

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

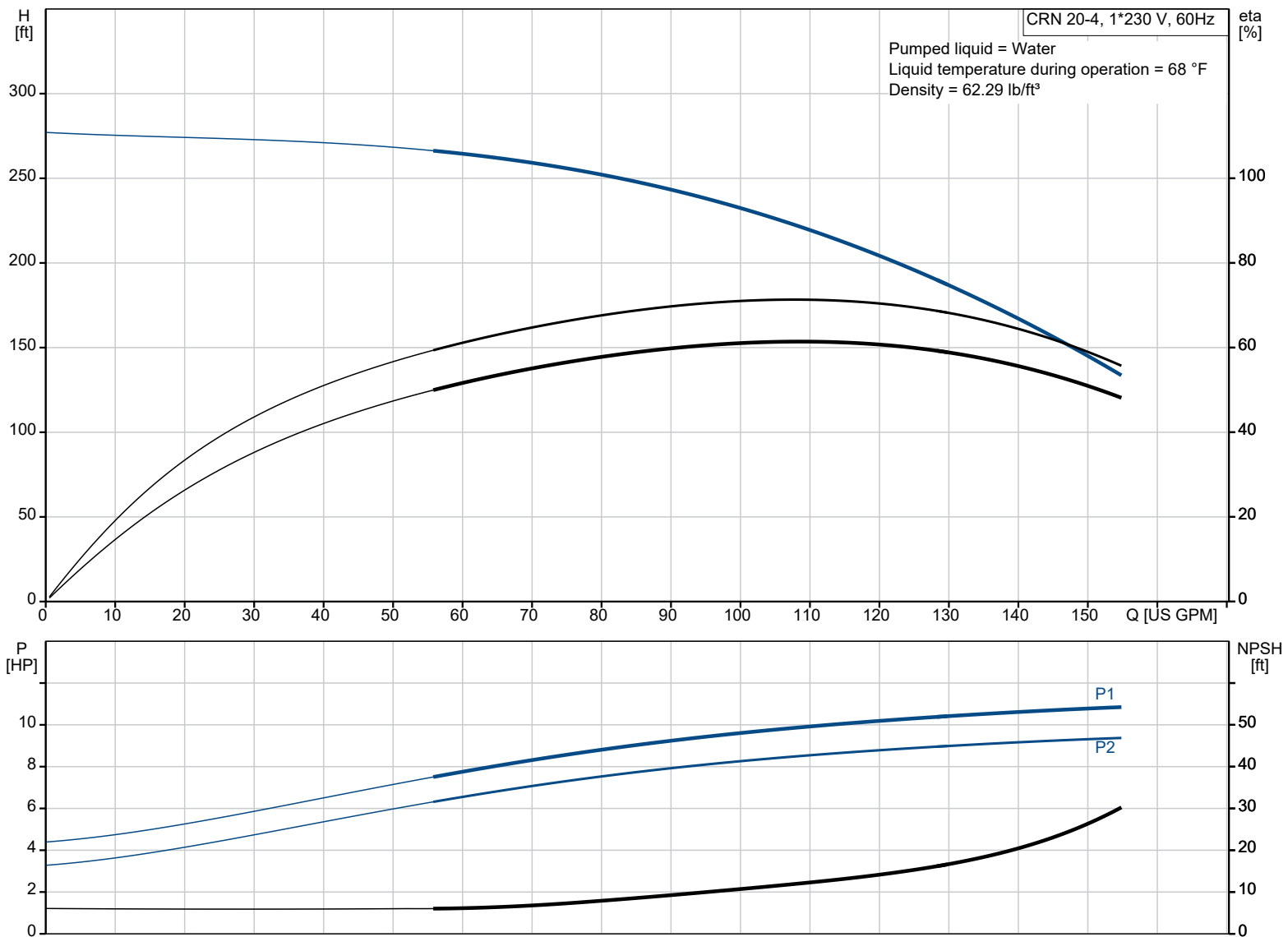


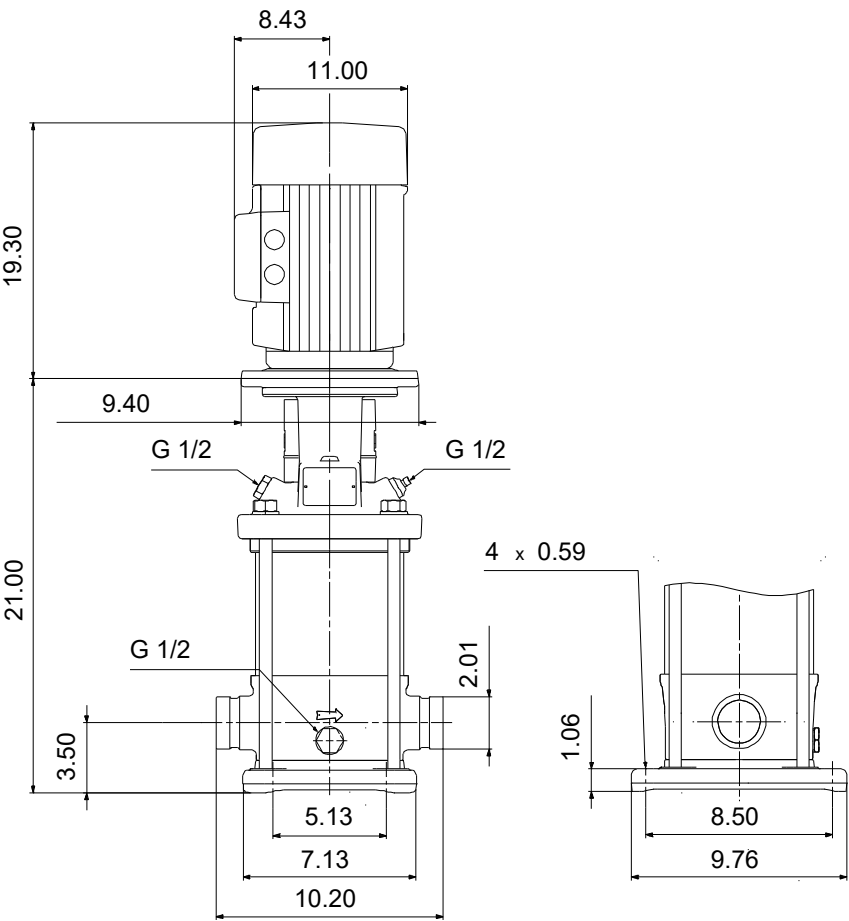
CRN 20-4 A-P-A-E-HQQE

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

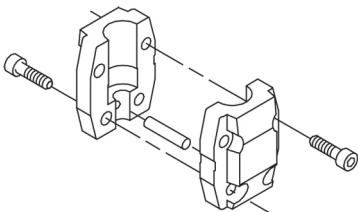
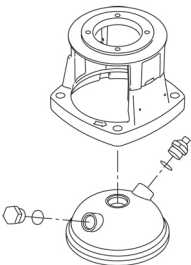
Conditions of Service		Pump Data		Motor Data	
Liquid:	Water	Max pressure at stated temp:	363 psi / 250 °F	Rated power - P2:	10 HP
Temperature:	68 °F	Liquid temperature range:	-4 .. 248 °F	Rated voltage:	208-230 V
Specific Gravity:	1.000	Maximum ambient temperature:	104 °F	Mains frequency:	60 Hz
		Shaft seal:	HQQE	Enclosure class:	IP55
		Product number:	99917856	Insulation class:	F
				Motor protection:	NONE
				Motor type:	WEG
				Eta 1/1:	86.5 %





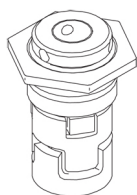
Materials:

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
1	CRN 20-4 A-P-A-E-HQQE  Product No.: 99917856 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 PJE (Victaulic®) couplings. 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 pump head and flange for motor mounting is made in one piece (cast iron). The pump head cover is a separate component (stainless steel). 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



The shaft seal is screwed into the pump head.

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.

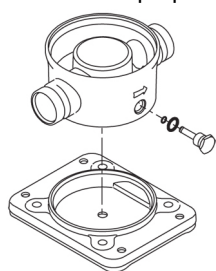
The pump has a stainless-steel base mounted on a separate base plate.

The base and base plate are kept in position by the tension of the staybolts which hold the pump together.

The outlet side of the base has a drain plug.

The pump is secured to the foundation by four bolts through the base plate.

