

PROJECT: _____	UNIT TAG: _____	QUANTITY: _____
REPRESENTATIVE: _____	TYPE OF SERVICE: _____	DATE: _____
ENGINEER: _____	SUBMITTED BY: _____	DATE: _____
CONTRACTOR: _____	APPROVED BY: _____	DATE: _____
	ORDER NO.: _____	DATE: _____

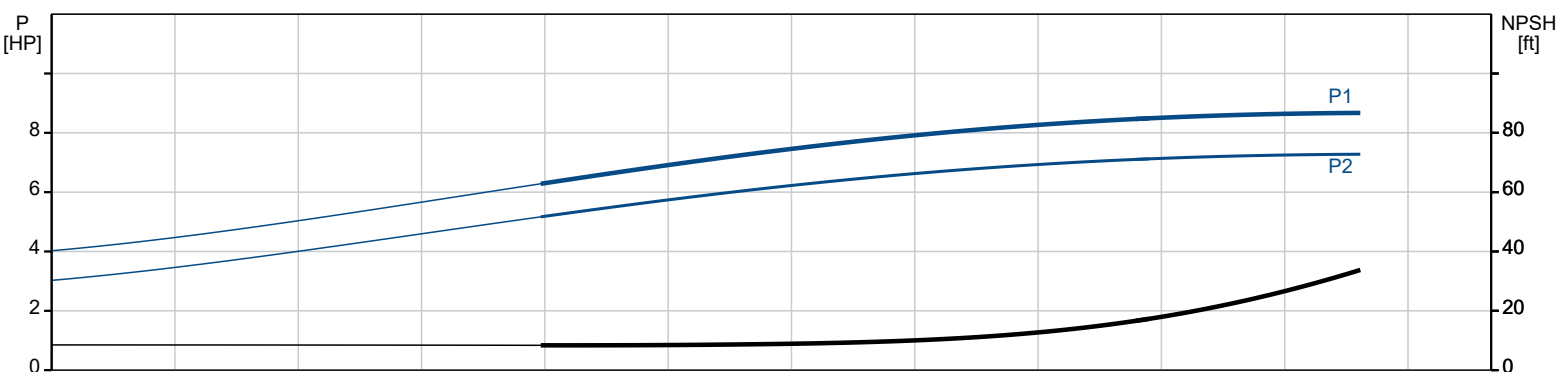
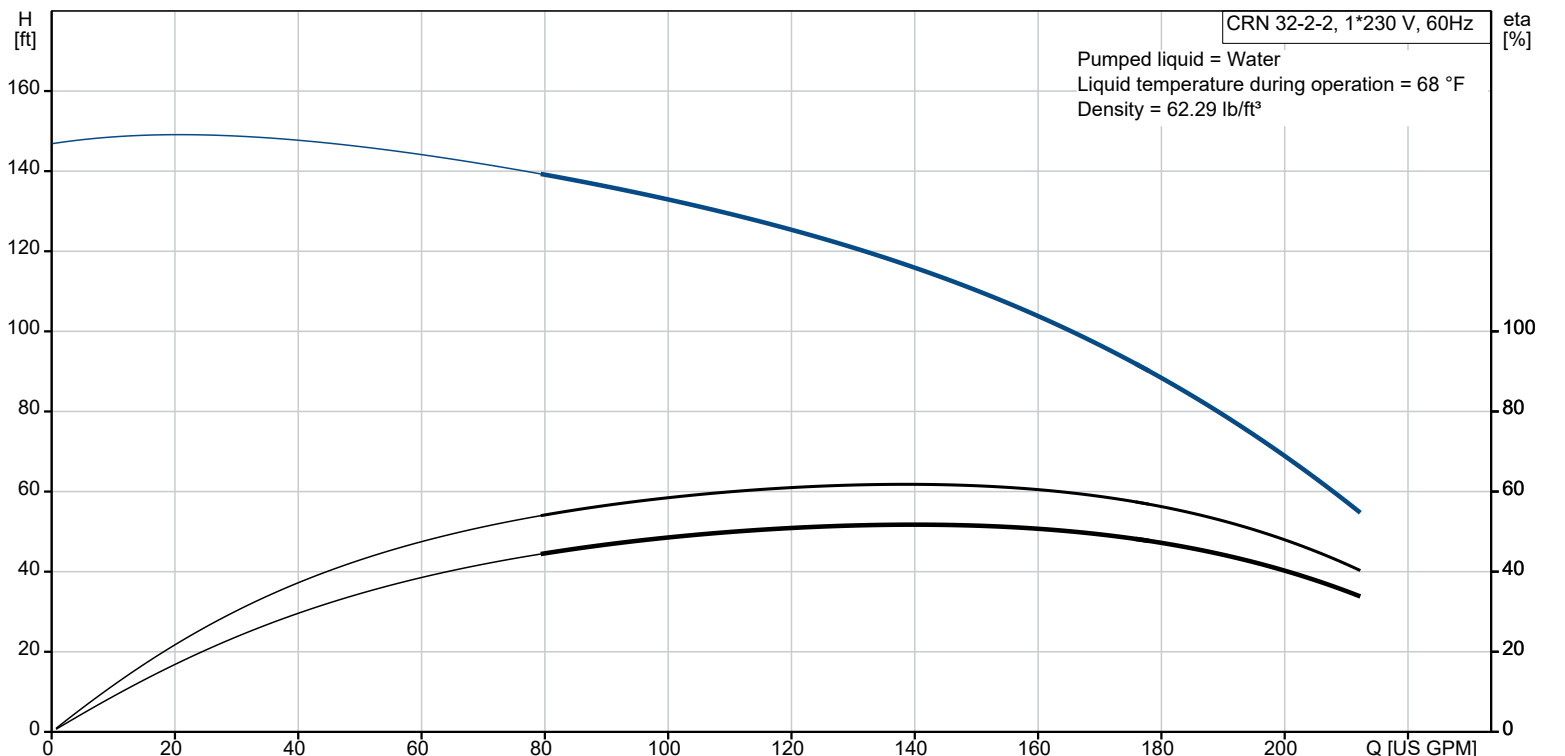


