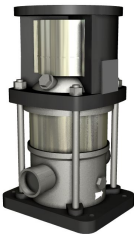


PROJECT:	UNIT TAG:	QUANTITY:
REPRESENTATIVE:	TYPE OF SERVICE:	DATE:
ENGINEER:	SUBMITTED BY:	DATE:
CONTRACTOR:	APPROVED BY:	DATE:
	ORDER NO.:	DATE:

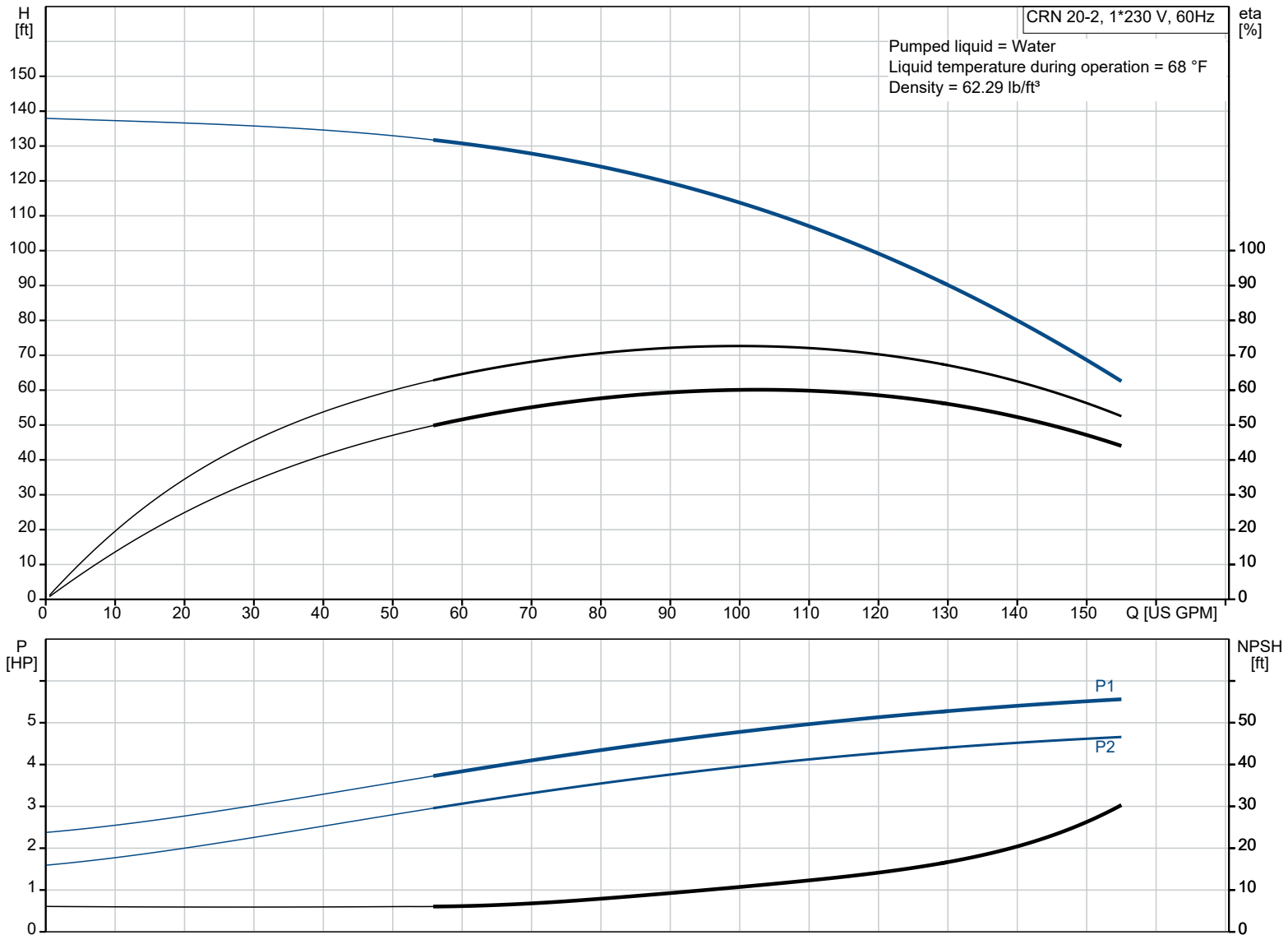


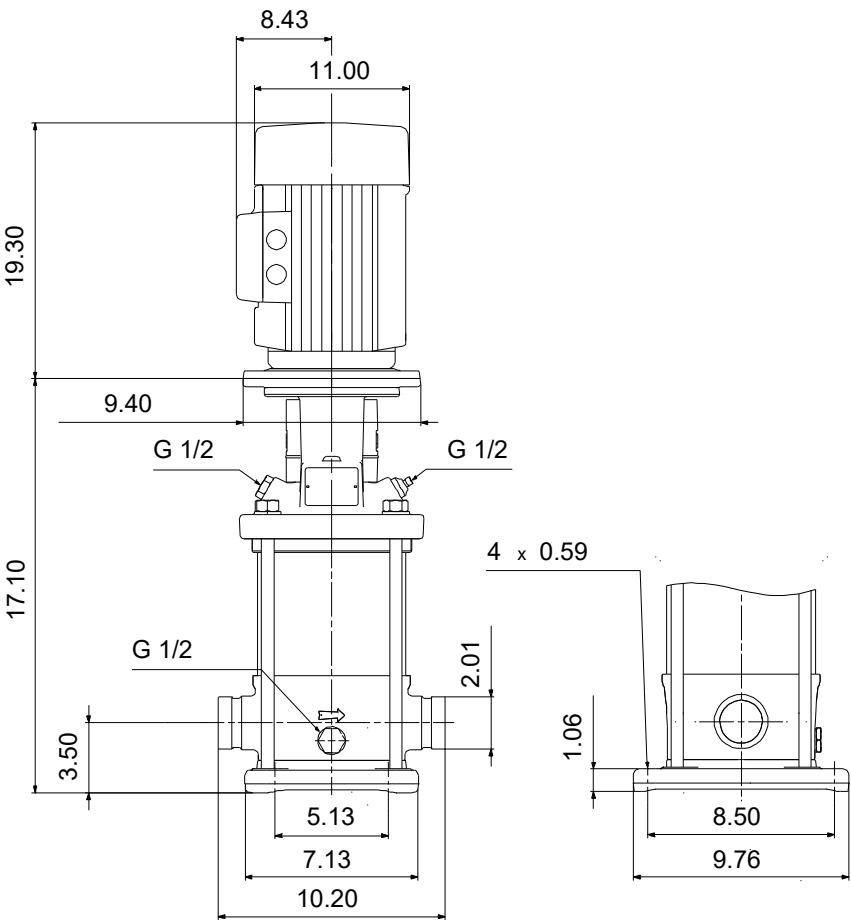
CRN 20-2 A-P-A-V-HQQV

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

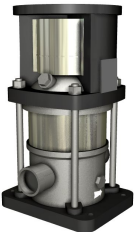
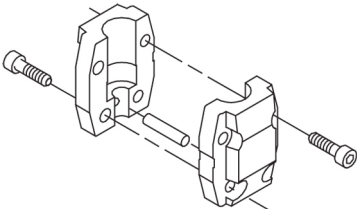
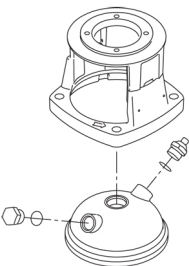
Conditions of Service		Pump Data		Motor Data	
Liquid:	Water	Max pressure at stated temp:	363 psi / 194 °F	Rated power - P2:	5 HP
Temperature:	68 °F	Liquid temperature range:	-4 .. 194 °F	Rated voltage:	208-230 V
Specific Gravity:	1.000	Maximum ambient temperature:	104 °F	Mains frequency:	60 Hz
		Shaft seal:	HQQV	Enclosure class:	IP55
		Product number:	99917858	Insulation class:	F
				Motor protection:	PTO
				Motor type:	WEG
				Eta 1/1:	84.0 %





