.5	183.0	7,770	80,411
P8008R	800	900	6808B	94.5	84.5	188.0	8,820	100,864
P9002 ⁽¹⁾	900	3600	5810A	95.0	91.7	193.0	5,685	82,529
P9004	900	1800	5810B	95.0	90.2	197.0	6,143	73,945
P9006	900	1200	6806B	95.0	86.5	205.0	8,190	88,657
P10002 ⁽¹⁾	1000	3600	5810A	95.0	90.2	214.0	5,950	92,425
P10004 ⁽⁴⁾	1000	1800	6806B	95.0	90.2	219.0	7,750	79,693
P10006R	1000	1200	6808B	95.0	86.5	228.0	8,610	95,122
P12504	1250	1800	6808B	95.0	90.2	273.0	7,193	93,332

Notes:

- (1) "R" at the end of the Catalog number means motor has Roller Bearing on the Drive End.
- (2) These ratings are not carried in stock please refer to factory for lead-time.

GLOBAL-HD WPI, MEDIUM VOLTAGE



TYPE: AMHG - NEMA PREMIUM

Effective 06-14-15
Supersedes 05-01-13



APPLICATIONS:

- Pumps
- Fans & Blowers
- Compressors

FEATURES:

- 100 - 2000 HP
- 3600, 1800, 1200, 900 RPM Normally in Stock. Slower Speeds Available on Special Order.
- Weather Protected Type I Enclosure WPI (IP23 rating)
- NEMA Premium Efficient Design up to 500 HP, 600 HP and Larger is High Efficiency
- 36 Month Warranty from Date of Manufacture
- 60 Hz, 2300/ 4000V
- Standard with 120V Space Heaters Terminated in Separate Auxiliary Box
- Standard with 100 Ohm Platinum Stator RTDs, 2 Per Phase, Terminated in Separate Auxiliary Box
- 1.15 Service Factor – Continuous @ 90°C Rise, 80°C @ 1.0 S.F.
- Class F VPI Thermalastic Epoxy Insulation Form Coil
- Class B Temperature Rise
- NEMA Design B Torques for All Ratings
- Oversized Fabricated Steel Main Conduit Box Rotatable in 90 Degree Increments – Fully Gasketed with NPT Threaded Entrances - F1 Mounted.
- Designed for 40°C Ambient Temperature - Note (1)
- Designed for 3300 ft. Elevation - Note (2)
- Bi-Directional Rotation Except 2 Pole Motors, 5000 Frame and Larger, which are Uni-Directional CCW Facing the Drive-End. See EXTRAS/ OPTIONS Below if CW Rotation is Required.
- Cast Iron Frame and End Brackets
- 1045 Carbon Steel Shaft
- Copper/ Copper Alloy Rotor Construction for Frames 5800 - 6800. Aluminum Die-Cast Rotor Construction for All Others
- Paint System: Phenolic Rust Proof Base Plus Polyurethane Top Coat
- Paint Color: Dark Gray – Munsell 7.5BG 4/2
- Vacuum De-Gassed Re-greasable Ball or Roller Ball Bearings Using Polyrex EM Grease
- Insulated Non-Drive End Bearing on 3600 RPM Motors starting at 600 HP and Larger
- Labyrinth Type Metal Flinger on Both Ends
- Cast Iron Inner and Outer Bearing Caps
- Grounding Terminal Inside Main Box and on Motor Foot
- Stainless Steel Nameplate
- Suitable for Use on a VFD - Notes (3), (4), (5), & (6)
- 6 Leads
- Motors are CSA Approved
- **Precautions should be taken to eliminate or reduce shaft currents that may be imposed on the motor by the VFD as stated per NEMA MG1, Part 31.4.4.3.**

EXTRAS/ OPTIONS:

Please refer to pages 114 - 119 for common modifications that can be performed.

Notes:

- (1) Please consult factory for suitability in higher ambients.
- (2) Please consult factory for suitability in higher elevations.
- (3) Service factor is 1.0 when motor is used on a VFD.
- (4) An isolation transformer or other method of mitigating common mode voltages from motor terminals must be utilized.
- (5) Please contact TWMC for variable and constant torque speed ranges.
- (6) **Please refer to page 163 to check out our accompanying TEAMMaster™ starters.**

GLOBAL-HD WPI, MEDIUM VOLTAGE



TYPE: AMHG - NEMA PREMIUM

Effective 06-14-15
Supersedes 05-01-13



CATALOG NO.	HP	RPM	FRAME	FL EFF (%)	FL PF (%)	FL AMPS (2300V)	APPROX. SHIPPING WT. (lbs)	LIST PRICE (\$)
PG1002	100	3600	447TS	93.0	89.4	23	1,760	20,487
PG1004	100	1800	447T	94.1	82.8	24	2,050	23,289
PG1006	100	1200	447T	94.1	78.1	26	1,920	27,118
PG1008	100	900	447T	93.6	74.7	27	2,310	29,977
PG1252	125	3600	447TS	93.6	88.6	28	1,800	23,697
PG1254	125	1800	447T	94.5	84.3	30	2,100	26,101
PG1256	125	1200	449T	94.1	78.9	32	2,120	33,447
PG1258	125	900	449T	93.6	77.0	33	2,530	34,800
PG1502	150	3600	447TS	93.6	89.6	33	1,870	26,581
PG1504	150	1800	449T	95.0	84.4	35	2,360	30,346
PG1506	150	1200	449T	94.5	77.9	38	2,180	36,390
PG1508	150	900	5007C	93.6	75.8	40	3,260	38,342
PG2002	200	3600	449TS	94.5	89.2	44	1,900	31,736
PG2004	200	1800	449T	95.0	84.4	47	2,380	33,831
PG2006	200	1200	449T	94.5	75.6	53	2,270	37,382
PG2008	200	900	5009C	93.6	74.7	54	3,550	44,738
PG2502	250	3600	449TS	94.5	89.8	55	2,020	36,536
PG2504	250	1800	449T	95.0	84.6	59	2,490	38,522
PG2506	250	1200	449T	95.0	78.2	63	2,340	42,956
PG2508	250	900	5009C	93.6	77.1	66	3,990	54,767
PG3002	300	3600	449TS	94.5	89.6	66	2,100	39,664
PG3004	300	1800	449T	95.0	83.2	72	2,550	39,328
PG3006	300	1200	449T	95.0	78.4	76	2,490	46,017
PG3008	300	900	5011B	95.0	77.2	77	4,380	64,146
PG3502	350	3600	5009A	94.5	87.7	79	3,580	50,103
PG3504	350	1800	5009C	95.0	93.4	83	3,330	48,065
PG3506	350	1200	5009C	95.0	76.4	91	3,770	54,744
PG3508	350	900	5011B	95.0	76.7	91	4,710	69,672
PG4002	400	3600	5009A	94.5	88.7	89	3,700	53,144
PG4004	400	1800	5009C	95.0	84.0	95	3,420	50,106
PG4006	400	1200	5009C	95.0	77.1	103	3,850	58,395
PG4008	400	900	5012B	95.0	75.2	106	4,820	76,760
PG4502	450	3600	5009A	94.5	88.2	101	3,800	55,833
PG4504	450	1800	5009C	95.0	84.1	106	3,520	51,267
PG4506	450	1200	5011B	95.0	76.5	116	3,720	63,053
PG4508	450	900	5810B	95.0	78.5	114	6,160	86,194
PG5002	500	3600	5011A	94.5	88.8	112	3,900	58,977
PG5004	500	1800	5009C	95.0	84.8	117	3,720	55,308
PG5006	500	1200	5011B	95.0	78.0	127	3,920	66,357
PG5008	500	900	5810B	95.0	77.7	128	6,450	89,580
PG6002	600	3600	5011A	94.5	89.3	133	4,000	65,253
PG6004	600	1800	5011B	95.0	85.5	140	3,770	60,050
PG6006	600	1200	5011B	95.0	78.1	152	4,250	71,450
PG6008	600	900	5810B	95.0	78.0	153	6,600	94,017
PG7002	700	3600	5011A	94.5	89.2	155	4,200	66,576
PG7004	700	1800	5011B	95.0	85.7	163	4,100	65,511
PG7006	700	1200	5012B	95.0	77.3	179	4,850	78,070
PG7008	700	900	5811B	95.0	78.0	179	6,880	99,555
PG8002	800	3600	5011A	94.5	89.7	177	4,400	69,803
PG8004	800	1800	5012B	95.0	85.9	185	4,300	69,785
PG8006	800	1200	5810B	95.0	82.2	193	5,940	86,288
PG8008	800	900	5811B	95.0	79.0	202	7,100	105,054
PG9002	900	3600	5012A	94.5	89.9	197	4,600	80,912
PG9004	900	1800	5012B	95.0	85.5	209	4,400	77,433
PG9006	900	1200	5810B	95.0	83.0	215	6,230	93,993
PG9008	900	900	5812B	95.0	79.0	227	7,700	93,862
PG10002	1000	3600	5012A	94.5	89.7	221	4,730	81,164
PG10004	1000	1800	5810B	95.0	87.9	226	6,890	69,983
PG10006	1000	1200	5811B	95.0	83.3	237	6,980	102,551
PG12502	1250	3600	5810A	94.5	90.0	275	5,740	92,759
PG12504	1250	1800	5811B	95.0	87.1	286	7,070	94,839
PG12506	1250	1200	5813B	95.0	94.1	297	7,660	113,744
PG15004	1500	1800	5812B	95.0	87.6	341	7,790	110,426
PG17504	1750	1800	5813B	95.0	87.1	400	8,390	121,472
PG20004	2000	1800	5813B	95.0	87.5	455	8,400	132,513

Notes:

(1) All motors are NEMA B torque.

GLOBAL-PLUS TEFC MEDIUM VOLTAGE



TYPE: AEHGK, AFHGK NEMA PREMIUM

Effective 06-14-15
Supersedes 05-01-13



APPLICATIONS:

- | | | |
|--------------------|------------|---------------|
| ■ Fans and Blowers | ■ Mills | ■ Compressors |
| ■ Pumps | ■ Grinders | |

FEATURES:

- 100 – 1750 HP
- 3600, 1800, 1200, 900 RPM
- Totally Enclosed Fan Cooled (IP55)
- NEMA Premium Efficiency Design (Through 500 HP; 2, 4, 6 pole)
- 36 Month Warranty from Date of Manufacture
- 60 Hz, 2300/ 4000V
- Standard with 120V Space Heaters Terminated in Separate Auxiliary Box
- Standard with 100 Ohm Platinum Stator RTDs, 2 per Phase, Terminated in Separate Auxiliary Box
- Provisions for Bearing RTDs
- 1.15 Service Factor – Continuous
- Class F with VPI Treatment of Solventless Epoxy Varnish Insulation
- Class B Temperature Rise
- NEMA Design B Torques as a Minimum, Design C Motors are Denoted with a Subscript "C"
- Oversized Fabricated Steel Main Conduit Box Rotatable in 90 Degree Increments – Fully Gasketed with NPT Threaded Entrances - F1 Mounted.
- AEHGK: Class I, Div. 2, Groups A,B,C,D - T3; with Auxiliary Plate
- AFHGK: Class I, Div. 2, Groups A,B,C,D - T3; Class II, Div. 2, Group F & G, Temp Code T3 with Auxiliary Plate
- Main Conduit Box: Frames 447T - 449T is CAST IRON; Frames 5007C - 6808C is Fabricated Steel
- Designed for 40°C Ambient Temperature - Note (2)
- Designed for 3300 ft. Elevation - Note (3)
- Bi-Directional Rotation Except for 2 Pole Motors, 5000 frames and Larger Which are Uni-Directional, CCW Facing the Drive End. See "Extras/ Options" below if CW Rotation is Required
- Rolled Steel Fan Cover on 5000 Frames and Larger; Cast Iron on 440 Frames
- Locknut and Washer for Vertical Mount - Shaft Down Orientation on 5000 Frame and Larger; Cast Iron on 440 Frames
- Drain Holes and Plugs on Both End Brackets for Vertical Orientation Mount
- Cast Iron Frame, End Brackets, and Rolled Steel Fan Cover
- 1045 Carbon Steel Shaft
- Copper/ Copper Alloy Rotor Construction for Frames 5000 - 6800. Aluminum Die-Cast Rotor Construction for All Others
- Paint System: Phenolic Rust Proof Base Plus Polyurethane Top Coat
- Paint Color: Dark Gray – Munsell 7.5BG 4/2
- Vacuum De-Gassed Re-Greasable Ball or Roller Bearings Using Polyrex EM Grease
- Insulated Non-Drive End Bearing on 3600 RPM Motors, 600 HP and Larger
- Labyrinth Type Metal Grease Flinger on Both Ends
- Cast Iron Inner and Outer Bearing Caps
- Grounding Terminal Inside Main Box and on Motor Foot
- Stainless Steel Nameplate
- Suitable for Use on a VFD 2:1 CT; 4:1 VT - Notes (4), (5), (6), & (7)
- 6 Leads
- CSA Approved
- **Precautions should be taken to eliminate or reduce shaft currents that may be imposed on the motor by the VFD as stated per NEMA MG1, Part 31.4.4.3.**

EXTRAS/ OPTIONS:

Please refer to pages 114 - 119 for common modifications that can be performed.

Notes:

- (1) Please see modifications section if auxiliary nameplate stating this information is required
- (2) Please consult factory for suitability in higher ambients.
- (3) Please consult factory for suitability in higher elevations.
- (4) Service factor is 1.0 when motor is used on a VFD.
- (5) An Isolation transformer or other method of mitigating common mode voltages from motor terminals must be utilized.
- (6) Please contact TWMC for Variable and Constant torque speed ranges.
- (7) **Please refer to page 163 to check out our accompanying TEAMMaster™ starters..**

GLOBAL-PLUS TEFC MEDIUM VOLTAGE



TYPE: AEHGK, AFHGK NEMA PREMIUM

Effective 06-14-15
Supersedes 05-01-13



CATALOG NO.	HP	RPM	FRAME	FL EFF (%)	FL PF (%)	FL AMPS (2300V)	APPROX. SHIPPING WT. (lbs.)	LIST PRICE (\$)
KG1002	100	3600	444TS	91.7	88.7	23.0	1,470	26,520
KG1004 ⁽⁵⁾	100	1800	444T	93.0	80.9	24.8	2,079	26,064
KG1006R ⁽⁵⁾	100	1200	445T	94.1	81.0	24.6	2,903	30,477
KG1008R	100	900	447T	93.2	77.0	26.1	2,363	34,250
KG1252	125	3600	445TS	92.9	89.5	25.2	1,838	33,134
KG1254 ⁽⁵⁾	125	1800	445T	93.6	80.2	31.2	1,990	31,300
KG1256R ⁽⁵⁾	125	1200	447T	94.7	80.0	30.9	2,415	36,081
KG1258R	125	900	449T	94.4	77.0	32.1	2,835	51,542
KG1502	150	3600	447TS	93.0	90.0	31.6	2,600	35,345
KG1504 ⁽⁵⁾	150	1800	447T	94.1	80.7	37.0	2,375	34,900
KG1506R ⁽⁵⁾	150	1200	449T	94.8	80.0	37.0	2,903	40,156
KG1508R	150	900	5007C	93.6	77.0	37.7	3,780	50,476
KG2002	200	3600	449TS	94.0	91.3	43.6	2,495	41,825
KG2004 ⁽⁴⁾	200	1800	449T	95.0	81.4	48.4	2,775	40,683
KG2006T	200	1200	449T	95.0	80.2	49.2	2,930	54,553
KG2006R	200	1200	5007C	95.0	86.0	45.9	3,728	55,035
KG2008R	200	900	5009C	94.1	80.0	49.8	4,358	65,333
KG2502T	250	3600	449TS	95.0	88.5	55.6	2,480	49,800
KG2502 ⁽¹⁾	250	3600	5007A	95.0	88.5	55.7	3,360	54,779
KG2504T	250	1800	449T	95.4	82.3	59.8	2,640	49,410
KG2504	250	1800	5007B	95.0	90.0	54.8	3,580	54,352
KG2506R	250	1200	5009C	95.0	86.0	57.3	4,305	62,650
KG2508R	250	900	5009C	95.0	80.0	61.6	4,515	79,372
KG3002T	300	3600	449TS	95.0	90.4	65.4	2,950	60,365
KG3002 ⁽¹⁾	300	3600	5009A	95.4	90.5	65.1	3,675	66,408
KG3004T	300	1800	449T	95.8	84.0	69.8	3,150	56,750
KG3004	300	1800	5009B	95.4	90.0	65.4	4,200	60,795
KG3006R	300	1200	5009C	95.0	86.2	68.6	4,568	71,058
KG3008R	300	900	5011C	95.0	80.5	73.5	4,988	89,613
KG3502 ⁽¹⁾	350	3600	5009A	95.4	90.5	75.9	3,800	72,218
KG3504	350	1800	5009B	95.4	90.0	76.4	4,568	72,631
KG3506R	350	1200	5011C	95.0	86.3	79.9	4,988	81,088
KF3508	350	900	5011B	95.0	76.0	90.0	6,823	92,800
KG3508R	350	900	5808C	95.0	81.0	85.1	5,355	103,265
KG4002 ⁽¹⁾	400	3600	5011A	95.4	91.0	86.3	5,040	79,168
KG4004	400	1800	5011B	95.4	90.0	87.2	4,890	78,519
KG4006R	400	1200	5011C	95.0	86.3	91.4	4,725	88,704
KG4008R	400	900	5808C	95.0	81.0	97.3	5,565	118,215
KG4502 ⁽¹⁾	450	3600	5011A	95.4	91.0	97.1	4,830	93,474
KG4504	450	1800	5011B	95.4	90.5	97.6	5,035	85,289
KG4506R	450	1200	5808C	95.4	86.5	102.1	5,565	102,045
KG4508R	450	900	5810C	95.0	81.5	108.8	6,195	125,388

Notes:

- (1) Motors are unidirectional, with counter clockwise rotation, facing the drive end, to change please consult factory.
- (2) Service factor is 1.0 when motor is used on a VFD.
- (3) **Please refer to page 163 to check out our accompanying TEAMMaster™ starters.**
- (4) "R" at the end of the Catalog number means motor has Roller Bearing on the Drive End.
- (5) Ratings that meet NEMA Design C Torque. All other motors are NEMA Design B Torque.

GLOBAL-PLUS TEFC MEDIUM VOLTAGE



TYPE: AEHGK, AFHGK NEMA PREMIUM

Effective 06-14-15
Supersedes 05-01-13



CATALOG NO.	HP	RPM	FRAME	FL EFF (%)	FL PF (%)	FL AMPS (2300V)	APPROX. SHIPPING WT. (lbs.)	LIST PRICE (\$)
KF5002	500	3600	5011A	95.7	89.5	110.0	5,945	90,630
KG5002 ⁽¹⁾	500	3600	5808A	95.4	91.0	108.0	5,250	101,998
KF5004	500	1800	5011B	96.1	87.9	111.0	5,825	96,654
KG5004	500	1800	5808B	95.8	90.5	108.0	5,250	98,301
KG5006R	500	1200	5810C	95.4	87.0	113.0	6,495	116,426
KF5008	500	900	5810B	95.4	79.8	124.0	9,802	130,608
KG5008R	500	900	6808C	95.4	85.0	115.4	7,245	154,089
KG6002 ⁽¹⁾	600	3600	5810A	95.8	91.0	129.0	6,248	111,495
KF6004	600	1800	5011B	96.1	86.5	136.0	6,145	103,125
KG6004	600	1800	5810B	95.8	90.5	130.0	7,010	118,295
KG6006R	600	1200	5810C	95.4	87.0	135.4	6,090	135,274
KF6008	600	900	5810B	95.4	80.1	148.0	10,740	144,435
KG6008R	600	900	6808C	95.4	85.0	139.0	7,770	163,809
KG7002 ⁽¹⁾	700	3600	5810A	96.2	91.0	150.0	6,760	118,011
KG7004	700	1800	5810B	95.8	90.5	151.2	6,038	136,580
KF7006	700	1200	5810B	96.1	79.3	171.0	10,068	131,909
KG7006R	700	1200	6808C	95.8	87.2	157.0	7,403	150,499
KG7008R	700	900	6808C	95.4	86.0	160.0	9,083	164,970
KF8002	800	3600	5810A	96.3	86.5	181.0	9,190	128,832
KG8002 ⁽¹⁾	800	3600	6808A	96.2	91.5	170.0	8,768	161,222
KF8004	800	1800	5810B	96.1	83.6	187.0	9,310	127,518
KG8004	800	1800	6808B	95.8	90.5	172.8	9,275	147,334
KG8006R	800	1200	6808C	95.8	87.2	179.3	8,820	164,082
KF8008	800	900	6808B	95.9	80.1	196.0	13,081	166,832
KF9004	900	1800	5810B	96.1	83.1	211.0	9,656	135,171
KG9004	900	1800	6808B	95.8	90.5	194.4	8,925	155,419
KF9006	900	1200	6810B	96.2	84.0	208.0	13,606	172,291
KF9008	900	900	6810B	95.9	80.2	219.0	13,666	157,318
KF10004	1000	1800	6808B	96.0	81.7	239.0	11,471	154,648
KF10006	1000	1200	6810B	96.5	83.3	234.0	14,836	173,355
KF10008	1000	900	6810B	96.6	80.3	243.0	15,215	159,496
KF12504	1250	1800	6810B	96.7	83.5	289.0	13,200	163,118
KF12506	1250	1200	6811B	96.5	85.5	283.0	17,297	185,782
KF12508	1250	900	6812B	96.4	82.0	284.0	18,500	216,254
KF15004	1500	1800	6810B	96.8	84.0	346.0	15,362	163,476
KF15006	1500	1200	6812B	96.5	81.0	345.0	18,500	232,944
KF17504	1750	1800	6811B	96.8	82.4	415.0	16,884	174,416

Notes:

- (1) Motors are unidirectional, with counter clockwise rotation, facing the drive end, to change please consult factory.
- (2) Service factor is 1.0 when motor is used on a VFD.
- (3) **Please refer to page 163 to check out our accompanying TEAMMaster™ starters.**
- (4) "R" at the end of the Catalog number means motor has Roller Bearing on the Drive End.

GLOBAL-PLUS "IEC" MEDIUM VOLTAGE



TYPE: AEJHTK, AFJHTK - HIGH EFFICIENCY

Effective 06-14-15
Supersedes 05-01-13



APPLICATIONS:

- | | | |
|------------------|------------|---------------|
| ■ Fans & Blowers | ■ Pumps | ■ Compressors |
| ■ Mills | ■ Grinders | |

FEATURES:

- 800 - 2000 HP
- 3600, 1800, 1200, 900 RPM
- Totally Enclosed Fan Cooled (IP55 Rating)
- High Efficient Design
- 36 Month Warranty from Date of Manufacture
- 60 Hz, 2300/ 4160V
- Standard with 120V Space Heaters Terminated in Separate Auxiliary Box
- Standard with 100 Ohm Platinum Stator RTDs, 2 per Phase, Terminated in Separate Auxiliary Box
- Provisions for Bearing RTDs
- CSA-Certified for Class I, Division II, Groups B, C, D; Temp Code T3 @ 1.0 SF Class II, Division II, Groups F & G; Temp Code T3
- 1.15 Service Factor – Continuous
- Class F with VPI Treatment of Solventless Epoxy Varnish Insulation
- Class B Temperature Rise
- NEMA Design B Torques for All Ratings
- Oversized Fabricated Steel Main Conduit Box Rotatable in 90 Degree Increments – Fully Gasketed with NPT Threaded Entrances - F1 Mounted.
- 450 Frames and Larger are CSA Certified for Class 1, Div. 2, with Auxillary Plate
- Designed for 40°C Ambient Temperature - Note (1)
- Designed for 3300 ft. Elevation - Note (2)
- Cast Iron Frame, End Brackets, and Rolled Steel Fan Cover
- 1045 Carbon Steel Shaft
- Copper/ Copper Alloy Rotor Construction
- Paint System: Phenolic Rust Proof Base Plus Polyurethane Top Coat
- Paint Color: Dark Gray – Munsell 7.5BG 4/2
- Vacuum De-Gassed Re-Greasable Ball or Roller Bearings Using Polyrex EM Grease
- Insulated Non-Drive End Bearing on 2 Pole 450 Frames and Larger
- Labyrinth Type Metal Grease Flinger on Both Ends
- Dust Flinger on Both Ends
- Cast Iron Inner and Outer Bearing Caps
- Grounding Terminal Inside Main Box and on Motor Foot
- Stainless Steel Nameplate
- Suitable for Use on a VFD 2:1 CT, 4:1 VT - Notes (3), (4), (5), & (6)
- 6 Leads
- CSA Approved
- **Precautions should be taken to eliminate or reduce shaft currents that may be imposed on the motor by the VFD as stated per NEMA MG1, Part 31.4.4.3.**

EXTRAS/ OPTIONS:

Please refer to pages 114 - 119 for common modifications that can be performed.