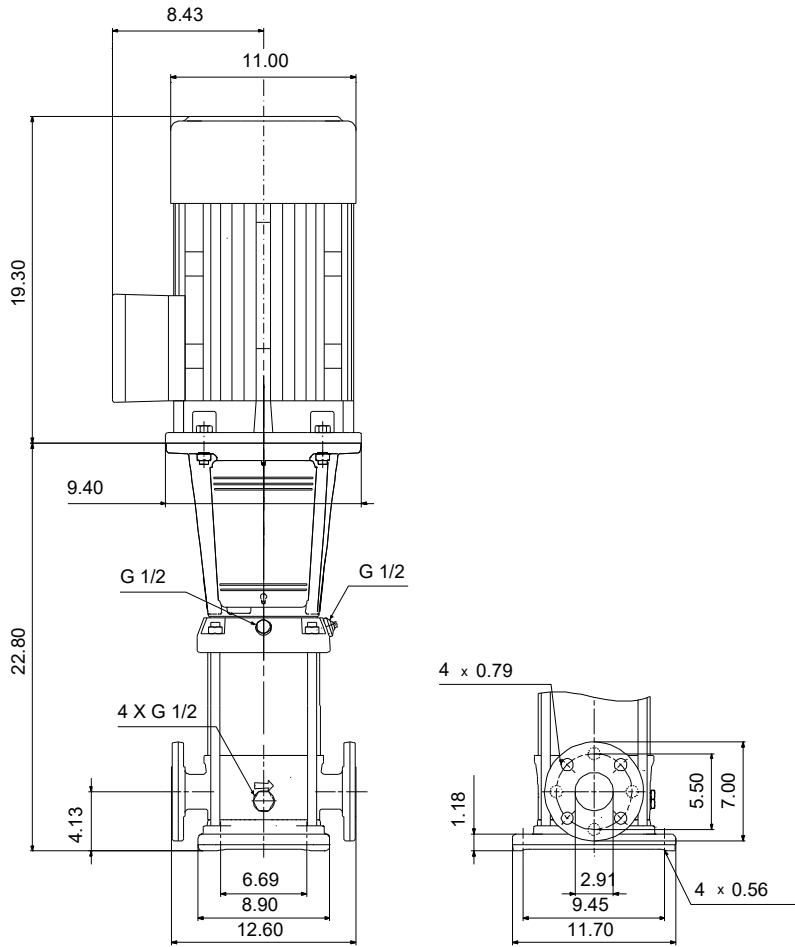
CRN 32-2-2 A-G-A-E-HQQE

Vertical, multistage centrifugal pump with suction and discharge ports on the same level. Pump materials in contact with the liquid are in high-grade stainless steel (EN 1.4401)

Note! Product picture may differ from actual product

Conditions of Service		Pump Data		Motor Data	
Liquid:	Water	Max pressure at stated temp:	232 psi / 250 °F	Rated power - P2:	7.5 HP
Temperature:	68 °F	Liquid temperature range:	-40 .. 248 °F	Rated voltage:	208-230 V
Specific Gravity:	1.000	Maximum ambient temperature:	104 °F	Mains frequency:	60 Hz
		Shaft seal:	HQQE	Enclosure class:	IP55
		Product number:	99918020	Insulation class:	F
				Motor protection:	NONE
				Motor type:	WEG
				Eta 1/1:	84.0 %





Materials:

Base: Stainless steel
 Base: EN 1.4408
 Base: AISI 316
 Impeller: Stainless steel
 Impeller: AISI 316
 Impeller: EN 1.4401
 Material code: A
 Code for rubber: E

Qty.	Description
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1 CRN 32-2-2 A-G-A-E-HQQE



Product No.: [99918020](#)

Vertical, multistage centrifugal pump with inlet and outlet ports on same the level (inline). Pump materials in contact with the liquid are in high-grade stainless steel. A cartridge shaft seal ensures high reliability, safe handling, and easy access and service. Power transmission is via a rigid split coupling. Pipe connection is via ANSI flanges.

The pump is fitted with a 1-phase, fan-cooled asynchronous motor.

Further product details

Steel, cast iron and aluminium components have an epoxy-based coating made in a cathodic electro-deposition (CED) process. CED is a high-quality dip-painting process where an electrical field around the products ensures deposition of paint particles as a thin, well-controlled layer on the surface.

An integral part of the process is a pretreatment.

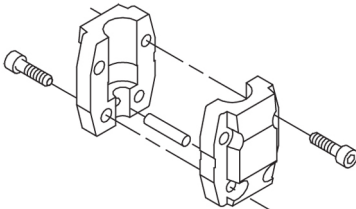
The entire process consists of these elements:

- 1) Alkaline-based cleaning.
- 2) Zinc phosphating.
- 3) Cathodic electro-deposition.
- 4) Curing to a dry film thickness 18-22 my m.

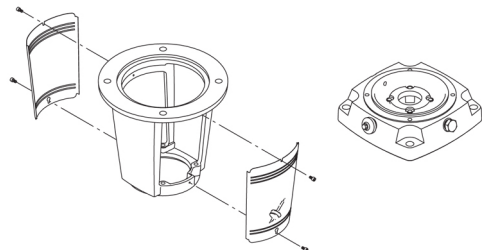
The colour code for the finished product is NCS 9000/RAL 9005.

Pump

A standard split coupling connects the pump and motor shaft. It is enclosed in the pump head/motor stool by means of two coupling guards.



The motor stool connects the pump head and motor. The pump head has a combined 1/2" priming plug and vent screw.



The pump is fitted with a balanced O-ring seal unit with a rigid torque-transmission system.

This seal type is assembled in a cartridge unit which makes replacement safe and easy.

Due to the balancing, this seal type is suitable for high-pressure applications.

The cartridge construction also protects the pump shaft from possible wear from a dynamic O-ring between pump shaft and shaft seal.

