

Submittal Data

PROJECT:	Hurley Engineering-TPE3 READY TO SHIP	UNIT TAG:		QUANTITY:	1
		TYPE OF SERVICE:			
REPRESENTATIVE:	Hurley Engineering	SUBMITTED BY:	Devin Carle	DATE:	2/10/2020
ENGINEER:		APPROVED BY:		DATE:	
CONTRACTOR:	To Be Determined	ORDER NO.:		DATE:	



TPE3 100-180 S-A-G-A-BQQE-ICB

Single-stage in-line pumps with frequency converters

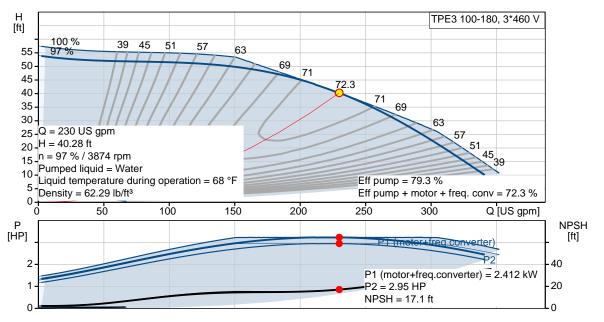
Product photo could vary from the actual product

Conditions of Service		
Flow:	230 US gpm	
Head:	40.28 ft	
Efficiency:	72.3 %	
Liquid:	Water	
Temperature:	68 °F	
NPSH required:	17.1 ft	
Viscosity:		
Specific Gravity:	1.000	

viscosity:	
Specific Gravity:	1.000

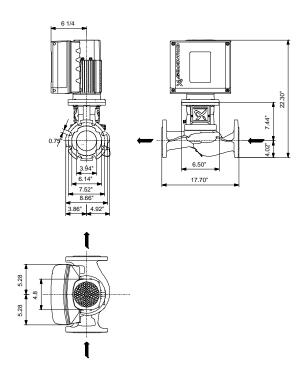
Pump Data	
Liquid temperature range:	-13 248 °F
Maximum ambient temperature:	122 °F
Shaft seal:	BQQE
Pipe connection:	DN 100
Product number:	98819777
	Liquid temperature range: Maximum ambient temperature: Shaft seal: Pipe connection:

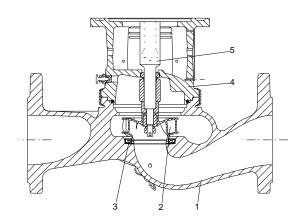
Motor Data		
Rated power - P2:	3 HP	
Rated voltage:	440-480 V	
Main frequency:	60 Hz	
Number of poles:	0	
Enclosure class:	IP55	
Insulation class:	F	
Motor protection:	YES	
Motor type:	90D	
Motor_efficiency:	90.7 %	





Submittal Data





Materials:

Pump housing: Cast iron

ASTM A48-40 B

Composite PES/PP 30% GF Impeller:

Material code:



Created by: Phone:

Date: 2/26/2020

Project:

Client:

Reference number:

Client number: Contact:

Count

Description

TPE3 100-180 S-A-G-A-BQQE-ICB



Product photo could vary from the actual product

Product No.: 98819777

The pump is of the top-pull-out design, i.e. the power head (motor, pump head and impeller) can be removed for maintenance or service while the pump housing remains in the pipework.

The shaft seal is according to EN 12756. Pipework connection is via PN 16 ANSI flanges.

Pipework connection is via PN 16 ANSI flanges.

The pump is fitted with a fan-cooled, permanent-magnet synchronous motor. The motor efficiency is classified as IE5 in accordance with IEC 60034-30-2.

The motor includes a frequency converter and PI controller in the motor terminal box. This enables continuously variable control of the motor speed, which again enables adaptation of the performance to a given requirement.

Controls:

Frequency converter: Built-in

Liquid:

Pumped liquid: Water
Liquid temperature range: -13 .. 248 °F
Selected liquid temperature: 68 °F
Density: 62.29 lb/ft³

Technical:

Pump speed on which pump data is based: 3890 rpm

Actual calculated flow: 230 US gpm
Resulting head of the pump: 40.28 ft
Actual impeller diameter: 3.54 in
Code for shaft seal: BQQE

Curve tolerance: ISO9906:2012 3B2

Materials:

Pump housing: Cast iron

ASTM A48-40 B



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Count | Description

EN 1561 EN-GJL-250

Impeller: Composite PES/PP 30% GF

Installation:

Range of ambient temperature: -4 .. 122 °F
Maximum operating pressure: PN 16 bar
Type of connection: ANSI
Pipe connection: DN 100
Pressure rating for pipe connection: PN 16

Flange size for motor: 56C

Electrical data:

Motor type:90DIE Efficiency class:IE5Rated power - P2:3 HPMain frequency:60 Hz

Rated voltage: 3 x 440-480 V

Rated current: 3.8 A Cos phi - power factor: 0.89

Rated speed: 360-4000 rpm IE efficiency: 90.7% Motor efficiency at full load: 90.7 % Number of poles: 0

Enclosure class (IEC 34-5): IP55
Insulation class (IEC 85): F

Motor Number: 99630349

Others:

DOE Pump Energy Index VL: 0.37

Net weight: 94.8 lb

Gross weight: 94.8 lb

Country of origin: HU

Custom tariff no.: 8413.70.2022



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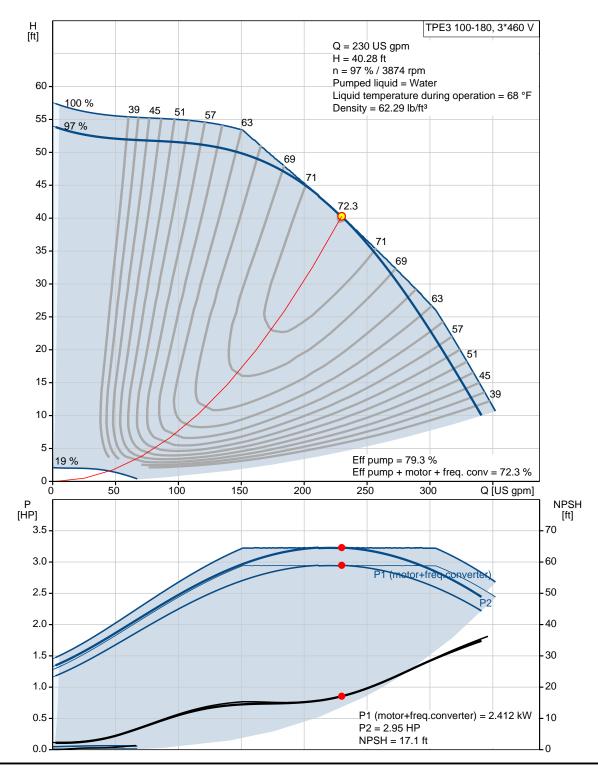
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Contact:

98819777 TPE3 100-180 S-A-G-A-BQQE-ICB 60 Hz





Created by: Phone:

Date: 2/26/2020

Project:

Liquid:

Density:

Electrical data: Motor type:

IE Efficiency class:

Rated power - P2:

Cos phi - power factor:

Motor efficiency at full load:

Main frequency:

Rated voltage:

Rated current:

Rated speed:

IE efficiency:

Reference number:

Client:

Client number:

Contact:

Description	Value
General information:	
Product name:	TPE3 100-180 S-A-G-A-BQQE-ICB
Product No.:	98819777
EAN:	5712601846776
	5712601846776
Technical:	
Pump speed on which pump data is based:	3890 rpm
Actual calculated flow:	230 US gpm
Resulting head of the pump:	40.28 ft
Head max:	59.06 ft
Actual impeller diameter:	3.54 in
Code for shaft seal:	BQQE
Curve tolerance:	ISO9906:2012 3B2
Pump version:	A
Model:	A
Materials:	
Pump housing:	Cast iron
	ASTM A48-40 B
	EN 1561 EN-GJL-250
Impeller:	Composite PES/PP 30% GF
Material code:	A
Installation:	
Range of ambient temperature:	-4 122 °F
Maximum operating pressure:	PN 16 bar
Type of connection:	ANSI
Pipe connection:	DN 100
Pressure rating for pipe connection:	PN 16
Flange size for motor:	56C

H [ft]
I Q = 230 US apm
$H = 40.28 \text{ ft}$ $100 \% _{3} n = 97 \% / 3874 \text{ rpm}$
55 - 97 % Pumped liquid = Water Liquid temperature during operation = 68 °F
50 Density = 62.29 lb/ft³
45 - 71
40 - 72.3
35 - 71 69
30 - 63
25 -
20 -
15 - 45
10 -
5 - 19 % Eff pump = 79.3 %
0 50 100 150 200 250 Q (US gpm)
0 50 100 150 200 250 Q [US gpm] P [HP]
3 - P4 (motor-thea-converter) - 60
2 40
P1 (motor+freq.converter) = 2.412 kW - 20
P2 = 2.95 HP NPSH = 17.1 ft



