










# Features at a Glance

		General Purpose		Severe Duty		Explosion Proof		Multi speed	Verticals	
										
		GP100A	GP100	SD100	SD100 IEEE 841	XP100	XP100 ID1	SD10 MS	RGZVESD	RGZVILESD
HP Range	Frame Size	1-20 HP 143T-256T	1-200HP 143T-449T	1-400 143T-S449	1-400 143T-S449	1-200HP 143T-449T	1-200HP 143T-449T	1-200HP 143T-449T	1-250HP 143HP-449HP	3-250HP 182LP-449LP
Efficiency	E-pact NEMA Premium® Plus NEMA Premium®	– 143T-256T 143T-256T	– 143T-256T 143T-449T	– 143T-256T 143T-S449	– 143T-256T 143T-S449	– 143T-449T	– 143T-449T	143T-449T –	143HP-449HP –	182LP-449LP –
3-Phase 60 Hz	208 - 230 460 V 230 460 V 460 V 575 V	1-20HP – 1-20HP	1-20HP 15-75HP 100-200HP 1-200HP	1-20HP – 15-400HP 1-400HP	– – 1-400HP	1-20HP 10-100HP 125-300HP 1-300HP	1-20HP 10-100HP 125-300HP 1-300HP	– – 1-200HP	– 1-20HP 25-250HP 1-250HP	– 3-20HP 25-250HP 3-250HP
NEMA Design B <sup>3)</sup>	Insulation Class F Service Factor (@ 40°C) Temperature rise (Sine wave)	NEMA MG1 Part 31 1.15 Class B @ 1.0SF Class F @ 1.15SF	NEMA MG1 Part 31 1.15 Class B @ 1.0SF Class F @ 1.15SF	NEMA MG1 Part 31 1.15 Class B @ 1.0SF Class F @ 1.15SF	NEMA MG1 Part 31 1.15 Class B @ 1.0SF Class F @ 1.15SF	NEMA MG1 Part 31 1.15 <sup>4)</sup> Class B @ 1.0SF –	NEMA MG1 Part 31 1.15 Class B @ 1.0SF Class F @ 1.15SF	NEMA MG1 Part 31 1.0 Class B @ 1.0SF Class F @ 1.15SF	NEMA MG1 Part 31 1.15 Class B @ 1.0SF Class F @ 1.15SF	NEMA MG1 Part 31 1.15 Class B @ 1.0SF Class F @ 1.15SF
Frame	Frame Stator Rotor, die cast copper Rotor die cast aluminum rotor 8 hole feet  Condensation drains High strength carbon steel shaft V ring slinger - IP54 Inpro Seal® Bearing Isolator - IP55	Die Cast Aluminum Copper - Random wound 143T-256T 143T-256T Bolt-on	Cast iron Copper - Random wound 143T-256T 143T-449T Casted (4 holes: 250T-280T, 2 and 8 poles) Drain holes - lowest point (2) C1045 DE Only	Cast iron Copper - Random wound 143T-256T 143T-S449 Casted (4 holes: 250T-280T, 2 and 8 poles) T-drains - lowest point (2) C1045 DE & NDE 2) 143T-S449T	Cast iron Copper - Random wound 143T-256T 143T-S449 Casted (4 holes: 250T-280T, 2 and 8 poles) T-drains - lowest point (2) C1045 DE & NDE	Cast iron Copper - Random wound – 143T-449T Casted	Cast iron Copper - Random wound – 143T-449T Casted	Cast iron Copper - Random wound – 143T-449T Casted (4 holes: 250T-280T, 2 and 8 poles) T-drains -lowest point (2) C1045 DE & NDE	Cast iron Copper - Random wound – 143HP-449HP –	Cast iron Copper - Random wound – 182LP-449LP –
Conduit box (oversize)	Die cast aluminum Steel Cast Iron O-ring Neoprene gasket Seal leads	143T-256T – 143T-256T –	143T-256T 284T-449T 1) 143T-256T 284T-449T –	– 143T-S449 – 143T-S449 –	– 143T-S449 – 143T-S449 –	– 143T-449T – 143T-449T –	– 143T-449T – 143T-449T –	– 143T-449T – 143T-449T –	– 143HP-449HP – 143T-449HP –	– 182LP-449LP – 182T-449LP –
Bearings	Double shielded Single shielded  Open Duplex (angular contact) Bearing hoursing bearing cap Grease Inlet relief fittings	143T-256T – – Aluminum no Polyurea base	143T-449T – – Cast Iron no Polyurea base Polyurea base Alemitite plug - FS440 (only)	143T-256T 284T-S449 – – Cast iron 143T-S449 Polyurea base Alemitite plug	S449 143T-S449T – – Cast iron 143T-S449 Polyurea base Alemitite pressure (auto)	143T-449T – – – Cast iron 143T-449T Polyurea base Alemitite plug	143T-449T – – – Cast iron 143T-449T Polyurea base Alemitite plug	143T-256T 284T-449T – – Cast iron 143T-449T Polyurea base Alemitite plug	284T-365T, 440T(DE), 440T(NDE) 404T-405T (DE & NDE) 143T-254T & 440T (DE) & 284T-365T (NDE)	284T-449T (DE) – 182LP-254LP (DE) – 182LP-254LP (NDE) Cast iron 143T-449T Polyurea base Alemitite plug