Seal faces:

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

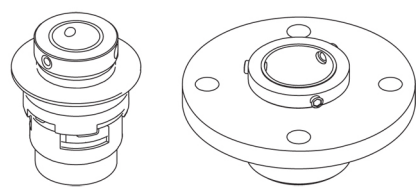
This material pairing is used where higher corrosion resistance is required. The high hardness of this material pairing offers good resistance against abrasive particles.

Secondary seal material: EPDM (ethylene-propylene rubber)

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

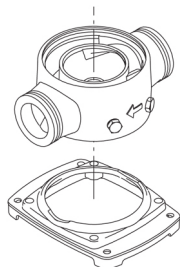
Qty.	Description
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1	  <p>The shaft seal is retained in the pump head by a cover and screws. It can be replaced without removing the motor. The chambers and impellers are made of stainless-steel sheet. The chambers are provided with a PTFE neck ring offering improved sealing and high efficiency. The impellers have smooth surfaces, and the shape of the blades ensure a high efficiency.</p> <p>The pump has a stainless-steel base mounted on a separate base plate. The base and base plate are kept in position by the tension of the staybolts which hold the pump together. Both the inlet and the outlet side of the base have two pressure gauge tappings. The pump is secured to the foundation by four bolts through the base plate. The flanges are fastened to the base by means of locking rings.</p>  <p>Motor</p> <p>The motor is a totally enclosed, fan-cooled motor with principal dimensions to IEC and DIN standards. The motor is flange-mounted with free-hole flange (FF).</p> <p>Motor-mounting designation in accordance with IEC 60034-7: IM B 5 (Code I) / IM 3001 (Code II). Electrical tolerances comply with IEC 60034.</p> <p>The motor does not incorporate motor protection and must be connected to a motor-protective circuit breaker which can be manually reset. The motor-protective circuit breaker must be set according to the rated current of the motor (I₁/1).</p> <p>The motor has built-in thermal protection (PTO current and temperature sensors) in accordance with IEC 60034-11 and requires no further motor protection. The protection reacts to both slow- and quick-rising temperatures, e.g. constant overload and stalled conditions.</p> <p>As the thermal protection incorporates automatic reset, the motor must be connected in a way which ensures that the automatic reset cannot cause accidents.</p> <p>Technical data</p> <p>Liquid: Pumped liquid: Water Liquid temperature range: -40 .. 248 °F Selected liquid temperature: 68 °F Density: 62.29 lb/ft³</p> <p>Technical: Pump speed on which pump data are based: 3508 rpm Rated flow: 159 US GPM Rated head: 109.9 ft Actual impeller diameter: 4.66 in Pump orientation: Vertical Shaft seal arrangement: Single Code for shaft seal: HQQE Approvals: CURUS Approvals for drinking water: NSF/ANSI 61 Curve tolerance: ISO9906:2012 3B</p> <p>Materials: Base: Stainless steel EN 1.4408 AISI 316 Impeller: Stainless steel EN 1.4401</p>
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Motor

The motor is a totally enclosed, fan-cooled motor with principal dimensions to IEC and DIN standards. The motor is flange-mounted with free-hole flange (FF).

Motor-mounting designation in accordance with IEC 60034-7: IM B 5 (Code I) / IM 3001 (Code II).

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Technical data

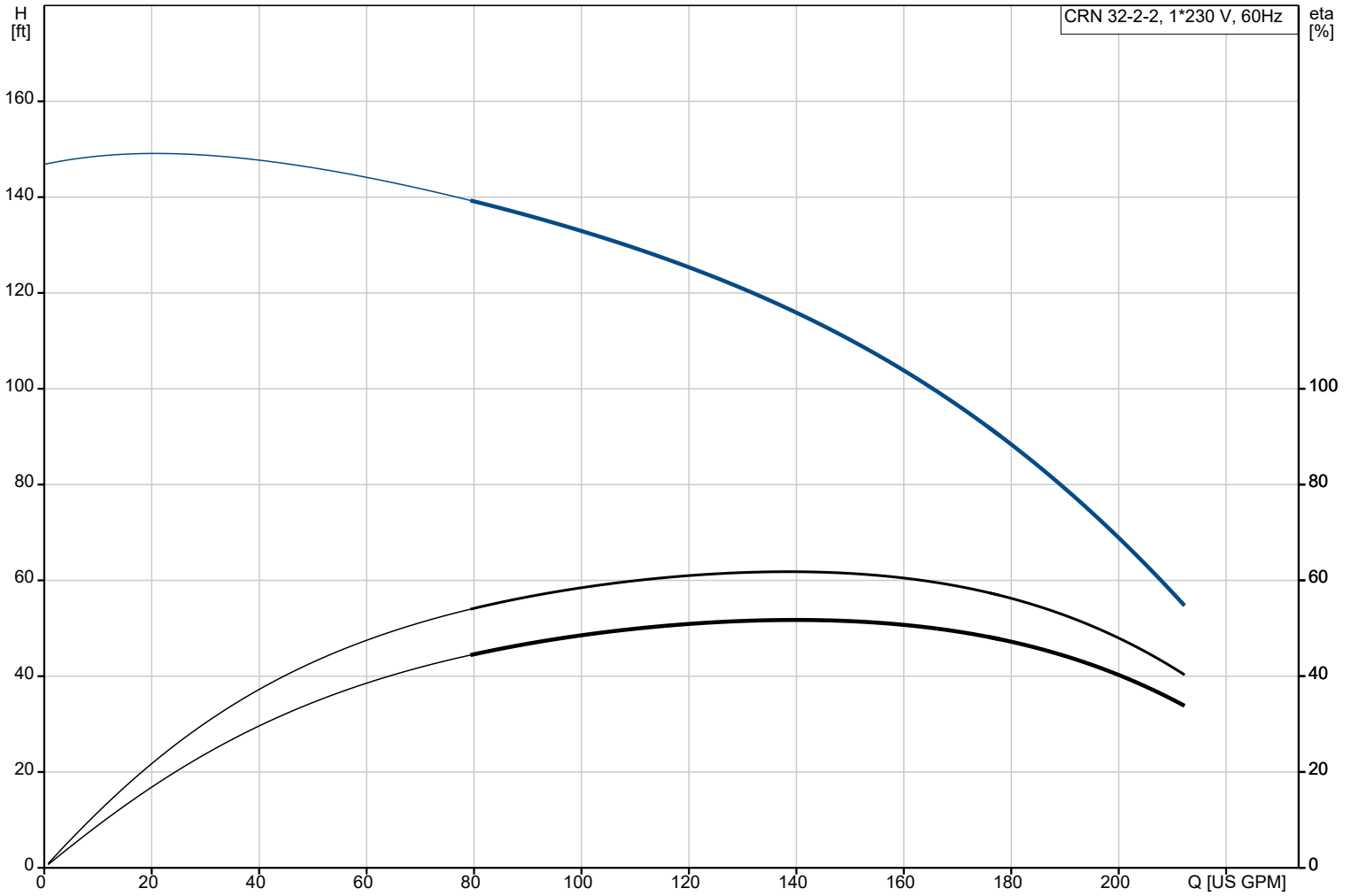
Liquid:
Pumped liquid: Water
Liquid temperature range: -40 .. 248 °F
Selected liquid temperature: 68 °F
Density: 62.29 lb/ft³