The base is prepared for connection by means of PJE (Victualic®) couplings.



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).

Electrical tolerances comply with IEC 60034.

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).

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.

As the thermal protection incorporates automatic reset, the motor must be connected in a way which ensures that the automatic reset cannot cause accidents.

Technical data

Liquid:

Pumped liquid: Water

Liquid temperature range: -4 .. 248 °F

Selected liquid temperature: 68 °F

Density: 62.29 lb/ft³

Technical:

Pump speed on which pump data are based: 3500 rpm

Rated flow: 111 US GPM

Rated head: 210.3 ft

Actual impeller diameter: 4.13 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

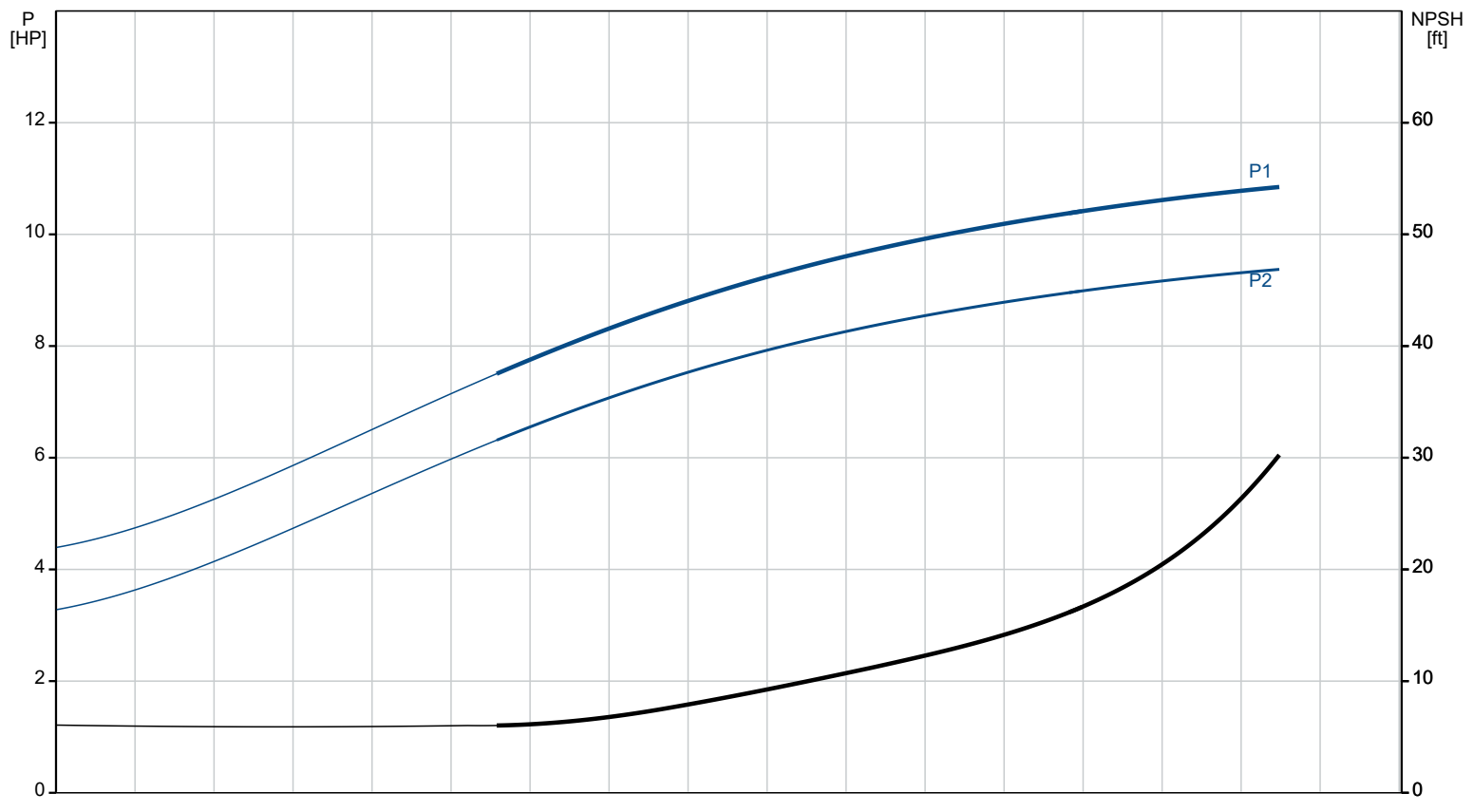
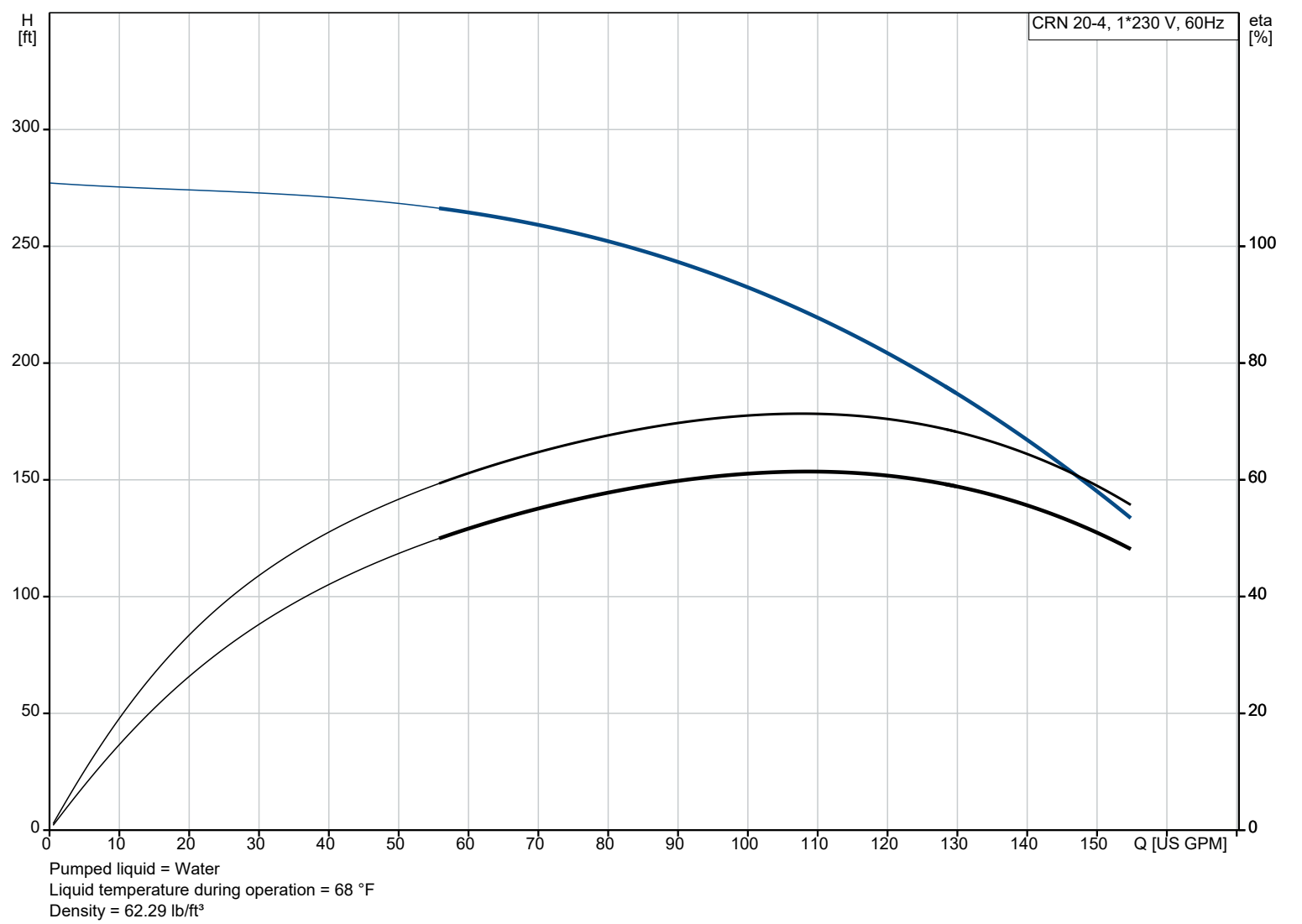
Qty.	Description	
1	AISI 316 Bearing: SIC Installation: t max amb: 104 °F Maximum operating pressure: 362.59 psi Max pressure at stated temp: 363 psi / 250 °F 363 psi / -4 °F Type of connection: PJE Size of inlet connection: DN 50 Size of outlet connection: DN 50 Pressure rating for connection: PN 50 Flange size for motor: 213TC Electrical data: Motor standard: NEMA Motor type: WEG Rated power - P2: 10 HP Power (P2) required by pump: 10 HP Mains frequency: 60 Hz Rated voltage: 1 x 208-230 V Service factor: 1.15 Rated current: 42.5-38.1 A Starting current: 720-720 % Cos phi - power factor: 0.99 Rated speed: 3510 rpm IE efficiency: 86.5% Motor efficiency at full load: 86.5 % Motor efficiency at 3/4 load: 85.5 % Motor efficiency at 1/2 load: 81.5 % Number of poles: 2 Enclosure class (IEC 34-5): IP55 Insulation class (IEC 85): F Motor No: 99883306 Controls: Frequency converter: NONE Others: DOE Pump Energy Index CL: 0.91 Net weight: 243 lb Gross weight: 262 lb Shipping volume: 13.1 ft³	