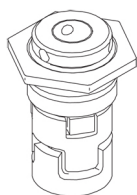
**Materials:**

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:	V

Qty.	Description
1	<p><b>CRN 20-2 A-P-A-V-HQQV</b></p>  <p>Product No.: <a href="#">99917858</a></p> <p>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.</p> <p>The pump is fitted with a 1-phase, fan-cooled asynchronous motor.</p> <p><b>Further product details</b></p> <p>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.</p> <p>An integral part of the process is a pretreatment.</p> <p>The entire process consists of these elements:</p> <ol style="list-style-type: none"> <li>1) Alkaline-based cleaning.</li> <li>2) Zinc phosphating.</li> <li>3) Cathodic electro-deposition.</li> <li>4) Curing to a dry film thickness 18-22 my m.</li> </ol> <p>The colour code for the finished product is NCS 9000/RAL 9005.</p> <p><b>Pump</b></p> <p>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.</p>  <p>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.</p>  <p>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.</p> <p><b>Seal faces:</b></p> <ul style="list-style-type: none"> <li>• Rotating seal ring material: silicon carbide (SiC)</li> <li>• Stationary seat material: silicon carbide (SiC)</li> </ul> <p>This material pairing is used where higher corrosion resistance is required. The high hardness of this material pairing offers good resistance against abrasive particles.</p> <p>Secondary seal material: FKM (fluorocarbon rubber)</p> <p>FKM has excellent resistance to oils and chemicals. Above 90 °C, FKM should only be used in media without water.</p>

Qty.	Description
------	-------------

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.

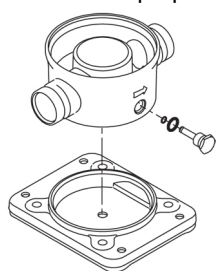
The pump has a stainless-steel base mounted on a separate base plate.

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 tapped-hole flange (FT).

Motor-mounting designation in accordance with IEC 60034-7: IM B 14 (Code I) / IM 3601 (Code II).

Electrical tolerances comply with IEC 60034.

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 .. 194 °F

Selected liquid temperature: 68 °F

Density: 62.29 lb/ft³

Technical:

Pump speed on which pump data are based: 3468 rpm

Rated flow: 111 US GPM

Rated head: 104 ft

Actual impeller diameter: 4.13 in

Pump orientation: Vertical

Shaft seal arrangement: Single

Code for shaft seal: HQQV

Approvals: CURUS

Curve tolerance: ISO9906:2012 3B

Materials:

Base: Stainless steel

EN 1.4408

AISI 316

Impeller: Stainless steel

EN 1.4401

AISI 316

Bearing: SIC

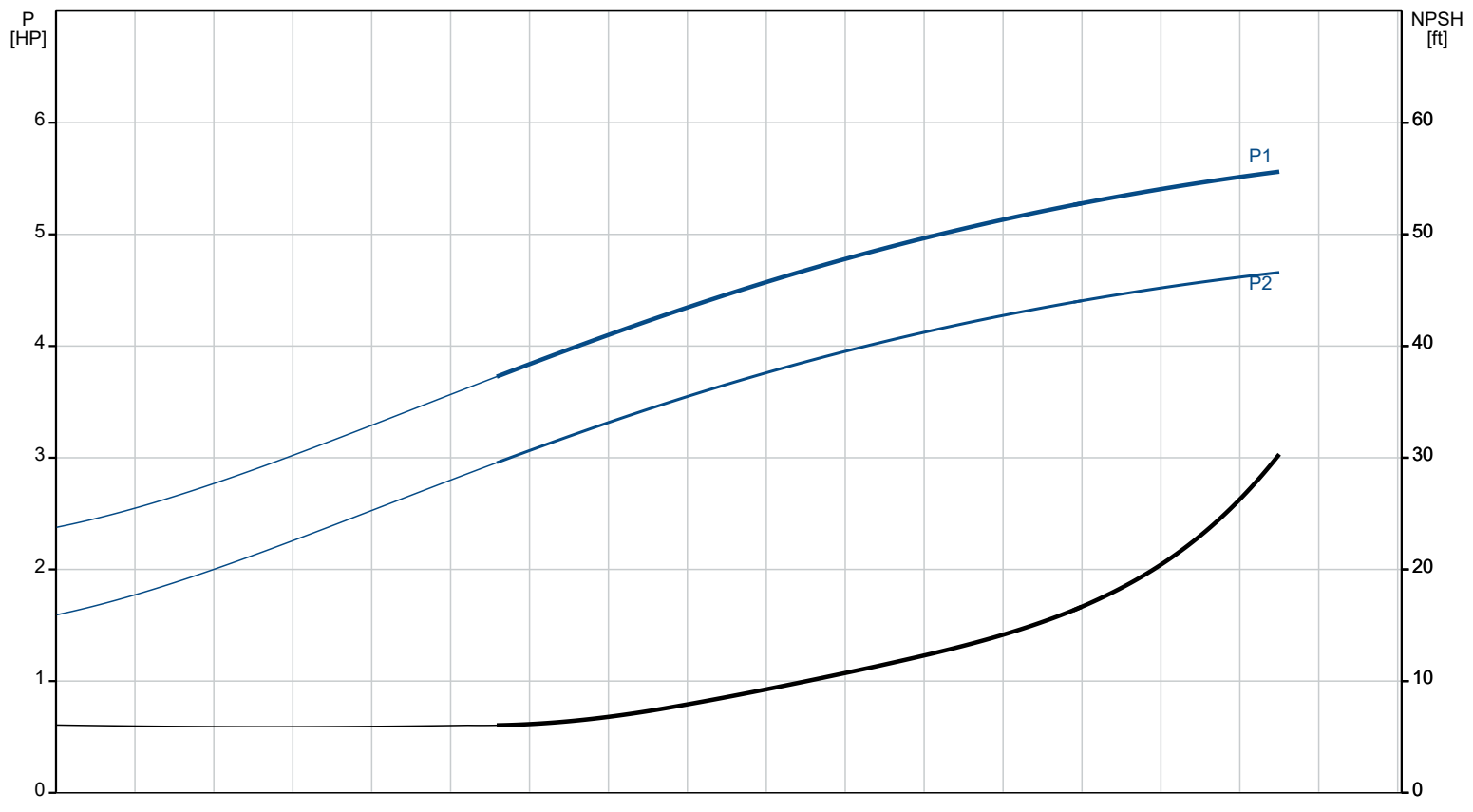
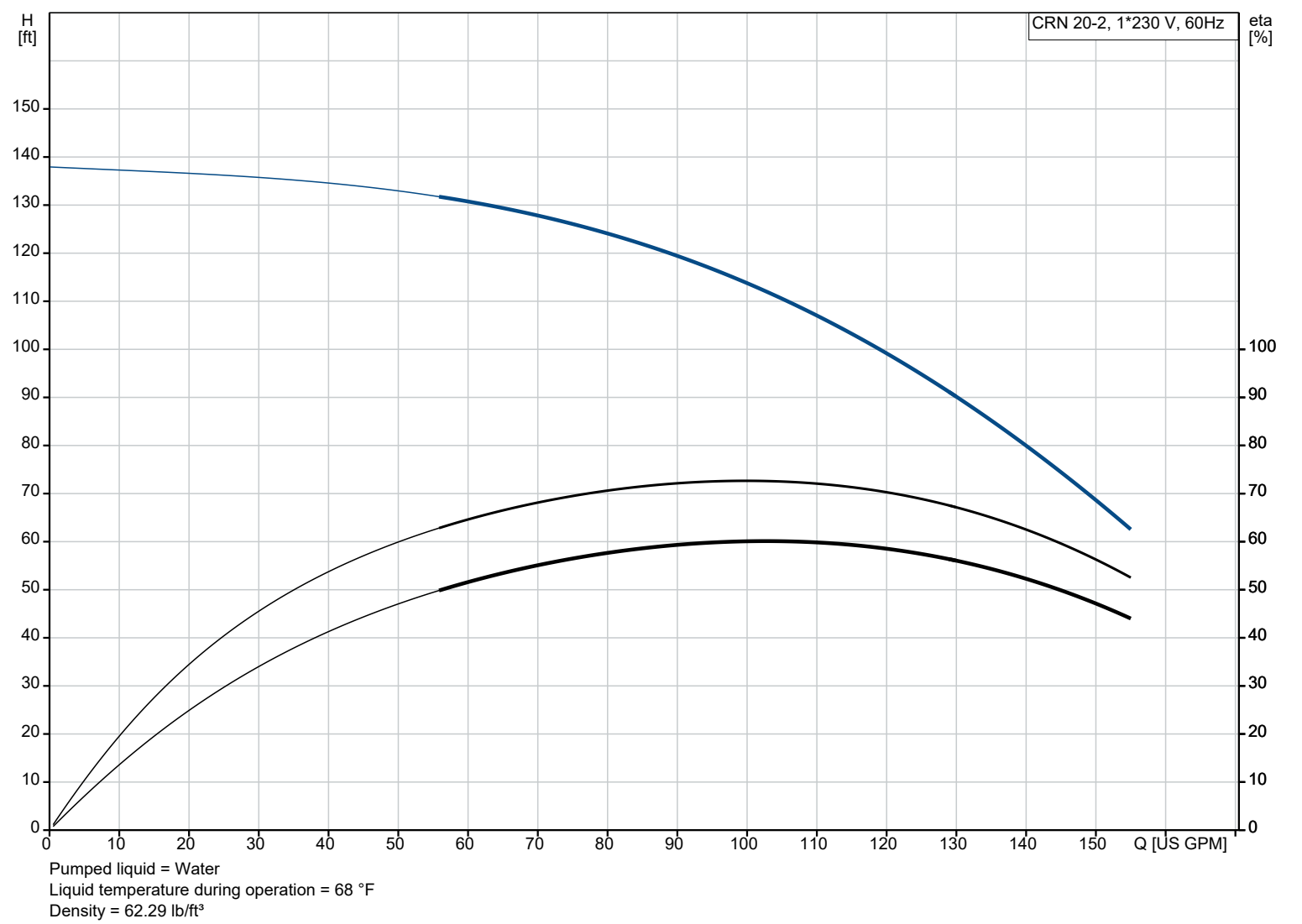
Qty.	Description
1	<p>Installation:</p> <p>t max amb: 104 °F</p> <p>Maximum operating pressure: 362.59 psi</p> <p>Max pressure at stated temp: 363 psi / 194 °F 363 psi / -4 °F</p> <p>Type of connection: PJE</p> <p>Size of inlet connection: DN 50</p> <p>Size of outlet connection: DN 50</p> <p>Pressure rating for connection: PN 50</p> <p>Flange size for motor: 182TC</p> <p>Electrical data:</p> <p>Motor standard: NEMA</p> <p>Motor type: WEG</p> <p>Rated power - P2: 5 HP</p> <p>Power (P2) required by pump: 5 HP</p> <p>Mains frequency: 60 Hz</p> <p>Rated voltage: 1 x 208-230 V</p> <p>Service factor: 1.15</p> <p>Rated current: 31.7-25.3 A</p> <p>Starting current: 800-800 %</p> <p>Cos phi - power factor: 0.98</p> <p>Rated speed: 3515 rpm</p> <p>Efficiency: 84.0%</p> <p>Motor efficiency at full load: 84.0 %</p> <p>Motor efficiency at 3/4 load: 82.0 %</p> <p>Motor efficiency at 1/2 load: 76.4 %</p> <p>Number of poles: 2</p> <p>Enclosure class (IEC 34-5): IP55</p> <p>Insulation class (IEC 85): F</p> <p>Motor No: 99883304</p> <p>Controls:</p> <p>Frequency converter: NONE</p> <p>Others:</p> <p>DOE Pump Energy Index CL: 0.91</p> <p>Net weight: 203 lb</p> <p>Gross weight: 220 lb</p> <p>Shipping volume: 13.1 ft³</p>