Technical:
Pump speed on which pump data are based: 3508 rpm
Rated flow: 159 US GPM
Rated head: 109.9 ft
Actual impeller diameter: 4.66 in
Pump orientation: Vertical
Shaft seal arrangement: Single
Code for shaft seal: HQQE
Approvals: CURUS
Approvals for drinking water: NSF/ANSI 61
Curve tolerance: ISO9906:2012 3B

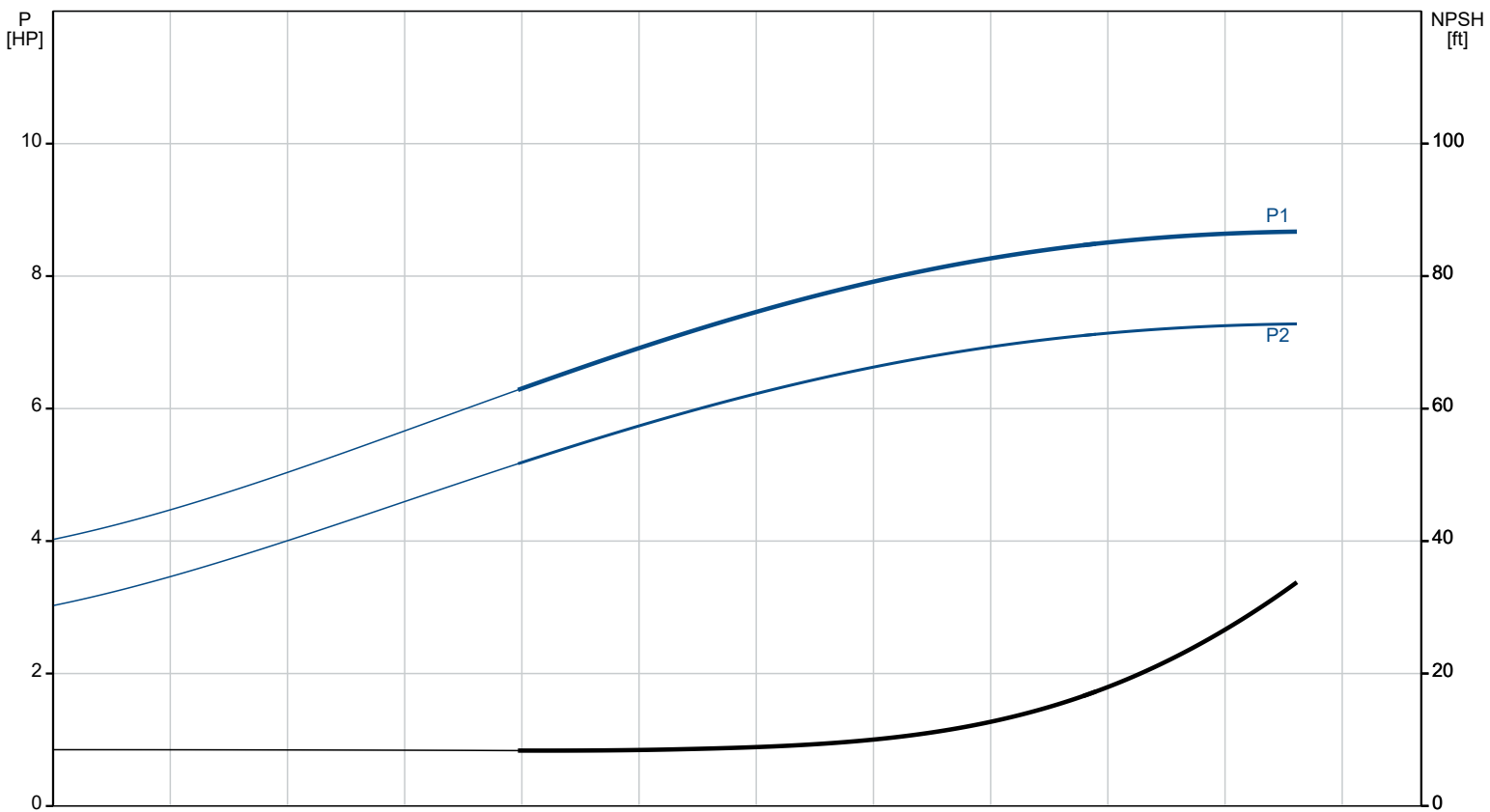
Materials:
Base: Stainless steel
EN 1.4408
AISI 316
Impeller: Stainless steel
EN 1.4401

