

Submittal Data

PROJECT:	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:	



TPE2 40-150 N-A-G-I-BQQE-EAB

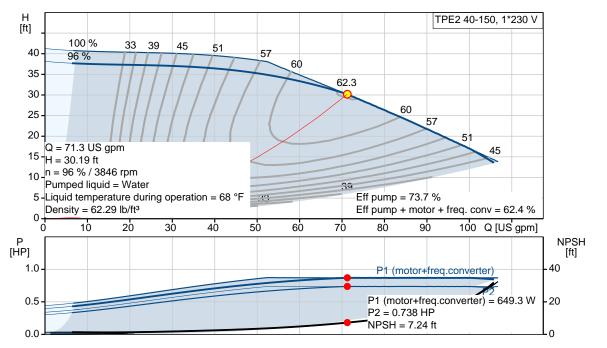
Single-stage stainless steel in-line pumps with frequency converters

Product photo could vary from the actual product

Conditions of Service		
Flow:	71.3 US gpm	
Head:	30.19 ft	
Efficiency:	62.4 %	
Liquid:	Water	
Temperature:	68 °F	
NPSH required:	7.24 ft	
Viscosity:		
Specific Gravity:	1.000	

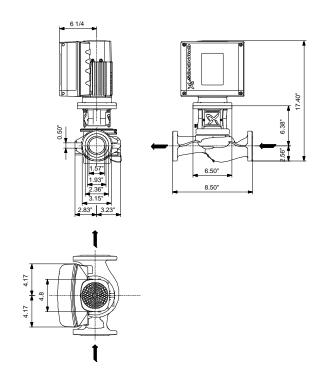
Pump Data	
Liquid temperature range:	-13 248 °F
Maximum ambient temperature:	122 °F
Shaft seal:	BQQE
Pipe connection:	DN 40
Product number:	98817702

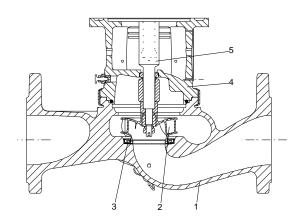
Motor Data		
Rated power - P2:	0.75 HP	
Rated voltage:	200-240 V	
Main frequency:	60 Hz	
Number of poles:	0	
Enclosure class:	IP55	
Insulation class:	F	
Motor protection:	YES	
Motor type:	71A	
Motor_efficiency:	85.3 %	





Submittal Data





Materials:

Pump housing: Stainless steel

ASTM CF8

Composite PES/PP 30% GF Impeller:

Material code:



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Count | Description

TPE2 40-150 N-A-G-I-BQQE-EAB



Product No.: 98817702

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.

Further product details

The stainless-steel pump housing makes the pump suitable for circulation of hot water.

The operating panel on the motor terminal box features a four-inch TFT display, push-buttons and the Grundfos Eye indicator.

The display gives an intuitive and user-friendly interface to all functions. The push-buttons are used to navigate through the menu structure to access pump and performance data on site and enable setting of required setpoint as well as setting of pump to "Min." or "Max." operation or to "Stop".

Communication with the pump is also possible by means of Grundfos GO Remote (accessory). The remote control enables further settings as well as reading out of a number of parameters such as "Actual value", "Speed", "Power input" and total "Power consumption".

The Grundfos Eye indicator on the operating panel provides visual indication of pump status:

- "Power on": Motor is running (rotating green indicator lights) or not running (permanently green indicator lights)
- "Warning": Motor is still running (rotating yellow indicator lights) or has stopped (permanently yellow indicator lights)
- "Alarm": Motor has stopped (flashing red indicator lights).

Pump

Pump housing and pump head are electrocoated to improve the corrosion resistance. Electrocoating includes:

- 1) Alkaline-based cleaning.
- 2) Pretreatment with zinc phosphate coating.
- 3) Cathodic electrocoating (epoxy).
- 4) Curing of paint film at 200-250 °C.



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The pump is fitted with an unbalanced rubber bellows seal with torque transmission across the spring and around the bellows. Due to the bellows, the seal does not wear the shaft, and the axial movement is not prevented by deposits on the shaft.

Primary seal:

- Rotating seal ring material: silicon carbide (SiC)
- Stationary seat material: silicon carbide (SiC)

This material pairing is used where higher corrosion resistance is required. The high hardness of this material pairing offers good resistance against abrasive particles.

Secondary seal material: EPDM (ethylene-propylene rubber)

EPDM has excellent resistance to hot water. EPDM is not suitable for mineral oils.