Notes:

- (1) Please see modifications section if auxiliary nameplate stating this info is required.
- (2) Please consult factory for suitability in higher ambients.
- (3) Please consult factory for suitability in higher elevations.
- (4) Service factor is 1.0 when motor is used on a VFD.
- (5) An isolation transformer or other method of mitigating common mode voltages from motor terminals must be utilized.
- (6) Please contact TWMC for variable and constant torque speed ranges.
- (7) **Please refer to page 163 to check out our accompanying TEAMMaster™ starters.**
- (8) **Motors will eventually be discontinued and replaced with AFHGTK product line.**

GLOBAL-PLUS "IEC" MEDIUM VOLTAGE



TYPE: AEJHTK, AFJHTK - HIGH EFFICIENCY

Effective 06-14-15
Supersedes 05-01-13



CATALOG NO.	HP	RPM	FRAME	FL EFF (%)	FL PF (%)	FL AMPS (2300V)	APPROX SHIPPING WT. (lbs.)	LIST PRICE (\$)
JH08008 ⁽¹⁾	800	900	450C	95.8	87.0	180.00	9,030	168,977
JF09002 ⁽⁵⁾	900	3600	400C	95.9	89.6	189.00	8,200	200,000
JH09006 ⁽¹⁾	900	1200	450C	95.8	88.0	200.00	10,890	166,436
JH09008 ⁽¹⁾	900	900	500C	95.8	87.5	201.00	11,550	172,173
JF10002 ⁽¹⁾	1000	3600	450C	97.0	91.0	213.00	9,200	240,000
JH10004 ⁽¹⁾	1000	1800	450C	96.2	90.0	216.00	10,635	158,813
JH10006 ⁽¹⁾	1000	1200	500C	96.2	89.0	219.00	12,400	180,642
JH10008 ⁽¹⁾	1000	900	500C	95.8	87.5	223.00	14,000	194,940
JF12502 ⁽¹⁾	1250	3600	500C	96.8	91.5	264.00	11,500	270,000
JH12504 ⁽¹⁾	1250	1800	500C	96.2	90.0	270.00	11,550	165,356
JH12506 ⁽¹⁾	1250	1200	500C	96.2	89.5	272.00	12,180	194,940
JH12508 ⁽¹⁾	1250	900	560C	96.0	84.0	290.00	16,000	212,013
JF15002 ⁽¹⁾	1500	3600	560C	96.3	92.0	318.00	12,900	313,600
JH15004 ⁽¹⁾	1500	1800	500C	96.5	90.0	323.00	12,285	179,998
JH15006 ⁽¹⁾	1500	1200	560C	96.2	86.0	340.00	12,495	217,705
JH15008 ⁽¹⁾	1500	900	560C	96.0	84.0	348.00	18,000	220,550
JF17502	1750	3600	560c	96.5	92.0	369.00	13,200	333,500
JH17504 ⁽¹⁾	1750	1800	560C	96.5	90.5	375.00	13,230	197,783
JH17506 ⁽¹⁾	1750	1200	560C	96.2	86.0	396.00	18,000	221,974
JH20004	2000	1800	560C	96.5	90.5	415.00	17,000	219,128

Notes:

(1) Will eventually be discontinued, and replaced with AFHGTK product line.

(2) All 3600 RPM motors are Uni-Directional (CCW when facing Drive End)

(3) For 3600 RPM, 450 frames and larger, motors come standard with sleeve bearings and NDE insulated bearing, self lubricated

(4) For 3600 RPM, 500 Frame and larger, motors come standard with sleeve bearing and NDE insulated bearing, and force feed lubrication

(5) Standard with anti friction bearings

GLOBAL-PLUS TEFC MEDIUM VOLTAGE



TYPE: AEHAGD, ENERGY EFFICIENT - CRUSHER DUTY, HIGH TORQUE

Effective 06-14-15
Supersedes 05-01-13



APPLICATIONS:

- | | | |
|---------------|--------------|--------------------------------|
| ■ Mills | ■ Crushers | ■ Shredders |
| ■ Grinders | ■ Impacters | ■ All High Torque Applications |
| ■ Compressors | ■ Ball Mills | |

FEATURES:

- 100 – 900 HP
- 1800, 1200, 900 RPM
- Totally Enclosed Fan Cooled (IP55)
- Energy Efficient Design
- 36 Month Warranty from Date of Manufacture
- 60 Hz, 2300/ 4000V
- Standard with 120V Space Heaters Terminated in Separate Auxiliary Box
- Standard with 100 Ohm Platinum Stator RTDs, 2 per Phase, Terminated in Separate Auxiliary Box
- Class 1, Div. 2, Groups A, B, C, D - Temp Group T3; Class II, Div. 2, Group E, F, G, Temp Code T3 with Auxillary Plate
- 1.15 Service Factor – Continuous
- Class F with VPI Treatment of Solventless Epoxy Varnish Insulation
- Class B Temperature Rise
- NEMA Design C Torques, Equal or Greater than 200% LRT; Equal or Greater than 250% BDT.
- Oversized Fabricated Steel Main Conduit Box Rotatable in 90 Degree Increments.
Fully Gasketed with NPT Threaded Entrance, F1 Mounted
- Main Conduit Box: Frames 447T - 449T is Cast Iron; Frames 5007C - 6808C is Fabricated Steel
- Cast Iron Fan Cover on 440 Frame, Rolled Steel 5000 Frame and Larger
- Locknut and Washer for Vertical Mount - Shaft Down Orientation on 5000 Frame and Larger
- Drain Holes and Plugs on Both End Brackets for Vertical Orientation Mount
- Designed for 40°C Ambient Temperature - Note (1)
- Designed for 3300 ft. Elevation - Note (2)
- High Strength 4140 AISI Steel Shaft
- Aluminum Die-Cast Roter Construction (Copper Available Upon Request)
- Paint System: Phenolic Rust Proof Base Plus Polyurethane Top Coat
- Paint Color: Dark Gray – Munsell 7.5BG 4/2
- Vacuum De-Gassed Re-Greasable Ball or Roller Bearings Using Polyrex EM Grease
- Labyrinth Type Metal Grease Flinger on Both Ends
- Metal Dust Flinger on Both Ends
- Cast Iron Inner and Outer Bearing Caps
- Grounding Terminal Inside Main Box and on Motor Foot
- Stainless Steel Nameplate
- Ready for Direct On-Line Connection or Wye-Delta Start
- 6 Leads
- CSA Approved

EXTRAS/ OPTIONS:

Please refer to pages 114 - 119 for common modifications that can be performed.

Notes:

- (1) Please consult factory for suitability in higher ambients.
- (2) Please consult factory for suitability in higher elevations.

GLOBAL-PLUS TEFC MEDIUM VOLTAGE



TYPE: AEHAGD, ENERGY EFFICIENT - CRUSHER DUTY, HIGH TORQUE

Effective 06-14-15
Supersedes 05-01-13



CATALOG NO.	HP	RPM	FRAME	FL EFF (%)	FL PF (%)	FL AMPS (2300V)	APPROX. SHIPPING WT. (lbs.)	LIST PRICE (\$)
KD1004	100	1800	447T	94.5	84.2	24.00	2,220	37,674
KD1006R	100	1200	447TZ	94.1	73.8	27.00	2,175	38,750
KD1008R	100	900	447TZ	93.0	73.6	28.00	2,400	39,560
KD1254	125	1800	447T	94.5	84.6	29.00	2,350	41,805
KD1256R	125	1200	449TZ	94.1	77.5	31.00	2,625	42,350
KD1258R	125	900	449TZ	93.6	74.2	33.00	2,575	49,499
KD1504	150	1800	449T	95.0	84.4	35.00	2,550	48,650
KD1506R	150	1200	449TZ	95.0	77.2	38.00	3,830	53,750
KD1508R	150	900	5007C	93.6	73.8	41.00	3,650	57,401
KD2004	200	1800	5007C	95.0	83.4	48.00	3,970	54,989
KD2006R	200	1200	5007C	95.0	74.4	54.00	3,950	66,263
KD2008R	200	900	5009C	94.1	77.6	52.00	3,875	72,421
KD2504	250	1800	5007C	95.0	84.0	59.00	4,050	66,796
KD2506R	250	1200	5009C	95.0	76.9	64.00	4,080	73,025
KD2508R	250	900	5009C	94.5	75.8	65.00	4,210	82,899
KD3004	300	1800	5009C	95.4	83.6	70.00	4,155	69,754
KD3006R	300	1200	5009C	95.0	77.9	75.00	4,235	78,896
KD3008R	300	900	5011C	94.5	76.3	77.00	4,660	88,395
KD3504	350	1800	5009C	95.4	84.9	81.00	4,305	78,962
KD3506R	350	1200	5011C	95.0	75.5	92.00	4,460	85,429
KD3508R	350	900	5808C	94.5	73.3	95.00	5,825	106,705
KD4004	400	1800	5011C	95.4	85.4	93.00	4,490	83,342
KD4006R	400	1200	5011C	95.0	73.8	109.00	4,725	91,999
KD4008R	400	900	5808C	94.5	74.1	109.00	6,280	114,632
KD4504	450	1800	5011C	95.4	85.5	106.00	4,620	87,954
KD4506R	450	1200	5808C	95.0	79.3	114.00	5,400	102,771
KD4508R	450	900	5810C	94.5	71.6	127.00	6,585	115,296
KD5004	500	1800	5011C	95.8	85.4	116.00	4,845	93,587
KD5006R	500	1200	5810C	95.0	78.3	128.00	5,710	112,994
KD5008R	500	900	5810C	94.5	74.4	135.00	7,040	121,193
KD6004	600	1800	5810C	95.8	86.2	138.00	6,115	109,159
KD6006R	600	1200	5810C	95.0	79.4	151.00	6,160	127,982
KD6008R	600	900	6808C	94.5	74.7	162.00	7,830	161,655
KD7004	700	1800	5810C	95.8	85.8	160.00	6,610	125,162
KD7006R	700	1200	6808C	95.0	81.4	170.00	8,260	148,272
KD7008R	700	900	6808C	94.5	75.8	184.00	8,755	162,724
KD8004	800	1800	6808C	95.8	80.4	197.00	7,900	141,626
KD8006R	800	1200	6808C	95.0	81.0	198.00	8,955	162,411
KD9004	900	1800	6808C	95.8	81.3	218.00	8,360	151,741

Notes:

(1) "R" at the end of the Catalog number means motor has Roller Bearing on the Drive End.

C-FLANGE KITS

Effective 06-14-15
Supercedes 05-01-13

NEMA FRAME	LIST PRICE (\$)	ODP ASHH CATALOG NO.	MAX-PE™ AEHH8P CATALOG NO.	MAX-E1® AEHE, AEHH8N CATALOG NO.	MAX-E2® AEHH CATALOG NO.	MAX-E2/841®(1) EHH8B LIST PRICE (\$)	MAX-E2/841® AEHH8B CATALOG NO.
140T	125	N/A	CFN140T	CFE140T	CFHH140T	350	CFHB140T
180T	180	N/A	CFN180T	CFE180T	CFHH180T	465	CFHB180T
210T	325	N/A	CFN210T	CFE210T	CFHH210T	721	CFHB210T
250T	454	CFDH250T	CFN250T	CFE250T	CFHH250T	856	CFHB250T
280TS	529	CFDH280TS	CFN280TS ⁽²⁾	CFE280TS ⁽²⁾	CFHH280TS ⁽²⁾	1,075	CFHB280TS ⁽²⁾
280T	529	CFDH280T	CFN280T	CFE280T	CFHH280T	1,075	CFHB280T
320TS	689	CFDH320TS	CFN320TS ⁽²⁾	CFE320TS ⁽²⁾	CFHH320TS ⁽²⁾	1,175	CFHB320TS ⁽²⁾
320T	689	CFDH320T	CFN320T	CFE320T	CFHH320T	1,175	CFHB320T
360TS	825	CFDH360TS	CFN360TS ⁽²⁾	CFE360TS ⁽²⁾	CFHH360TS ⁽²⁾	1,289	CFHB360TS ⁽²⁾
360T	825	CFDH360T	CFN360T	CFE360T	CFHH360T	1,289	CFHB360T
400TS	1,025	CFDH400TS	CFN400TS ⁽²⁾	CFE400TS ⁽²⁾	CFHH400TS ⁽²⁾	1,575	CFHB400TS ⁽²⁾
400T	1,025	CFDH400T	CFN400T	CFE400T	CFHH400T	1,789	CFHB400T
444/445TS	2,150	CFDH444/5TS	CFN444/5TS ⁽²⁾	CFE444/5TS ⁽²⁾	CFHH444/5TS ⁽²⁾	3,400	CFHB444/5TS ⁽²⁾
444/445T	2,150	CFDH444/5T	CFN444/5T	CFE444/5T	CFHH444/5T	3,705	CFHB444/5T
447/449TS	2,550	CFDH447/9TS	CFN447/9TS ⁽²⁾	CFE447/9TS ⁽²⁾	CFHH447/9TS ⁽²⁾	3,810	CFHB447/9TS ⁽²⁾
447/449T	2,550	CFDH447/9T	CFN447/9T	CFE447/9T	CFHH447/9T	3,950	CFHB447/9T
Hybrid 449TS	2,650	N/A	N/A	CFE449TS-HYBRID	N/A	N/A	N/A
Hybrid 449T	2,650	N/A	N/A	CFE449T-HYBRID	N/A	N/A	N/A

NEMA FRAME	LIST PRICE (\$)	ROLLED STEEL ASGA/ASGH CATALOG NO.	SINGLE PHASE BEGC(CC,CS)FD CATALOG NO.	3 PHASE ROLLED STEEL AEGA-AEGH CATALOG NO.
56	103	CFDS56	CFS56	CFG56S ⁽³⁾
140T	103	CFDT140T	CFS140T	CFG56L/140 ⁽⁴⁾
180T	152	CFDT180T	CFS180T	CFGP180
210T	189	CFDT210T	CFS210T	CFGP210
250T	219	CFDT250T	N/A	N/A
280TS	424	CFDT280TS	N/A	N/A
280T	424	CFDT280T	N/A	N/A

Notes:

- (1) For MAX-E2/841® (AEHH8B) INPRO™ Seal is included in the price.
- (2) TS Flanges are for 2 pole motors only. 280TS-449TS are interchangeable between MAX-E1® and MAX®-SE/PE. 140T-280T are not interchangeable.
- (3) 56 Frame Only - Fits bearing sizes 6204ZZ
- (4) 56 and 140T Frames - Fits bearing sizes 6205ZZ
 - For frame sizes larger than 449T, please refer to the factory.
 - HYBRID Ratings are EP3502, EP3504.

FRAME	LIST PRICE (\$)	CATALOG NO.
5007A	3,600	CFE5007A
5009A	3,600	CFE5009A
5009B/C	3,600	CFE5009B/C
5011A	3,850	CFE5011A
5011B/C	3,850	CF5011B/C
5808A	4,300	CFE5808A
5808B/C	4,300	CFE5808B/C
5810A	5,350	CFE5810A
5810B/C	5,350	CFE5810B/C

Notes:

Fits product types:

- MAX-E1® (AEHE, AEHH8N)
- Medium Voltage TEFC (AEGHTK).

METRIC FRAME	LIST PRICE (\$)	METRIC AESV3W CATALOG NO.
F80	125	CFM80
F90	135	CFM90
F100	180	CFM100
F112	195	CFM112
F132	325	CFM132
F160	454	CFM160

D-FLANGE KITS

Effective 06-14-15
Supersedes 05-01-13

NEMA FRAME	LIST PRICE (\$)	NEMA PREMIUM ODP CATALOG NO.	MAX-PE™ AEHH8P CATALOG NO.	MAX-E1® AEHE, AEHH8N CATALOG NO.	MAX-E2® AEHH CATALOG NO.	MAX-E2/841®(1) AEHH8B LIST PRICE (\$)	MAX-E2/841® AEHH8B CATALOG NO.
56	N/A	N/A	N/A	N/A	N/A	N/A	N/A
140T	299	N/A	DFN140T	DFE140T	DFHH140T	333	DFHB140T
180T	319	N/A	DFN180T	DFE180T	DFHH180T	446	DFHB180T
210T	N/A	N/A	N/A	N/A	N/A	N/A	N/A
250T	385	DFDH250T	DFN250T	DFE250T	DFHH250T	688	DFHB250T
280TS	550	DFDH280TS(2)	DFN280TS(2)	DFE280TS	DFHH280	1,053	DFHB280
280T	570	DFDH280T	DFN280T	DFE280T	DFHH280	1,053	DFHB280
320TS	675	DFDH320	DFN320	DFE320	DFHH320	1,153	DFHB320
320T	675	DFDH320	DFN320	DFE320	DFHH320	1,153	DFHH320
360TS	750	DFDH360TS(2)	DFN360TS(2)	DFE360TS(2)	DFHH360TS(2)	1,247	DFHB360TS(2)
360T	750	DFDH360T	DFN360T	DFE360T	DFHH360T	1,247	DFHB360T
404TS/405TS	955	DFDH400TS(2)	DFN400TS(2)	DFE400TS(2)	DFHH400TS(2)	1,548	DFHB400TS(2)
404T/405T	955	DFDH400T	DFN400T	DFE400T	DFHH400T	1,758	DFHB400T
444TS/445TS	2,695	DFDH444/5TS(2)	DFN444/5TS(2)	DFE444/5TS(2)	DFHH444/5TS(2)	3,406	DFHB444/5TS(2)
444T/445T	2,695	DFDH444/5T	DFN444/5T	DFE444/5T	DFHH444/5T	3,718	DFHB444/5T
447TS/449TS	3,250	DFDH447/9TS(2)	DFN447/9TS(2)	DFE447/9TS(2)	DFHH447/9TS(2)	3,507	DFHB447/9TS(2)
447T/449T	3,250	DFDH447/9T	DFN447/9T	DFE447/9T	DFHH447/9T	3,819	DFHB447/9T

Notes:

- (1) For MAX-E2/841® (AEHH8B), INPRO™ Seal is included in the price.
 (2) TS Flange is for 2 pole only.
 • For frame sizes larger than 449T, please refer to factory.
 • D-Flanges are not available for EP3502, EP3504, HB3502, and HB3504

FRAME	LIST PRICE (\$)	CATALOG NO.
5007A	3,500	DFE5007A
5009A	3,500	DFE5009A
5009B/C	3,500	DFE5009B/C
5011A	3,750	DFE5011A
5011B/C	3,750	DFE5011B/C
5808A	5,100	DFE5808A
5808B/C	5,100	DFE5808B/C
5810A	6,741	DFE5810A
5810B/C	6,741	DFE5810B/C

Notes:

- Fits product types:
 • MAX-E1® (AEHE, AEHH8N)
 • Medium Voltage TEFC (AEGHTK)

METRIC FRAME	LIST PRICE (\$)	METRIC AESV3W CATALOG NO.
F80	299	DFM80
F90	309	DFM90
F100	319	DFM100
F112	329	DFM112
F132	350	DFM132
F160	385	DFM160
F200	675	DFM200
F225MA	750	DFM225-2P*
F225SC/225MC	750	DFM225-4/6P
250SA	955	DFM250-2P*
250SC	955	DFM250-4/6P

Notes:

- * Denotes Flanges are for 2 Pole motors only

P-BASE KITS, DRIP COVERS, & PAINT

Effective 06-14-15
Supercedes 05-01-13

ALTERNATE P-BASE FOR MAX-VH™

CATALOG NO.	FRAME SIZE	BASE DIMENSION (in.)	AJ (in.)	AK (in.)	LIST PRICE (\$)
PBVH-250-12	250TP	12.0	9.125	8.250	375
PBVH-250-16.5	250TP	16.5	14.750	13.500	689
PBVH-280-12	280TP	12.0	9.125	8.250	506
PBVH-280-16.5	280TP	16.5	14.750	13.500	725
PBVH-320-12	320TP	12.0	9.125	8.250	899
PBVH-360-12	360TP	12.0	9.125	8.250	975
PBVH-400-20	400TP	20.0	14.750	13.500	1,068
PBVH-444/5-16.5	444/5TP	16.5	14.750	13.500	1,750
PBVH-444/5-20	444/5TP	20.0	14.750	13.500	1,850
PBVH-447/9-20	447/9TP	20.0	14.750	13.500	2,686
PBVH-447/9-24.5	447/9TP	24.5	14.750	13.500	2,886

DRIP COVERS

NEMA FRAME	ROLLED STEEL CATALOG NO.	ROLLED STEEL LIST PRICE (\$)	CAST IRON CATALOG NO.	CAST IRON LIST PRICE (\$)
140T	RSDC140T	102	CIDC140T	312
180T	RSDC180T	135	CIDC180T	400
210T	RSDC210T	193	CIDC210T	455
250T	RSDC250T	355	CIDC250T	624
280TS	RSDC280TS	442	CIDC280TS	931
280T	RSDC280T	442	CIDC280T	931
320TS	RSDC320TS	574	CIDC320TS	1,235
320T	RSDC320T	574	CIDC320T	1,235
360TS	RSDC360TS	1,413	CIDC360TS	1,965
360T	RSDC360T	1,413	CIDC360T	1,965
404TS/405TS	RSDC400T	1,833	CIDC400T	2,045
404T/405T	RSDC400T	1,833	CIDC400T	2,045

ALTERNATE P-BASE KITS FOR MAX-VS™ PRODUCT LINE

NEMA FRAME	MAX-E2/841® AEHH8B CATALOG NO.	LIST PRICE (\$)
140T	PBHB140T	329
180T	PBHB180T	350
210T	PBHB210T	365
250T	PBHB250T	385
280TS	PBHB280TS	450
280T	PBHB280T	545
320TS	PBHB320TS	765
320T	PBHB320T	765
360TS	PBHB360TS	845
360T	PBHB360T	845
400TS	PBHB400TS	965
400T	PBHB400T	965
444/445TS	N/A	N/A
444/445T	PBHB444/5T	1,650
447/449TS	N/A	N/A
447/449T	N/A	N/A

PAINT

MOTOR TYPE	PAINT PART NUMBER	COLOR	PAINT #	LIST PRICE (\$)
MAX-E1® LOW VOLTAGE ODP METRIC	5D98549H04	LIGHT GRAY	Munsell N5.0	77
MAX-E2® MAX-E2/841®	5D98549H05	BLUE	Munsell 5PB 3/8	77
SINGLE PHASE FARM DUTY	5D98549H07	GREEN	Munsell 5G 4/4	77
EXPLOSION PROOF TEFC OWP	5D98549H08	DARK BLUE	Munsell 5PB 4.5/2	77
MAX-PE™, MAX-HT™ MAX-VH™, ALL MEDIUM VOLTAGE MOTORS, AEENEJM/JP	5D98549H21	DARK GRAY	Munsell 7.5B 3.5/5	77

Notes:

- Minimum order is three cans of paint. Freight is prepaid and added to invoice. Allow 3-5 days for delivery.

FACTORY MODIFICATION PRICING

Effective 06-14-15
Supersedes 05-01-13

MODIFICATION LEAD TIME

1. TWMC standard lead time for all modifications is 5-10 working days.
If shorter lead time is required, please contact TWMC. Expediting fees may apply.
2. Modification lead time does not include transit time.
3. Lead time is based upon availability of parts.

M2X is the only modification that can be done to our explosion-proof motors

MOD. NUMBER	DESCRIPTION	LIST PRICE (\$)										
		NEMA FRAME:	56-180T	210T	250T	280T	320T	360T	400T	440T	5000	5800 & UP
		METRIC FRAME:	90S, 90L, 112S, 112M	132S, 132M	160M, 160L	180M, 180L	200M, 200L	225S, 225M	250S, 250M	N/A	N/A	N/A
M1	Nameplate Change		95	95	95	95	95	95	95	95	95	95
M1A	Additional Nameplate		127	127	127	127	127	127	127	127	127	127
M1B	304 Stainless Steel Hardware		N/A	N/A	425	550	675	850	1,050	1,325	1,550	1,850
M2 ⁽¹⁾	Space Heater		370	370	446	486	549	549	612	751	1,525	1,733
M2A ⁽¹⁾	Space Heater w/ Auxiliary Box		801	801	907	978	1,047	1,116	1,185	1,325	1,925	2,137
M2X	Space Heater "Explosion Proof Motors Only"		558	558	697	838	978	978	1,116	1,395	N/A	N/A
M3C ⁽²⁾	Installation of C-Face		300	384	468	677	823	1,047	1,475	2,593	5,580	6,278
M3C841 ⁽²⁾	Installation of C-Face w/ INPRO™ Seal (MAX-E2/841® only)		613	873	1,256	1,395	1,744	1,953	2,373	2,872	N/A	N/A
M3D ^(2, 11)	Installation of D-Flange		300	384	468	677	823	1,047	1,475	2,593	5,580	6,278
M3D841 ^(2, 11)	Installation of D-Flange w/ INPRO™ Seal (MAX-E2/841® only)		613	873	1,256	1,395	1,744	1,953	2,373	2,872	N/A	N/A
M3P ⁽²⁾	Installation of P-Base		N/A	N/A	538	586	737	936	1,317	1,812	N/A	N/A
M4 ⁽³⁾	Stator Winding RTD's, 100 Ohm Platinum (1/ Phase)		809	924	982	982	1,116	1,116	1,271	1,271	1,617	1,617
M4A ⁽³⁾	Stator Winding RTD's w/ Auxiliary Box (1/ Phase)		N/A	N/A	N/A	N/A	N/A	1,744	1,744	1,744	2,232	2,302
M4B ⁽³⁾	Stator Winding RTD's, 100 Ohm Platinum w/ Auxiliary Box (2/ Phase)		N/A	N/A	N/A	N/A	N/A	N/A	3,244	3,244	3,732	3,802
M5	Thermistors (1/ Phase)		558	838	838	838	1,116	1,116	1,116	1,116	1,395	1,395
M5A	Thermistors (1/ Phase) w/ Auxiliary Box		1,271	1,386	1,395	1,395	1,675	1,744	1,744	1,744	2,232	2,302
M6	Thermostats (1/ Phase)		279	418	418	418	558	589	670	670	697	697
M6A	Thermostats (1/ Phase) w/ Auxiliary Box		801	942	978	978	1,116	1,185	1,185	1,185	1,535	1,604
M7 ^(4,6)	Bearing RTD's, 100 Ohm Platinum Cable Type with Aux Box (2/ motor)		N/A	N/A	N/A	N/A	N/A	N/A	3,004	3,004	3,004	3,004
M8 ⁽⁴⁾	Bearing Conversion - Roller to Ball or Ball to Roller		N/A	N/A	N/A	N/A	N/A	2,310	2,625	3,437	5,082	5,544
M8A ⁽⁴⁾	Convert to Ceramic or Hybrid Bearings		998	1,575	1,680	1,838	2,520	3,413	4,095	6,563	11,025	14,175
M8B ⁽⁴⁾	Convert to Outer Race Insulated Bearings		840	840	1,100	1,707	1,707	1,707	2,048	3,282	5,512	7,088
M9	Change Rotation		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2,587	2,587
M10	Shorten Shaft to NEMA TS Dimensions ONLY; Does Not Require TWMC Drawing		N/A	N/A	N/A	1,256	1,395	1,535	1,675	1,953	QUOTE	QUOTE
M10A	Special Keyless 4140 Shaft Ext. for 440 Frames and Above; Any Special Shaft		N/A	N/A	N/A	N/A	N/A	N/A	N/A	QUOTE	QUOTE	QUOTE
M10B	Any Non NEMA Special Shaft Required; Non NEMA Dim requires TWMC Drawing		N/A	N/A	N/A	QUOTE	QUOTE	QUOTE	QUOTE	QUOTE	QUOTE	QUOTE

Notes:

- (1) Please double the list price for 240v SH operated on 120v
- (2) Price includes the flange
- (3) Only one per phase is available for 360 frame and smaller
- (4) Price is per bearing
- (5) Not required for MAX-E2® or MAX-E2/841®
- (6) For frames 140T-400T, please use Max-E2/841®
- (7) M8A or M8B Mod required as well from frames 440TS/T and larger
- (8) Must Start with IEEE841 motor. Required only of motors with VBX Seal. Must perform M17 Mod, and add extra sealant to end brackets
- (9) No Shaft Grounding Ring allowed in Div#2 Area
- (10) Must start with VPH NP Series
- (11) Not available for Hybrid 449T/TS frames: EP3502, EP3504, HB3502, HB3504

FACTORY MODIFICATION PRICING

MODIFICATION LEAD TIME

Effective 06-14-15
Supersedes 05-01-13

1. TWMC standard lead time for all modifications is 5-10 working days.
If shorter lead time is required, please contact TWMC. Expediting fees may apply.
2. Modification lead time does not include transit time.
3. Lead time is based upon availability of parts.