62.29 lb/ft³

90D

IE5

3 HP

60 Hz

3.8 A

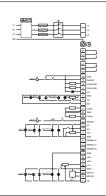
0.89

90.7%

90.7 %

3 x 440-480 V

360-4000 rpm





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Date: 2/26/2020

Project: Client:

Reference number: Client number:

Contact:

Description	Value
Number of poles:	0
Enclosure class (IEC 34-5):	IP55
Insulation class (IEC 85):	F
Motor protection:	YES
Motor Number:	99630349
Controls:	
Control panel:	HMI300 - Graphical
Function Module:	FM300 - Advanced
Frequency converter:	Built-in
Others:	
DOE Pump Energy Index VL:	0.37
Net weight:	94.8 lb
Gross weight:	94.8 lb
Config. file no:	98484798
Country of origin:	HU
Custom tariff no.:	8413.70.2022



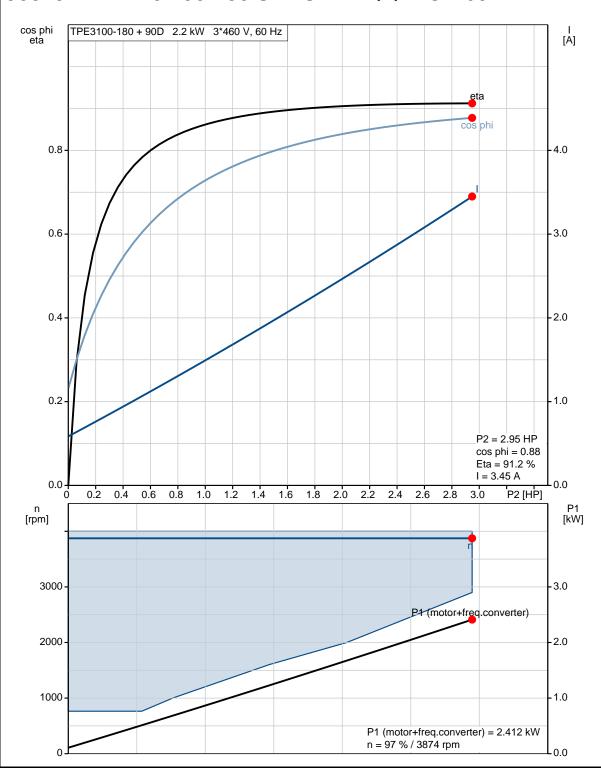
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Project: Client:

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98819777 TPE3 100-180 S-A-G-A-BQQE-ICB 60 Hz





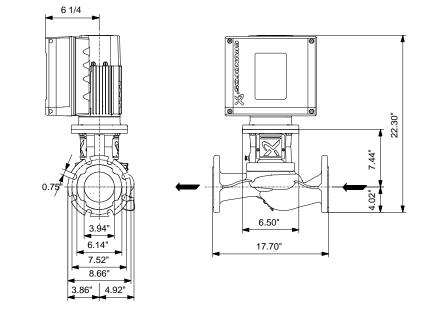
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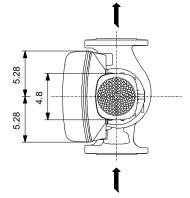
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Note! All units are in [in] unless otherwise stated. Disclaimer: This simplified dimensional drawing does not show all details.



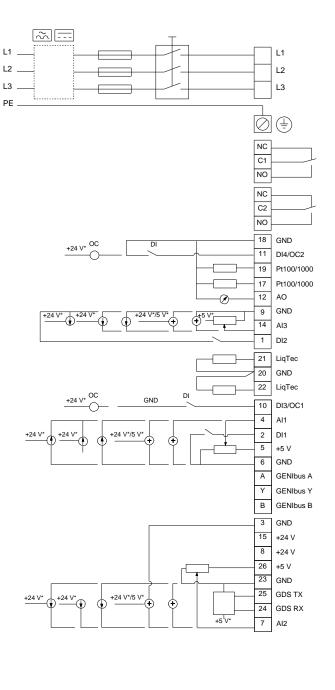
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98819777 TPE3 100-180 S-A-G-A-BQQE-ICB 60 Hz



All units are [in] unless otherwise presented.



Created by: Phone:

Date: 2/26/2020

Project:

Client:

Reference number:

Client number: Contact:

Order Data:

Product name: TPE3 100-180 S-A-G-A-BQQE-ICB

Amount: 1

Product No.: 98819777

Total: Price on request