A circulation of liquid through the duct of the air vent screw ensures lubrication and cooling of the shaft seal.

Motor

The motor is a totally enclosed, fan-cooled motor with principal dimensions to IEC and DIN standards. Electrical tolerances comply with IEC 60034.

The motor efficiency is classified as IE5 in accordance with IEC 60034-30-2.

Technical data

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: 3900 rpm

Actual calculated flow: 71.3 US gpm
Resulting head of the pump: 30.19 ft
Actual impeller diameter: 2.91 in
Code for shaft seal: BQQE

Curve tolerance: ISO9906:2012 3B2

Materials:

Pump housing: Stainless steel

ASTM CF8 EN 1.4308

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 40
Pressure rating for pipe connection: PN 16
Flange size for motor: 56C

Electrical data:



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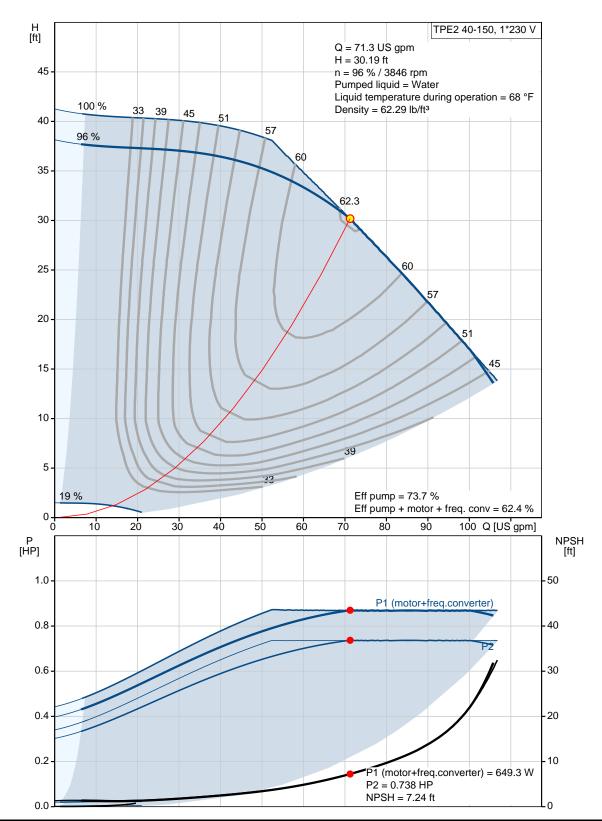
Count **Description** 71A Motor type: IE Efficiency class: IE5 Rated power - P2: 0.75 HP Main frequency: 60 Hz Rated voltage: 1 x 200-240 V Rated current: 3.45-2.90 A Cos phi - power factor: 0.98 Rated speed: 360-4000 rpm IE efficiency: 85.3% Motor efficiency at full load: 85.3 % Number of poles: 0 Enclosure class (IEC 34-5): IP55 Insulation class (IEC 85): F Motor Number: 99630320 Others: Net weight: 46.5 lb Gross weight: 62.4 lb



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98817702 TPE2 40-150 N-A-G-I-BQQE-EAB 60 Hz

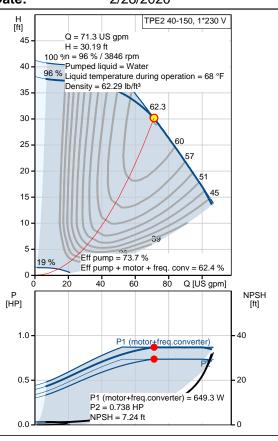


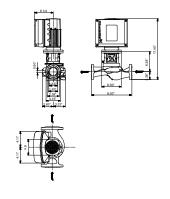


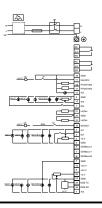
Created by: Phone:

Date: 2/28/2020

Description	Value	
General information:		
Product name:	TPE2 40-150 N-A-G-I-BQQE-EAB	
Product No.:	98817702	
EAN:	5712601809566	
	5712601809566	
Technical:		
Pump speed on which pump data is based:	3900 rpm	
Actual calculated flow:	71.3 US gpm	
Resulting head of the pump:	30.19 ft	
Head max:	49.22 ft	
Actual impeller diameter:	2.91 in	
Code for shaft seal:	BQQE	
Curve tolerance:	ISO9906:2012 3B2	
Pump version:	A	
Materials:		
Pump housing:	Stainless steel	
	ASTM CF8	
	EN 1.4308	
Impeller:	Composite PES/PP 30% GF	
Material code:		
Installation:		
Range of ambient temperature:	-4 122 °F	
Maximum operating pressure:	PN 16 bar	
1 01	11110 001	
Type of connection:	ANSI	
Type of connection: Pipe connection:		
Type of connection:	ANSI	
Type of connection: Pipe connection: Pressure rating for pipe	ANSI DN 40	
Type of connection: Pipe connection: Pressure rating for pipe connection:	ANSI DN 40 PN 16	
Type of connection: Pipe connection: Pressure rating for pipe connection: Flange size for motor:	ANSI DN 40 PN 16 56C	
Type of connection: Pipe connection: Pressure rating for pipe connection: Flange size for motor: Connect code:	ANSI DN 40 PN 16 56C	
Type of connection: Pipe connection: Pressure rating for pipe connection: Flange size for motor: Connect code: Liquid:	ANSI DN 40 PN 16 56C G	
Type of connection: Pipe connection: Pressure rating for pipe connection: Flange size for motor: Connect code: Liquid: Pumped liquid:	ANSI DN 40 PN 16 56C G Water -13 248 °F 68 °F	
Type of connection: Pipe connection: Pressure rating for pipe connection: Flange size for motor: Connect code: Liquid: Pumped liquid: Liquid temperature range:	ANSI DN 40 PN 16 56C G Water -13 248 °F	
Type of connection: Pipe connection: Pressure rating for pipe connection: Flange size for motor: Connect code: Liquid: Pumped liquid: Liquid temperature range: Selected liquid temperature:	ANSI DN 40 PN 16 56C G Water -13 248 °F 68 °F	
Type of connection: Pipe connection: Pressure rating for pipe connection: Flange size for motor: Connect code: Liquid: Pumped liquid: Liquid temperature range: Selected liquid temperature: Density: Electrical data: Motor type:	ANSI DN 40 PN 16 56C G Water -13 248 °F 68 °F 62.29 lb/ft³	
Type of connection: Pipe connection: Pressure rating for pipe connection: Flange size for motor: Connect code: Liquid: Pumped liquid: Liquid temperature range: Selected liquid temperature: Density: Electrical data: Motor type: IE Efficiency class:	ANSI DN 40 PN 16 56C G Water -13 248 °F 68 °F 62.29 lb/ft³ 71A IE5	
Type of connection: Pipe connection: Pressure rating for pipe connection: Flange size for motor: Connect code: Liquid: Pumped liquid: Liquid temperature range: Selected liquid temperature: Density: Electrical data: Motor type: IE Efficiency class: Rated power - P2:	ANSI DN 40 PN 16 56C G Water -13 248 °F 68 °F 62.29 lb/ft³ 71A IE5 0.75 HP	
Type of connection: Pipe connection: Pressure rating for pipe connection: Flange size for motor: Connect code: Liquid: Pumped liquid: Liquid temperature range: Selected liquid temperature: Density: Electrical data: Motor type: IE Efficiency class: Rated power - P2: Main frequency:	ANSI DN 40 PN 16 56C G Water -13 248 °F 68 °F 62.29 lb/ft³ 71A IE5 0.75 HP 60 Hz	
Type of connection: Pipe connection: Pressure rating for pipe connection: Flange size for motor: Connect code: Liquid: Pumped liquid: Liquid temperature range: Selected liquid temperature: Density: Electrical data: Motor type: IE Efficiency class: Rated power - P2: Main frequency: Rated voltage:	ANSI DN 40 PN 16 56C G Water -13 248 °F 68 °F 62.29 lb/ft³ 71A IE5 0.75 HP 60 Hz 1 x 200-240 V	
Type of connection: Pipe connection: Pressure rating for pipe connection: Flange size for motor: Connect code: Liquid: Pumped liquid: Liquid temperature range: Selected liquid temperature: Density: Electrical data: Motor type: IE Efficiency class: Rated power - P2: Main frequency: Rated voltage: Rated current:	ANSI DN 40 PN 16 56C G Water -13 248 °F 68 °F 62.29 lb/ft³ 71A IE5 0.75 HP 60 Hz 1 x 200-240 V 3.45-2.90 A	
Type of connection: Pipe connection: Pressure rating for pipe connection: Flange size for motor: Connect code: Liquid: Pumped liquid: Liquid temperature range: Selected liquid temperature: Density: Electrical data: Motor type: IE Efficiency class: Rated power - P2: Main frequency: Rated voltage: Rated current: Cos phi - power factor:	ANSI DN 40 PN 16 56C G Water -13 248 °F 68 °F 62.29 lb/ft³ 71A IE5 0.75 HP 60 Hz 1 x 200-240 V 3.45-2.90 A 0.98	
Type of connection: Pipe connection: Pressure rating for pipe connection: Flange size for motor: Connect code: Liquid: Pumped liquid: Liquid temperature range: Selected liquid temperature: Density: Electrical data: Motor type: IE Efficiency class: Rated power - P2: Main frequency: Rated voltage: Rated current: Cos phi - power factor: Rated speed:	ANSI DN 40 PN 16 56C G Water -13 248 °F 68 °F 62.29 lb/ft³ 71A IE5 0.75 HP 60 Hz 1 x 200-240 V 3.45-2.90 A 0.98 360-4000 rpm	
Type of connection: Pipe connection: Pressure rating for pipe connection: Flange size for motor: Connect code: Liquid: Pumped liquid: Liquid temperature range: Selected liquid temperature: Density: Electrical data: Motor type: IE Efficiency class: Rated power - P2: Main frequency: Rated voltage: Rated current: Cos phi - power factor: Rated speed: IE efficiency:	ANSI DN 40 PN 16 56C G Water -13 248 °F 68 °F 62.29 lb/ft³ 71A IE5 0.75 HP 60 Hz 1 x 200-240 V 3.45-2.90 A 0.98 360-4000 rpm 85.3%	
Type of connection: Pipe connection: Pressure rating for pipe connection: Flange size for motor: Connect code: Liquid: Pumped liquid: Liquid temperature range: Selected liquid temperature: Density: Electrical data: Motor type: IE Efficiency class: Rated power - P2: Main frequency: Rated voltage: Rated current: Cos phi - power factor: Rated speed: IE efficiency at full load:	ANSI DN 40 PN 16 56C G Water -13 248 °F 68 °F 62.29 lb/ft³ 71A IE5 0.75 HP 60 Hz 1 x 200-240 V 3.45-2.90 A 0.98 360-4000 rpm 85.3% 85.3 %	
Type of connection: Pipe connection: Pressure rating for pipe connection: Flange size for motor: Connect code: Liquid: Pumped liquid: Liquid temperature range: Selected liquid temperature: Density: Electrical data: Motor type: IE Efficiency class: Rated power - P2: Main frequency: Rated voltage: Rated current: Cos phi - power factor: Rated speed: IE efficiency at full load: Number of poles:	ANSI DN 40 PN 16 56C G Water -13 248 °F 68 °F 62.29 lb/ft³ 71A IE5 0.75 HP 60 Hz 1 x 200-240 V 3.45-2.90 A 0.98 360-4000 rpm 85.3% 85.3 % 0	
Type of connection: Pipe connection: Pressure rating for pipe connection: Flange size for motor: Connect code: Liquid: Pumped liquid: Liquid temperature range: Selected liquid temperature: Density: Electrical data: Motor type: IE Efficiency class: Rated power - P2: Main frequency: Rated voltage: Rated current: Cos phi - power factor: Rated speed: IE efficiency at full load: Number of poles: Enclosure class (IEC 34-5):	ANSI DN 40 PN 16 56C G Water -13 248 °F 68 °F 62.29 lb/ft³ 71A IE5 0.75 HP 60 Hz 1 x 200-240 V 3.45-2.90 A 0.98 360-4000 rpm 85.3% 85.3 % 0 IP55	
Type of connection: Pipe connection: Pressure rating for pipe connection: Flange size for motor: Connect code: Liquid: Pumped liquid: Liquid temperature range: Selected liquid temperature: Density: Electrical data: Motor type: IE Efficiency class: Rated power - P2: Main frequency: Rated voltage: Rated current: Cos phi - power factor: Rated speed: IE efficiency at full load: Number of poles: Enclosure class (IEC 34-5): Insulation class (IEC 85):	ANSI DN 40 PN 16 56C G Water -13 248 °F 68 °F 62.29 lb/ft³ 71A IE5 0.75 HP 60 Hz 1 x 200-240 V 3.45-2.90 A 0.98 360-4000 rpm 85.3% 85.3 % 0 IP55 F	
Type of connection: Pipe connection: Pressure rating for pipe connection: Flange size for motor: Connect code: Liquid: Pumped liquid: Liquid temperature range: Selected liquid temperature: Density: Electrical data: Motor type: IE Efficiency class: Rated power - P2: Main frequency: Rated voltage: Rated current: Cos phi - power factor: Rated speed: IE efficiency at full load: Number of poles: Enclosure class (IEC 34-5):	ANSI DN 40 PN 16 56C G Water -13 248 °F 68 °F 62.29 lb/ft³ 71A IE5 0.75 HP 60 Hz 1 x 200-240 V 3.45-2.90 A 0.98 360-4000 rpm 85.3% 85.3 % 0 IP55	