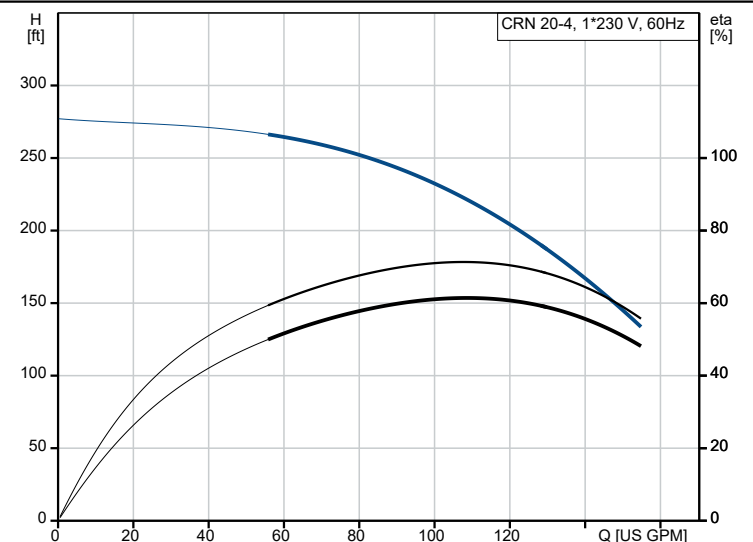
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Created by:
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Date: 31/01/2023

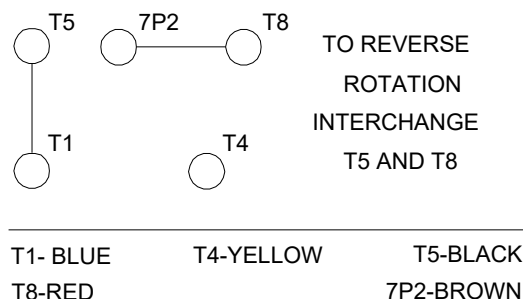
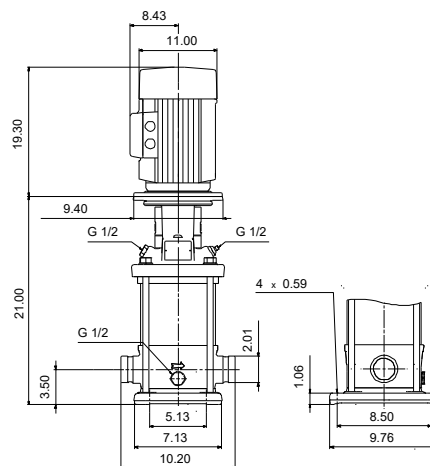
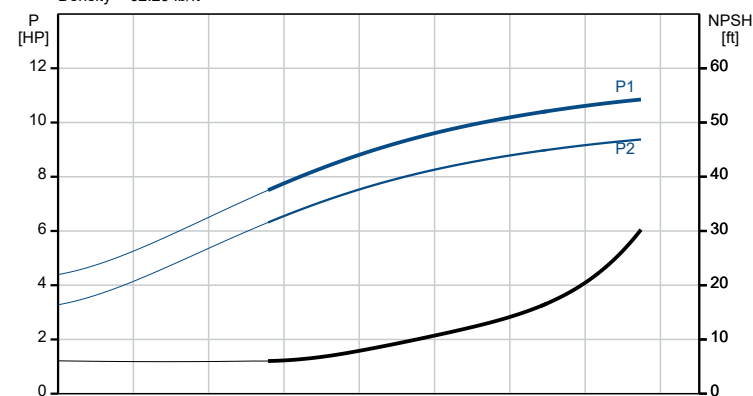
99917856 CRN 20-4 A-P-A-E-HQQE 60 Hz