Qty.	Description
1	<p data-bbox="79 224 1576 257">AISI 316</p> <p data-bbox="79 257 1576 291">Bearing: SIC</p> <p data-bbox="79 291 1576 324">Support bearing: Graflon</p> <p data-bbox="79 347 1576 380">Installation:</p> <p data-bbox="79 380 1576 414">t max amb: 104 °F</p> <p data-bbox="79 414 1576 448">Maximum operating pressure: 232.06 psi</p> <p data-bbox="79 448 1576 481">Max pressure at stated temp: 232 psi / 250 °F</p> <p data-bbox="79 481 1576 515">232 psi / -40 °F</p> <p data-bbox="79 515 1576 548">Type of connection: ANSI</p> <p data-bbox="79 548 1576 582">Size of inlet connection: 2 1/2 inch</p> <p data-bbox="79 582 1576 616">Size of outlet connection: 2 1/2 inch</p> <p data-bbox="79 616 1576 649">Pressure rating for connection: PN 16</p> <p data-bbox="79 649 1576 683">Flange rating inlet: 150 lb</p> <p data-bbox="79 683 1576 716">Flange size for motor: 213TC</p> <p data-bbox="79 739 1576 772">Electrical data:</p> <p data-bbox="79 772 1576 806">Motor standard: NEMA</p> <p data-bbox="79 806 1576 840">Motor type: WEG</p> <p data-bbox="79 840 1576 873">Rated power - P2: 7.5 HP</p> <p data-bbox="79 873 1576 907">Power (P2) required by pump: 7.5 HP</p> <p data-bbox="79 907 1576 940">Mains frequency: 60 Hz</p> <p data-bbox="79 940 1576 974">Rated voltage: 1 x 208-230 V</p> <p data-bbox="79 974 1576 1008">Service factor: 1.15</p> <p data-bbox="79 1008 1576 1041">Rated current: 31.7-28.8 A</p> <p data-bbox="79 1041 1576 1075">Starting current: 710-710 %</p> <p data-bbox="79 1075 1576 1108">Cos phi - power factor: 0.99</p> <p data-bbox="79 1108 1576 1142">Rated speed: 3515 rpm</p> <p data-bbox="79 1142 1576 1176">IE efficiency: 84.0%</p> <p data-bbox="79 1176 1576 1209">Motor efficiency at full load: 84.0 %</p> <p data-bbox="79 1209 1576 1243">Motor efficiency at 3/4 load: 82.5 %</p> <p data-bbox="79 1243 1576 1276">Motor efficiency at 1/2 load: 78.5 %</p> <p data-bbox="79 1276 1576 1310">Number of poles: 2</p> <p data-bbox="79 1310 1576 1344">Enclosure class (IEC 34-5): IP55</p> <p data-bbox="79 1344 1576 1377">Insulation class (IEC 85): F</p> <p data-bbox="79 1377 1576 1411">Motor No: 99883305</p> <p data-bbox="79 1433 1576 1467">Controls:</p> <p data-bbox="79 1467 1576 1500">Frequency converter: NONE</p> <p data-bbox="79 1523 1576 1556">Others:</p> <p data-bbox="79 1556 1576 1590">DOE Pump Energy Index CL: 0.87</p> <p data-bbox="79 1590 1576 1624">Net weight: 275 lb</p> <p data-bbox="79 1624 1576 1657">Gross weight: 292 lb</p> <p data-bbox="79 1657 1576 1691">Shipping volume: 10.9 ft³</p> <p data-bbox="79 1691 1576 1724">Country of origin: US</p> <p data-bbox="79 1724 1576 1758">Custom tariff no.: 8413.70.2040</p>

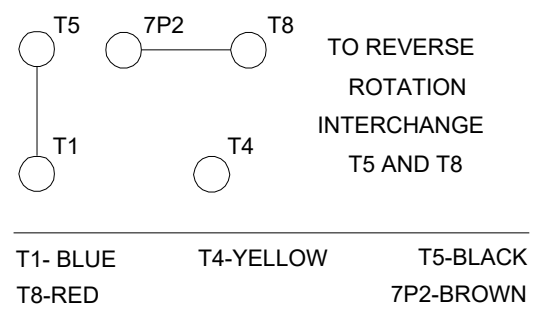
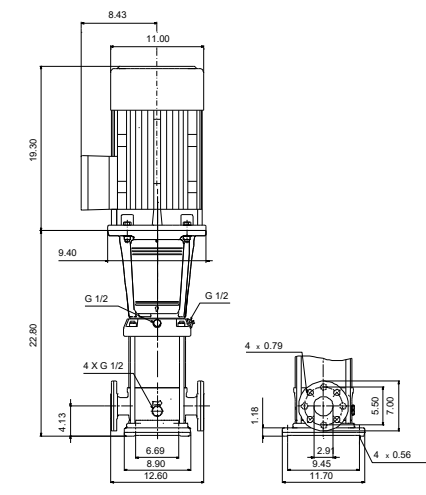
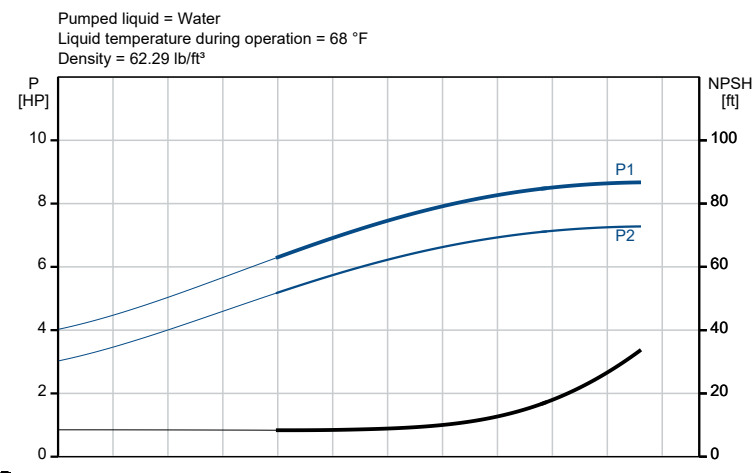
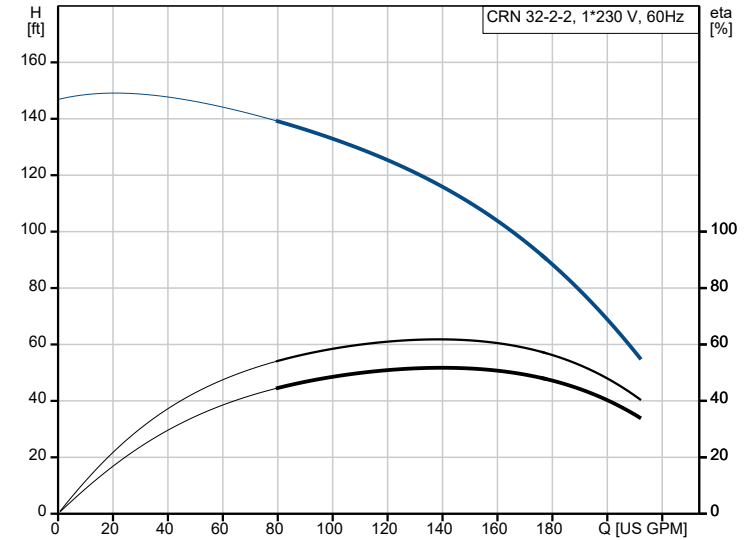
99918020 CRN 32-2-2 A-G-A-E-HQQE 60 Hz