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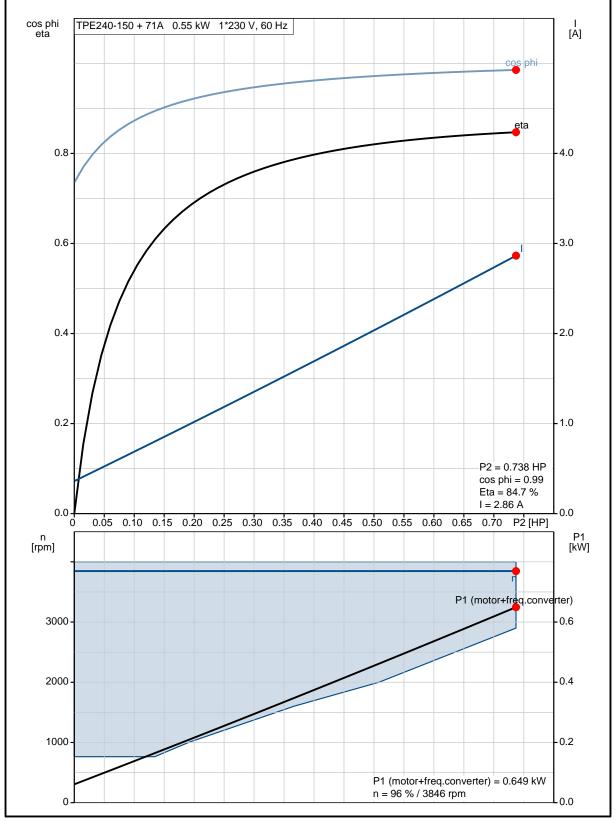
Description	Value	
Controls:		
Control panel:	HMI300 - Graphical	
Function Module:	FM300 - Advanced	
Frequency converter:	Built-in	
Others:		
Net weight:	46.5 lb	
Gross weight:	62.4 lb	
Config. file no:	98819170	



