GRUNDFOS

Submittal Data

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

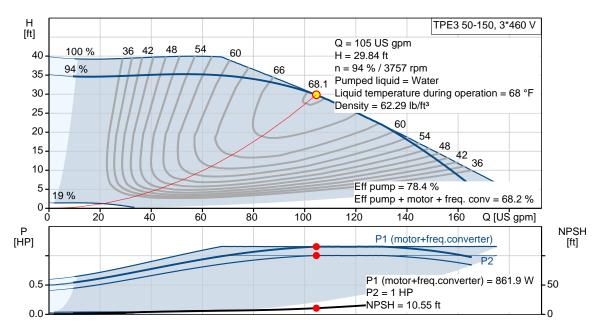


TPE3 50-150 S-A-G-A-BQQE-FCB

Single-stage in-line pumps with frequency converters

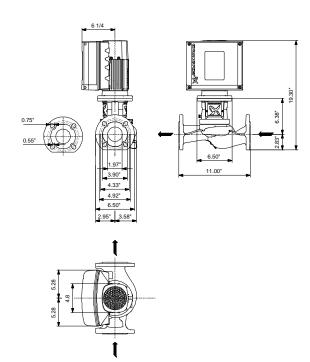
Product photo could vary from the actual product

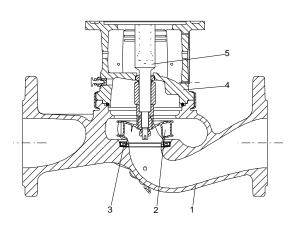
Conditions of Service		Pump Data		Motor Data	
Flow:	105 US gpm	Liquid temperature range:	-13 248 °F	Rated power - P2:	1 HP
Head:	29.84 ft	Maximum ambient temperature:	122 °F	Rated voltage:	440-480 V
Efficiency:	68.2 %	Shaft seal:	BQQE	Main frequency:	60 Hz
Liquid:	Water	Pipe connection:	DN 50	Number of poles:	0
Temperature:	68 °F	Product number:	98819628	Enclosure class:	IP55
NPSH required:	10.55 ft			Insulation class:	F
Viscosity:				Motor protection:	YES
Specific Gravity:	1.000			Motor type:	80A
				Motor_efficiency:	86.4 %





Submittal Data





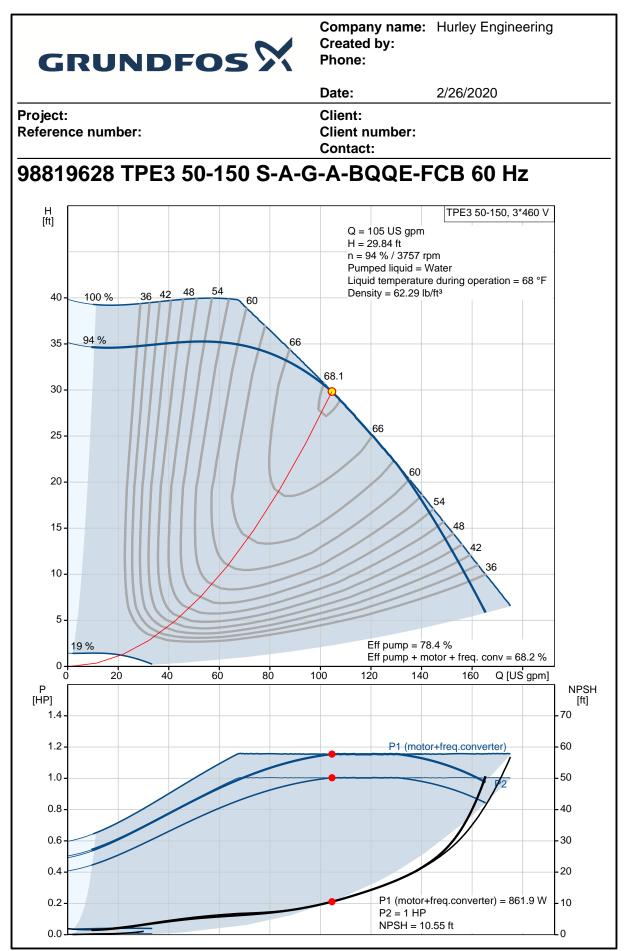
Materials:

Pump housing:	
	ASTM A48-40 B
Impeller:	Composite PES/PP 30% GF
Material code:	A

G	RUNDFOS		ame: Hurley Engineering
		Date:	2/26/2020
Projec Refere	t: nce number:	Client: Client numb Contact:	er:
Count	Description		
1	TPE3 50-150 S-A-G-A-BQQE-	FCB	
	be removed for maintenance of The shaft seal is according to E Pipework connection is via PN The pump is fitted with a fan-cc is classified as IE5 in accordan	r service while the pump hous N 12756. Pipework connection ANSI flanges. Poled, permanent-magnet sync ce with IEC 60034-30-2. Converter and PI controller in the motor speed, which again	notor, pump head and impeller) can ing remains in the pipework. on is via PN 16 ANSI flanges. chronous motor. The motor efficiency n the motor terminal box. This enables
	Controls: Frequency converter:	Built-in	
	Liquid: Pumped liquid: Liquid temperature range: Selected liquid temperature: Density:	Water -13 248 °F 68 °F 62.29 lb/ft ³	
	Technical: Pump speed on which pump da Actual calculated flow: Resulting head of the pump: Actual impeller diameter: Code for shaft seal: Curve tolerance:	ata is based: 3800 rpm 105 US gpm 29.84 ft 2.91 in BQQE ISO9906:2012 3B2	
	Materials: Pump housing:	Cast iron ASTM A48-40 B	



		D	Date:	2/26/2020
Project Referer	Project: Reference number:		Client: Client number: Contact:	
Count	Description			
	Impeller:	EN 1561 EN-G Composite PE		
	Installation: Range of ambient temperature: Maximum operating pressure: Type of connection: Pipe connection: Pressure rating for pipe connecti Flange size for motor: Electrical data: Motor type: IE Efficiency class: Rated power - P2: Main frequency: Rated voltage: Rated current: Cos phi - power factor: Rated speed: IE efficiency: Motor efficiency at full load: Number of poles: Enclosure class (IEC 34-5): Insulation class (IEC 85): Motor Number: DOE Pump Energy Index VL: Net weight: Gross weight: Country of origin: Custom tariff no.:	-4 122 °F PN 16 bar ANSI DN 50		



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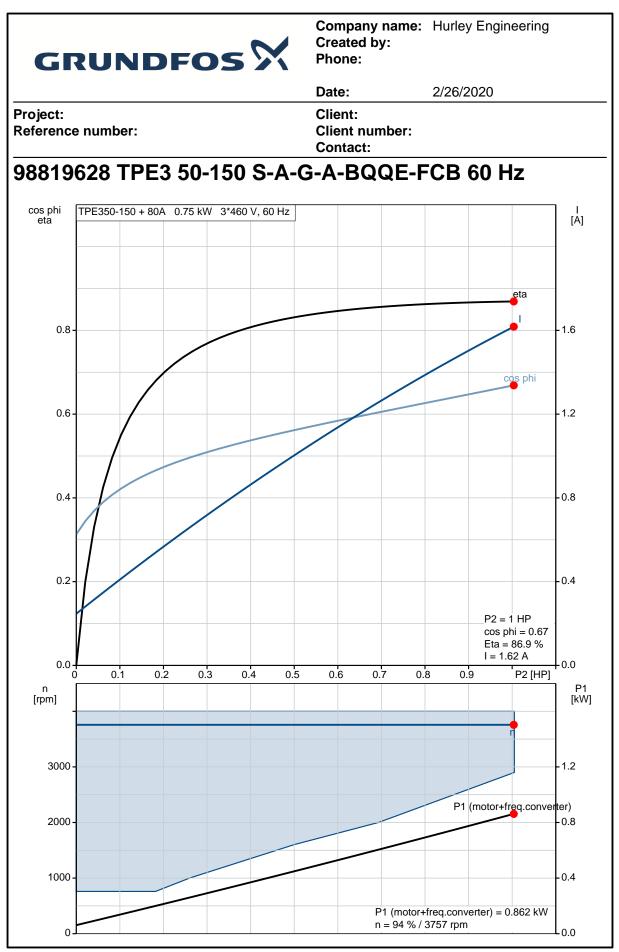