Pumped liquid = Water
Liquid temperature during operation = 68 °F
Density = 62.29 lb/ft³



Description	Value
General information:	
Product name:	CRN 32-2-2 A-G-A-E-HQQE
Product No:	99918020
EAN number:	5715114128728
Technical:	
Pump speed on which pump data are based:	3508 rpm
Rated flow:	159 US GPM
Rated head:	109.9 ft
Maximum head:	149.9 ft
Actual impeller diameter:	4.66 in
Stages:	2
Impellers:	2
Number of reduced-diameter impellers:	2
Low NPSH:	N
Pump orientation:	Vertical
Shaft seal arrangement:	Single
Code for shaft seal:	HQQE
Approvals:	CURUS
Approvals for drinking water:	NSF/ANSI 61
Curve tolerance:	ISO9906:2012 3B
Pump version:	A
Model:	B
Cooling:	IC 411
Materials:	
Base:	Stainless steel
Base:	EN 1.4408
Base:	AISI 316
Impeller:	Stainless steel
Impeller:	EN 1.4401
Impeller:	AISI 316
Material code:	A
Code for rubber:	E
Bearing:	SIC
Support bearing:	Graflon
Installation:	
t max amb:	104 °F
Maximum operating pressure:	232.06 psi
Max pressure at stated temp:	232 psi / 250 °F
Max pressure at stated temp:	232 psi / -40 °F
Type of connection:	ANSI
Size of inlet connection:	2 1/2 inch
Size of outlet connection:	2 1/2 inch
Pressure rating for connection:	PN 16
Flange rating inlet:	150 lb
Flange size for motor:	213TC
Connect code:	G
Liquid:	
Pumped liquid:	Water
Liquid temperature range:	-40 .. 248 °F
Selected liquid temperature:	68 °F
Density:	62.29 lb/ft³
Electrical data:	
Motor standard:	NEMA
Motor type:	WEG
Rated power - P2:	7.5 HP
Power (P2) required by pump:	7.5 HP
Mains frequency:	60 Hz
Rated voltage:	1 x 208-230 V
Service factor:	1.15
Rated current:	31.7-28.8 A
Starting current:	710-710 %
Full load SF current:	31.7/44.6 A
Cos phi - power factor:	0.99
Rated speed:	3515 rpm
IE efficiency:	84.0%





Company name:

Created by:

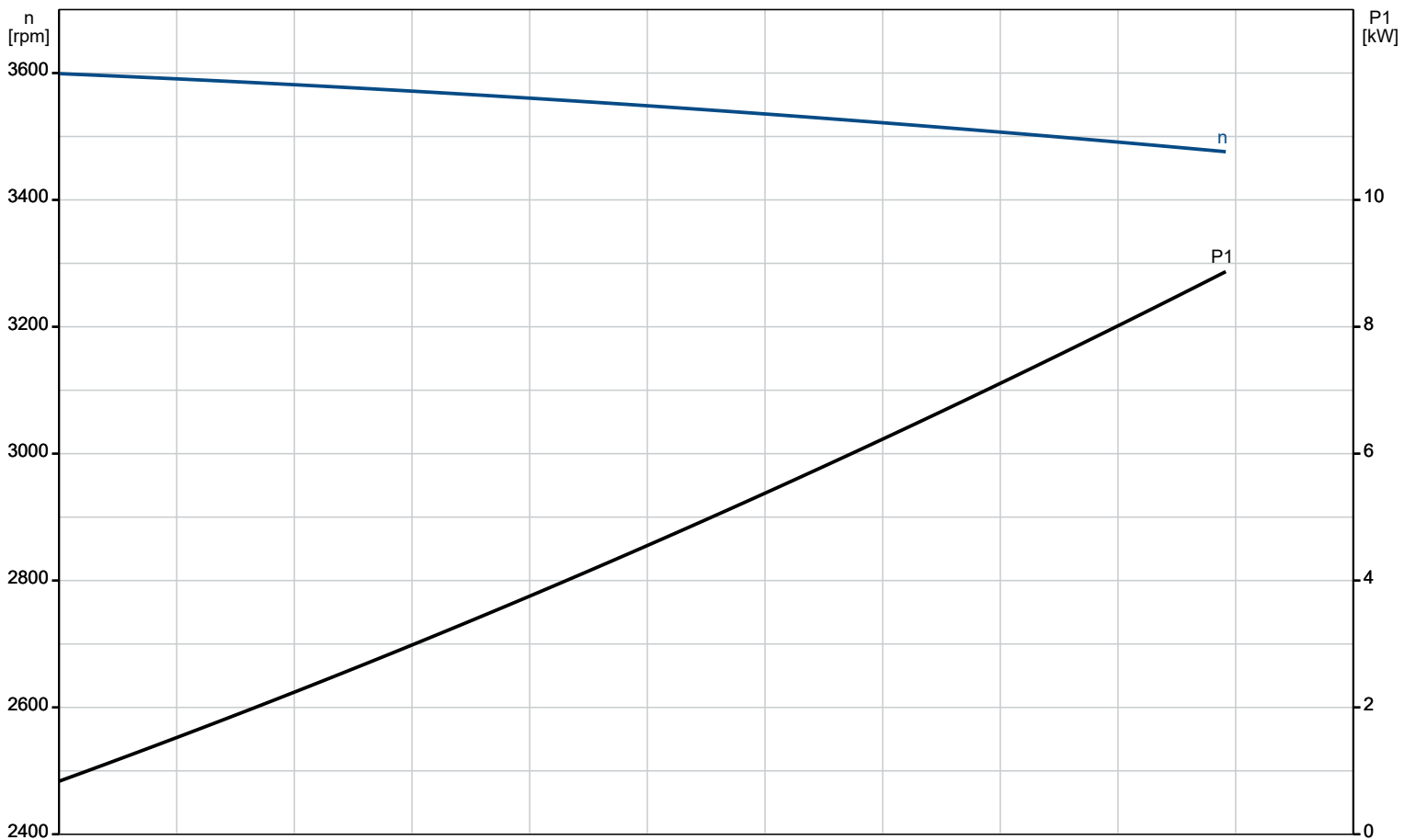
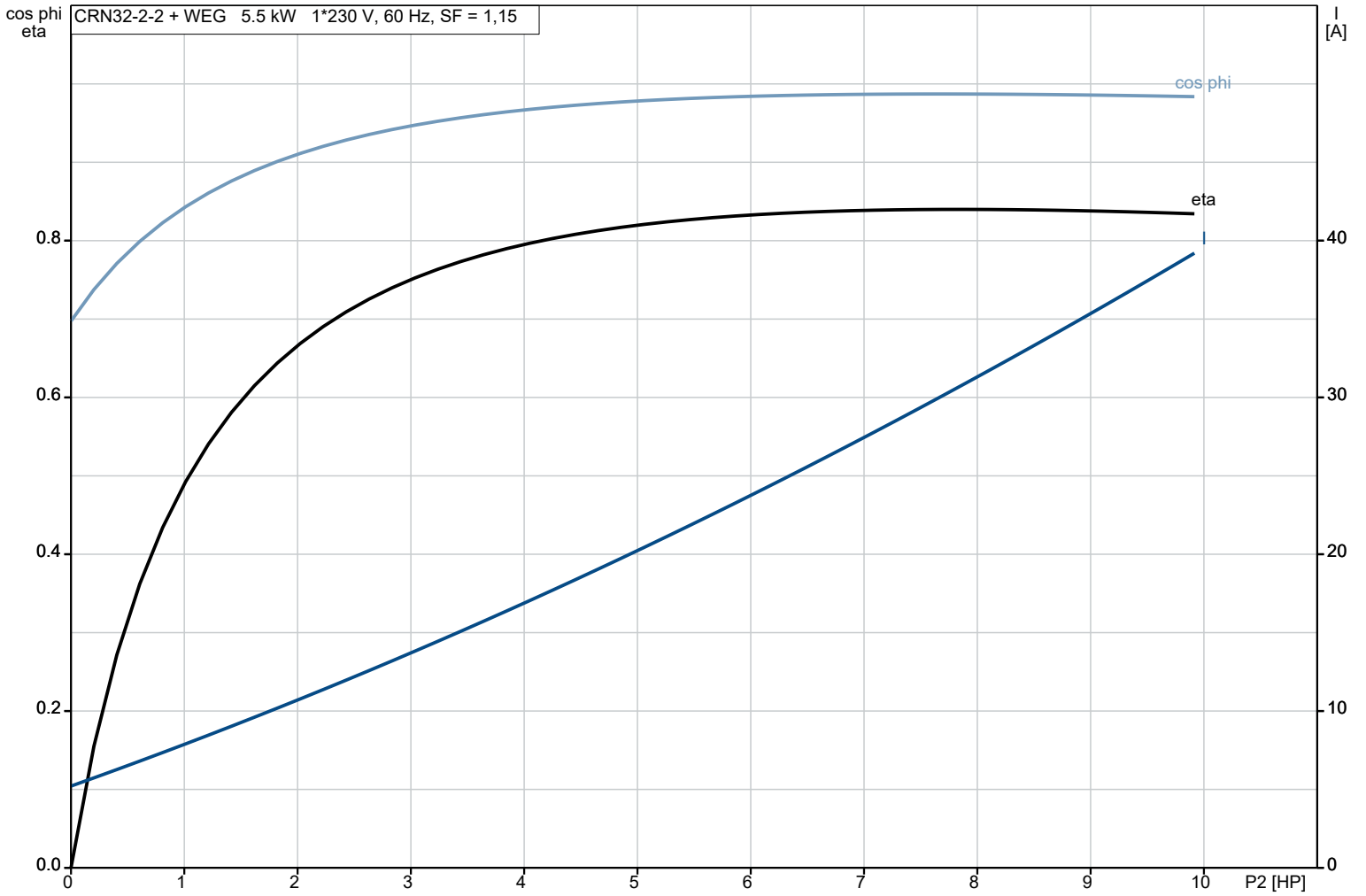
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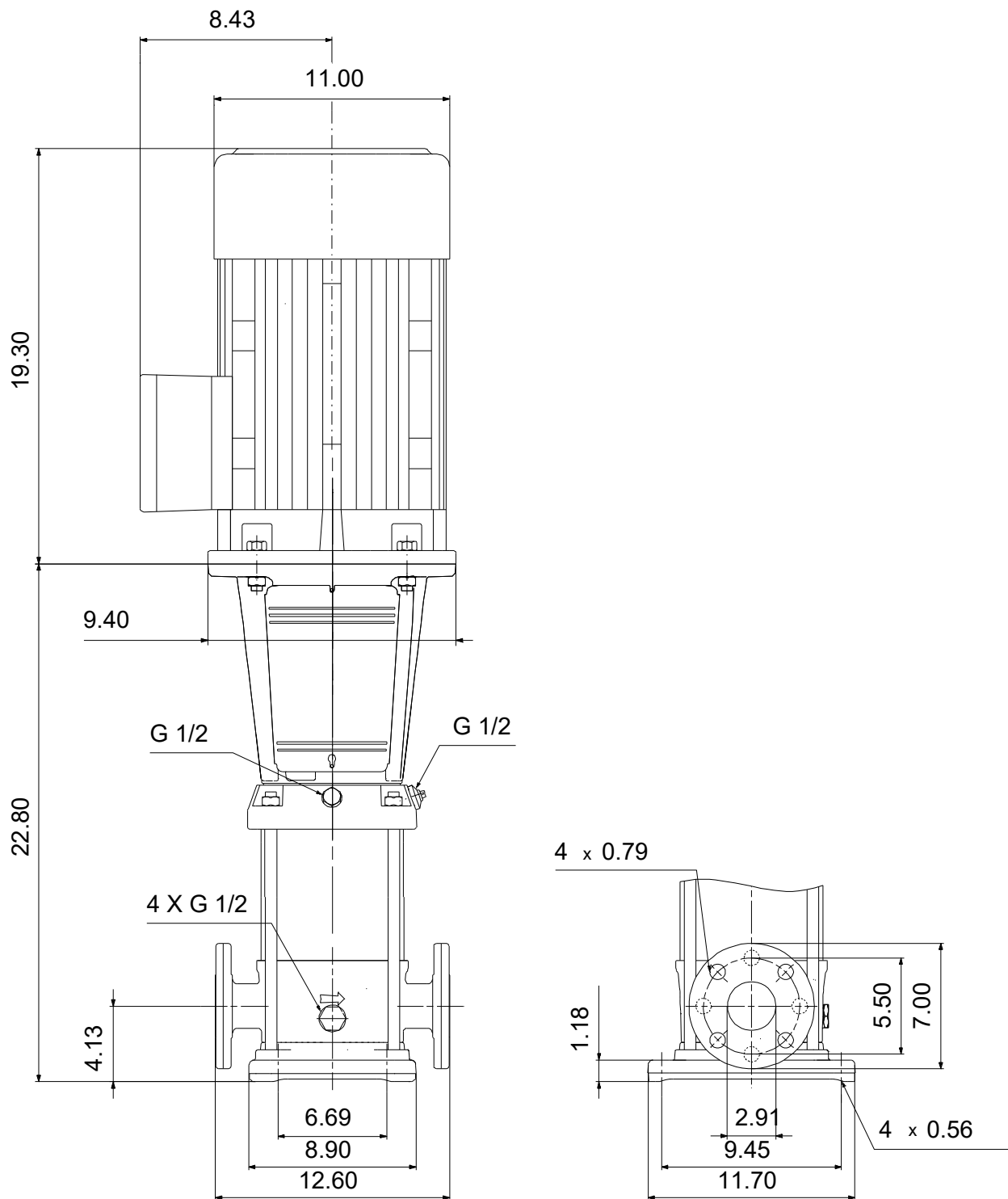
22/03/2023

