# **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:	

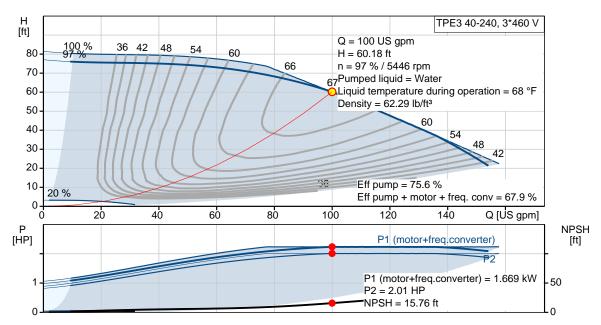


#### TPE3 40-240 S-A-G-A-BQQE-HCC

Single-stage in-line pumps with frequency converters

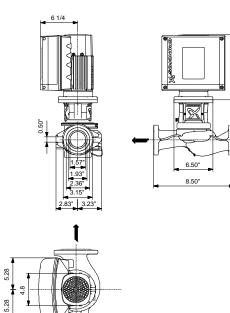
Product photo could vary from the actual product

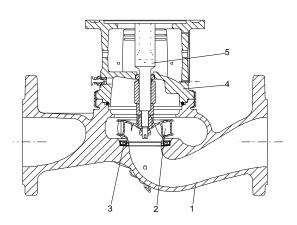
Conditions of Service		Pump Data		Motor Data	
Flow:	100 US gpm	Liquid temperature range:	-13 248 °F	Rated power - P2:	2 HP
Head:	60.18 ft	Maximum ambient temperature:	122 °F	Rated voltage:	440-480 V
Efficiency:	67.9 %	Shaft seal:	BQQE	Main frequency:	60 Hz
Liquid:	Water	Pipe connection:	DN 40	Number of poles:	0
Temperature:	68 °F	Product number:	98819541	Enclosure class:	IP55
NPSH required:	15.76 ft			Insulation class:	F
Viscosity:				Motor protection:	YES
Specific Gravity:	1.000			Motor type:	90B
				Motor_efficiency:	88.4 %





# Submittal Data





#### Materials:

19.80"

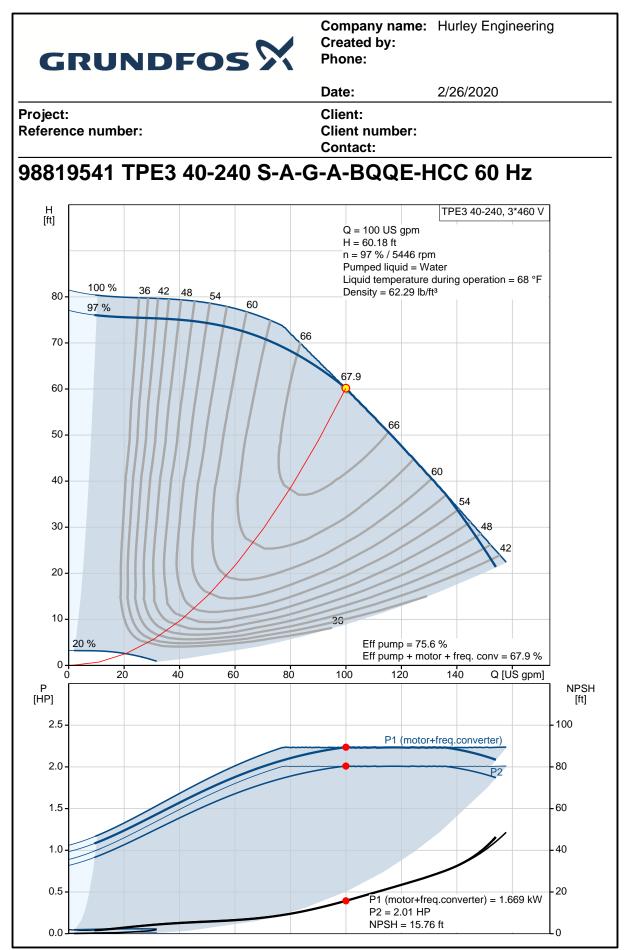
6.38"