Description	Value
General information:	
Product name:	CRN 20-4 A-P-A-E-HQQE
Product No:	99917856
EAN number:	5715114126847
Technical:	
Pump speed on which pump data are based:	3500 rpm
Rated flow:	111 US GPM
Rated head:	210.3 ft
Maximum head:	274.3 ft
Actual impeller diameter:	4.13 in
Stages:	4
Impellers:	4
Number of reduced-diameter impellers:	0
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:	A
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
Installation:	
t max amb:	104 °F
Maximum operating pressure:	362.59 psi
Max pressure at stated temp:	363 psi / 250 °F
Max pressure at stated temp:	363 psi / -4 °F
Type of connection:	PJE
Size of inlet connection:	DN 50
Size of outlet connection:	DN 50
Pressure rating for connection:	PN 50
Flange size for motor:	213TC
Connect code:	P
Liquid:	
Pumped liquid:	Water
Liquid temperature range:	-4 .. 248 °F
Selected liquid temperature:	68 °F
Density:	62.29 lb/ft³
Electrical data:	
Motor standard:	NEMA
Motor type:	WEG
Rated power - P2:	10 HP
Power (P2) required by pump:	10 HP
Mains frequency:	60 Hz
Rated voltage:	1 x 208-230 V
Service factor:	1.15
Rated current:	42.5-38.1 A
Starting current:	720-720 %
Full load SF current:	42.5/43.8 A
Cos phi - power factor:	0.99
Rated speed:	3510 rpm
IE efficiency:	86.5%
Motor efficiency at full load:	86.5 %
Motor efficiency at 3/4 load:	85.5 %