MOD. NUMBER	DESCRIPTION	LIST PRICE (\$)										
		NEMA FRAME:	56-180T	210T	250T	280T	320T	360T	400T	440T	5000	5800 & UP
		METRIC FRAME:	90S, 90L, 112S, 112M	132S, 132M	160M, 160L	180M, 180L	200M, 200L	225S, 225M	250S, 250M	N/A	N/A	N/A
M11	F1 to F2 Mounting Conversion		210	264	377	377	377	503	503	589	9,486	9,486
M12	Supply Oversized Main Conduit Box		N/A	N/A	N/A	N/A	N/A	N/A	N/A	4,620	4,620	4,620
M12A	Supply Fully Loaded Main Conduit Box		N/A	N/A	N/A	N/A	N/A	N/A	N/A	25,480	25,480	25,480
M13	Stainless Steel Breather Drains		210	264	377	377	377	503	503	589	589	670
M14	Tropicalization/ Fungus Protection		284	284	284	284	284	284	284	468	857	857
M15	Provisions for Vertical Jack Screws		N/A	N/A	N/A	N/A	N/A	N/A	1,185	1,185	Included	Included
M16	Alternate Grease		314	364	364	427	508	589	670	751	1,185	1,185
M17	Chico Motor Leads		210	264	377	377	377	503	549	549	900	1,142
M18A ⁽⁵⁾	Epoxy Paint Finish		838	838	1,152	1,152	1,152	1,152	1,152	1,152	1,535	1,840
M18B	Fire Pump Red		838	838	1,152	1,152	1,152	1,152	1,152	1,152	1,535	1,840
M19 ⁽⁴⁾	Shaft INPRO™ Seals		N/A	N/A	N/A	N/A	N/A	N/A	N/A	3,003	3,003	3,003
M20 ⁽⁵⁾	Grounding Provisions on Frame		140	140	140	140	140	140	140	Included	Included	Included
M21	Drip Cover (TEFC) Rolled Steel		347	404	578	962	1,213	1,386	2,195	N/A	N/A	N/A
M21A	Drip Cover (TEFC) Cast Iron		572	771	922	1,116	1,451	1,688	2,617	N/A	N/A	N/A
M22	Extend Leads - Connection Behind Conduit Box; Price Based on 4' Leads		628 +\$1/ft	628 +\$1/ft	628 +\$1/ft	669 +\$3.25/ft	757 +\$6.50/ft	855 +\$12.70/ft	991 +\$19/ft	1049 +\$23/ft	1028 +\$25/ft	1427 +\$41/ft
M23 ⁽⁹⁾	Supply Shaft Grounding Ring		650	742	742	1,242	1,242	1,334	1,489	1,587	1,587	2,285
M23A ⁽⁹⁾	VHS Shaft Grounding Ring		N/A	N/A	N/A	N/A	965	1,084	1,285	2,063	2,063	2,975
M23B ^{(9),(10)}	VHS Shaft Grounding Ring & Insulated Bearing for INV Duty		N/A	N/A	N/A	N/A	N/A	N/A	3,037	4,869	4,869	4,869
M24 ⁽⁴⁾	Provisions for Vibration Sensor		N/A	N/A	N/A	N/A	N/A	N/A	384	384	384	384
M24A ⁽⁴⁾	Provide and Install Vibration Switch/ Transmitter Spec. (Does Not Include Cabling or Terminations)		N/A	N/A	N/A	N/A	N/A	QUOTE	QUOTE	QUOTE	QUOTE	QUOTE
M24B ⁽⁴⁾	Provide our Standard METRIX # ST5484E-121-714-00		N/A	N/A	N/A	N/A	N/A	1,236	1,340	1,573	2,140	3,640
M25	Mill Off Motor Feet		816	838	884	928	1,019	1,155	1,382	1,608	1,857	2,151
M26 ⁽⁷⁾	Inline Blower for 1000:1 Speed Range		508	681	951	1,109	1,756	1,860	2,044	6,999	12,249	17,499
M27A ⁽⁷⁾	Installation of Dynapar Encoder		2,573	2,573	2,678	2,783	3,019	3,019	3,281	3,615	6,825	8,138
M27B ⁽⁷⁾	Installation of Other Encoder		QUOTE	QUOTE	QUOTE	QUOTE	QUOTE	QUOTE	QUOTE	QUOTE	QUOTE	QUOTE
M28	Lock Nut and Washer for Mounting the Motor Vertical Shaft Down		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3,397	3,397
M29 ⁽⁸⁾	Oil Mist Ready		N/A	N/A	N/A	N/A	N/A	N/A	2,625	3,413	6,563	9,188
M30	Installation of Brake		QUOTE	QUOTE	QUOTE	QUOTE	QUOTE	QUOTE	QUOTE	QUOTE	QUOTE	QUOTE
M31 ⁽⁸⁾	Convert to IP56 or IP65		489	682	795	795	935	1,092	1,219	1,219	QUOTE	QUOTE
M32	Precision Balance		N/A	N/A	N/A	N/A	N/A	QUOTE	QUOTE	QUOTE	QUOTE	QUOTE
M33	175% Thrust or more on VHS on 440 Frame 200-400 HP		N/A	N/A	N/A	N/A	N/A	N/A	N/A	QUOTE	QUOTE	QUOTE

Notes:

- (1) Please double the list price for 240v SH operated on 120v
- (2) Price includes the flange
- (3) Only one per phase is available for 360 frame and smaller
- (4) Price is per bearing
- (5) Not required for MAX-E2® or MAX-E2/841®.
- (6) For frames 140T-400T, please use Max-E2/841®
- (7) M8A or M8B Mod required as well from frames 440TS/T and larger
- (8) Must Start with IEEE841 motor. Required only of motors with VBX Seal. Must perform M17 Mod, and add extra sealant to end brackets
- (9) No Shaft Grounding Ring allowed in Div#2 Area
- (10) Must start with VPH NP Series
- (11) Not available for Hybrid 449T/TS frame: EP3502, EP3504, HB3502, HB3504

FACTORY MODIFICATION DESCRIPTIONS

Effective 06-14-15
Supersedes 05-01-13

M1. Nameplate Change:

Add new nameplate displaying approved data changes such as new voltage and frequency, revised HP and service factor, higher or lower ambient temperature, etc. Information should be clearly stamped on P.O.

M1A. Additional Nameplate:

Add second data plate with customer part number, order number, or other data.

M1B. 304 Stainless Steel Hardware:

Add for 304 Stainless Steel Hardware - Bolts, Nameplate.

M2. Space Heater:

Add wrap around space heaters with leads brought out to main terminal box. Standard voltage is 115V, however other voltages are available. Please specify voltage when ordering. All heaters are single phase.

M2A. Space Heater w/ Auxiliary Box:

Same as M2, except an auxiliary terminal box is added to the side of the main terminal box and the space heater leads are brought out to the auxiliary terminal box.

M2X. Space Heater "Explosion Proof":

Add wrap around space heaters with leads brought out to main terminal box. Standard voltage is 115V, however other voltages are available. Please specify voltages when ordering. All heaters are single phase. This applies to TWMC's explosion proof line of motors.

M3C. Installation of C-Face:

Remove drive-end bracket and replace with C-Face: Modification Price includes the C-Face.

M3C841. Installation of C-Face w/ INPRO™ Seal (MAX-E2/841® only):

Remove drive-end bracket and replace with C-Face and INPRO™ Seal: Only Available on MAX-E2/841® Line.

M3D. Installation of D-Flange:

Remove drive-end bracket and replace with D-Flange: Modification Price includes the D-Flange.

M3D841. Installation of D-Flange w/ INPRO™ Seal (MAX-E2/841® only):

Remove drive-end bracket and replace with D-Flange and INPRO™ Seal: Only Available on MAX-E2/841® Line

M3P. Installation of P Base on any Horizontal Motor for Vertical Mount.

Remove drive-end bracket

M4. Stator Winding RTD's, 100 Ohm Platinum (1/ phase):

Provide 100 Ohm platinum resistant temperature detectors (RTD's), one per phase, on the winding end turns with leads brought out to main terminal box. Note TWMC's medium voltage line of products come standard with 100 Ohm platinum RTD's, two per phase.

M4A. Stator Winding RTD's w/ Auxiliary Box (1/ Phase):

Provide 100 Ohm platinum resistant temperature detectors (RTD's) two per phase on the winding end turns with leads terminated in an auxiliary terminal box.

Note: On motors 449T frame and smaller, the auxiliary box will be located on the same side as the main lead box. On 5000 frames and larger, the auxiliary box will be located on the F2 side, or on the opposite side of the main lead box.

M4B. Stator Winding RTD's, 100 Ohm Platinum w/ Auxiliary Box (2/ Phase):

Provide 100 Ohm platinum resistant temperature detectors (RTD's) one per phase on the winding end turns with leads terminated in an auxiliary terminal box.

Note: On motors 360T - 449T, the auxiliary box will be located on the same side as the main lead box. On 5000 frames and larger, the auxiliary box will be located on the F2 side, or on the opposite side of the main lead box.

M5. Thermistors (1/ Phase):

Provide (3) PTC thermistors (140°C) on the winding end turns with leads brought out to main terminal box.

Note: these are standard on Metric motors with frames 160L and larger.

M5A. Thermistors (1/ Phase) w/ Auxiliary Box:

Provide (3) PTC thermistors (140°C) on the winding end turns with leads brought out to an auxiliary terminal box. The auxiliary box will be located on the side of the main terminal box.

M6. Thermostats (1/ Phase):

Addition of (3) normally closed thermostats (140°C) to the winding end turns, connected in series with the leads brought out to the main terminal box. This is standard on Explosion Proof Motors.

FACTORY MODIFICATION DESCRIPTIONS

Effective 06-14-15
Supersedes 05-01-13

M6A. Thermostats (1/ Phase) w/ Auxiliary Box:

Addition of (3) normally closed thermostats (140°C) to the winding end turns, connected in series with the leads brought out to an auxiliary terminal box. The auxiliary box will be located off the side of the main terminal box.

M7. Bearing RTD's, 100 Ohm Platinum (2/ motor) Cable Type with Aux. Box:

Add 100 Ohm platinum bearing resistance temperature detectors, on both the drive and non-drive end bearing. Specify if alternate type is required.

M8. Convert Bearings - Ball to Roller or Roller to Ball:

Convert from Roller Bearings to Ball Bearings or Ball Bearings to Roller Bearings. The Roller to Ball conversion requires some machining on bearing caps to allow for thermal growth.

M8A. Convert to Ceramic or Hybrid Bearings:

Replace existing bearing(s) with either Hybrid Ceramic bearings, where balls are Ceramic, or Solid Ceramic bearings. This would be to reduce/ eliminate shaft currents. TWMC's standard is on the Non-Drive End Bearing only.

M8B. Convert to Outer Race Insulated Bearings:

Replace existing bearing(s) with bearings that have outer race coated with insulated material like SKF "Insacote." This would be to reduce / eliminate shaft currents. TWMC's standard is on the Non-Drive End bearing only.

M9. Change Rotation:

This modification only applies to 2-Pole (3600/ 3000 RPM) motors in 5000 frames and larger. Standard direction of rotation is counter clockwise, facing the drive-end of the motor. This modification will change either the internal or external fans for operation in the clockwise direction, facing the drive-end.

M10. Shorten Shaft to NEMA TS Dimensions ONLY; Non-NEMA Dim Requires TWMC Drawing:

Machine shafts to TS Dimensions per NEMA MG1 ONLY. This does not include new bearings. This does NOT require a TWMC drawing.

M10A. Special Keyless 4140 Shaft Extension for 5000 Frames and above; Any Special Shaft:

Extension is for 5000 frames and above, where torsional stress in the application is high, such as reciprocating gas compressors. Requires TWMC approval, quote, and drawing.

M10B. Any NON NEMA Special Shaft Required:

This requires a TWMC quote and Drawing.

M11. F1 to F2 Mounting Conversion:

Convert terminal box location from standard F1 to F2, or F2 to F1, depending on the product line. On medium voltage motors, the auxiliary terminal boxes will be on the opposite side of the main terminal box as standard. If the requirement is to have all terminal boxes on either the F1 side or the F2 side, please specify.

M12. Supply Oversized Main Conduit Box:

Replace existing conduit box with an oversized main conduit box. This would be done if the TWMC standard box does not meet customer's requirement. Mount and extend leads if necessary.

M12A. Supply Fully Loaded Main Lead Box:

Replace existing conduit box with a fully loaded box. The box will be TWMC standard size and will contain TWMC standard lightning arrestors, surge capacitors and current transformers (50:5). Box is not self supporting and will require the customer to support.

M13. Stainless Steel Breather Drains:

Drill and tap the existing drain holes to accommodate a Crouse-Hinds stainless steel breather drain. Note, this is standard on MAX-E2®, MAX-E2/841® and Explosion Proof motors.

M14. Tropicalization/ Fungus Protection:

Involves disassembling the motor and spraying the internal windings.

M15. Provisions for Vertical Jack Screws:

Drill and tap (2) holes per motor.

M16. Alternate Grease:

Purge and repack lubricant in end brackets with TWMC standard high temp. or low temp. grease. Please contact TWMC for alternates.

M17. Chico Motor Leads:

Apply a compound between terminal box and frame of motor. This feature is standard for explosion proof motors.

M18A. Epoxy Paint Finish:

Standard paint finish will be changed to Epoxy paint (e.g. MAX-E2® Epoxy Paint (Blue)).

FACTORY MODIFICATION DESCRIPTIONS

Effective 06-14-15
Supersedes 05-01-13

M18B. Fire Pump Red Finish:

Standard paint finish will be changed to Fire Pump Red (e.g. PPG Pitt-Tech 90-306 Safety Red).

M19. Shaft INPRO™ Seals:

Add INPRO™ seals to drive-end only of MAX-E2® motors 140T~449T/TS frames. This modification is only available for frames 440T and larger on all other product lines. The price reflects drive-end only.

M20. Grounding Provisions on Frame:

Drill and tap the motor frame. This is standard on MAX-E2®, MAX-E2/841®, Oil Well Pump motors, and motors on 5000 frames and larger. All motors have a grounding lug inside the main lead box as a standard.

M21. Drip Cover (TEFC) Rolled Steel:

Replace the existing fan cover with a rolled steel drip cover. This is only for motors mounted vertically.

M21A. Drip Cover (TEFC) Cast Iron:

Replace the existing fan cover with a cast iron drip cover. This is only for motors mounted vertically.

M22. Extend Leads - Connection Behind Conduit Box; Price Based on 4' leads:

Extend existing leads to the length specified by customer. The splice will be made behind the conduit box so it is not seen.

M23. Supply Shaft Grounding Ring:

Install AEGIS shaft grounding ring as made by ELECTRO STATIC TECHNOLOGY. This would be to reduce or eliminate shaft currents. For other methods of shaft grounding, please contact TWMC.

M23A. Vertical Hollow Shaft Grounding Ring:

Install a Shaft Grounding Ring internally on inboard side of Guide Bearing Cap.

M23B. VHS Shaft Grounding Ring & Insulated Brg. For VFD Duty:

Must start with a VHP Nema Premium motor. Install a SGR internally on guide bearing inboard cap, and insulated bearing.

M24. Provisions for Vibration Sensor:

Drill, tap and machine end bracket(s) to accommodate vibration sensor. Customer is required to submit specifications of vibration sensor. Price is per bracket.

M24A. Provide and Install Vibration Sensor (Does Not Include Cabling or Terminations):

Drill, tap and machine end bracket(s) to accommodate vibration sensor. TWMC standard switch will be provided as made by METRIX, ROBERTSHAW, PREDICTECH, or STI. For details or pricing to provide another brand, please contact TWMC. Price is per bracket.

M24B. Provide our Standard METRIX # ST5484E-121-714-00 Vibration Switch

M25. Mill Off Motor Feet:

TWMC will cut off the feet of a footed motor to create a round body type motor. Second lifting lug available for an additional price adder.

M26. Inline Blower for 1000:1 Speed Range:

Remove existing fan and fan cover and replace with TWMC standard inline blower/ fan cover configuration. Blower motor will require a separate power source. This modification will also require an "M8A" modification for 440TS/T frames and larger.

M27A. Installation of Dynopar Encoder:

Install TWMC standard Encoder as made by Dynapar.

M27B. Installation of Other Encoder:

Please contact factory for quote.

M28. Lock Nut and Washer for Mounting the Motor Vertical Shaft Down.

M29. Oil Mist Ready:

TWMC to prepare motors for immediate Oil Mist Lubrication. Must use MAX-E2/841® if applicable.

M30. Installation of Brake:

Modify TEFC motors such that a Brake can be attached. This must be quoted with specs and a TWMC Drawing required.

M31. Convert to IP56 or IP65:

TWMC to take IEEE 841 motor, perform M17 modification and add extra sealant to end-brackets.

M32. Precision Balancing for Vibration limits below what standard NEMA specification of .12 ips; .08 ips on IEEE/841 motors.

M33. 175% Thrust VHS on 440 Frame 200-400 HP:

Modify the motor adding correct bearings, parts, and oil for higher thrust

MODIFICATION DRAWING REQUIREMENTS

DRAWING REQUIREMENTS

X No Drawing

● Basic Drawing

■ Modification Drawing

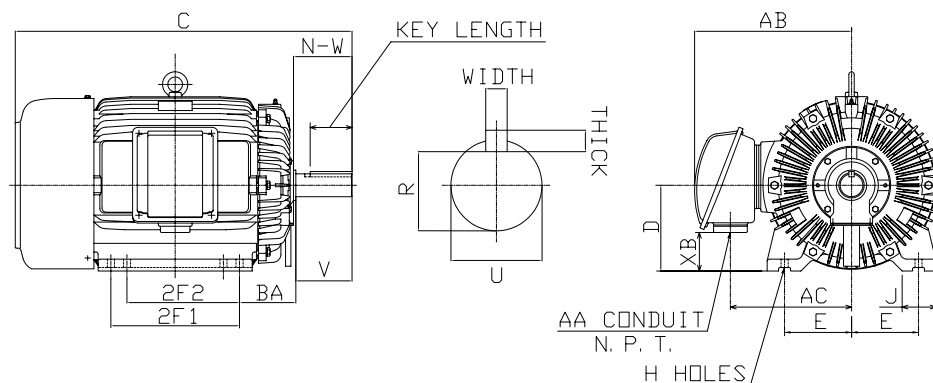
Effective 06-14-15
Supersedes 05-01-13

DRAWING REQ.	MOD CODE	MODIFICATION DESCRIPTION
X	M1	Nameplate Change
X	M1A	Additional Nameplate
X	M1B	304 Stainless Steel Hdwe.
●	M2	Space Heater
●	M2A	Space Heater with Aux Box
X	M2X	Space Heater "Explosion Proof Motors Only"
●	M3C	Installation of C-Face
X	M3C841	C-Face with Inpro (MAX-E2/841® only)
●	M3D	Installation of D-Flange
X	M3D841	D-Flange with Inpro (MAX-E2/841® only)
X	M3P	Installation of P-Base
X	M4	Winding RTD's 100 Ohm Platinum (1/Phase)
●	M4A	Winding RTD (2/Phase) with Auxiliary Terminal Box
●	M4B	Stator Winding RTDs, 100 Ohm Platinum (2/phase)
X	M5	Thermistors (1/Phase)
●	M5A	Thermistors (1/Phase) with Auxilliary Box
X	M6	Thermostats (1/Phase)
●	M6A	Thermostats (1/Phase) with Auxilliary Box
●	M7	Bearing RTD
X	M8	Bearings Conversion: Ball to Roller/ Roller to Ball
X	M8A	Convert to Ceramic or Hybrid Bearings
●	M8B	Convert to Outer Race Insulated Bearings
X	M9	Change Rotation
●	M10	Shorten Shaft (TS Frames) Per NEMA MG-1 Dimensions (Non NEMA Dimensions Require TWMC Drawing and Approval)
■	M10A	Special Keyless 4140 Shaft Extension for 440 frames and Larger
●	M10B	Any Non NEMA Special Shaft Required; Non NEMA Dim Requires TWMC Drawing
●	M11	F1 to F2 Mounting Conversion
■	M12	Oversized Main Conduit Box - Mount and Extend Leads
■	M12A	Fully Loaded Main Conduit Box - Mount and Extend Leads
X	M13	Stainless Steel Breather Drains
X	M14	Tropicalization / Fungus Protection
●	M15	Provisions for Vertical Jack Screws
X	M16	Alternate Grease
X	M17	Chico Motor Leads
X	M18A	Epoxy Paint Finish
X	M18B	Fire Pump Red Finish
●	M19	Install INPRO Seals
X	M20	Grounding Provisions on Frame
●	M21	Drip cover (TEFC)- Rolled Steel
●	M21A	Drip cover (TEFC)- Cast Iron
X	M22	Extend Leads -Connect Behind Box; Price Based on 4' Leads
X	M23	Supply Shaft Grounding Ring
X	M23A	VHS Shaft Grounding Ring
X	M23B	VHS Shaft Grounding Ring & Insulated Brg for INV Duty
X	M24	Provision for Vibration Sensor
■	M24A	Provide and Install Vibration Switch/ Transmitter Spec. (Does not Include Cabling or Terminations)
■	M24B	Provide our Standard METRIX # ST5484E-121-714-00 Vibration Switch
■	M25	Mill Off Motor Feet
■	M26	Inline Blower for 1000:1 speed range
●	M27A	Installation Of Dynopar Encoder
●	M27B	Installation Of Other Encoder
X	M28	Lock Nut and Washer For Vertical Shaft Down
●	M29	Oil Mist Ready
X	M30	Installation of Brake
X	M31	Convert to IP56 or IP65
X	M32	Precision Balance
■	M33	175% Thrust or more on VHS on 440 Frame 200-400 HP