Fan	Cover - Plastic Metal Cast Iron Bidirectional  Uni-directional	143T-256T – – Polypropylene - 143T-256T –	143T-256T 284T-449T – Polypropylene - 143T-449T –	– 143T-S449 Polypropylene -143T-449T Bronze S449 2 pole - 350-400 HP	– 143T-S449 Polypropylene -143T-449T 4 Pole - 300HP 2 & 4 Pole 350-400HP	– 143T-449T Polypropylene - 143T-449T –	– 143T-449T Polypropylene - 143T-449T –	– 143HP-449T Polypropylene - 143T-449T –	– 143HP-449HP Polypropylene - 143T-449T –	– 182LP-449LP Polypropylene - 182T-449T –
Hardware	Nameplate Lifting eyebolt Paint	Rust resistant Aluminum anodized engraved Cast in Alkyd -RAL7030	Rust resistant Aluminum anodized engraved Included above 75 Lbs Alkyd - RAL7030	Rust resistant Stainless steel engraved Included above 75 Lbs Alkyd -RAL7030	Rust resistant Stainless steel embossed Included Alkyd -RAL7030	Rust resistant Stainless steel engraved Included above 75 Lbs Alkyd - RAL7030	Rust resistant Stainless steel engraved Included above 75 Lbs Alkyd - RAL7030	Rust resistant Stainless steel engraved Included above 75 Lbs Alkyd - RAL7030	Rust resistant Stainless steel engraved – Alkyd - RAL7030	Rust resistant Stainless steel engraved – Alkyd -RAL7030
Inverter Duty	Variable torque 20:1 Constant torque 20:1 Constant torque 10:1 Constant torque 4:1	143T-256T – Copper Rotor 143T-256T Alum Rotor 143T-256T	– – Copper Rotor 143T-256T Alum Rotor 143T-449T	143T-S449 4-Pole 143T-365T (Alum & Copper rotor) Copper Rotor 143T-256T (2, 6 & 8 Poles) Alum rotor 143T-449T	143T-S449 4-Pole 143T-365T (Alum & Copper rotor) Copper Rotor 143T-256T (2, 6 & 8 Poles) Alum rotor 143T-449T	143T-449T – – 143T-326T (Up a frame 364-447)	143T-449T – – 143T-326T (Up a frame 364-447)	143T-449T – – 143T-449T	143HP-449HP – – 143HP-449HP	182LP-449LP – – 182LP-449LP
Warranty		18 months	18 months	36 months	60 months	36 months	36 months	36 months	36 months	36 months
Hazardous Classification	Service factor 1.0	–	–	2) CSA-143-S449 (@ 40°C) Class I, Division 2, T3 temperature code	2) CSA-143-S449 (@ 40°C) Class I, Division 2, T3 temperature code	UL - 143T-326T (@ 55°C) Class I, Group C&D Class II Groups F&G Division 1 T3C - temperature code	–	–	–	–
	Service factor 1.15	–	–	–	–	UL - 143T-449T <sup>4)</sup> (@ 40°C) Class I, Group C&D Class II Groups F&G Division 1 T3C - temperature code	UL - 143T-449T (Up to 60°C) Class I, Group D, Division 1 T2A-T2D Temperature code <sup>5)</sup>	–	–	–

1) Available as an option frames 284T-405T  
2) Available as option, (Constant torque limited to 4:1)  
3) NEMA design A: 250HP and 300HP, 4 and 6 pole

4) 1.0 S.F. for 449T higher ratings: 300HP 2 & 4 Pole , 250HP 6 Pole, 200HP 8 Pole.  
5) Available on request.  
NEMA Premium® is a certification mark of the National Electrical Manufacturers Association.

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## SIMOTICS NEMA Motors