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

G	RUNDFOS	C	ted by:	Hurley Engineering	
		Date	:	2/26/2020	
Projec Refere	t: nce number:	Clier Clier Cont	nt number:		
Count	Description				
1	TPE3 40-240 S-A-G-A-BQQE-	нсс			
		r service while the pu EN 12756. Pipework 16 ANSI flanges. poled, permanent-ma ce with IEC 60034-3 y converter and PI co the motor speed, wh	er head (motor, imp housing re connection is v gnet synchrono 0-2. ontroller in the r	pump head and impeller) can mains in the pipework. ia PN 16 ANSI flanges. ous motor. The motor efficiency 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 <sup>3</sup>			
	Technical:Pump speed on which pump data is based: 5500 rpmActual calculated flow:100 US gpmResulting head of the pump:60.18 ftActual impeller diameter:2.91 inCode for shaft seal:BQQECurve tolerance:ISO9906:2012 3B2				
	Materials: Pump housing:	Cast iron ASTM A48-40 B			



		Date:	2/26/2020
	Project: Reference number:		per:
Count	Description		
	Impeller:	EN 1561 EN-GJL-250 Composite PES/PP 30% C	)F
	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 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 40	



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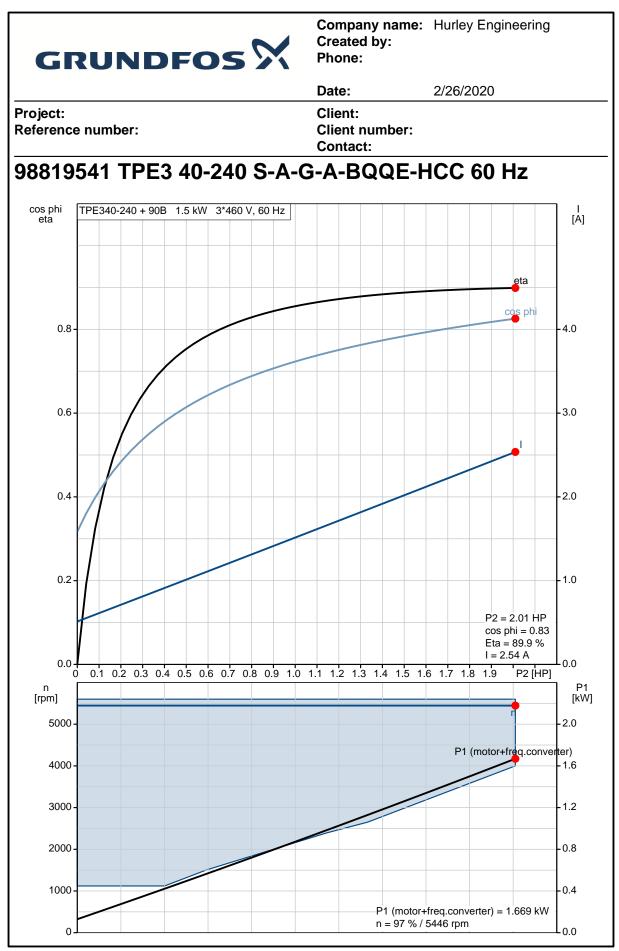