DIMENSIONS - AC MACHINES

Dimensions for Foot-Mounted Machines with a Single Straight-Shaft Extension

Effective 06-14-15
Supercedes 05-01-13

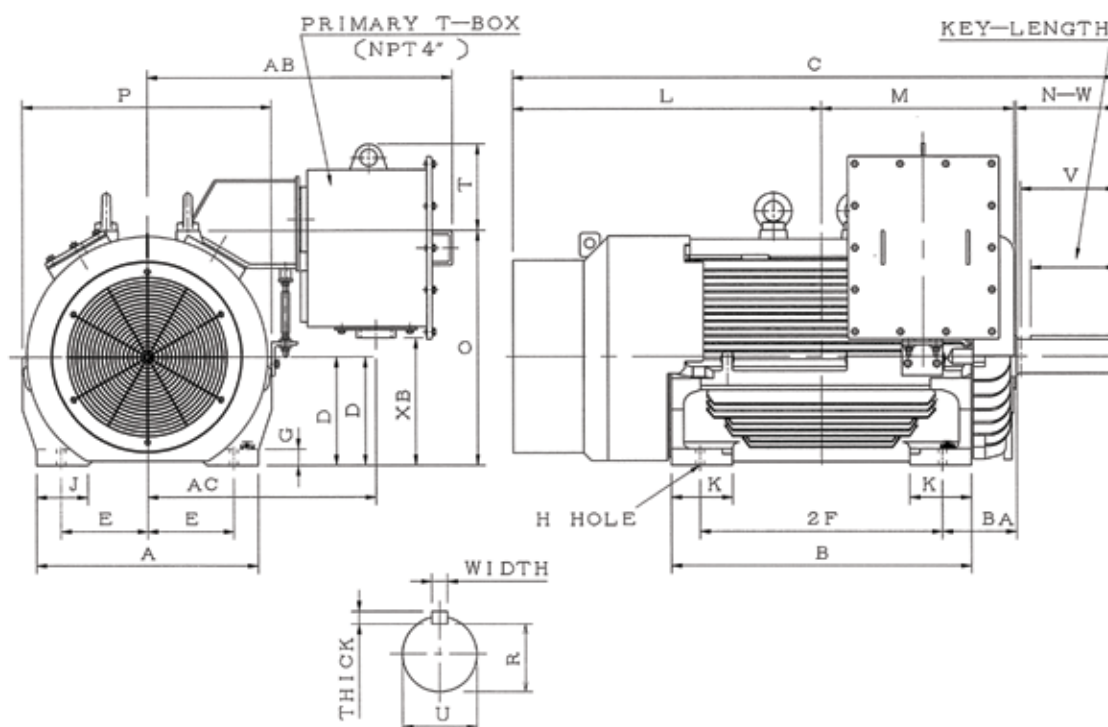


FRAME SIZE	MOUNTING							SHAFT EXTENSION			KEY & KEYSEAT				TERMINAL HOUSING			
	C	D	E	2F1	2F2	H	BA	N-W	U	V	WIDTH	THICK	LENGTH	R	AA	AB	AC	XB
143T	12.47	3.50	2.75	4.00	—	0.34	2.25	2.25	0.875	2.20	0.188	0.188	1.410	0.771	.75	6.18	4.92	2.52
145T	13.46	3.50	2.75	5.00	4.00	0.34	2.25	2.25	0.875	2.20	0.188	0.188	1.410	0.771	.75	6.18	4.92	2.52
182T	14.77	4.50	3.75	4.50	—	0.41	2.75	2.75	1.125	2.70	0.250	0.250	1.780	0.986	.75	7.44	6.06	3.36
184T	15.79	4.50	3.75	5.50	4.50	0.41	2.75	2.75	1.125	2.70	0.250	0.250	1.780	0.986	.75	7.44	6.06	3.36
213T	18.09	5.25	4.25	5.50	—	0.41	3.50	3.38	1.375	3.30	0.312	0.312	2.410	1.201	1.00	8.86	7.07	3.32
215T	19.59	5.25	4.25	7.00	5.50	0.41	3.50	3.38	1.375	3.30	0.312	0.312	2.410	1.201	1.00	8.86	7.07	3.32
254T	23.70	6.25	5.00	8.25	—	0.53	4.25	4.00	1.625	3.90	0.375	0.375	2.910	1.416	1.25	10.24	8.58	4.37
256T	25.44	6.25	5.00	10.00	8.25	0.53	4.25	4.00	1.625	3.90	0.375	0.375	2.910	1.416	1.25	10.24	8.58	4.37
284T	26.80	7.00	5.50	9.50	—	0.53	4.75	4.62	1.875	4.50	0.500	0.500	3.280	1.591	1.25	12.13	9.84	3.97
284TS	25.43	7.00	5.50	9.50	—	0.53	4.75	3.25	1.625	3.20	0.375	0.375	1.930	1.416	1.25	12.13	9.84	3.97
286T	28.30	7.00	5.50	11.00	9.50	0.53	4.75	4.62	1.875	4.50	0.500	0.500	3.280	1.591	1.25	12.13	9.84	3.97
286TS	26.93	7.00	5.50	11.00	9.50	0.53	4.75	3.25	1.625	3.20	0.375	0.375	1.930	1.416	1.25	12.13	9.84	3.97
324T	29.93	8.00	6.25	10.50	—	0.66	5.25	5.25	2.125	5.15	0.500	0.500	3.910	1.845	2.00	13.47	10.98	3.59
324TS	28.43	8.00	6.25	10.50	—	0.66	5.25	3.75	1.875	3.65	0.500	0.500	2.030	1.591	2.00	13.47	10.98	3.59
326T	31.42	8.00	6.25	12.00	10.50	0.66	5.25	5.25	2.125	5.15	0.500	0.500	3.910	1.845	2.00	13.47	10.98	3.59
326TS	29.92	8.00	6.25	12.00	10.50	0.66	5.25	3.75	1.875	3.65	0.500	0.500	2.030	1.591	2.00	13.47	10.98	3.59
364T	32.57	9.00	7.00	11.25	—	0.66	5.88	5.88	2.375	5.75	0.625	0.625	4.280	2.021	3.00	15.10	12.28	2.39
364TS	30.44	9.00	7.00	11.25	—	0.66	5.88	3.75	1.875	3.65	0.500	0.500	2.030	1.591	3.00	15.10	12.28	2.39
365T	33.55	9.00	7.00	12.25	11.25	0.66	5.88	5.88	2.375	5.75	0.625	0.625	4.280	2.021	3.00	15.10	12.28	2.39
365TS	31.42	9.00	7.00	12.25	11.25	0.66	5.88	3.75	1.875	3.65	0.500	0.500	2.030	1.591	3.00	15.10	12.28	2.39
404T	36.50	10.00	8.00	12.25	—	0.81	6.62	7.25	2.875	7.15	0.750	0.750	5.650	2.450	3.00	19.07	14.33	1.81
405T	37.99	10.00	8.00	13.75	12.25	0.81	6.62	7.25	2.875	7.15	0.750	0.750	5.650	2.450	3.00	19.07	14.33	1.81
405TS	34.99	10.00	8.00	13.75	12.25	0.81	6.62	4.25	2.125	4.15	0.500	0.500	2.780	1.845	3.00	19.07	14.33	1.81
444T	44.40	11.00	9.00	14.50	—	0.81	7.50	8.50	3.375	8.00	0.875	0.875	6.890	2.880	3.00	24.00	17.90	2.40
444TS	40.65	11.00	9.00	14.50	—	0.81	7.50	4.75	2.375	4.50	0.625	0.625	3.030	2.021	3.00	24.00	17.90	2.40
445T	46.40	11.00	9.00	16.50	14.50	0.81	7.50	8.50	3.375	8.00	0.875	0.875	6.890	2.880	3.00	24.00	17.90	2.40
445TS	42.65	11.00	9.00	16.50	14.50	0.81	7.50	4.75	2.375	4.50	0.625	0.625	3.030	2.021	3.00	24.00	17.90	2.40
447T	49.90	11.00	9.00	20.00	16.50	0.81	7.50	8.50	3.375	8.00	0.875	0.875	6.910	2.880	3.00	24.00	17.90	2.40
447TZ	51.12	11.00	9.00	20.00	16.50	0.81	7.50	10.12	3.375	9.62	0.875	0.875	8.500	2.880	3.00	24.00	17.90	2.40
447TS	46.15	11.00	9.00	20.00	16.50	0.81	7.50	4.75	2.375	4.50	0.625	0.625	3.030	2.021	3.00	24.00	17.90	2.40
449T	54.90	11.00	9.00	25.00	20.00	0.81	7.50	8.50	3.375	8.00	0.875	0.875	6.910	2.880	3.00	24.00	17.90	2.40
449TZ	56.12	11.00	9.00	25.00	20.00	0.81	7.50	10.12	3.375	9.62	0.875	0.875	8.500	2.880	3.00	24.00	17.90	2.40
449TS	54.51	11.00	9.00	25.00	20.00	0.81	7.50	4.75	2.375	4.50	0.625	0.625	3.030	2.021	3.00	24.00	17.90	2.40

All dimensions are in inches and for reference only.

DIMENSIONS - AC MACHINES

Effective 06-14-15
Supersedes 05-01-13



FRAME SIZE	MOUNTING						SHAFT EXTENSION			KEY & KEYSEAT				TERMINAL HOUSING				
	C	D	E	2F	H	BA	N-W	U	V	WIDTH	THICK	LENGTH	R	AA	AB	AC	XB ^{E1}	XB ^{CD}
505UZ	53.04	12.5	10.00	18.00	0.94	8.50	11.62	3.875	11.38	1.000	1.000	10.000	3.309	4	32.5	23.6	~	4.75
5007A	63.25	12.5	10.00	22.00	0.94	8.50	5.75	2.625	5.50	0.625	0.625	4.010	2.275	4	35.50	26.40	14.70	~
5007B,C	63.80	12.5	10.00	22.00	0.94	8.50	11.62	3.875	11.12	1.000	1.000	10.000	3.309	4	35.50	26.40	14.70	2.75
5009A	69.20	12.5	10.00	28.00	0.94	8.50	5.75	2.625	5.50	0.625	0.625	4.010	2.275	4	35.50	26.40	14.70	~
5009B,C	69.75	12.5	10.00	28.00	0.94	8.50	11.62	3.875	11.12	1.000	1.000	10.000	3.309	4	35.50	26.40	14.70	2.75
5011A	77.15	12.5	10.00	36.00	0.94	8.50	5.75	2.625	5.50	0.625	0.625	4.010	2.275	4	35.50	26.40	14.70	~
5011B,C	77.67	12.5	10.00	36.00	0.94	8.50	11.62	3.875	11.12	1.000	1.000	10.000	3.309	4	35.50	26.40	14.70	~
586/7UZ	64.37	14.5	11.50	22.00	1.125	10.00	11.625	4.375	11.125	1.000	1.000	8.661	3.816	2-3	29.33	23.23	~	2.96
5808B,C	74.08	14.5	11.50	28.00	1.13	10.00	11.88	4.875	11.38	1.250	1.250	10.000	4.169	2-3	37.85	28.95	19.00	2.95
5810A	81.40	14.5	11.50	36.00	1.13	10.00	5.75	2.625	5.50	0.625	0.625	4.010	2.275	2-3	37.85	28.95	19.00	2.95
5810B,C	81.81	14.5	11.50	36.00	1.13	10.00	11.88	4.875	11.38	1.250	1.250	10.000	4.169	2-3	37.85	28.95	19.00	2.95
6808A	88.43	17.0	13.50	36.00	1.38	11.50	5.75	2.625	5.50	0.625	0.625	4.010	2.275	2-3	40.30	31.40	23.80	~
6808B,C	87.68	17.0	13.50	36.00	1.38	11.50	11.88	4.875	11.38	1.250	1.250	10.000	4.169	2-3	40.30	31.40	23.80	2.95

All dimensions are in inches and for reference only
(E1) Denotes the MAX-E1® and MAX-E2® frame construction
(CD) Denotes the MAX-HT™ frame construction.



WORLD SERIES® MOTORS: SETTING THE STANDARD OF EXCELLENCE

Building on over 100 years of Westinghouse motor experience, TECO-Westinghouse World Series® motors represent the induction motor at its highest state of evolution. We began with a product known for excellence, and through computer-aided design and the use of advanced materials, made it even better. We have made it leaner, more efficient, and highly refined. Yet the World Series® line of motors retains all the original quality features that established Westinghouse as the world leader among large motor manufacturers – features such as rugged copper bar rotor construction, Thermalastic® insulation, and heavy-duty frame construction.

At TECO-Westinghouse Motor Company, we pride ourselves on service. As our customer, you can tap the strength of our resources for superior front-end services, including engineering support, computer-aided engineering studies, product information and quotation assistance. Once your World Series® Motor is in place, you can rely on our worldwide field service and engineering network to service and protect your investment.

World Series® motors offer a full range of benefits to fill your large induction motor requirements. For more information, contact your local TECO- Westinghouse representative, or call us direct at our Round Rock, Texas headquarters: 1-800-451-8798.

WORLD SERIES® VERTICAL MOTORS FOR HIGH-THRUST CONDITIONS

A long and successful history with vertical motor construction goes into the making of every vertical motor in the World Series® line.

Used primarily for pump applications, World Series® vertical motors are designed to handle virtually any thrust load that might be imposed (loads well in excess of 100,000 lbs., continuous downward thrust). High-thrust load capability is achieved by utilizing Kingsbury-type tilting-pad thrust bearings. Both sleeve and ball bearings are available for guide bearings, depending on the application.

For long wear and reliability, the thrust bearings and guide bearings are air-cooled through constant ventilation and are oil lubricated from a large reservoir. Special water-cooling coils can also be added when needed.

World Series® vertical motors reflect the same high quality construction and insulation processes that distinguish all the various components of our horizontal motors. Our vertical motors are readily adaptable to a variety of specific needs. For example, non-reverse ratchets are available and flywheels can be included in the design when required. Our vertical motors can also be started from zero-speed or reverse-speed and can be designed to accommodate overspeed situations, as in a hydro-generator.



QUALITY FEATURES AND TIME-TESTED PERFORMANCE

- Copper rotor bars provide high conductivity and outstanding reliability.
- High frequency induction brazing ensures uniform end ring connections.
- Swaging contributes to long motor life by minimizing rotor bar movement.
- Rugged frame construction ensures lateral and torsional stability.
- Innovative PAM motors provide two-speed operation with only one winding.
- Thermalastic® insulation provides excellent protection from environmental contaminants.
- 250 HP to 30,000 HP ranges available for a wide variety of applications.
- High operating efficiency yields low life cycle cost.
- Split-sleeve bearings offer outstanding service and are easy to inspect.
- Adjustable frequency capability is available when specified.
- Each motor is custom designed for the most demanding applications.
- Over 100 years of experience goes into every motor we produce.

AVAILABLE ENCLOSURES

World Series® motors are offered in a complete range of enclosures to meet the toughest demands of any industry. IEC enclosures are also supplied. Available NEMA enclosures include the following configurations:

- Open Drip-Proof (Guarded), IP22/ IC01
- Weather Protected Type I, IP23/ IC01
- Weather Protected Type II, IPW24/ IC01
- Totally Enclosed Water-to-Air Cooled, IP44-54/ ICW81
- Totally Enclosed Air-to-Air Cooled, IP44-54/ IC411
- Totally Enclosed Pipe Ventilated, IP44/ IC31/ 37

TERMINAL BOXES

World Series® motors feature main lead and auxiliary terminal boxes constructed of 12-gauge steel. Each terminal box is gasketed for air-tight, dust-free, and weather-proof protection of terminal leads. Available for F1 or F2 locations, terminal boxes can be modified to include any customer terminations and accessory devices.

The main lead terminal box provides termination of the motor's main power leads. Available terminal box options include lightning arresters, surge capacitors, current transformers, special grounding devices, cable or bus bar terminations, and top or bottom lead entry.

WORLD SERIES® AIR CABINETS DESIGN LIST

Effective 06-14-15
Supersedes 05-01-13



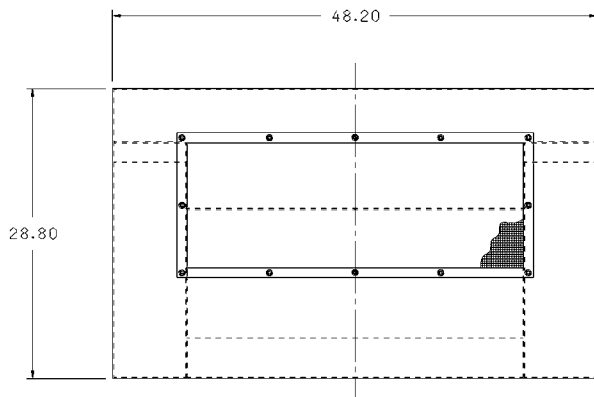
REPLACEMENT WP11 AIR CABINETS FOR AGING TECO-WESTINGHOUSE AND WESTINGHOUSE MOTORS

Features and Benefits:

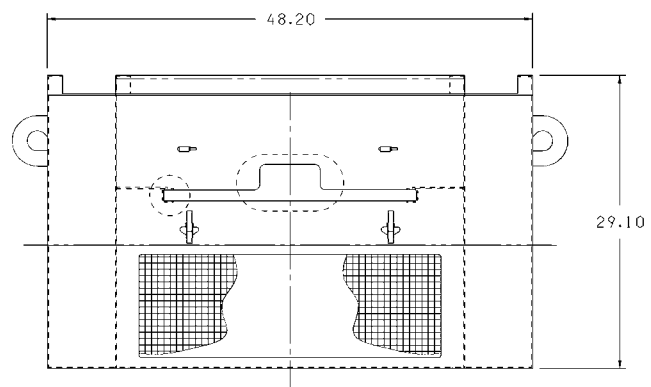
- Replacements for corroded air cabinets on aged motors
- Meets NEMA MG 1 requirements for WPI and WP11 enclosures
- Tested to MIL-STD-810E for water-tightness
- Split-hinge design (Fig-2): for inlets, allowing for fast and safe filter replacement without the use of hand tools
Filter replacement possible without motor shutdown.
- Air cabinet changeout achievable onsite without motor removal.
- Minimal differences in overall dimensions between old and new design. Example shown below for frame 3509; actual dimensions will vary with frame size.

Standard Construction:

- A36 carbon steel – 11 gauge
- Full acoustic lining
- #4 Mesh stainless steel screens
- Stainless steel filters included.



WORLD SERIES® DESIGN
FIGURE 1



UNIVERSAL DESIGN
FIGURE 2

WORLD SERIES® AIR CABINETS DESIGN LIST

Effective 06-14-15
Supersedes 05-01-13



WORLD SERIES® FRAME SIZE	UNIVERSAL AIR CABINET PART NUMBER
3505	2563F39G04
3506	2563F39G08
3507	2563F39G12
3508	2563F39G16
3509	2563F39G20
3510	2563F39G24
4008	2563F40G04
4009	2563F40G08
4010	2563F40G12
4011	2563F40G16
4509	2563F41G04
4510	2563F41G08
4511	2563F41G12
4512	2563F41G16
5010	2563F42G04
5011	2563F42G08
5012	2563F42G12
5014	2563F42G16
5611	2563F43G04
5612	2563F43G08
5614	2563F43G12
5616	2563F43G16

WORLD SERIES® FRAME SIZE	UNIVERSAL AIR CABINET PART NUMBER
6312	6D47635G04
6314	6D47635G08
6316	6D47635G12
6318	6D47635G16
7112	6D45158G04
7114	6D45158G08
7116	6D45158G12
7118	6D45158G16
8014	2565F19G04
8016	2565F19G08
8018	2565F19G12
8020	2565F19G16
9016	2573F69G04
9018	2573F69G08
9020	2573F69G12
9022	2573F69G16

Available Options:

- All stainless steel construction
- Differential pressure devices
- Manometers
- Air temperature devices
- Mufflers
- Heat shield

NOTE:

Universal air cabinets are also available for Westinghouse Buffalo Life Line® D Series and TECO-Westinghouse Round Rock Life Line® D Series. For information, contact the Renewal Parts team at (888) 754-5006 or visit our website at www.tecowestinghouse.com.



SYNCHRONOUS MACHINES: THE OPTIMAL CHOICE OF HEAVY INDUSTRY

TECO-Westinghouse Motor Company synchronous motors and generators provide superior value in terms of proven reliability, low maintenance performance, and long life in arduous applications. Our synchronous machines offer numerous benefits, including:

- Constant-speed operation
- High-efficiency ratings
- Low inrush currents
- Leading power factor (for corrective kVA capability)
- Horsepower range from 1000 HP to 100,000 HP

For more information, contact your local TECO-Westinghouse representative, or call us direct at our Round Rock, Texas headquarters: 1-800-451-8798.

PROVEN FEATURES FOR EFFICIENT SYNCHRONOUS MOTOR PERFORMANCE

TECO-Westinghouse Motor Company synchronous machines feature high efficiency designs in which great care is taken to minimize losses. To ensure maximum operating efficiencies and trouble free operations, the following features are standard on these motors:

- Airgap, slot openings, and slot ratios are selected to reduce pole face losses due to flux pulsations.
- Low loss, core-plated, non-aging, silicon steel stator punchings are used to reduce core losses.
- The stator copper is stranded to minimize eddy current losses.
- The number of stator slots, slot width, slot depth, and stator core depths are dimensioned to reduce magnetic noise.
- Pole punchings are designed for reduced pole leakage flux and field excitation to minimize field copper losses.
- Blowers are carefully selected to reduce windage loss.
- Stator end-plates are designed to ensure a tight and rigid core assembly, to minimize noise due to core distortion, and to transmit torque to the frame bulkhead.



DC MOTOR APPLICATIONS

TECO-Westinghouse Motor Company DC motors are ideally suited to a multitude of industrial and marine applications in which high torque and variable speed are required. These applications include ship propulsion, mine hoists, and steel rolling mills. They also drive many other types of industrial equipment such as fans, Banbury mixers, and extruders.

To meet the needs of a broad range of applications, our rugged DC motors are available in sizes ranging from 22-inch to 12-foot armature diameters, with available power ratings from 250 HP to over 35,000 HP.

For more information, contact your local TECO-Westinghouse representative, or call us direct at our Round Rock, Texas headquarters: 1-800-451-8798.

CUSTOM DESIGNS AS A STANDARD FEATURE

TECO-Westinghouse Motor Company DC motors are designed and built for long life and minimum maintenance. Over 100 years of motor industry experience has yielded design features that add up to precision, performance, and reliability.

Our DC motors and generators are custom engineered to meet your specified needs. We can incorporate existing foundations, space limitations, service conditions, and enhanced sparing capabilities into our motor and generator designs. In addition, you can apply TECO-Westinghouse DC machines to any quality brand of controls with total confidence.



LARGE MOTOR REPAIR

At TECO-Westinghouse, size or complexity are never an issue. With a 200 ton lifting capacity and 90 feet under hook, TWMC can handle almost any large motor repair. Our service team, backed by a full staff of motor design and manufacturing engineers, can perform for you! Our range of services extends from basic motor maintenance to complete redesigns and rebuilds. Each repair is customized to meet your needs and work is performed via a carefully controlled process dictated by industry standards as well as to your specifications. At TWMC, we don't just put your motor back together the way we found it, we use sound engineering judgment, extensive manufacturing and design experience, and the same ISO 9001 quality system incorporated into new motor manufacturing, to ensure that the machine will perform as originally designed, if not better.

Each motor is carefully disassembled and rigorously inspected for mechanical or electrical issues, with digital photographs taken during the process. A full battery of non-destructive electrical tests are performed, and a detailed inspection report is generated and supplied for your review along with recommendations for repairs and improvements. Recommendations are often made for improvements to the machine from an operational or reliability viewpoint. Upon authorization to proceed, a detailed "project control plan" is developed by one of our service engineers advising of the work to be done and specifying the parts to be used in the repairs or modifications. All work is performed by factory trained technicians with years of experience in both motor repair and in manufacturing the quality machines that the Westinghouse and TECO-Westinghouse names have come to represent.

Our asset reliability based **Quick Turn Rewind (QTR)** initiative is the leading repair service for large MV and HV motors. These engineered rewinds are performed on all manufacturers motors around the clock to our ISO 9001 quality system with deliveries that meet or exceed customer expectations. Utilizing our in-house coil manufacturing and 12-foot VPI tank, TWMC's proven long life Thermalastic® epoxy insulation system, developed by Westinghouse for reliability.

If the motor repair or engineered component opportunity exceed your experience, expertise, or capacity, give TECO-Westinghouse a call. We pay finder's fees for all referrals that result in an order. Payments are made 45 days after completion and invoicing of the repair.

ORDER SIZE (\$)	FINDERS FEES (%)	MAXIMUM PAYOUT (\$)
≤ 99k	8	7,920
100k - 299k	6	17,940
300k - 499k	5	24,950
≥ 500k	3	50,000

FIELD SERVICE/ FACTORY TECHNICAL SUPPORT

The Service and Repair Group has you covered from the time the motor leaves our state of the art manufacturing facility. Our highly qualified staff of Field Service Engineers is ready to be dispatched throughout the world to support all of your field needs, and our Technical Support Staff is equipped to answer your questions, with the additional backing of our Design Center engineering personnel. Whether it be start-up and commissioning, preventative/ predictive maintenance, testing, installation and removal assistance, troubleshooting, consulting services, alignments, vibration analysis, dynamic balancing, turnkey projects or training, only our engineers are at the ready to tackle your most challenging needs.



RENEWAL PARTS AND ENGINEERED COMPONENTS

TECO-Westinghouse Motor Company supplies genuine OEM replacement parts for large Westinghouse/ TECO-Westinghouse AC and DC motors manufactured from 1900 to present. If you have any vintage or large Westinghouse motor in your plant, odds are that we have all the design and manufacturing data for your motor and can supply any part you may need, from nuts and bolts, to a complete drop in spare armature, rotor, or stator. Have an ongoing operation or maintenance concern? Let us know about it! Many older components can be, or have been, analyzed and redesigned for improved performance and maintainability. Need a large component for a non-Westinghouse machine? We may be able to design a drop in replacement.

ENGINEERING STUDIES

Would you like to get more horsepower out of your existing motor? Curious if it can be driven by a VFD? Have a nagging maintenance problem that just won't go away? Through an engineering study, we can research these and other questions, and provide you with viable solutions and answers. With our full complement of skilled design and manufacturing engineers, we can perform a broad spectrum of analyses and offer a complete solution that you won't find elsewhere!

3D MODELING & FINITE ELEMENT ANALYSIS

Using the most up to date tools, we can perform complete electrical, magnetic, thermal, and mechanical analyses. Our fully staffed Design and R&D Centers have the expertise to analyze and review the most complex motor designs.

FAILURE ANALYSIS

Want to avoid recurring failures and improve reliability? Complete motor failure analysis can be performed and root cause often determined for many types of electrical and mechanical motor problems. TWMC is fully equipped to gather the facts, perform diagnostic or material testing, review results for design, manufacturing or operational issues, and provide a detailed written report of findings.

USEFUL FORMULAS

Effective 06-14-15
Supersedes 05-01-13

kW	=	HP * .746
Torque in lb-ft	=	$\frac{HP * 5250}{RPM}$
Motor synchronous speed in RPM	=	$\frac{120 * Hz}{\text{Number of Poles}}$
Three-Phase Full-Load Amp	=	$\frac{HP * .746}{1.73 * kV * \left(\frac{\text{Efficiency}}{100}\right) * \left(\frac{\text{Power Factor}}{100}\right)}$
Rated Motor kVA	=	$\frac{HP * .746}{\text{Efficiency} * \text{Power Factor}}$
kW Loss	=	$\frac{(HP * .746) * (1.0 - \text{Efficiency})}{\text{Efficiency}}$
Wk ² Referred to Motor Shaft Speed	=	[Driven Machine Wk ² (Driven Machine RPM/ Motor RPM) ²]+ Gear Wk ² at Motor Speed
Accelerating Time	=	$\frac{0.462 (Wk^2 \text{ of Motor and Load}) RPM^2}{\text{Motor Rated kW} * 104 * \text{Per-Unit Effective Accelerating Torque}}$
kVA inrush	=	Percent Inrush * Rated kVA
Approximate Voltage Drop (%)	=	$\frac{\text{Motor kVA Inrush}}{\text{Transformer kVA}} * \text{Transformer Impedance (Normally 5% to 7%)}$
Stored Kinetic Energy in kW-sec	=	2.31 * (Total Wk ²) * RPM ² x 10 ⁻⁷
Inertia Constant (H) in Seconds	=	$\frac{\text{Stored Kinetic Energy in kW Seconds}}{HP * .746}$
Conversion Factors:		
CV	=	(Metric HP) = 735.5 Watts = 75 KW-m/sec
Wk ² (lb-ft)	=	5.93 x GD ² (kg-m ²)

Derating motor for change in elevation: For each 330 foot increase in elevation above 3300 feet above sea level, derate motor horsepower by 1 percent.