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



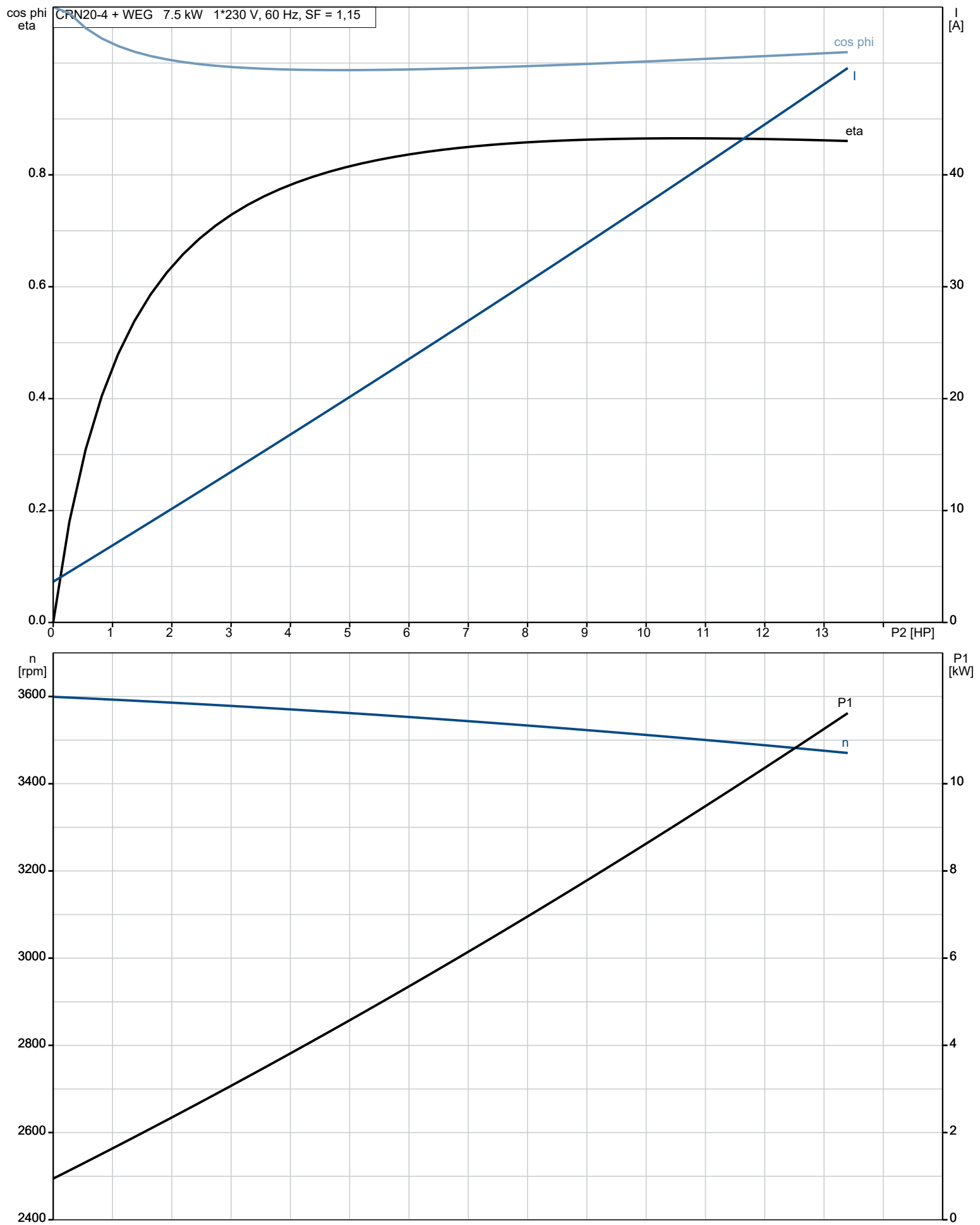


Company name:
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Phone:

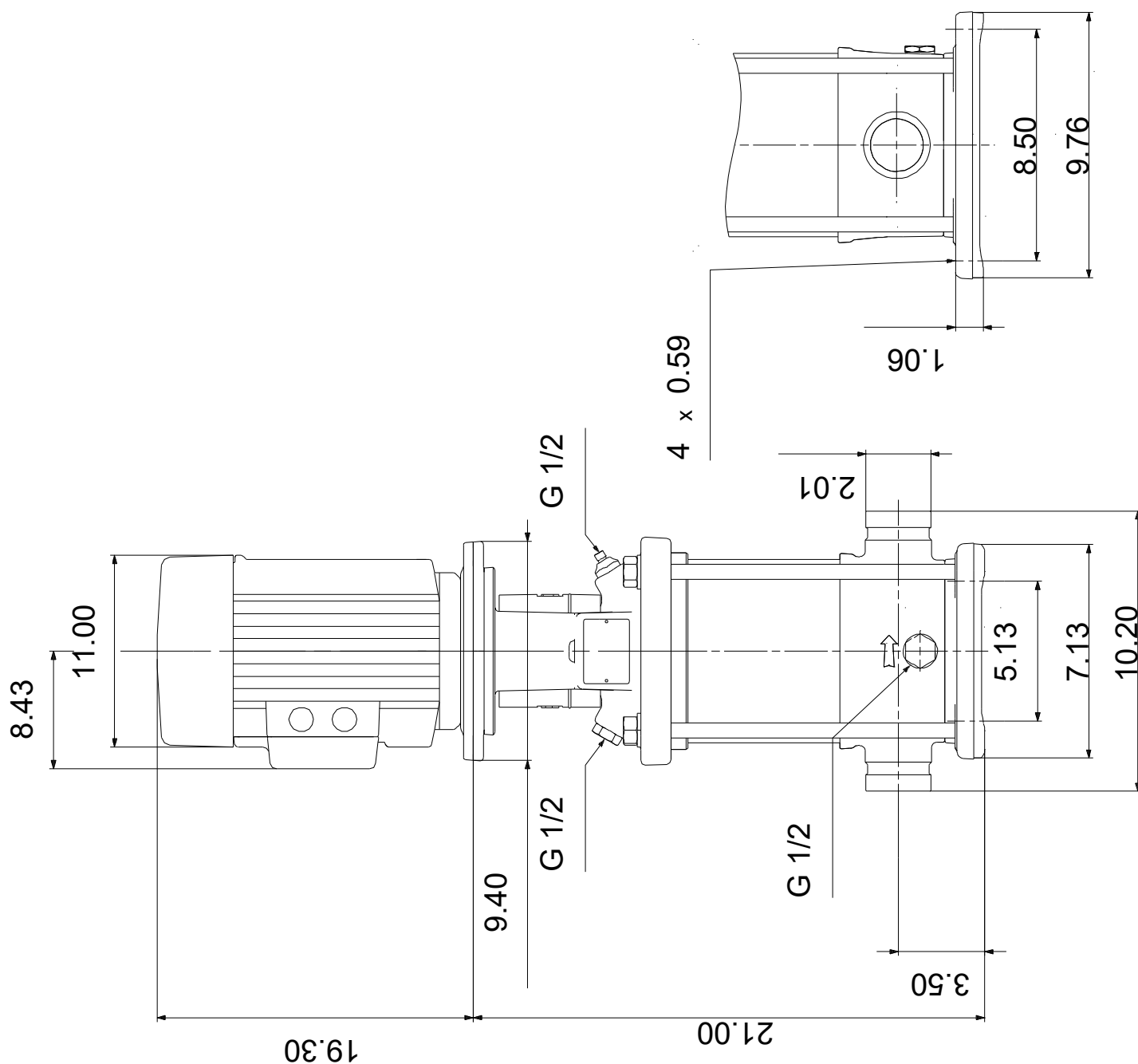
Date: 31/01/2023

Description	Value
Motor efficiency at 1/2 load:	81.5 %
Number of poles:	2
Enclosure class (IEC 34-5):	IP55
Insulation class (IEC 85):	F
Built-in motor protection:	NONE
Motor No:	99883306
Controls:	
Frequency converter:	NONE
Others:	
DOE Pump Energy Index CL:	0.91
Net weight:	243 lb
Gross weight:	262 lb
Shipping volume:	13.1 ft³

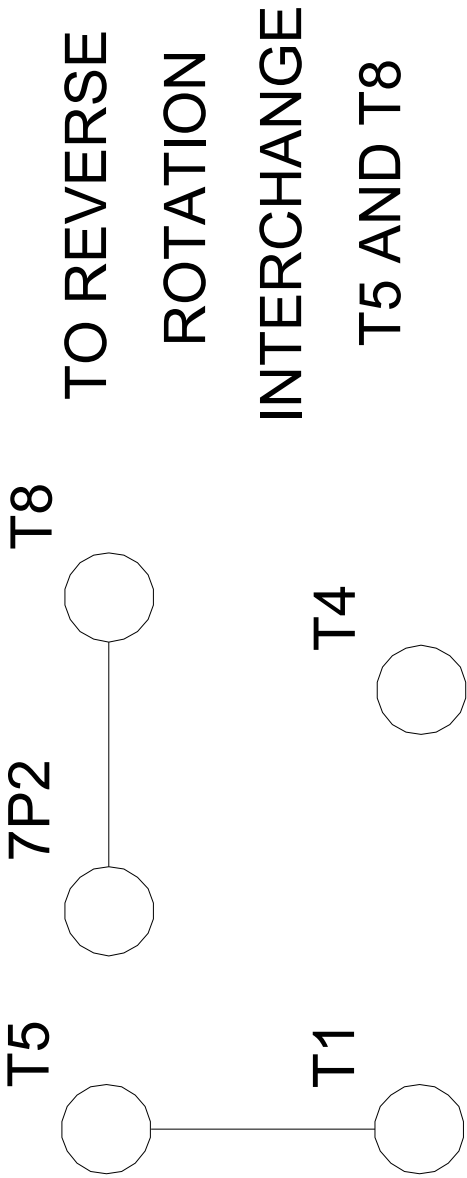
99917856 CRN 20-4 A-P-A-E-HQQE 60 Hz



99917856 CRN 20-4 A-P-A-E-HQQE 60 Hz



99917856 CRN 20-4 A-P-A-E-HQQE 60 Hz



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