Description	Value
Motor efficiency at full load:	84.0 %
Motor efficiency at 3/4 load:	82.5 %
Motor efficiency at 1/2 load:	78.5 %
Number of poles:	2
Enclosure class (IEC 34-5):	IP55
Insulation class (IEC 85):	F
Built-in motor protection:	NONE
Motor No:	99883305
Controls:	
Frequency converter:	NONE
Others:	
DOE Pump Energy Index CL:	0.87
Net weight:	275 lb
Gross weight:	292 lb
Shipping volume:	10.9 ft ³
Country of origin:	US
Custom tariff no.:	8413.70.2040

99918020 CRN 32-2-2 A-G-A-E-HQQE 60 Hz

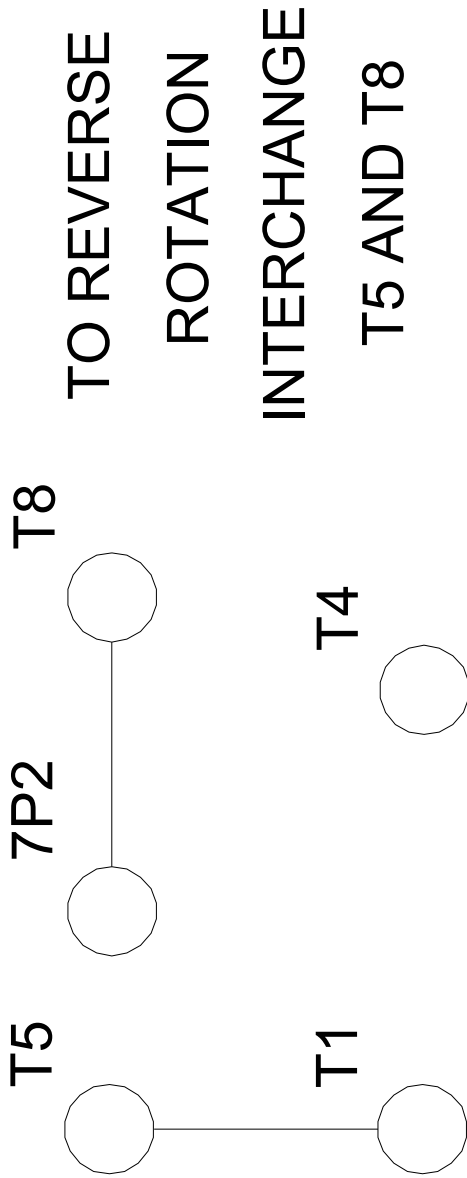


99918020 CRN 32-2-2 A-G-A-E-HQQE 60 Hz



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

99918020 CRN 32-2-2 A-G-A-E-HQQE 60 Hz



T1- BLUE	T4-YELLOW	T5-BLACK
T8-RED	7P2-BROWN	