Cooling-water requirements: 2 gpm of water for each kW of loss

Ventilating-air requirements: 100-125 cfm of 40°C air at 1/2 water pressure for each W of loss

AC DRIVES/ SOLID STATE STARTERS SECTION



Effective 06-14-15
Supersedes 05-01-13



PACKAGED DRIVES

- NEMA 1, 12, 3R, 4, 4X (4, 4X will be custom engineered packages)
- Bypass: Two and three contactor
 - Fused disconnects or circuit breakers
 - Soft start on bypass transfer
 - Automatic or manual bypass transfer
 - Fireman's override
 - Damper actuation circuit
 - Electrical and mechanical interlocks

OPTION CABINETS

- Fused disconnects or circuit breakers
- Wall mount or free standing

SPECIAL APPLICATIONS

- Power conditioning via harmonic filters or 12, 18 pulse systems
- Multiple motors on drive (bypass and options)
- Manual duplex, triplex
- RS-485 Protocols
 - Modbus
 - BACNet
 - Johnson Metasys
 - Ethernet
 - Profibus
 - SCADA
- High elevations
- Surge suppression
- Phase monitoring
- RFI/ EMI Filtering

L510 MICRO DRIVE

MEDIUM DUTY



Effective 06-14-15
Supersedes 05-01-13



**A compact, low cost, and versatile AC Drive
that is easy to program and ideal for OEM's.**

APPLICATIONS:

- | | | |
|-------------------|----------------------------|-----------|
| ■ Mixing | ■ Treadmills | ■ Lathes |
| ■ Fans | ■ AC Contactor Replacement | ■ Milling |
| ■ Small Conveyors | ■ Pumps | |

FEATURES:

- Chassis Style Enclosure (IP20)
- Control Modes for V/F, and Sensorless Vector
- 0.25 to 1 HP, 115V, 50/ 60 Hz, 1-Phase
- 0.25 to 3 HP, 230V, 50/ 60 Hz, 1-Phase
- 0.50 to 3 HP, 230V, 50/ 60 Hz, 3-Phase
- 1 to 3 HP, 460V, 50/ 60Hz, 3-Phase
- Extensive Diagnostic and Monitoring Capabilities
- Din Rail Option
- PID Control
- 8 Preset Speeds
- Two Multi-Function Analog Inputs/ Qty 1 Analog Output
- Built-in Modbus or BACnet Protocol via RJ 45 Interface
- UL, cUL, and CE Approved

L510 MICRO DRIVE

MEDIUM DUTY



Effective 06-14-15
Supersedes 05-01-13



All Digital Inputs are Sunked to Control Power Common

115V 1-Phase Input/ 3-Phase 230V Output

MODEL NO.	HP CONSTANT TORQUE	DRIVE AMPS CONSTANT TORQUE	DIMENSIONS (in.)			APPROX. WT. (lbs.)	LIST PRICE (\$) CHASSIS
			HEIGHT	WIDTH	DEPTH		
L510-1P2-H1-U	.25	1.8	5.55	2.83	5.48	2	262
L510-1P5-H1-U	.50	2.6	5.55	2.83	5.48	2	268
L510-101-H1-U	1	4.3	5.67	4.65	5.80	3.5	290

230V 1-Phase Input/ 3-Phase Output

MODEL NO.	HP CONSTANT TORQUE	DRIVE AMPS CONSTANT TORQUE	DIMENSIONS (in.)			APPROX. WT. (lbs.)	LIST PRICE (\$) CHASSIS
			HEIGHT	WIDTH	DEPTH		
L510-2P2-H1-U	.25	1.8	5.55	2.83	5.48	2	246
L510-2P5-H1-U	.50	2.6	5.55	2.83	5.48	2	258
L510-201-H1-U	1	4.3	5.55	2.83	5.48	2	266
L510-202-H1-U	2	7.5	5.67	4.65	5.80	3.5	366
L510-203-H1-U	3	10.5	5.67	4.65	5.80	3.5	438

230V 3-Phase Input/ 3-Phase Output

MODEL NO.	HP CONSTANT TORQUE	DRIVE AMPS CONSTANT TORQUE	DIMENSIONS (in.)			APPROX. WT. (lbs.)	LIST PRICE (\$) CHASSIS
			HEIGHT	WIDTH	DEPTH		
L510-2P5-H3-U	.50	2.6	5.55	2.83	5.48	2	258
L510-201-H3-U	1	4.3	5.55	2.83	5.48	2	266
L510-202-H3-U	2	7.5	5.67	4.65	5.80	3.5	360
L510-203-H3-U	3	10.5	5.67	4.65	5.80	3.5	400

460V 3-Phase Input/ 3-Phase Output

MODEL NO.	HP CONSTANT TORQUE	DRIVE AMPS CONSTANT TORQUE	DIMENSIONS (in.)			APPROX. WT. (lbs.)	LIST PRICE (\$) CHASSIS
			HEIGHT	WIDTH	DEPTH		
L510-401-H3-U	1	2.3	5.67	4.65	5.80	3.5	370
L510-402-H3-U	2	3.8	5.67	4.65	5.80	3.5	406
L510-403-H3-U	3	5.2	5.67	4.65	5.80	3.5	492

Notes:

H1 = 1-Phase
H3 = 3-Phase

L510 BRAKE RESISTORS & OPTIONS

MEDIUM DUTY



Effective 06-14-15
Supersedes 05-01-13



460V 3-Phase *

AC DRIVE HP RATING	MODEL NO.	QTY	RESISTANCE OHMS - WATTS		ENCLOSURE DIMENSIONS (in.)	BRAKING TORQUE (%)	DUTY CYCLE (%)	LIST PRICE (\$)
1	JNBR-150W750	1	750	150	12"L x 5"W x 5"D	126	10	30
2	JNBR-150W400	1	400	150	12"L x 5"W x 5"D	119	10	35
3	JNBR-260W250	1	250	260	12"L x 5"W x 5"D	126	10	50

Notes:

Transistor built-in for all L510 460V ratings (braking resistors externally mounted)

* Option only available for 460V ratings

Options

PART NUMBER	DESCRIPTION	LIST PRICE (\$)
JN5-CB-01M	Extension wire (1M)	25
JN5-CB-02M	Extension wire (2M)	27
JN5-CB-03M	Extension wire (3M)	30
JN5-CB-05M	Extension wire (5M)	35
JN5-CM-USB	USB cable to connect to PC	80
JN5-CU	Copy Module	95
JN5-DIN-L01	DIN RAIL, L510	25

N3 COMPACT DRIVE

MEDIUM DUTY



Effective 06-14-15
Supersedes 05-01-13



A compact, low cost, and versatile AC Drive that can operate in constant torque, variable torque, or sensorless vector modes for maximum application flexibility.

APPLICATIONS:

- Fan and Pump Systems
- Larger Conveyors
- Mixers
- Centrifugal Applications
- OEM Products

FEATURES:

- IP20 Enclosure: .5 to 10 HP, 230V, 1 to 15 HP, 460V (NEMA 1 Option Kits Shipped with Units Unless Not Requested)
- NEMA 1 Enclosure: 15 HP and Above (230V), 20 HP and Above (460V)
- Sensorless Vector or V/Hz
- 0.5 to 3 HP, 230V, 50/ 60 Hz, 1-Phase
- 0.5 to 40 HP, 230V, 50/ 60 Hz, 3-Phase
- 1 to 75 HP, 460V, 50/ 60 Hz, 3-Phase
- PID Control
- 0 - 400 Hz Speed Range
- Standard Unit with LED Display & Speed Potentiometer
- Optional LCD Digital Operator (Required for NEMA 4 Keypad Kit)
- Dynamic Braking Transistor Standard Through 20 HP Models
- PC Programming Software/ Pocket PC/ Copy Unit (Teco Link Software Available)
- RS485 Interface Option
- RS232 Interface Option
- Multi-function Digital and Analog Inputs/ Outputs
- Built-in Modbus or BACNet Protocols (Requires SIF-485 Interface Module)
- UL, cUL, and CE Approved

N3 COMPACT DRIVE

MEDIUM DUTY



Effective 06-14-15
Supercedes 05-01-13



230V 1-Phase Input/ 3-Phase Output

MODEL NO.	HP CONSTANT TORQUE	DRIVE AMPS CONSTANT TORQUE	DIMENSIONS (in.)			APPROX. WT. (lbs.)	LIST PRICE (\$)
			HEIGHT	WIDTH	DEPTH		
*N3-2P5-CS-U	0.5	3.1	6.42	3.54	5.79	3	325
*N3-201-CS-U	1	4.5	6.42	3.54	5.79	3	360
*N3-202-CS-U	2	7.5	7.36	5.04	5.83	4	470
*N3-203-CS-U	3	10.5	7.36	5.04	5.83	5	640

230V 3-Phase Input/ 3-Phase Output ***

MODEL NO.	HP CONSTANT TORQUE	DRIVE AMPS CONSTANT TORQUE	DIMENSIONS (in.)			APPROX. WT. (lbs.)	LIST PRICE (\$)
			HEIGHT	WIDTH	DEPTH		
*N3-2P5-C-U	0.5	3.1	6.42	3.54	5.79	3	325
*N3-201-C-U	1	4.5	6.42	3.54	5.79	3	350
*N3-202-C-U	2	7.5	6.42	3.54	5.79	3	430
*N3-203-C-U	3	10.5	7.36	5.04	5.83	4	575
*N3-205-C-U	5	17.5	7.36	5.04	5.83	5	680
*N3-207-C-U	7.5	26	10.24	7.32	7.68	13	980
*N3-210-C-U	10	35	10.24	7.32	7.68	13	1100
*N3-215-N1-U	15	48	14.17	10.43	9.7	27	1651
*N3-220-N1-U	20	64	14.17	10.43	9.7	27	1908
N3-225-N1-U	25	80	14.17	10.43	9.7	29	2528
**N3-230-N1-U	30	96	25.45	10.6	12	67	3524
**N3-240-N1-U	40	130	25.45	10.6	12	67	4751

460V 3-Phase Input/ 3-Phase Output ***

MODEL NO.	HP CONSTANT TORQUE	DRIVE AMPS CONSTANT TORQUE	DIMENSIONS (in.)			APPROX. WT. (lbs.)	LIST PRICE (\$)
			HEIGHT	WIDTH	DEPTH		
*N3-401-C-U	1	2.3	6.42	3.54	5.79	3	440
*N3-402-C-U	2	3.8	6.42	3.54	5.79	3	500
*N3-403-C-U	3	5.2	7.36	5.04	5.83	4	625
*N3-405-C-U	5	8.8	7.36	5.04	5.83	4	750
*N3-407-C-U	7.5	13	10.24	7.32	7.68	13	1075
*N3-410-C-U	10	17.5	10.24	7.32	7.68	13	1135
*N3-415-C-U	15	25	10.24	7.32	7.68	13	1350
*N3-420-N1-U	20	32	14.17	10.43	9.7	27	1977
N3-425-N1-U	25	40	14.17	10.43	9.7	29	2488
**N3-430-N1-U	30	48	14.17	10.43	9.7	29	2737
**N3-440-N1-U	40	64	25.45	10.6	12	67	3538
**N3-450-N1-U	50	80	25.45	10.6	12	67	4415
**N3-460-N1-U	60	96	29.39	12.13	15.2	102	5017
**N3-475-N1-U	75	128	29.39	12.13	15.2	102	5763

Notes:

Suffix CS = Chassis (IP20) Unit 1-Phase

C = Chassis (IP20) Unit 3-Phase

N1 = NEMA 1

All Chassis Units will Ship with NEMA 1 Boxes for Field Installation (unless requested otherwise)

* Includes Dynamic Braking Transistor

** Includes DC Bus Link Reactor

*** Do Not Apply Single Phase Input Power to these Models

N3 OPTIONS

MEDIUM DUTY



Effective 06-14-15
Supercedes 05-01-13



Options

PART NUMBER	DESCRIPTION	LIST PRICE (\$)
SIF-485	Communications Interface (RS485) for Modbus or BACnet	30
SIF-232	RS232 Interface Card with Wire to PC	25
SIF-MP	Copy Module	15
N3-LED-W	LED Keypad	30
N3-LCD-W	LCD Keypad	45
N3-LCD-N4KIT	NEMA 4 Kit, Only a Cover for LCD Keypad (Keypad Not Included)	69
SW30P5	Remote Wire for Keypad (0.5 m)	50
SW3001	Remote Wire for Keypad (1.0 m)	52
SW3002	Remote Wire for Keypad (2.0 m)	54
SW3003	Remote Wire for Keypad (3.0 m)	57
*SNA301	NEMA 1 Box for Frame 1	15
*SNA302	NEMA 1 Box for Frame 2	16
*SNA303	NEMA 1 Box for Frame 3	21
TL-ENC-01	TECO Link Kit - Includes Box Label, Wiring Diagram, SIF - 232, CD with Software and Drive User Manuals, USB-RS485 Converter	425

Notes:

- * Frame 1 2P5-CS-U, 201-CS-U, 2P5-C-U, 201-C-U, 202-C-U, 401-C-U, 402-C-U
- Frame 2 202-CS-U, 203-CS-U, 203-C-U, 205-C-U, 403-C-U, 405-C-U
- Frame 3 207-C-U, 210-C-U, 407-C-U, 410-C-U, 415-C-U

N3 BRAKE MODULES AND RESISTORS



MEDIUM DUTY

Effective 06-14-15
Supercedes 05-01-13



230V 3-Phase

AC DRIVE HP RATING	BRAKING TRANSISTOR			BRAKING RESISTOR							
	MODEL NO.	QTY USED	LIST PRICE (\$)	MODEL NO.	QTY USED	RESISTANCE OHMS WATTS		ENCLOSURE DIMENSIONS (in.)	BRAKING TORQUE (%)	DUTY CYCLE (%)	LIST PRICE (\$)
.5 - 1	X	-	-	JNBR-150W200	1	200	150	9.88"L x 1.10"W x 2.36"D	119	10	30
2	X	-	-	JNBR-150W100	1	100	150	9.88"L x 1.10"W x 2.36"D	119	10	35
3	X	-	-	JNBR-260W70	1	70	260	10.79"L x 1.34"W x 3.07"D	115	10	50
5	X	-	-	JNBR-390W40	1	40	390	10.79"L x 1.34"W x 3.07"D	119	10	70
7.5	X	-	-	JNBR-520W30	1	30	520	15.7"L x 1.57"W x 3.94"D	108	10	125
10	X	-	-	JNBR-780W20	1	20	780	15.7"L x 1.57"W x 3.94"D	119	10	150
15	X	-	-	JNBR-2R4KW13R6	1	13.6	2400	21.1"L x 1.96"W x 4.33"D	117	10	450
20	X	-	-	JNBR-3KW10	1	10	3000	24.21"L x 1.96"W x 4.33"D	119	10	575
25	JNTBU-230	1	475	JNBR-4R8KW8	1	8	4800	21.1"L x 1.96"W x 4.33"D	119	10	940
30	JNTBU-230	1	475	JNBR-4R8KW6R8	1	6.8	4800	21.1"L x 1.96"W x 4.33"D	117	10	955
40	JNTBU-230	2	475	JNBR-3KW10	2	10	3000	24.21"L x 1.96"W x 4.33"D	119	10	575

460V 3-Phase

AC DRIVE HP RATING	BRAKING TRANSISTOR			BRAKING RESISTOR							
	MODEL NO.	QTY USED	LIST PRICE (\$)	MODEL NO.	QTY USED	RESISTANCE OHMS WATTS		ENCLOSURE DIMENSIONS (in.)	BRAKING TORQUE (%)	DUTY CYCLE (%)	LIST PRICE (\$)
1	X	-	-	JNBR-150W750	1	750	150	9.88"L x 1.10"W x 2.36"D	126	10	30
2	X	-	-	JNBR-150W400	1	400	150	9.88"L x 1.10"W x 2.36"D	119	10	35
3	X	-	-	JNBR-260W250	1	250	260	10.79"L x 1.34"W x 3.07"D	126	10	50
5	X	-	-	JNBR-400W150	1	150	400	10.79"L x 1.34"W x 3.07"D	126	10	75
7.5	X	-	-	JNBR-600W130	1	130	600	15.7"L x 1.57"W x 3.94"D	102	10	125
10	X	-	-	JNBR-800W100	1	100	800	24.21"L x 1.96"W x 4.33"D	99	10	150
15	X	-	-	JNBR-1R6KW50	1	50	1600	24.21"L x 1.96"W x 4.33"D	126	10	300
20	X	-	-	JNBR-1R5KW40	1	40	1500	24.21"L x 1.96"W x 4.33"D	119	10	300
25	JNTBU-430	1	605	JNBR-4R8KW32	1	32	4800	21.1"L x 1.96"W x 4.33"D	119	10	900
30	JNTBU-430	1	605	JNBR-4R8KW27R2	1	27.2	4800	21.1"L x 1.96"W x 4.33"D	117	10	900
40	JNTBU-430	1	605	JNBR-6KW20	1	20	6000	24.21"L x 1.96"W x 4.33"D	119	10	1,100
50	JNTBU-430	2	605	JNBR-4R8KW32	2	32	4800	21.1"L x 1.96"W x 4.33"D	119	10	900
60	JNTBU-430	2	605	JNBR-4R8KW27R2	2	27.2	4800	21.1"L x 1.96"W x 4.33"D	117	10	900
75	JNTBU-430	2	605	JNBR-6KW20	2	20	6000	24.21"L x 1.96"W x 4.33"D	126	10	1,100

Notes:

X = Transistor Built-in for all N3 Drives at these ratings



A versatile AC Drive that can control today's demanding motor driven applications, this highly flexible drive has multiple control modes.

APPLICATIONS:

- | | |
|----------------------|--|
| ■ Mixing | ■ Pumps (Centrifugal, Positive Displacement, Metering, etc.) |
| ■ Conveyors | ■ Extrusion and Injection Molding |
| ■ Packaging Machines | ■ Winders/ Unwinders |
| ■ Machine Tools | ■ Crushers/ Grinders |
| ■ Fans | ■ Crain/ Hoist |
| ■ Compressors | |

FEATURES:

- Control Modes for V/F, V/F with PG Feedback, Sensorless Vector, Closed Loop Vector, and PMSLV
- Simple PLC Function Built-in
- Advanced Regenerative Load Handling Capability
- 1 to 100 HP (CT), 230V, 50/ 60Hz, 3-Phase
- 1 to 125 HP (VT), 230V, 50/ 60Hz, 3-Phase
- 1 to 200 HP (CT), 460V, 50/ 60Hz, 3-Phase
- 1 to 250 HP (VT), 460V, 50/ 60Hz, 3-Phase
- 1 to 10 HP (CT/VT), 575V, 50/ 60Hz, 3-Phase
- 15 to 250 HP (CT), 690V, 50/ 60Hz, 3-Phase
- 15 to 270 HP (VT), 690V, 50/ 60Hz, 3-Phase
- Conformal Coating on PC Boards
- LCD Keypad that is Remotely Mountable
- Flexible Input/ Output Configurations that Accept Normally Open or Normally Closed Signals
- 0 to 599 Hz Speed Range
- PID Control
- Diagnostics Registers for Troubleshooting
- Built-in RS485 Modbus Protocol
- Enhanced Design for Quiet Motor Operation
- Dedicated Pulse Output and Pulse Follower Signals
- Select Between Closed-Loop Speed and Torque Control in Vector Mode
- 1-40 HP NEMA 1 230V, 50 HP and Above Protected Chassis, 1-60 HP NEMA 1 460V, 75 HP and Above Protected Chassis
- 1-10 HP NEMA 1 575V, 15-60 HP NEMA 1 690V, 75 HP and Above Protected Chassis
- UL, cUL, and CE approved



230V 3-Phase

MODEL NO.	HP		DRIVE AMPS		DIMENSIONS (Inches)			APPROX. WT. (lbs.)	LIST PRICE (\$)
	CONSTANT TORQUE	VARIABLE TORQUE	CONSTANT TORQUE	VARIABLE TORQUE	HEIGHT	WIDTH	DEPTH		
‡*A510-2001-C-U	1	1	5.0	6.0	9.61	5.12	5.91	6	620
‡*A510-2002-C-U	2	2-3	8.0	9.6	9.61	5.12	5.91	6	650
‡*A510-2003-C-U	3	3	11.0	12.0	12.40	5.51	6.97	9	800
*A510-2005-C3-U	5	5-7.5	17.5	22.0	12.40	5.51	6.97	9	840
*A510-2008-C3-U	7.5	10	25.0	30.0	12.40	5.51	6.97	10	1,220
*A510-2010-C3-U	10	15	33.0	42.0	11.80	8.27	8.46	10	1,320
*A510-2015-C3-U	15	20	47.0	56.0	14.20	10.43	8.86	20	1,750
*A510-2020-C3-U	20	25	60.0	69.0	14.20	10.43	8.86	20	2,120
*A510-2025-C3-U	25	30	73.0	79.0	14.20	10.43	8.86	20	2,730
A510-2030-C3-U	30	40	85.0	110.0	20.70	11.20	9.92	70	4,310
A510-2040-C3-U	40	50	115.0	138.0	20.70	11.20	9.92	70	5,330
**A510-2050-C3-U	50	60	145.0	169.0	22.80	13.54	11.81	103	6,200
**A510-2060-C3-U	60	75	180.0	200.0	22.80	13.54	11.81	103	7,250
**A510-2075-C3-U	75	100	215.0	250.0	31.10	18.10	12.80	194	8,800
**A510-2100-C3-U	100	125	283.0	312.0	31.10	18.10	12.80	194	11,000

460V 3-Phase

MODEL NO.	HP		DRIVE AMPS		DIMENSIONS (Inches)			APPROX. WT. (lbs.)	LIST PRICE (\$)
	CONSTANT TORQUE	VARIABLE TORQUE	CONSTANT TORQUE	VARIABLE TORQUE	HEIGHT	WIDTH	DEPTH		
*A510-4001-C3-U	1	1	3.4	4.1	9.61	5.12	5.91	6	640
*A510-4002-C3-U	2	2-3	4.2	5.4	9.61	5.12	5.91	6	670
*A510-4003-C3-U	3	3	5.5	6.9	9.61	5.12	5.91	6	810
*A510-4005-C3-U	5	5-7.5	9.2	12.1	12.40	5.51	6.97	9	900
*A510-4008-C3-U	7.5	10	14.8	17.5	12.40	5.51	6.97	9	1,310
*A510-4010-C3-U	10	15	18.0	23.0	11.80	8.27	8.46	10	1,500
*A510-4015-C3-U	15	20	24.0	31.0	11.80	8.27	8.46	10	1,800
*A510-4020-C3-U	20	25	31.0	38.0	11.80	8.27	8.46	10	2,150
*A510-4025-C3-U	25	30	39.0	44.0	14.20	10.43	8.86	20	2,680
*A510-4030-C3-U	30	40	45.0	58.0	14.20	10.43	8.86	20	2,850
A510-4040-C3-U	40	50	60.0	73.0	20.70	11.20	9.92	70	3,780
A510-4050-C3-U	50	60	75.0	88.0	20.70	11.20	9.92	70	4,560
A510-4060-C3-U	60	75	91.0	103.0	20.70	11.20	9.92	70	5,200
**A510-4075-C3-U	75	100	118.0	145.0	20.70	13.54	11.81	77	6,500
**A510-4100-C3-U	100	125	150.0	168.0	22.80	13.54	11.81	103	9,980
**A510-4125-C3-U	125	150	180.0	208.0	31.10	18.10	12.80	103	12,800
**A510-4150-C3-U	150	175	216.0	250.0	31.10	18.10	12.80	194	14,800
**A510-4215-C3-U	215	250	295.0	328.0	31.10	18.10	12.80	194	17,200

Notes:

- * Includes Dynamic Braking Transistor
- ** Includes DC Bus Link Reactor
- ‡ Operates on single or three phase inputs at specified rating
1 - 40 HP NEMA 1, 230V, 50 HP and above protected chassis, 1 - 75 HP NEMA 1, 460V, 100 HP and above protected chassis

A510

HEAVY DUTY



Effective 06-14-15
Supersedes 05-01-13



Contact TECO-Westinghouse for delivery 1-800-279-4007

575V 3-Phase

MODEL NO.	HP		DRIVE AMPS		DIMENSIONS (Inches)			APPROX. WT. (lbs.)	LIST PRICE (\$)
	CONSTANT TORQUE	VARIABLE TORQUE	CONSTANT TORQUE	VARIABLE TORQUE	HEIGHT	WIDTH	DEPTH		
*A510-5001-C-U	1	2	1.7	3.0	10.98	5.51	6.96	8	1,150
*A510-5002-C-U	2	3	3.0	4.2	10.98	5.51	6.96	8	1,200
*A510-5003-C-U	3	4	4.2	5.8	10.98	5.51	6.96	8	1,290
*A510-5005-C3-U	5	5	6.6	8.8	11.81	8.26	8.46	10	1,320
*A510-5008-C3-U	7.5	7.5-10	9.9	12.2	11.81	8.26	8.46	10	1,450
*A510-5010-C3-U	10	10	11.4	14.5	11.81	8.26	8.46	10	1,500