		<b>Date:</b> 2/26/2020
Project: Reference number:		Client: Client number: Contact:
Description	Value	H [ft] TPE3 40-240, 3*460 V
General information:	Tuluo	Q = 100 US gpm H = 60.18 ft
Droduct nome	TPE3 40-240	100 %n = 97 % / 5446 rpm
Product name:	S-A-G-A-BQQE-HCC	80 - 97 % Pumped liquid = Water Liquid temperature during operation = 68 °F
Product No.:	98819541	70 - Density = 62.29 lb/ft <sup>3</sup>
EAN:	5712601842310	60-67.9
	5712601842310	
Technical:		50 - 66
Pump speed on which pump data is based:	5500 rpm	40 - 60
Actual calculated flow:	100 US gpm	30
Resulting head of the pump:	60.18 ft	30 - 48 42
Head max:	78.74 ft	20 -
Actual impeller diameter:	2.91 in	
Code for shaft seal:	BQQE	10 - 50  g/ Eff pump = 75.6 %
Curve tolerance:	ISO9906:2012 3B2	$\frac{20\%}{\text{Eff pump + motor + freq. conv} = 67.9\%}$
Pump version:	A	0 50 100 Q [US gpm]
Model:	A	P NPSH [HP]
Materials:		P1 (motor+freq.converter)
Pump housing:	Cast iron	2- 100
	ASTM A48-40 B	
	EN 1561 EN-GJL-250	
Impeller:	Composite PES/PP 30% GF	1 P1 (motor+freq.converter) = 1.669 kW
Material code:	A	P2 = 2.01 HP NPSH = 15.76 ft
Installation:		
Range of ambient temperature:	-4 122 °F	P <sup>416</sup> -9
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	
Connect code:	G	t
Liquid:		
Pumped liquid:	Water	
Liquid temperature range:	-13 248 °F	
Selected liquid temperature:	68 °F	• •
Density:	62.29 lb/ft <sup>3</sup>	
Electrical data:		
Motor type:	90B	
IE Efficiency class:	IE5	
Rated power - P2:	2 HP	
Main frequency:	60 Hz	
Rated voltage:	3 x 440-480 V	
Rated current:	2.8 A	
Cos phi - power factor:	0.83	
Rated speed:	480-5900 rpm	
IE efficiency:	88.4%	
Motor efficiency at full load:	88.4 %	

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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:	99630350		
Controls:			
Control panel:	HMI300 - Graphical		
Function Module:	FM300 - Advanced		
Frequency converter:	Built-in		
Others:			
DOE Pump Energy Index VL:	0.35		
Net weight:	53.8 lb		
Gross weight:	70.3 lb		
Config. file no:	98484777		
Country of origin:	HU		
Custom tariff no.:	8413.70.2022		



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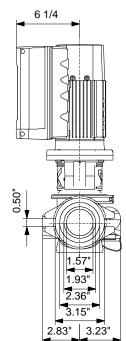


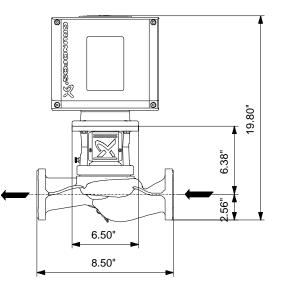
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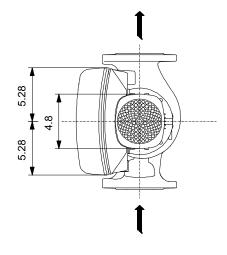
Project: Reference number: Date:

Client: Client number: Contact:

## 98819541 TPE3 40-240 S-A-G-A-BQQE-HCC 60 Hz







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

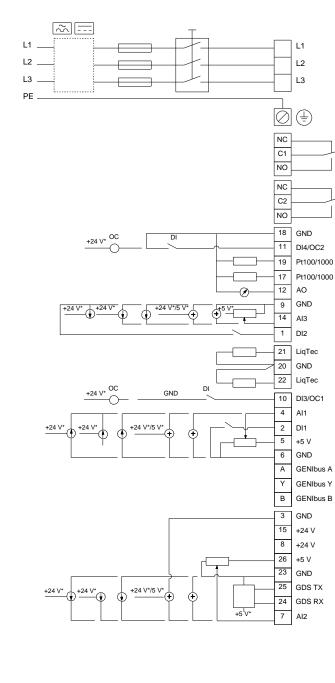


2/26/2020

Project: Reference number: Date:

Client: Client number: Contact:

# 98819541 TPE3 40-240 S-A-G-A-BQQE-HCC 60 Hz



All units are [in] unless otherwise presented.

GRUNDFOS X
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		Date:	2/26/2020
Project: Reference number:		Client: Client number: Contact:	
Order Data:			
Amount: Product No.:	TPE3 40-240 S-A-G-A-B 1 98819541	QQE-HCC	
Total: Price on r	request		