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Date: 2/28/2020



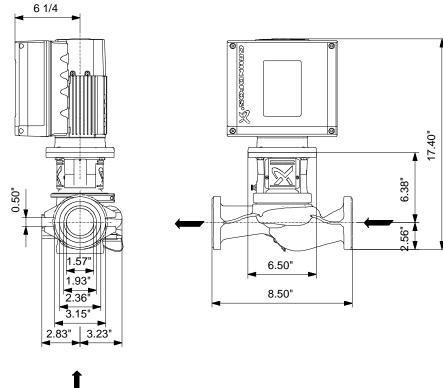


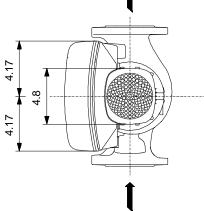


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98817702 TPE2 40-150 N-A-G-I-BQQE-EAB 60 Hz





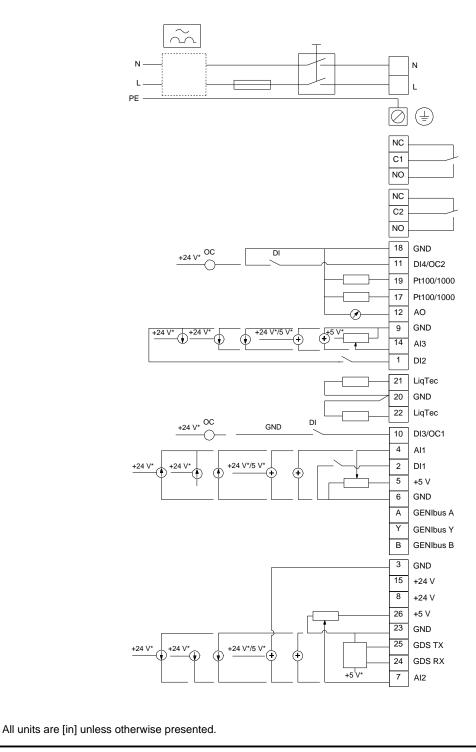
Note! All units are in [in] unless otherwise stated. Disclaimer: This simplified dimensional drawing does not show all details.



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98817702 TPE2 40-150 N-A-G-I-BQQE-EAB 60 Hz





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Order Data:

Product name: TPE2 40-150 N-A-G-I-BQQE-EAB

Amount: 1

Product No.: 98817702

Total: Price on request