690V 3-Phase

MODEL NO.	HP		DRIVE AMPS		DIMENSIONS (Inches)			APPROX. WT. (lbs.)	LIST PRICE (\$)
	CONSTANT TORQUE	VARIABLE TORQUE	CONSTANT TORQUE	VARIABLE TORQUE	HEIGHT	WIDTH	DEPTH		
*A510-6015-C3-U	15	20	15.0	19.0	14.17	10.43	8.85	20	2,125
*A510-6020-C3-U	20	25	22.0	22.0	14.17	10.43	8.85	20	2,500
*A510-6025-C3-U	25	30	22.0	27.0	14.17	10.43	8.85	20	3,125
*A510-6030-C3-U	30	40	27.0	34.0	14.17	10.43	8.85	20	3,200
A510-6040-C3-U	40	50	34.0	42.0	20.66	11.18	9.92	70	4,100
A510-6050-C3-U	50	60	42.0	52.0	20.66	11.18	9.92	70	4,900
A510-6060-C3-U	60	75	54.0	62.0	20.66	11.18	9.92	70	6,100
**A510-6075-C3-U	75	100	62.0	80.0	22.83	13.54	11.81	90	7,100
**A510-6100-C3-U	100	125	86.0	99.0	22.83	13.54	11.81	90	8,630
**A510-6125-C3-U	125	150	95.0	125.0	22.83	13.54	11.81	103	11,950
**A510-6150-C3-U	150	175	131.0	147.0	22.83	13.54	11.81	103	13,950
**A510-6215-C3-U	200	250	163.0	212.0	31.10	18.07	12.77	194	20,500
**A510-6250-C3-U	250	270	193.0	216.0	31.10	18.07	12.77	194	22,733

Notes:

- * Includes Dynamic Braking Transistor
- ** Includes DC Bus Link Reactor
- 1-10 HP NEMA 1 575V, 15-60 HP NEMA 1 690V, 75 HP and above protected chassis

A510 OPTIONS

HEAVY DUTY



Effective 06-14-15
Supersedes 05-01-13



Options

PART NUMBER	DESCRIPTION	LIST PRICE (\$)
JN5-CB-01M	Remote Wire for Keypad (1M)	25
JN5-CB-02M	Remote Wire for Keypad (2M)	27
JN5-CB-03M	Remote Wire for Keypad (3M)	30
JN5-CB-05M	Remote Wire for Keypad (5M)	35
JN5-CM-PDP	PROFIBUS Communication Interface Module	350
JN5-CM-USB	USB Cable to Connect PC	80
JN5-CU	Copy Module	95
JN5-NK-A06	A510 Frame 6 NEMA1 KIT 50, 60 HP 230V; 100, 125 HP 460V, 100, 125, 150 HP 690V	475
JN5-NK-A07	A510 Frame 7 NEMA1 KIT 75, 100 HP 230V; 150, 200 HP 460V; 200, 250 HP 690V	690
JN5-OP-A01	LED Operator	75
JN5-OP-A02	LCD Operator	135
JN5-OP-A03	Blank Operator	25
JN5-PG-L	Line Driver Speed Feedback Card	130
JN5-PG-O	Open Collector Speed Feedback Card	160
JN5-PG-PM	Synchronous Motor Line Driver Speed Feedback Card	140

A510 BRAKE MODULES AND RESISTORS



HEAVY DUTY

Effective 06-14-15
Supersedes 05-01-13



Please Contact Factory for Braking Transistors and Braking resistors for all 575V and 690V class A510 products

230V 3-Phase *

AC DRIVE HP RATING CONSTANT TORQUE	BRAKING TRANSISTOR			BRAKING RESISTOR							
	MODEL NO.	QTY USED	LIST PRICE (\$)	MODEL NO.	QTY USED	RESISTANCE OHMS WATTS		ENCLOSURE DIMENSIONS (in.)	BRAKING TORQUE (%)	DUTY CYCLE (%)	LIST PRICE (\$)
1	X	-	-	JNBR-150W200	1	200	150	9.88"L x 1.10"W x 2.36"D	119	10	30
2	X	-	-	JNBR-150W100	1	100	150	9.88"L x 1.10"W x 2.36"D	119	10	35
3	X	-	-	JNBR-260W70	1	70	260	10.79"L x 1.34"W x 3.07"D	115	10	50
5	X	-	-	JNBR-390W40	1	40	390	10.79"L x 1.34"W x 3.07"D	119	10	70
7.5	X	-	-	JNBR-520W30	1	30	520	15.7"L x 1.57"W x 3.94"D	108	10	125
10	X	-	-	JNBR-780W20	1	20	780	15.7"L x 1.57"W x 3.94"D	119	10	150
15	X	-	-	JNBR-2R4KW13R6	1	13.6	2400	21.1"L x 1.96"W x 4.33"D	117	10	450
20	X	-	-	JNBR-3KW10	1	10	3000	24.21"L x 1.96"W x 4.33"D	119	10	575
25	X	-	-	JNBR-4R8KW8	1	8	4800	21.1"L x 1.96"W x 4.33"D	119	10	940
30	JNTBU-230	1	475	JNBR-4R8KW6R8	1	6.8	4800	21.1"L x 1.96"W x 4.33"D	117	10	955
40	JNTBU-230	2	475	JNBR-3KW10	2	10	3000	24.21"L x 1.96"W x 4.33"D	119	10	575
50	JNTBU-230	2	475	JNBR-3KW10	2	10	3000	24.21"L x 1.96"W x 4.33"D	99	10	575
60	JNTBU-230	2	475	JNBR-4R8KW6R8	2	6.8	4800	21.1"L x 1.96"W x 4.33"D	117	10	955
75	JNTBU-230	2	475	JNBR-4R8KW6R8	2	6.8	4800	21.1"L x 1.96"W x 4.33"D	98	10	955
100	JNTBU-230	3	475	JNBR-4R8KW6R8	3	6.8	4800	21.1"L x 1.96"W x 4.33"D	108	10	955

460V 3-Phase *

AC DRIVE HP RATING CONSTANT TORQUE	BRAKING TRANSISTOR			BRAKING RESISTOR							
	MODEL NO.	QTY USED	LIST PRICE (\$)	MODEL NO.	QTY USED	RESISTANCE OHMS WATTS		ENCLOSURE DIMENSIONS (in.)	BRAKING TORQUE (%)	DUTY CYCLE (%)	LIST PRICE (\$)
1	X	-	-	JNBR-150W750	1	750	150	9.88"L x 1.10"W x 2.36"D	126	10	30
2	X	-	-	JNBR-150W400	1	400	150	9.88"L x 1.10"W x 2.36"D	119	10	35
3	X	-	-	JNBR-260W250	1	250	260	10.79"L x 1.34"W x 3.07"D	126	10	50
5	X	-	-	JNBR-400W150	1	150	400	10.79"L x 1.34"W x 3.07"D	126	10	75
7.5	X	-	-	JNBR-600W130	1	130	600	15.7"L x 1.57"W x 3.94"D	102	10	125
10	X	-	-	JNBR-800W100	1	100	800	24.21"L x 1.96"W x 4.33"D	99	10	150
15	X	-	-	JNBR-1R6KW50	1	50	1600	24.21"L x 1.96"W x 4.33"D	126	10	300
20	X	-	-	JNBR-1R5KW40	1	40	1500	24.21"L x 1.96"W x 4.33"D	119	10	300
25	X	-	-	JNBR-4R8KW32	1	32	4800	21.1"L x 1.96"W x 4.33"D	119	10	900
30	X	-	-	JNBR-4R8KW27R2	1	27.2	4800	21.1"L x 1.96"W x 4.33"D	117	10	900
40	JNTBU-430	1	605	JNBR-6KW20	1	20	6000	24.21"L x 1.96"W x 4.33"D	119	10	1,100
50	JNTBU-430	2	605	JNBR-4R8KW32	2	32	4800	21.1"L x 1.96"W x 4.33"D	119	10	900
60	JNTBU-430	2	605	JNBR-4R8KW27R2	2	27.2	4800	21.1"L x 1.96"W x 4.33"D	117	10	900
75	JNTBU-430	2	605	JNBR-6KW20	2	20	6000	24.21"L x 1.96"W x 4.33"D	126	10	1,100
100	JNTBU-430	3	605	JNBR-6KW20	3	20	6000	24.21"L x 1.96"W x 4.33"D	139	10	1,100
125	JNTBU-430	3	605	JNBR-6KW20	3	20	6000	24.21"L x 1.96"W x 4.33"D	115	10	1,100
150	JNTBU-430	4	605	JNBR-6KW20	4	20	6000	24.21"L x 1.96"W x 4.33"D	99	10	1,100
200	JNTBU-430	5	605	JNBR-6KW20	5	20	6000	24.21"L x 1.96"W x 4.33"D	131	10	1,100

Notes:

- X = Transistor Built-in for all A510 drives at these ratings
- * = All brake modules and resistors are chassis (not in an enclosure)
- Please contact factory for external brakes and external braking transistors

E510 NEMA 4, 4X/12

INDOOR, MEDIUM DUTY



Effective 06-14-15
Supersedes 05-01-13



A versatile AC Drive that can control today's demanding motor driven applications, this highly flexible drive operates in severe environments and has built-in PLC functionality.

APPLICATIONS:

- Mixers
- Conveyors
- Packaging Machines
- Machine Tools
- Fans
- Pumps (Centrifugal, Positive Displacement, Metering, etc.)
- Extrusion and Injection Molding
- Crushers/ Grinders
- Compressors

FEATURES:

- Control Modes for V/F, Hz, and Sensorless Vector
- Simple PLC Function Built-in
- Advanced Regenerative Load Handling Capability
- .5 to 20 HP (CT), 230V, 50/ 60Hz, 3-Phase
- 1 to 25 HP (CT), 460V, 50/ 60Hz, 3-Phase
- Conformal Coating on PC Boards
- LED Keypad with 5 Digits
- Flexible Input/ Output Configurations that Accept Normally Open or Normally Closed Signals
- 0 to 599 Hz Speed Range
- PID Control
- Diagnostics Registers for Troubleshooting
- Built-in Modbus Protocol via (RJ45 interface)
- Dedicated Pulse Follower Signal
- UL, cUL, and CE Approved

E510 NEMA 4, 4X/12 WITH DISCONNECT SWITCH

INDOOR, MEDIUM DUTY



Effective 06-14-15
Supersedes 05-01-13



230V 1-Phase Input/ 3-Phase Output

MODEL NO.	HP	DRIVE AMPS	DIMENSIONS (Inches)			APPROX. WT. (lbs.)	LIST PRICE (\$)
	CONSTANT TORQUE	CONSTANT TORQUE	HEIGHT	WIDTH	DEPTH		
E510-2P5-H1FN4S-U	0.5	2.6	7.09	3.57	3.57	3	665
E510-201-H1FN4S-U	1	4.3	7.09	3.57	3.57	3	700
E510-202-H1FN4S-U	2	7.5	8.03	5.07	5.07	5	899
E510-203-H1FN4S-U	3	10.5	8.03	5.07	5.07	5	1,050

460V 3-Phase Input/ 3-Phase Output

MODEL NO.	HP	DRIVE AMPS	DIMENSIONS (Inches)			APPROX. WT. (lbs.)	LIST PRICE (\$)
	CONSTANT TORQUE	CONSTANT TORQUE	HEIGHT	WIDTH	DEPTH		
E510-401-H3FN4S-U	1	2.3	7.09	3.57	5.78	3	840
E510-402-H3FN4S-U	2	3.8	7.09	3.57	5.78	3	905
E510-403-H3FN4S-U	3	5.2	8.03	5.07	5.82	5	1,080
E510-405-H3FN4S-U	5	8.8	8.03	5.07	5.82	5	1,350
E510-408-H3FN4S-U	7.5	13	9.83	7.36	7.68	15	1,820
E510-410-H3FN4S-U	10	17.5	9.83	7.36	7.68	15	1,965
E510-415-H3FN4S-U	15	25	9.83	7.36	7.68	15	2,320

E510 NEMA 4, 4X/12 WITHOUT DISCONNECT SWITCH



INDOOR, MEDIUM DUTY

Effective 06-14-15
Supersedes 05-01-13



230V 3-Phase Input/ 3-Phase Output

MODEL NO.	HP	DRIVE AMPS	DIMENSIONS (Inches)			APPROX. WT. (lbs.)	LIST PRICE (\$)
	CONSTANT TORQUE	CONSTANT TORQUE	HEIGHT	WIDTH	DEPTH		
E510-2P5-HN4R-U	.5	2.6	7.09	3.57	5.78	3	650
E510-201-HN4R-U	1	4.5	7.09	3.57	5.78	3	690
E510-202-HN4R-U	2	7.5	7.09	3.57	5.78	3	860
E510-203-HN4R-U	3	10.5	8.03	5.07	5.82	5	1,025
E510-205-H3N4-U	5	17.5	8.03	5.07	5.82	5	1,387
E510-208-H3N4-U	8	26.0	9.83	7.36	7.68	15	1,555
E510-210-H3N4-U	10	35.0	9.83	7.36	7.68	15	1,860
E510-215-H3N4-U	15	48.0	11.5	8.84	7.81	33	2,310
E510-220-H3N4-U	20	64.0	11.5	8.84	7.81	33	2,420

460V 3-Phase Input/ 3-Phase Output

MODEL NO.	HP	DRIVE AMPS	DIMENSIONS (Inches)			APPROX. WT. (lbs.)	LIST PRICE (\$)
	CONSTANT TORQUE	CONSTANT TORQUE	HEIGHT	WIDTH	DEPTH		
E510-401-H3N4-U	1	2.3	7.09	3.57	5.78	3	830
E510-402-H3N4-U	2	3.8	7.09	3.57	5.78	3	885
E510-403-H3N4-U	3	5.2	8.03	5.07	5.82	5	1,050
E510-405-H3N4-U	5	8.8	8.03	5.07	5.82	5	1,275
E510-408-H3N4-U	7.5	13.0	9.83	7.36	7.68	15	1,700
E510-410-H3N4-U	10	17.5	9.83	7.36	7.68	15	1,890
E510-415-H3N4-U	15	25.0	9.83	7.36	7.68	15	2,075
E510-420-H3N4-U	20	32.0	11.5	8.84	7.81	33	2,563
E510-425-H3N4-U	25	40.0	11.5	8.84	7.81	33	2,665

E510 NEMA 4, 4X/12 OPTIONS

INDOOR, MEDIUM DUTY



Effective 06-14-15
Supersedes 05-01-13



Options

PART NUMBER	DESCRIPTION	LIST PRICE (\$)
JN5-CM-PDP	Profibus Communication Interface Module	350
JN5-CM-USB	USB Cable to Connect PC	80
JN5-CU	Copy Module	95

E510 NEMA 4, 4X/12 BRAKE MODULES AND RESISTORS



INDOOR, MEDIUM DUTY

Effective 06-14-15
Supersedes 05-01-13



230V 3-Phase *

AC DRIVE HP RATING CONSTANT TORQUE	BRAKING TRANSISTOR			BRAKING RESISTOR							
	MODEL NO.	QTY USED	LIST PRICE (\$)	MODEL NO.	QTY USED	RESISTANCE OHMS WATTS		ENCLOSURE DIMENSIONS (in.)	BRAKING TORQUE (%)	DUTY CYCLE (%)	LIST PRICE (\$)
.5-1	X	-	-	JNBR-150W200	1	200	150	9.88"L x 1.10"W x 2.36"D	119	10	30
2	X	-	-	JNBR-150W100	1	100	150	9.88"L x 1.10"W x 2.36"D	119	10	35
3	X	-	-	JNBR-260W70	1	70	260	10.79"L x 1.34"W x 3.07"D	115	10	50
5	X	-	-	JNBR-390W40	1	40	390	10.79"L x 1.34"W x 3.07"D	119	10	70
7.5	X	-	-	JNBR-520W30	1	30	520	15.7"L x 1.57"W x 3.94"D	108	10	125
10	X	-	-	JNBR-780W20	1	20	780	15.7"L x 1.57"W x 3.94"D	119	10	150
15	X	-	-	JNBR-2R4KW13R6	1	13.6	2400	21.1"L x 1.96"W x 4.33"D	117	10	450
20	X	-	-	JNBR-3KW10	1	10	3000	24.21"L x 1.96"W x 4.33"D	119	10	575

460V 3-Phase *

AC DRIVE HP RATING CONSTANT TORQUE	BRAKING TRANSISTOR			BRAKING RESISTOR							
	MODEL NO.	QTY USED	LIST PRICE (\$)	MODEL NO.	QTY USED	RESISTANCE OHMS WATTS		ENCLOSURE DIMENSIONS (in.)	BRAKING TORQUE (%)	DUTY CYCLE (%)	LIST PRICE (\$)
1	X	-	-	JNBR-150W750	1	750	150	9.88"L x 1.10"W x 2.36"D	126	10	30
2	X	-	-	JNBR-150W400	1	400	150	9.88"L x 1.10"W x 2.36"D	119	10	35
3	X	-	-	JNBR-260W250	1	250	260	10.79"L x 1.34"W x 3.07"D	126	10	50
5	X	-	-	JNBR-400W150	1	150	400	10.79"L x 1.34"W x 3.07"D	126	10	75
7.5	X	-	-	JNBR-600W130	1	130	600	15.7"L x 1.57"W x 3.94"D	102	10	125
10	X	-	-	JNBR-800W100	1	100	800	24.21"L x 1.96"W x 4.33"D	99	10	150
15	X	-	-	JNBR-1R6KW50	1	50	1600	24.21"L x 1.96"W x 4.33"D	126	10	300
20	X	-	-	JNBR-1R5KW40	1	40	1500	24.21"L x 1.96"W x 4.33"D	119	10	300
25	JNTBU-430	-	-	JNBR-4R8KW32	1	32	4800	21.1"L x 1.96"W x 4.33"D	119	10	900

Notes:

X = Transistor Built-in for all E510 drives at these ratings

* = All brake modules and resistors are chassis (not in an enclosure)

Please contact factory for external brakes and external braking transistors



A versatile AC Drive that is easily configured and handles almost any fan, blower, or centrifugal pump application.

APPLICATIONS:

- | | |
|-----------------------------------|---------------------|
| ■ Fans | ■ Centrifugal Pumps |
| ■ Blowers | ■ HVAC Industries |
| ■ Water and Wastewater Industries | ■ Irrigation |

FEATURES:

- Control Modes for V/F, Hz, Sensorless Vector, Sensorless Vector with Permanent Magnet Motor
- Built-in PLC as Standard
- Operation and Engineering Units Standard
- LCD Keypad with Remote Mounting Capabilities
- PID Control with Advanced Diagnostics and Sleep Mode
- 5 to 150 HP (Variable Torque), 230V, 50/ 60Hz, 3-Phase
- 5 to 250 HP (Variable Torque), 460V, 50/ 60Hz, 3-Phase
- Plenum Rated
- Diagnostics Registers for Troubleshooting
- Flexible Input/ Output Configurations that Incorporate Normally Open or Normally Closed Signals
- 0 to 400 Hz Speed Range
- Built-in Modbus, BACNet, and Metasys (N2) Protocols via (RS485 or RJ45 Interface)
- Enhanced Design for Smoother and Quieter Motor Operation
- Real Time Clock (Standard on Models with LCD Keypad)
- PTC Input Available for Direct Thermal Protection of the Motor
- Thermal Management on the Heat Sink for Overtemperature Fault Avoidance
- Master-Follower Control Mode Built-in
- EMI Protection that Complies with EM61800-3 with Optional Filter
- EMS Protection that Follows EN61800-3
- UL, cUL, and CE Approved



230V 3-Phase

MODEL NO.	HP	DRIVE AMPS	DIMENSIONS (Inches)			APPROX. WT. (lbs.)	LIST PRICE (\$)
	VARIABLE TORQUE	VARIABLE TORQUE	HEIGHT	WIDTH	DEPTH		
*F510-2005-C3-U	5	14.5	12.4	5.51	6.97	8.4	795
*F510-2008-C3-U	7.5	21.0	12.4	5.51	6.97	8.4	810
*F510-2010-C3-U	10	30.0	11.81	8.27	8.46	13.6	1,150
*F510-2015-C3-U	15	40.0	11.81	8.27	8.46	13.6	1,275
*F510-2020-C3-U	20	56.0	14.17	10.43	8.86	22	1,600
*F510-2025-C3-U	25	69.0	14.17	10.43	8.86	22	2,000
*F510-2030-C3-U	30	79.0	14.17	10.43	8.86	22	2,570
F510-2040-C3-U	40	110.0	20.67	11.18	9.92	66.1	3,500
**F510-2050-C3-U	50	138.0	20.67	11.18	9.92	66.1	4,100
**F510-2060-C3-U	60	169.0	22.83	13.54	11.81	89.3	5,838
**F510-2075-C3-U	75	200.0	22.83	13.54	11.81	89.3	6,412
**F510-2100-C3-U	100	250.0	31.10	18.08	12.78	162.8	8,400
**F510-2125-C3-U	125	312.0	31.10	18.08	12.78	162.8	10,500
**F510-2150-C3-U	150	400.0	39.37	27.16	16.14	405	21,000

460V 3-Phase Input/ 3-Phase Output

MODEL NO.	HP	DRIVE AMPS	DIMENSIONS (Inches)			APPROX. WT. (lbs.)	LIST PRICE (\$)
	VARIABLE TORQUE	VARIABLE TORQUE	HEIGHT	WIDTH	DEPTH		
*F510-4005-C3-U	5	9.2	12.4	5.51	6.97	8.8	775
*F510-4008-C3-U	7.5	11.1	12.4	5.51	6.97	8.8	854
*F510-4010-C3-U	10	17.5	12.4	5.51	6.97	8.8	1,250
*F510-4015-C3-U	15	23.0	11.81	8.27	8.46	13.6	1,400
*F510-4020-C3-U	20	31.0	11.81	8.27	8.46	13.6	1,715
*F510-4025-C3-U	25	38.0	14.17	10.43	8.86	22	2,018
*F510-4030-C3-U	30	44.0	14.17	10.43	8.86	22	2,510
*F510-4040-C3-U	40	54.0	14.17	10.43	8.86	22	2,700
F510-4050-C3-U	50	72.0	20.67	11.18	9.92	66.1	3,445
F510-4060-C3-U	60	88.0	20.67	11.18	9.92	66.1	4,300
F510-4075-C3-U	75	103.0	20.67	11.18	9.92	66.1	4,725
**F510-4100-C3-U	100	145.0	22.83	13.7	11.81	89.3	5,990
**F510-4125-C3-U	125	165.0	22.83	13.7	11.81	89.3	8,500
**F510-4150-C3-U	150	208.0	31.10	18.08	12.78	163.1	11,778
**F510-4215-C3-U	200	250.0	31.10	18.08	12.78	163.1	15,449
**F510-4250-C3-U	250	328.0	31.10	18.08	12.78	163.1	16,590

Notes:

X = Transistor Built-in for all F510 drives at these ratings

* Includes Dynamic Braking Transistor.