		Date: 2/26/2020
Project: Reference number:		Client: Client number: Contact:
Description	Value	H [ft] TPE3 50-150, 3*460 V
General information:	Value	Q = 105 US gpm
	TPE3 50-150	H = 29.84 ft 40 = 100 s^{n} = 94 % / 3757 rpm
Product name:	S-A-G-A-BQQE-FCB	40 – 100 °Pumped liquid = Water Liquid temperature during operation = 68 °F
Product No.:	98819628	$35 - \frac{94 \%}{94 \%}$ Density = 62.29 lb/ft ³
EAN:	5712601843911	68.1
	5712601843911	30-
Technical:		25 66
Pump speed on which pump data is based:	3800 rpm	20
Actual calculated flow:	105 US gpm	54
Resulting head of the pump:	29.84 ft	15-48
Head max:	49.22 ft	10-36
Actual impeller diameter:	2.91 in	
Code for shaft seal:	BQQE	5 - Eff pump = 78.4 %
Curve tolerance:	ISO9906:2012 3B2	$\frac{19\%}{\text{Eff pump + motor + freq. conv}} = 68.2\%$
Pump version:	A	0 50 100 Q [US gpm]
Model:	Α	P NPSH [ft]
Materials:	Oratinan	P1 (motor+freq.converter)
Pump housing:	Cast iron	1.0
	ASTM A48-40 B EN 1561 EN-GJL-250	
	Composite PES/PP 30%	0.5
Impeller:	GF	P1 (motor+freq.converter) = 861.9 W
Material code:	A	P2 = 1 HP
Installation:		0.0 NPSH = 10.55 ft 0
Range of ambient temperature	^{9:} -4 122 °F	
Maximum operating pressure:	PN 16 bar	
Type of connection:	ANSI	
Pipe connection:	DN 50	
Pressure rating for pipe connection:	PN 16	
Flange size for motor:	56C	
Connect code:	G	
Liquid:		
Pumped liquid:	Water	
Liquid temperature range:	-13 248 °F	
Selected liquid temperature:	68 °F	`
Density: Electrical data:	62.29 lb/ft ³	
Motor type:	80A	
IE Efficiency class:	IE5	<u> </u>
Rated power - P2:	1 HP	
Main frequency:	60 Hz	
Rated voltage:	3 x 440-480 V	
Rated current:	1.65 A	
Cos phi - power factor:	0.73	
Rated speed:	360-4000 rpm	
IE efficiency:	86.4%	
Motor efficiency at full load:	86.4 %	

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		Date:	2/26/2020
Project: Reference number:		Client: 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:	99630342		
Controls:			
Control panel:	HMI300 - Graphical		
Function Module:	FM300 - Advanced		
Frequency converter:	Built-in		
Others:			
DOE Pump Energy Index VL:	0.36		
Net weight:	60.2 lb		
Gross weight:	76.1 lb		
Config. file no:	98484782		
Country of origin:	HU		
Custom tariff no.:	8413.70.2022		



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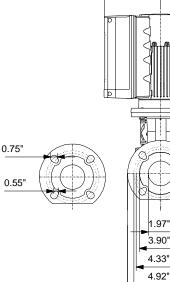


2/26/2020

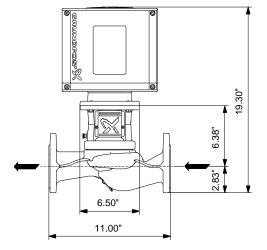
Project: Reference number: Date:

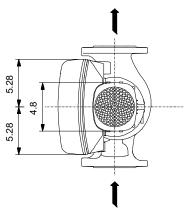
Client: Client number: Contact:

98819628 TPE3 50-150 S-A-G-A-BQQE-FCB 60 Hz



6 1/4





6.50" 2.95" 3.58"

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

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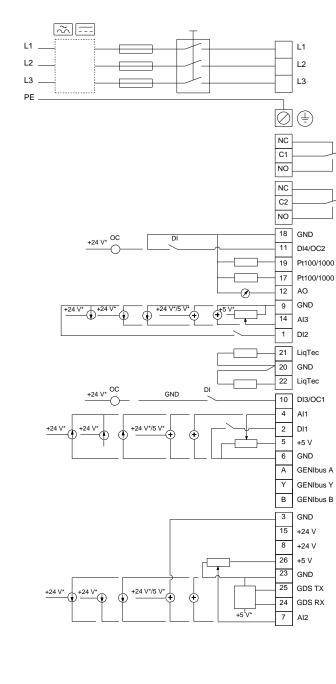


2/26/2020

Project: Reference number: Date:

Client: Client number: Contact:

98819628 TPE3 50-150 S-A-G-A-BQQE-FCB 60 Hz



All units are [in] unless otherwise presented.

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		Date:	2/26/2020
Project: Reference number:		Client: Client number: Contact:	
Order Data:			
Product name: Amount: Product No.:	TPE3 50-150 S-A-G-A-B 1 98819628	QQE-FCB	
Total: Price on r	equest		