** Includes DC Bus Link Reactor

5-50 HP NEMA 1 230V, 60 HP and above protected chassis, 5-75 HP NEMA 1 460V, 100 HP and above protected chassis

F510 PERIPHERALS

FAN & PUMP DUTY



Effective 06-14-15
Supersedes 05-01-13



Options:

PART NUMBER	DESCRIPTION	LIST PRICE (\$)
JN5-CB-01M	Remote Wire for Keypad (1M)	25
JN5-CB-02M	Remote Wire for Keypad (2M)	27
JN5-CB-03M	Remote Wire for Keypad (3M)	30
JN5-CB-05M	Remote Wire for Keypad (5M)	35
JN5-CM-PDP	PROFIBUS Communication Interface Module	350
JN5-CM-USB	USB Cable to Connect PC	80
JN5-CU	Copy Module	95
JN5-NK-A06	F510 Frame 6 NEMA1 KIT 60, 75 HP 230V; 100,125 HP 460V	475
JN5-NK-A07	F510 Frame 7 NEMA1 KIT 100,125 HP 230V; 150, 200, 250 HP 460V	690
JN5-NK-A08	F510 Frame 8 NEMA1 KIT 150 HP 230V	710
JN5-OP-F01	LED Operator	75
JN5-OP-F02	LCD Operator	135
JN5-OP-F03	IP 20 LCD HOA Operator	25
JN5-OP-A03	Blank Operator	25
JN5-IO-8DO	1 to 8 Pump Card	150

F510 BRAKE MODULES AND RESISTORS



FAN & PUMP DUTY

Effective 06-14-15
Supersedes 05-01-13



230V 3-Phase *

AC DRIVE HP RATING	BRAKING TRANSISTOR			BRAKING RESISTOR							
	MODEL NO.	QTY USED	LIST PRICE (\$)	MODEL NO.	QTY USED	RESISTANCE OHMS WATTS		ENCLOSURE DIMENSIONS (in.)	BRAKING TORQUE (%)	DUTY CYCLE (%)	LIST PRICE (\$)
5	X	-	-	JNBR-390W40	1	40	390	10.79"L x 1.34"W x 3.07"D	119	10	70
7.5	X	-	-	JNBR-520W30	1	30	520	15.70"L x 1.57"W x 3.94"D	108	10	125
10	X	-	-	JNBR-780W20	1	20	780	15.7"L x 1.57"W x 3.94"D	119	10	150
15	X	-	-	JNBR-2R4KW13R6	1	13.6	2400	21.1"L x 1.96"W x 4.33"D	117	10	450
20	X	-	-	JNBR-3KW10	1	10	3000	24.21"L x 1.96"W x 4.33"D	119	10	575
25	X	-	-	JNBR-4R8KW8	1	8	4800	21.1"L x 1.96"W x 4.33"D	119	10	940
30	X	-	-	JNBR-4R8KW6R8	1	6.8	4800	21.1"L x 1.96"W x 4.33"D	117	10	955
40	JNTBU-230	2	475	JNBR-3KW10	2	10	3000	24.21"L x 1.96"W x 4.33"D	119	10	575
50	JNTBU-230	2	475	JNBR-3KW10	2	10	3000	24.21"L x 1.96"W x 4.33"D	99	10	575
60	JNTBU-230	2	475	JNBR-4R8KW6R8	2	6.8	4800	21.1"L x 1.96"W x 4.33"D	117	10	955
75	JNTBU-230	3	475	JNBR-4R8KW6R8	3	8.0	4800	21.1"L x 1.96"W x 4.33"D	98	10	955
100	JNTBU-230	3	475	JNBR-4R8KW6R8	3	6.8	4800	21.1"L x 1.96"W x 4.33"D	108	10	955
125	JNTBU-230	4	475	JNBR-4R8KW6R8	4	6.8	4800	21.1"L x 1.96"W x 4.33"D	116	10	955
150	JNTBU-230	5	475	JNBR-4R8KW6R8	5	6.8	4800	21.1"L x 1.96"W x 4.33"D	120	10	955

460V 3-Phase *

AC DRIVE HP RATING	BRAKING TRANSISTOR			BRAKING RESISTOR							
	MODEL NO.	QTY USED	LIST PRICE (\$)	MODEL NO.	QTY USED	RESISTANCE OHMS WATTS		ENCLOSURE DIMENSIONS (in.)	BRAKING TORQUE (%)	DUTY CYCLE (%)	LIST PRICE (\$)
5	X	-	-	JNBR-400W150	1	150	400	10.79"L x 1.34"W x 3.07"D	126	10	75
7.5	X	-	-	JNBR-600W130	1	130	600	15.70"L x 1.57"W x 3.94"D	102	10	125
10	X	-	-	JNBR-800W100	1	100	800	24.21"L x 1.96"W x 4.33"D	99	10	150
15	X	-	-	JNBR-1R6KW50	1	50	1600	24.21"L x 1.96"W x 4.33"D	126	10	300
20	X	-	-	JNBR-1R5KW40	1	40	1500	24.21"L x 1.96"W x 4.33"D	119	10	300
25	X	-	-	JNBR-4R8KW32	1	32	4800	21.1"L x 1.96"W x 4.33"D	119	10	900
30	X	-	-	JNBR-4R8KW27R2	1	27.2	4800	21.1"L x 1.96"W x 4.33"D	117	10	900
40	X	-	-	JNBR-6KW20	1	20	6000	24.21"L x 1.96"W x 4.33"D	119	10	1,100
50	JNTBU-430	2	605	JNBR-4R8KW32	2	32	4800	21.1"L x 1.96"W x 4.33"D	119	10	900
60	JNTBU-430	2	605	JNBR-4R8KW27R2	2	27.2	4800	21.1"L x 1.96"W x 4.33"D	117	10	900
75	JNTBU-430	2	605	JNBR-6KW20	2	20	6000	24.21"L x 1.96"W x 4.33"D	126	10	1,100
100	JNTBU-430	3	605	JNBR-4R8KW27R2	3	27.2	4800	24.21"L x 1.96"W x 4.33"D	117	10	900
125	JNTBU-430	3	605	JNBR-6KW20	3	20	6000	24.21"L x 1.96"W x 4.33"D	115	10	1,100
150	JNTBU-430	3	605	JNBR-6KW20	3	20	6000	24.21"L x 1.96"W x 4.33"D	125	10	1,100
175-200	JNTBU-430	5	605	JNBR-4R8KW27R2	5	27.2	4800	24.21"L x 1.96"W x 4.33"D	117	10	900
200	JNTBU-430	6	605	JNBR-4R8KW27R2	6	27.2	4800	24.21"L x 1.96"W x 4.33"D	117	10	900
250	JNTBU-430	5	605	JNBR-6KW20	5	20	6000	24.21"L x 1.96"W x 4.33"D	125	10	1,100

Notes:

X = Transistor Built-in for all F510 drives at these ratings

* = All brake modules and resistors are chassis (not in an enclosure)



**A rugged and versatile drive with a wide range of ratings
ideal for both simpler and more demanding applications.**

APPLICATIONS:

- | | |
|-----------------------------------|-------------------------------|
| ■ Crushers, Grinders | ■ Positive Displacement Pumps |
| ■ Compressors | ■ High Torque Mixing |
| ■ Reciprocating Machinery | ■ Material Handling |
| ■ Dynamometers | ■ Extruders |
| ■ Water and Wastewater Industries | ■ Chillers and Refrigeration |
| ■ Injection Molding | ■ Fans |
| ■ Centrifugal Pumps | |

FEATURES:

- Designed for Constant/ Variable Torque Applications
- V/ F, Dynamic Torque, Sensorless and Sensor (Encoder Feedback) Vector mode
- Backlit LCD/ English Language with LED Monitor Display/ Selections for 6 Languages
- Keypad May be Used as Copy Unit/ Remote Mounting Options
- Extensive Diagnostic Information on LCD Display
- State-of-the-Art Torque Limit and Control Features
- PID Control with Sleep Mode Function
- Provided with Low-Noise Control Power Supply
- 1 to 125 HP @ 230V (Constant Torque)
- 1 to 900 HP @ 460V (Constant Torque)
- 1 to 150 HP @ 230V (Variable Torque)
- 1 to 1000 HP @ 460V (Variable Torque)
- Extensive I/O Capabilities
- Encoder Feedback Option for Applications Requiring Precise Speed Control
- Conformal Coating on PC Boards, Tin Plating on DC Bus
- External Mounting of Heatsink when Installed in Control Panels (>40 HP); Option Kit Available (<=40 HP)
- All Units are IP20 at 40 HP and below and IP00 at ratings >40 HP (NEMA 1 Option Kits Available)
- Built-in RS485 Protocol (Modbus)/ Optional Profibus-DP, DeviceNet, EtherNet, BACnet, Metasys
- DC Link Chokes Included in 100 HP and Above HP Units Shipped Loose as Chassis Item Inside Crate
- uL, cUL and CE Approved

MULTIPLE DUTY

Effective 06-14-15
Supersedes 05-01-13



230V 3-Phase Input/ 3-Phase Output

MODEL NO.	HP		DRIVE AMPS		APPROXIMATE DIMENSIONS (Inches)			APPROX. WT. (lbs.)	LIST PRICE (\$)
	VARIABLE TORQUE	CONSTANT TORQUE	VARIABLE TORQUE	CONSTANT TORQUE	HEIGHT	WIDTH	DEPTH		
EQ7-2001-C	1	1	5	5	10.24	4.33	5.71	4.4	850
EQ7-2002-C	2	2	8	8	10.24	5.91	5.71	6.2	950
EQ7-2003-C	3	3	11	11	10.24	5.91	5.71	6.6	1,050
EQ7-2005-C	5	5	18	18	10.24	5.91	5.71	6.6	1,190
EQ7-2007-C	7.5	7.5	27	27	10.24	8.66	7.68	14.3	1,510
EQ7-2010-C	10	7.5	29	27	10.24	8.66	7.68	14.3	1,680
EQ7-2015-C	15	10	42	37	10.24	8.66	7.68	14.3	1,780
EQ7-2020-C	20	15	55	49	10.24	8.66	7.68	12.8	2,130
EQ7-2025-C	25	20	68	63	15.75	9.84	7.68	20.9	2,470
EQ7-2030-C	30	25	80	76	15.75	9.84	7.68	20.9	3,100
EQ7-2040-C	40	30	107	90	15.75	12.6	7.68	22.0	4,700
EQ7-2050-C	50	40	146	119	21.65	13.98	10.04	55.1	5,530
EQ7-2060-C	60	50	180	146	24.21	13.98	10.63	70.6	6,500
EQ7-2075-C	75	60	215	180	29.13	13.98	10.63	92.6	7,740
EQ7-2100-C	100	75	283	215	29.13	13.98	10.63	94.8	9,100
EQ7-2125-C	125	100	346	283	29.53	20.87	11.22	137.0	12,500
EQ7-2150-C	150	125	415	346	34.65	24.80	14.17	231.0	16,700

460V 3-Phase Input/ 3-Phase Output

MODEL NO.	HP		DRIVE AMPS		APPROXIMATE DIMENSIONS (Inches)			APPROX. WT. (lbs.)	LIST PRICE (\$)
	VARIABLE TORQUE	CONSTANT TORQUE	VARIABLE TORQUE	CONSTANT TORQUE	HEIGHT	WIDTH	DEPTH		
EQ7-4001-C	1	1	2.5	2.5	10.24	4.33	5.71	4.4	825
EQ7-4002-C	2	2	4.0	4.0	10.24	5.91	5.71	5.7	890
EQ7-4003-C	3	3	5.5	5.5	10.24	5.91	5.71	6.0	1,100
EQ7-4005-C	5	5	9.0	9.0	10.24	5.91	5.71	6.6	1,240
EQ7-4007-C	7.5	7.5	13.5	13.5	10.24	8.66	7.68	14.3	1,650
EQ7-4010-C	10	7.5	16.5	13.5	10.24	8.66	7.68	14.3	1,730
EQ7-4015-C	15	10	23	18.5	10.24	8.66	7.68	14.3	1,930
EQ7-4020-C	20	15	30.5	24.5	10.24	8.66	7.68	12.8	2,220
EQ7-4025-C	25	20	37	32	15.75	9.84	7.68	20.9	2,490
EQ7-4030-C	30	25	45	39	15.75	9.84	7.68	20.9	2,910
EQ7-4040-C	40	30	60	45	15.75	9.84	7.68	22.0	3,790
EQ7-4050-C	50	40	75	60	21.65	12.6	10.04	55.1	4,930
EQ7-4060-C	60	50	91	75	21.65	12.6	10.04	57.3	6,100
EQ7-4075-C	75	60	112	91	24.21	13.98	10.63	68.3	6,450
EQ7-4100-C	100	75	150	112	26.57	13.98	10.63	72.8	8,200
EQ7-4125-C	125	100	176	150	29.13	13.98	10.63	93.0	10,800
EQ7-4150-C*	150	125/150	210	210**	29.13	20.87	12.4	137.0	14,540
EQ7-4200-C*	200	200	253	253**	29.13	20.87	12.4	141.0	15,500
EQ7-4250-C*	250	250	304	304**	39.37	20.87	14.17	207.0	18,900
EQ7-4300-C*	300	300	377	377**	39.37	20.87	14.17	216.0	20,200
EQ7-4350-C*	350	350	415	415**	39.37	26.77	14.17	284.0	24,300
EQ7-4450-C*	400/450	350	520	468**	39.37	26.77	14.17	309.0	25,500
EQ7-4500-C*	500	400/450	650	585**	55.12	26.77	17.32	540.0	48,500
EQ7-4600-C*	600	500	740	650**	55.12	26.77	17.32	540.0	50,500
EQ7-4700-C*	700	600	840	740**	55.12	34.68	17.32	805.0	61,500
EQ7-4800-C*	800	700	960	840**	55.12	34.68	17.32	805.0	63,950
EQ7-4900-C	900	800	1170	960	61.02	39.37	19.69	1170.0	108,000
EQ7-41000-C	1000	900	1370	1170	61.02	39.37	19.69	1170.0	117,000

Notes:

- * Marked items are suitable for constant torque V/F control.
 - ** Please consult factory for vector control full load amps for these models.
- Consult factory when applying single-phase power to the EQ7 products

MULTIPLE DUTY

Effective 06-14-15
Supersedes 05-01-13



OPTION TYPE	MODEL	DESCRIPTION	LIST PRICE (\$)
NEMA1 Kit	NEMA1-0.75G1-24	1 HP 230V,460V	50
	NEMA1-3.75G1-24	2,3,5 HP 230V,460V	65
	NEMA1-11G1-24	7.5,10,15,20 HP 230V,460V	110
	NEMA1-22G1-24	25,30 HP 230V, 25,30,40 HP 460V	130
	NEMA1-22G1-2	40 HP 230V	150
	NEMA1-37G1-24	50 HP, 230V,50,60 HP 460V	800
	NEMA1-75G1-24	60,75,100 HP 230V, 75,100,125 HP 460V	1,050
	NEMA1-75G1-2	125 HP 230V	1,615
	NEMA1-110G1-4	150,200 HP 460V	1,400
	NEMA1-160G1-4	250,300 HP 460V	1,725
	NEMA1-220G1-24	150 HP 230V, 350,450 HP 460V	1,800
	NEMA1-315G1-4	500,600 HP 460V	1,100
	NEMA1-400G1-4	700,800 HP 460V	1,275
	NEMA1-630G1-4	900,1000 HP 460V	2,100
DC Bus Choke UL Type 1 Enclosure	E012	100,125,150 HP 230V,100 HP 460V	625
	E013	125 - 350 HP 460V	1,150
	E014	450 - 700 HP 460V	2,400
	E015	800 - 1000 HP 460V	3,800
Braking Unit	BU22-2C	230V 40 HP and below	720
	BU37-2C	230V 50 HP - 60 HP	1,675
	BU55-2C	230V 75 HP - 100 HP	2,200
	BU90-2C	230V 125 - 150 HP	3,040
	BU22-4C	460V 40 HP and below	800
	BU37-4C	460V 50 HP - 60 HP	1,726
	BU55-4C	460V 75 HP - 100 HP	2,325
	BU90-4C	460V 125 HP - 150 HP	3,040
	BU132-4C	460V 200 HP - 250 HP	4,175
	BU220-4C	460V 300 HP - 450 HP CONSULT FACTORY for applications above 450 HP	6,075
Braking Resistor	DB0.75-2C	230V 1 HP and below	100
	DB2.2-2C	230V 2 HP - 3 HP	125
	DB3.7-2C	230V 5 HP	175
	DB5.5-2C	230V 7.5 HP - 10 HP	265
	DB7.5-2C	230V 15 HP	307
	DB11-2C	230V 20 HP	388
	DB15-2C	230V 25 HP	555
	DB22-2C	230V 30 HP - 40 HP	915
	DB30-2C	230V 50 HP	1,432
	DB37-2C	230V 60 HP	1,850

Notes:

(1) The HP indication of Braking Units, Braking Resistors and NEMA 1 kits are for VT HP of dual rating drives. Conditions are the same as drive.



OPTION TYPE	MODEL	DESCRIPTION	LIST PRICE (\$)
Braking Resistor	DB45-2C	230V 75HP	2,265
	DB55-2C	230V 100HP	2,450
	DB75-2C	230V 125HP	3,800
	DB90-2C	230V 150HP	4,200
	DB0.75-4C	460V 1HP	129
	DB2.2-4C	460V 2HP - 3HP	134
	DB3.7-4C	460V 7.5HP	199
	DB5.5-4C	460V 10HP	263
	DB7.5-4C	460V 15HP	308
	DB11-4C	460V 20HP	429
	DB15-4C	460V 25HP	590
	DB22-4C	460V 30HP - 40HP	978
	DB30-4C	460V 50HP	1,163
	DB37-4C	460V 60HP	1,873
	DB45-4C	460V 75HP	2,156
	DB55-4C	460V 100HP	1,854
	DB75-4C	460V 125HP	3,290
	DB110-4C	460V 150HP - 200HP	3,755
	DB132-4C	460V 250HP	4,500
	DB160-4C	460V 300HP	5,425
	DB200-4C	460V 350HP	5,900
	DB220-4C	460V 400HP - 450HP	7,540
Options and Accessories	OPC-G1-ETH	EtherNet card	500
	OPC-G1-DEV	DeviceNet card	1,350
	OPC-G1-CCL	CC-link card	1,200
	OPC-G1-PDP	PROFIBUS-DP card	1,320
	OPC-G1-COP	CANopen	1,800
	OPC-G1-TL	T-link interface card	1,105
	OPC-G 1-PG	PG interface card (12V)	190
	OPC-G1-PG2	PG interface card (5V)	225
	OPC-G1-PG22	PG Synchronization card	470
	OPC-G1-DI	Digital input interface card	495
	OPC-G1-DO	Digital output interface card	495
	OPC-G1-AIO	Analog input/output interface card	500
	OPC-G1 -RY	Relay communication card	140
	TP-G1W-J1	Standard Keypad (LCD)	450
	TP-E1 U	Keypad (with USB Port) LED Only	130
Keypad Extension Cable	EQ7-3S	3 ft. Cable	60
	EQ7-7S	7 ft. Cable	65

Notes:

(1) The HP indication of Braking Units and Braking Resistors are for VT HP of dual rating drives. Conditions are the same as drive.

LINE REACTORS



230V

Effective 06-14-15
Supercedes 05-01-13

Low priced and easy to install, Line Reactors provide input transient protection from harmonic distortion. When applying a reactor between the drive output and the motor, please contact the Factory.

3% IMPEDANCE, 230V

HP	AMPS	CHASSIS UNIT				UL TYPE 1 ENCLOSURE			
		MODEL NO.	DIMENSIONS H x W x D (in.)	WEIGHT (lbs.)	LIST PRICE	MODEL NO.	DIMENSIONS H x W x D (in.)	WEIGHT (lbs.)	LIST PRICE (\$)
1	5.5	KDRULA25L	4.00 x 4.18 x 3.75	4	161	KDRULA25LE01	12.25 x 12.50 x 6.75	14.5	432
1.5	8	KDRULA26L	4.00 x 4.18 x 3.75	4	170	KDRULA26LE01	12.25 x 12.50 x 6.75	14.5	440
2	10	KDRULA27L	4.00 x 4.18 x 3.75	4	172	KDRULA27LE01	12.25 x 12.50 x 6.75	14.5	445
3	12	KDRULA28L	4.00 x 4.18 x 3.75	4	195	KDRULA28LE01	12.25 x 12.50 x 6.75	14.5	463
5	19	KDRULB22L	5.00 x 6.00 x 4.00	8	275	KDRULB22LE01	12.25 x 12.50 x 6.75	18.5	550
7.5	25	KDRULB23L	5.00 x 6.00 x 4.00	8	296	KDRULB23LE01	12.25 x 12.50 x 6.75	18.5	571
10	34	KDRULD25L	5.75 x 7.20 x 4.25	12	309	KDRULD25LE01	12.25 x 12.50 x 6.75	22.5	588
15	48	KDRULD24L	5.75 x 7.20 x 4.25	12	328	KDRULD24LE01	12.25 x 12.50 x 6.75	22.5	595
20	62	KDRULD26L	5.75 x 7.20 x 4.25	12	350	KDRULD26LE01	12.25 x 12.50 x 6.75	22.5	617
25	80	KDRULC22L	5.75 x 7.20 x 5.00	15	530	KDRULC22LE01	12.25 x 12.50 x 6.75	25.5	780
30	100	KDRULF24L	7.00 x 9.00 x 6.00	33	565	KDRULF24LE01	19.13 x 15.43 x 15.43	67	1,050
40	118	KDRULF25L	7.00 x 9.00 x 6.00	33	790	KDRULF25LE01	19.13 x 15.43 x 15.43	67	1,275
50	152	KDRULF26L	7.00 x 9.00 x 6.00	36	920	KDRULF26LE01	19.13 x 15.43 x 15.43	67	1,400
60	180	KDRULH22L	9.00 x 11.00 x 7.00	51	1,060	KDRULH22LE01	22.12 x 20.43 x 24.37	113	1,950
75	211	KDRULI23L	9.00 x 11.00 x 7.00	56	1,092	KDRULI23LE01	22.12 x 20.43 x 24.37	117	2,000
100	280	KDRULI24L	9.00 x 11.00 x 7.00	56	1,200	KDRULI24LE01	22.12 x 20.43 x 24.37	117	2,100
125	377	KDRULG22L	9.00 x 11.00 x 9.00	74	1,675	KDRULG22LE01	22.12 x 20.43 x 24.37	132	2,600
150	420	KDRULJ23L	9.00 x 11.00 x 11.50	80	1,850	KDRULJ23LE01	22.12 x 20.43 x 24.37	137	2,780

5% IMPEDANCE, 230V

HP	AMPS	CHASSIS UNIT				UL TYPE 1 ENCLOSURE			
		MODEL NO.	DIMENSIONS H x W x D (in.)	WEIGHT (lbs.)	LIST PRICE	MODEL NO.	DIMENSIONS H x W x D (in.)	WEIGHT (lbs.)	LIST PRICE (\$)
1	5.5	KDRULA25H	4.00 x 4.18 x 3.75	4	170	KDRULA25HE01	12.25 x 12.50 x 6.75	14.5	460
1.5	8	KDRULA27H	4.00 x 4.18 x 3.75	4	186	KDRULA27HE01	12.25 x 12.50 x 6.75	14.5	480
2	10	KDRULA26H	4.00 x 4.18 x 3.75	4	191	KDRULA26HE01	12.25 x 12.50 x 6.75	14.5	485
3	12	KDRULA28H	4.00 x 4.18 x 3.75	4	207	KDRULA28HE01	12.25 x 12.50 x 6.75	14.5	493
5	19	KDRULB25H	5.00 x 6.00 x 4.00	8	280	KDRULB25HE01	12.25 x 12.50 x 6.75	18.5	554
7.5	25	KDRULB26H	5.00 x 6.00 x 4.00	8	310	KDRULB26HE01	12.25 x 12.50 x 6.75	18.5	599
10	34	KDRULD21H	5.75 x 7.20 x 4.25	12	317	KDRULD21HE01	12.25 x 12.50 x 6.75	22.5	602
15	48	KDRULD22H	5.75 x 7.20 x 4.25	12	416	KDRULD22HE01	12.25 x 12.50 x 6.75	22.5	695
20	62	KDRULC22H	5.75 x 7.20 x 5.00	15	471	KDRULC22HE01	12.25 x 12.50 x 6.75	25.5	770
25	80	KDRULF28H	7.00 x 9.00 x 6.00	30	567	KDRULF28HE01	19.13 x 15.43 x 15.43	67	1,120
30	100	KDRULF25H	7.00 x 9.00 x 6.00	33	645	KDRULF25HE01	19.13 x 15.43 x 15.43	67	1,225
40	118	KDRULF26H	7.00 x 9.00 x 6.00	33	840	KDRULF26HE01	19.13 x 15.43 x 15.43	67	1,390
50	152	KDRULH24H	9.00 x 11.00 x 7.00	40	1,020	KDRULH24HE01	19.13 x 15.43 x 15.43	70	1,550
60	180	KDRULH23H	9.00 x 11.00 x 7.00	51	1,175	KDRULH23HE01	19.13 x 15.43 x 15.43	81	1,975
75	211	KDRULI22H	9.00 x 11.00 x 7.00	56	1,470	KDRULI22HE01	22.12 x 20.43 x 24.37	117	2,450
100	280	KDRULI21H	9.00 x 11.00 x 7.00	56	1,780	KDRULI21HE01	22.12 x 20.43 x 24.37	117	2,750
125	377	KDRULG25H	9.00 x 11.00 x 9.00	74	1,825	KDRULG25HE01	22.12 x 20.43 x 24.37	132	2,825
150	420	KDRULJ22H	9.00 x 11.00 x 9.75	79	1,975	KDRULJ22HE01	22.12 x 20.43 x 24.37	136	2,935

3% IMPEDANCE, 460V

HP	AMPS	CHASSIS UNIT				UL TYPE 1 ENCLOSURE			
		MODEL NO.	DIMENSIONS H x W x D (in.)	WEIGHT (lbs.)	LIST PRICE (\$)	MODEL NO.	DIMENSIONS H x W x D (in.)	WEIGHT (lbs.)	LIST PRICE (\$)
1	2.1	KDRULA8L	4.00 x 4.18 x 3.75	4	146	KDRULA8LE01	12.25 X 12.50 X 6.75	14.5	430
2	6.4	KDRULA1L	4.00 x 4.18 x 3.75	4	154	KDRULA1LE01	12.25 X 12.50 X 6.75	14.5	441
3	6	KDRULA2L	4.00 x 4.18 x 3.75	4	170	KDRULA2LE01	12.25 X 12.50 X 6.75	14.5	460
5	9.6	KDRULA3L	4.00 x 4.18 x 3.75	4	175	KDRULA3LE01	12.25 X 12.50 X 6.75	14.5	468
7.5	14	KDRULA4L	4.00 x 4.18 x 3.75	4	197	KDRULA4LE01	12.25 X 12.50 X 6.75	14.5	481
10	14	KDRULA5L	4.00 x 4.18 x 3.75	5	253	KDRULA5LE01	12.25 X 12.50 X 6.75	14.5	536
15	30	KDRULB2L	5.00 x 6.00 x 4.00	8	290	KDRULB2LE01	12.25 X 12.50 X 6.75	18.5	575
20	30	KDRULB1L	5.00 x 6.00 x 4.00	8	315	KDRULB1LE01	12.25 X 12.50 X 6.75	18.5	600
25	50	KDRULD1L	5.75 x 7.20 x 4.25	10	340	KDRULD1LE01	12.25 X 12.50 X 6.75	20.5	620
30	45	KDRULD2L	5.75 x 7.20 x 4.25	10	420	KDRULD2LE01	12.25 X 12.50 X 6.75	20.5	703
40	55	KDRULC1L	5.75 x 7.20 x 5.00	15	465	KDRULC1LE01	12.25 X 12.50 X 6.75	25.5	746
50	65	KDRULF2L	7.00 x 9.00 x 6.00	25	550	KDRULF2LE01	19.13 X 15.43 X 15.43	67	1,124
60	77	KDRULF4L	7.00 x 9.00 x 6.00	25	575	KDRULF4LE01	19.13 X 15.43 X 15.43	67	1,140
75	110	KDRULF3L	7.00 x 9.00 x 6.00	33	847	KDRULF3LE01	19.13 X 15.43 X 15.43	67	1,415
100	150	KDRULH3L	7.00 x 9.00 x 7.00	46	977	KDRULH3LE01	19.13 X 15.43 X 15.43	78	1,540
125	165	KDRULH2L	9.00 x 11.00 x 7.00	46	1,170	KDRULH2LE01	19.13 X 15.43 X 15.43	78	1,743
150	185	KDRULH1L	9.00 x 11.00 x 7.00	46	1,355	KDRULH1LE01	22.12 X 20.43 X 24.37	108	2,450
200	240	KDRULG3L	9.00 x 11.00 x 8.00	74	1,790	KDRULG3LE01	22.12 X 20.43 X 24.37	131	2,783
250	340	KDRULG1L	9.00 x 11.00 x 8.00	74	1,930	KDRULG1LE01	22.12 X 20.43 X 24.37	132	2,970
300	370	KDRULG2L	9.00 x 11.00 x 8.00	74	2,010	KDRULG2LE01	22.12 X 20.43 X 24.37	132	3,000
350	500	KDRULJ2L	9.00 x 11.00 x 9.00	80	2,330	KDRULJ2LE01	22.12 X 20.43 X 24.37	150	3,425
400	520	KDRULJ1L	9.00 x 11.00 x 9.00	80	2,590	KDRULJ1LE01	22.12 X 20.43 X 24.37	150	3,600
450	610	KDRULL1L	11.38 x 14.50 x 9.50	120	2,985	KDRULL1LE01	22.12 X 20.43 X 24.37	190	3,980
500	610	KDRULL2L	11.38 x 14.50 x 9.50	120	4,350	KDRULL2LE01	22.12 X 20.43 X 24.37	190	5,400
600	720	KDRULL3L	11.38 x 14.50 x 9.50	164	5,900	KDRULL3LE01	48.00 X 36.27 X 36.27	748	9,300
700	840	KDRULS1L	11.38 x 15.00 x 13.25	180	6,450	KDRULS1LE01	48.00 X 36.27 X 36.27	872	10,000
800	965	KDRULX2L	18.50 x 21.00 x 18.00	290	9,000	KDRULX2LE01	48.00 X 36.27 X 36.27	997	12,500

Notes:

- (1) Contact factory for 900 HP and 1000 HP applications

5% IMPEDANCE, 460V

HP	AMPS	CHASSIS UNIT				UL TYPE 1 ENCLOSURE			
		MODEL NO.	DIMENSIONS H x W x D (in.)	WEIGHT (lbs.)	LIST PRICE (\$)	MODEL NO.	DIMENSIONS H x W x D (in.)	WEIGHT (lbs.)	LIST PRICE (\$)
1	2.1	KDRULA8H	4.00 x 4.18 x 3.75	4	170	KDRULA8HE01	12.25 x 12.50 x 6.75	14.5	440
2	6.4	KDRULA1H	4.00 x 4.18 x 3.75	4	175	KDRULA1HE01	12.25 x 12.50 x 6.75	14.5	450
3	6	KDRULA2H	4.00 x 4.18 x 3.75	4	225	KDRULA2HE01	12.25 x 12.50 x 6.75	14.5	500
5	9.6	KDRULA3H	4.00 x 4.18 x 3.75	4	260	KDRULA3HE01	12.25 x 12.50 x 6.75	14.5	535
7.5	14	KDRULA4H	4.00 x 4.18 x 3.75	5	290	KDRULA4HE01	12.25 x 12.50 x 6.75	15.5	573
10	14	KDRULA5H	4.00 x 4.18 x 3.75	5	360	KDRULA5HE01	12.25 x 12.50 x 6.75	15.5	630
15	30	KDRULB2H	5.00 x 6.00 x 4.00	7	370	KDRULB2HE01	12.25 x 12.50 x 6.75	17.5	640
20	30	KDRULC3H	5.75 x 7.20 x 5.00	15	415	KDRULC3HE01	12.25 x 12.50 x 6.75	25.5	680
25	50	KDRULC1H	5.75 x 7.20 x 5.00	15	500	KDRULC1HE01	12.25 x 12.50 x 6.75	25.5	760
30	45	KDRULE2H	5.75 x 7.20 x 5.00	16	570	KDRULE2HE01	12.25 x 12.50 x 6.75	26.5	830
40	55	KDRULF4H	7.00 x 9.00 x 6.00	25	590	KDRULF4HE01	19.13 x 15.43 x 15.43	67.0	1,150
50	65	KDRULF1H	7.00 x 9.00 x 6.00	25	800	KDRULF1HE01	19.13 x 15.43 x 15.43	67.0	1,375
60	77	KDRULF2H	7.00 x 9.00 x 6.00	25	850	KDRULF2HE01	19.13 x 15.43 x 15.43	67.0	1,400
75	110	KDRULH2H	9.00 x 11.00 x 7.00	52	1,020	KDRULH2HE01	19.13 x 15.43 x 15.43	82.0	1,580
100	150	KDRULI2H	9.00 x 11.00 x 7.00	52	1,230	KDRULI2HE01	19.13 x 15.43 x 15.43	82.0	1,730
125	165	KDRULG3H	9.00 x 11.00 x 8.00	57	1,405	KDRULG3HE01	22.12 x 20.43 x 24.37	122.0	2,375
150	185	KDRULG1H	9.00 x 11.00 x 8.00	60	1,650	KDRULG1HE01	22.12 x 20.43 x 24.37	127.0	2,660
200	240	KDRULJ1H	9.00 x 11.00 x 9.00	75	2,230	KDRULJ1HE01	22.12 x 20.43 x 24.37	136.0	3,250
250	340	KDRULL1H	11.38 x 14.50 x 9.50	105	2,450	KDRULL1HE01	22.12 x 20.43 x 24.37	162.0	3,400
300	370	KDRULL2H	11.38 x 14.50 x 9.31	105	2,500	KDRULL2HE01	22.12 x 20.43 x 24.37	162.0	3,475
350	500	KDRULL3H	11.38 x 14.50 x 9.31	109	2,885	KDRULL3HE01	22.12 x 20.43 x 24.37	166.0	3,775
400	520	KDRULL4H	11.38 x 14.50 x 9.50	135	3,700	KDRULL4HE01	22.12 x 20.43 x 24.37	176.0	4,600
450	610	KDRULL5H	11.38 x 14.50 x 11.00	135	3,890	KDRULL5HE01	36.00 x 28.39 x 30.19	295.0	5,900
500	610	KDRULL6H	11.38 x 14.50 x 11.00	135	4,775	KDRULL6HE01	36.00 x 28.39 x 30.19	295.0	6,800
600	720	KDRULS1H	11.38 x 15.00 x 13.25	272	6,000	KDRULS1HE01	48.00 X 36.27 X 36.27	685	9,400
700	840	KDRULS2H	11.38 x 15.00 x 13.25	280	6,885	KDRULS2HE01	48.00 X 36.27 X 36.27	685	10,600
800	965	KDRULX2H	18.50 X 21.00 X 18.00	305	9,500	KDRULX2HE01	48.00 X 36.27 X 36.27	715	12,900

Notes:

- (1) Contact factory for 900 HP and 1000 HP applications

OUTPUT REACTORS/ LOW PASS FILTER COMBINATIONS



460V

Effective 06-14-15
Supersedes 05-01-13

Output Reactors/ Low Pass Filter Combinations (DV/DT) installed between an AC Drive and a motor limit the magnitude of voltage spikes at the motor. The filter also protect cables and the motor's insulation from damage caused by PWM reflected waves.

OUTPUT REACTOR/ LOW PASS FILTER COMBINATION, 460V

HP	AMPS	CHASSIS UNIT				UL TYPE 1 ENCLOSURE			
		MODEL NO.	DIMENSIONS H x W x D (in.)	WEIGHT (IBS.)	LIST PRICE (\$)	MODEL NO.	DIMENSIONS H x W x D (in.)	WEIGHT (IBS.)	LIST PRICE (\$)
1	3	V1K3A00	9.00 x 5.50 x 7.25	8	530	V1K3A01	9.00 x 5.50 x 10.00	11	830
2	4	V1K4A00	9.00 x 5.50 x 7.25	8	540	V1K4A01	9.00 x 5.50 x 10.00	11	840
3	6	V1K6A00	9.00 x 5.50 x 7.25	8	550	V1K6A01	9.00 x 5.50 x 10.00	11	860
5	8	V1K8A00	9.00 x 5.50 x 8.25	8	560	V1K8A01	9.00 x 5.50 x 10.00	11	875
7.5	12	V1K12A00	9.00 x 5.50 x 8.25	8	590	V1K12A01	9.00 x 5.50 x 10.00	11	900
10	18	V1K18A00	9.00 x 5.50 x 8.25	12	648	V1K18A01	9.00 x 5.50 x 10.00	15	975
15	25	V1K25A00	9.00 x 5.50 x 8.25	12	783	V1K25A01	9.00 x 5.50 x 10.00	15	1,050
20	27	V1K27A00	9.00 x 5.50 x 8.25	14	825	V1K27A01	9.00 x 5.50 x 10.00	15	1,075
25	35	V1K35A00	12.00 x 8.00 x 9.00	17	850	V1K35A01	12.00 x 8.00 x 11.50	23	1,100
30	45	V1K45A00	12.00 x 8.00 x 9.00	17	890	V1K45A01	12.00 x 8.00 x 11.50	23	1,175
40	55	V1K55A00	12.00 x 8.00 x 9.00	23	910	V1K55A01	12.00 x 8.00 x 11.50	23	1,282
50	80	V1K80A00	12.00 x 8.00 x 9.00	23	1,296	V1K80A01	12.00 x 8.00 x 11.50	29	1,648
60	80	V1K80A00	12.00 x 8.00 x 9.00	23	1,296	V1K80A01	12.00 x 8.00 x 11.50	29	1,648
75	110	V1K110A00	12.00 x 8.00 x 10.25	40	1,525	V1K110A01	16.50 x 18.00 x 15.00	68	2,268
100	130	V1K130A00	8.50 x 11.75 x 9.50	55	1,800	V1K130A01	16.50 x 18.00 x 15.00	83	2,484
125	160	V1K160A00	8.50 x 11.75 x 10.50	60	1,944	V1K160A01	16.50 x 18.00 x 15.00	83	2,592
150	200	V1K200A00	8.50 x 11.75 x 9.25	60	2,200	V1K200A01	16.50 x 18.00 x 15.00	93	2,800
200	250	V1K250A00	8.50 x 11.75 x 9.25	65	2,300	V1K250A01	16.50 x 18.00 x 15.00	93	2,900
250	305	V1K305A00	8.75 x 11.75 x 12.25	80	2,376	V1K305A01	16.50 x 18.00 x 30.00	117	3,000
300	362	V1K362A00	8.75 x 11.75 x 12.00	80	2,775	V1K362A01	16.50 x 18.00 x 30.00	117	3,200
350	420	V1K420A00	10.00 x 11.75 x 13.75	95	3,200	V1K420A01	16.50 x 18.00 x 30.00	132	3,700
400	480	V1K480A00	10.00 x 11.75 x 13.75	100	3,456	V1K480A01	16.50 x 18.00 x 30.00	138	4,000
500	600	V1K600A00	12.75 x 15.00 x 13.75	130	3,564	V1K600A01	16.50 x 18.00 x 30.00	168	4,400
600	750	V1K750A00	12.75 x 15.00 x 14.50	135	5,724	V1K750A01	16.50 x 18.00 x 30.00	180	7,600

Notes:

- (1) Contact factory for applications above 600 HP





Engineered to provide solutions for a variety of heavy duty applications, TEAMMASTER™ Medium Voltage Soft Starters are feature loaded. They are an excellent solution to Crushers, Grinders, Ball & Hammer Mills, Compressors, Centrifuges, plus many other options.

COMBINATION PANELS INCLUDE:

- Choice of NEMA 3R Enclosure Package or NEMA 12, Solid State Starter, UL374 Listed, Class E-2
- 45KV BIL
- 200MVA (2300VAC)/350MVA (4160VAC) Short Circuit Fault Rated
- 500% - 30 Seconds Rated Solid State Starter - UL347 Certified and Listed
- 8,000 PIV -UL347 Certified and Listed at 2.4KV
- 12,000 PIV - UL 347 Certified and Listed at 4.2KV
- Fiber Optic Firing
- Selectable Solid State or Emergency Full Voltage Operation Via Selector Switch Mounted Inside of LV Compartment
- Load Matched Class R Fusing with Blown Fuse Indication
- 400A Load Break, 600A Continuous, 5KV Rated Switch, with Viewing Window Grounding Assembly and Lockable Handle Mechanism. Mechanically Interlocked for Safety.
- Fixed Mounted, Start Duty Rated Vacuum Contactors for Isolation and SCR Bypass, Wired for Normal Bypass Operation and Full Voltage Start Operation, with (2) N/O and (2) N/C Auxiliary Contacts.
- Separately Mounted "SPE" Series Electronic Overload Device Has The Following Standard Features:
 - Class 10-30 Adjustable
 - Phase Imbalance Protection
 - 1 NO/1 NC Trip Contact
 - Phase Reversal Protection
 - "Trip Free" Design
 - Phase Loss Protection
- Built-In Self Test (BIST) Features for "Quick Commissioning"
- 120VAC, 1000VA CPT with Primary and Secondary Fusing, with 500VA Available for Customer Use
- Door-Mounted Start and Stop Push Buttons
- Door-Mounted LCD Keypad Modular Options
- Communications Bridges
- Space Heater
- E-Stop Pushbutton
- Top Hat Enclosure Module
- 8 Channel RTD Modules
- 16 Channel RTD Modules
- 45KV BIL

TEAMMASTER™ - STANDARD PACKAGE

MEDIUM VOLTAGE CRUSHER DUTY



Effective 06-14-15
Supersedes 05-01-13

Severe Duty with Across -the-Line Bypass

TMVRXE12-2300 VOLT								
MODEL NO.	HP	FLA AMPS	DIMENSIONS (in.)			WEIGHT (lbs.)	LIST PRICE (\$)	
			HEIGHT	WIDTH	DEPTH		NEMA 12	NEMA 3R
TMVRXE12-650-2300-12**	650	160	92	36	32	1800	73,350	76,439
TMVRXE12-750-2300-12**	750	180	92	36	32	1800	75,150	77,552
TMVRXE12-1500-2300-12**	1500	360	92	36	32	1800	85,250	87,860

TMVRXE18-4160 VOLT								
MODEL NO.	HP	FLA AMPS	DIMENSIONS (in.)			WEIGHT (lbs.)	LIST PRICE (\$)	
			HEIGHT	WIDTH	DEPTH		NEMA 12	NEMA 3R
TMVRXE18-1000-4160-12**	1000	133	92	36	32	2000	76,300	79,150
TMVRXE18-1500-4160-12**	1500	200	92	36	32	2000	77,100	81,503
TMVRXE18-3000-4160-12**	3000	360	92	36	32	2000	91,050	96,580

Modular Options

MODEL	STANDARD OPTIONS	LIST PRICE (\$)
A171	Space Heaters with Thermostat (included in a NEMA 3R Option)	750
A008	E-Stop Push -Button , Mushroom Head , Red	195
A406	8 Channel RTD Module ,100 OHM Platinum (Also Available for remote Mounting,Call Factory for Details)	4,600
A407	16 Channel RTD Module ,100 OHM Platinum (Also Available for remote Mounting,Call Factory for Details)	8,350
A408*	Top Hat Enclosure Module for Top Entry (18"H x 30"W x 20"D) Top Left or Top Right Mounting Accommodates Stress Cones	3,700
A409	Service Entrance Labeled	1,400
A106	Additional 1000VA Control Power Transformer	1,350

Protective Relay Options

MODEL	STANDARD OPTIONS	LIST PRICE (\$)
A875	Ground Fault CT, 2000:1 4.0:Dia. (For MX3 Use)	435
A876	Ground Fault CT, 2000:1 8.13:Dia. (For MX3 Use)	1,700

Notes:

- (1) Starters are top entry. Bottom exit available upon request.
Dimensions and weights are approximate.
- (2) Insert appropriate option code as shown below:
**NEMA 12 = 12 **NEMA 3R = 3R
- (3) Power fuses ship loose. Please provide motor full load amps at time of order for proper fuse sizing.
- (4) The TEAMMaster™ series was designed as an integrated package.
Listed above are the available modular options. For systems requiring more extensive requirements, please call the factory.
- (5) Top hat will ship loose for customer installation.
- (6) **Lead Time:**
Built-to-order: Please allow 1-2 weeks for shipment of complete TEAMMaster™ unit when ordering these options to a stock starter.

DRIVE RMA RETURN PROCEDURE

Effective 06-14-15
Supersedes 05-01-13

DRIVE RMA RETURN PROCEDURE

- Contact a Drives Engineer for technical troubleshooting/ RMA Qualification at (800) 279-4007.
- TECO-Westinghouse will email or fax an RMA Request Form to complete. Completed RMA Request Form should be returned via e-mail or faxed to 512-218-7378 for processing.
- An RMA number will be issued and sent via e-mail or fax. Detailed instructions on where to ship the drive for warranty evaluation/ repair will be included with the RMA number.

******* IF PRODUCT IS NOT RETURNED WITHIN 30 DAYS, THE RMA WILL BE CLOSED. *******

- The Drive is then evaluated and a Service Report is generated detailing the failure. (The evaluation process should take no longer than 5 working days).
- A copy of the Service Report will be sent to the requesting party via e-mail or fax.
- If the Drive is determined to have failed under Warranty, either of the following will take place, whichever is deemed more appropriate:
 1. The drive will be repaired and returned to the customer.
 2. The drive will be determined to be un-repairable and will be replaced.
 3. If the drive is determined to be functioning properly, the drive will be returned to the customer and considered non-warranty.

****** If credit is being issued, the Controls Group will fax a copy to the customer. ******

If the failure/ problem is determined to be a non-warranty situation, one of the following three actions will take place.

1. The drive will be returned to the customer via freight collect. There might be a \$90.00 inspection fee.
2. If the drive is repairable, an estimate will be sent. TECO-Westinghouse will have to receive a PO before any repairs are completed. There is a \$90.00 inspection fee for this evaluation. If TECO-Westinghouse repairs the drive, this \$90.00 will be credited to the repair charges.
3. If the drive is un-repairable or TECO-Westinghouse is directed to not repair the unit, TWMC will return the drive via freight collect at the customer's option.

Please Note: All repairable and "properly functioning" drives will be returned even if an offsetting order has been made for a replacement unit.



APPLICATION CHECKLIST FOR
TWMC VARIABLE FREQUENCY DRIVES

The following checklist is provided to gather the necessary information to ensure that our product will meet your requirements and we can provide the most cost effective solution for your application.

** Please complete with as much detail as possible and fax this form to 512-218-7378. **

DATE: _____

General Information

Customer: _____

Contact Information - Name: _____ Phone: _____

Fax: _____ Email: _____

TWMC Salesperson: _____

Application Description: _____

Quote Due Date _____

Driven Load Information/ Details

Quantity: _____ HP _____ HP (unit 2) _____ HP (unit 3) _____ HP (unit 4) _____

Load Description ☐ Variable Torque ☐ Constant Torque Machine Type: _____

Accel time: _____ sec from _____ RPM to _____ RPM

Decel time: _____ sec from _____ RPM to _____ RPM

Ratio or Minimum Speed _____ Maximum Speed _____

Duty Cycle Information _____

Vertical Load? ☐ Yes ☐ No If yes, please indicate weight of load _____

AC Motor Details

☐ New ☐ Existing Manufacturer _____ Model # _____

HP _____ Rated Speed _____ Rated Frequency _____ Rated Voltage _____ Frame _____

FLA _____ Service Factor _____ Insulation Class _____ Enclosure _____

Number of Motors: _____ Cable Distance from Motor to Drive: _____

☐ Tach/ Generator/ Encoder: _____ Pulses per Revolution ☐ Single Channel ☐ Dual Channel

TEC Westinghouse

Line Power Supply

Voltage _____ Frequency _____

Generator Power ☐ Yes ☐ No If yes, indicate generator capacity: _____

Reactors or isolation transformer required? _____ Existing? _____

Serial Communications

☐ Modbus ☐ Johnson Metasys ☐ Profibus ☐ BACNet ☐ LonWorks ☐ Siemens FLN ☐ Other _____

Monitor only or control? _____ Baud Rate _____

Drive Enclosure/ Environment

NEMA Rating ☐ NEMA 1 ☐ NEMA 12 ☐ NEMA 3R ☐ NEMA 4 ☐ NEMA 4X

(See attachment for NEMA definitions.)

☐ Wall Mounted ☐ Free Standing ☐ Installed Units in MCC ☐ Indoor Installation ☐ Outdoor Installation

Ambient Temperature Range: _____

Elevation _____

AC Drive Control Characteristics

Speed Reference Source*: _____ (4-20mA, 0-10VDC, Keypad, Speed Pot, Serial)

Run/ Stop Command Source*: _____ (Keypad, Terminal I/O, Serial)

Stop Function Types*: _____ (E-stop, Coast to Stop, Interlocks)

PID Control Based on Process ☐ Input ☐ Pressure ☐ Temperature Other _____

Protective Function: _____ (Motor Thermostat, PTC, RTD)

Braking Requirements: _____ (Dynamic Braking, Mechanical, or Other)

Other Inputs: _____ (Reset, Auto Restart, Encoder)

Analog Outputs: _____ (4-20mA, 0-10VDC, Pulse)

Digital Outputs: _____ (Run, Fault, High or Low Speed, etc.)

Two or Three Wire Start: _____ (Applies to Terminal I/O Only)

Communications: _____ (Telephone Modem, Wireless Modem, Ethernet)

Options: _____ (Analog, Serial, Relay)

*Indicate if Door Mounted

ENCLOSURE OPTIONS AND MODIFICATIONS

Auxiliary Equipment

(Mounted and wired in an enclosure as specified per the NEMA rating selected.)

- ☐ Manual or Automatic Bypass ☐ 3-Contactor ☐ 2-Contactor
- ☐ Motor Overload Relay
- ☐ Input Circuit Breaker ☐ Input Disconnect ☐ Fused ☐ Non-fused
- ☐ AC Drive Fuses ☐ Blower Motor Starter
- ☐ Output Load Reactors ☐ Output Contactor
- ☐ dV/dt Filters ☐ Dynamic Braking
- ☐ Control Power Transformer ☐ Secondary Volts _____ ☐ Capacity _____ VA
- ☐ Interior Mounted 120VAC Power Outlet ☐ Interior Cabinet Lighting
- ☐ Additional Power Supply ☐ Interior Cabinet Lighting ☐ 120VAC ☐ 240VAC ☐ Other _____
- ☐ Heat Sink Extension

Auxiliary Controls (Please specify devices in the Project Description below.)

- ☐ Operator Controls ☐ Door Mounted ☐ Remote
- ☐ Control Terminals ☐ Pilot Lights
- ☐ Pushbuttons ☐ Speed Potentiometer
- ☐ Control Power Supply Volts _____ Capacity _____ mA
- ☐ Transfer to Bypass on Fault ☐ Fireman's Override
- ☐ Damper Actuation on Start ☐ Time Delay on Bypass Transfer

Input Power Quality Conditioning

- ☐ Line Reactors ☐ Isolation Transformers
- ☐ Active Harmonics Filter ☐ EMC Suppression
- ☐ EMF/ RFI Filters ☐ Line Noise Filter
- ☐ Lightning Arrestors

Documentation

Number of Copies _____

- ☐ Wiring Diagrams ☐ Dimensional Drawings
- ☐ Cabinet Layout Drawings ☐ Additional Instruction Manuals

Support Services

- ☐ Spare Parts List ☐ Service/ Start up Assistance
- ☐ Witness Testing

Special Optional Requirements _____

PROJECT DESCRIPTION

NEMA ENCLOSURE RATING DESCRIPTIONS

NEMA 1 – Enclosures constructed for indoor use to provide a degree of protection to personnel against incidental contact with the enclosed equipment and to provide a degree of protection against falling dirt.

NEMA 3R – Enclosures constructed for either indoor or outdoor use to provide a degree of protection to personnel against incidental contact with the enclosed equipment; to provide a degree of protection against falling dirt, rain, sleet, and snow; and that will be undamaged by the external formation of ice on the enclosure.

NEMA 4 – Enclosures constructed for either indoor or outdoor use to provide a degree of protection to personnel against incidental contact with the enclosed equipment; to provide a degree of protection against falling dirt, rain, sleet, snow, windblown dust, splashing water, and hose-directed water; and that will be undamaged by the external formation of ice on the enclosure. Contact the factory if NEMA 4 is required for your application.

NEMA 4X – Same as NEMA 4, but also including protection against corrosion. Contact the factory if NEMA 4X is required for your application.

NEMA 12 (UL1) – Enclosures constructed (without knockouts) for indoor use to provide a degree of protection to personnel against incidental contact with the enclosed equipment; to provide a degree of protection against falling dirt; against circulating dust, lint, fibers, and flyings; and against dripping and light splashing of liquids.

Global RESOURCES

TECO-Westinghouse Motor Company is dedicated to servicing our customers' needs in a variety of ways. Our manufacturing plants are located in the U.S., Taiwan, Mexico, Malaysia, Australia, Great Britain and China. A full line of induction, synchronous and DC motors and generators are available in both horizontal and vertical configurations from 1/4 hp to 100,000 hp. We also offer complimenting AC drive products. From wastewater, petrochemical, irrigation and water treatment, to pumping and lift stations, TECO-Westinghouse has the AC drive product that will enhance your application. In North America there are several regional warehouses stocking a vast array of motors and drive products for our customers' convenience.

Our Round Rock, Texas facility conducts sales and marketing, customer service, engineering, drafting, manufacturing, testing, final shipment, field service, and repairs of many types of large custom-designed and specialty motors.

These global resources uniquely position us to satisfy the market's diverse needs. Please contact us for more information.



5100 N. IH-35
Round Rock, Texas 78681
1-800-USE-TECO

www.tecowestinghouse.com