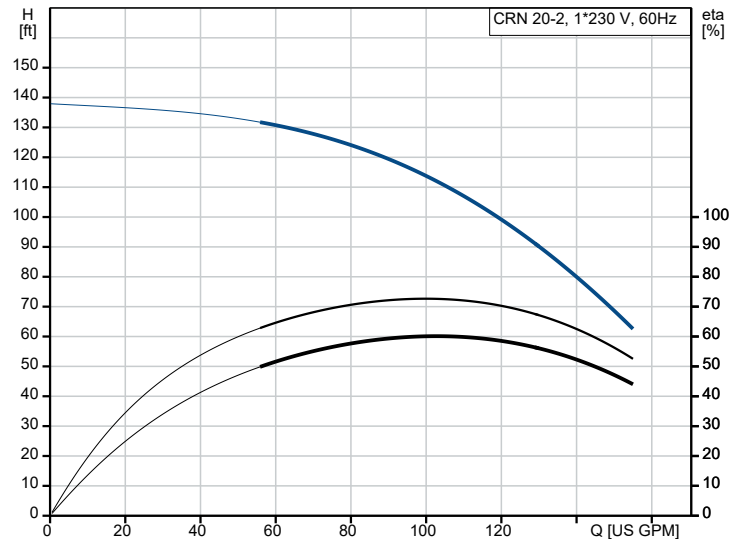
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Created by:  
Phone:

Date: 27/01/2023

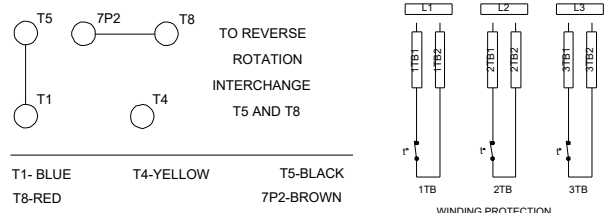
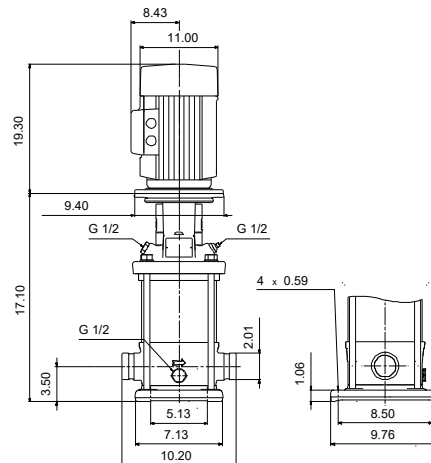
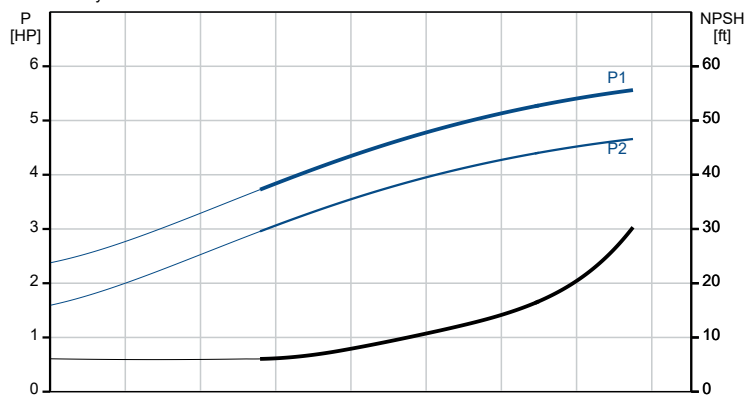
99917858 CRN 20-2 A-P-A-V-HQQV 60 Hz



Description	Value
<b>General information:</b>	
Product name:	CRN 20-2 A-P-A-V-HQQV
Product No:	99917858
EAN number:	5715114126861
<b>Technical:</b>	
Pump speed on which pump data are based:	3468 rpm
Rated flow:	111 US GPM
Rated head:	104 ft
Maximum head:	136.5 ft
Actual impeller diameter:	4.13 in
Stages:	2
Impellers:	2
Number of reduced-diameter impellers:	0
Low NPSH:	N
Pump orientation:	Vertical
Shaft seal arrangement:	Single
Code for shaft seal:	HQQV
Approvals:	CURUS
Curve tolerance:	ISO9906:2012 3B
Pump version:	A
Model:	A
Cooling:	IC 411
<b>Materials:</b>	
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:	V
Bearing:	SIC
<b>Installation:</b>	
t max amb:	104 °F
Maximum operating pressure:	362.59 psi
Max pressure at stated temp:	363 psi / 194 °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:	182TC
Connect code:	P
<b>Liquid:</b>	
Pumped liquid:	Water
Liquid temperature range:	-4 .. 194 °F
Selected liquid temperature:	68 °F
Density:	62.29 lb/ft³
<b>Electrical data:</b>	
Motor standard:	NEMA
Motor type:	WEG
Rated power - P2:	5 HP
Power (P2) required by pump:	5 HP
Mains frequency:	60 Hz
Rated voltage:	1 x 208-230 V
Service factor:	1.15
Rated current:	31.7-25.3 A
Starting current:	800-800 %
Full load SF current:	31.7/22.4 A
Cos phi - power factor:	0.98
Rated speed:	3515 rpm
Efficiency:	84.0%
Motor efficiency at full load:	84.0 %
Motor efficiency at 3/4 load:	82.0 %
Motor efficiency at 1/2 load:	76.4 %



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





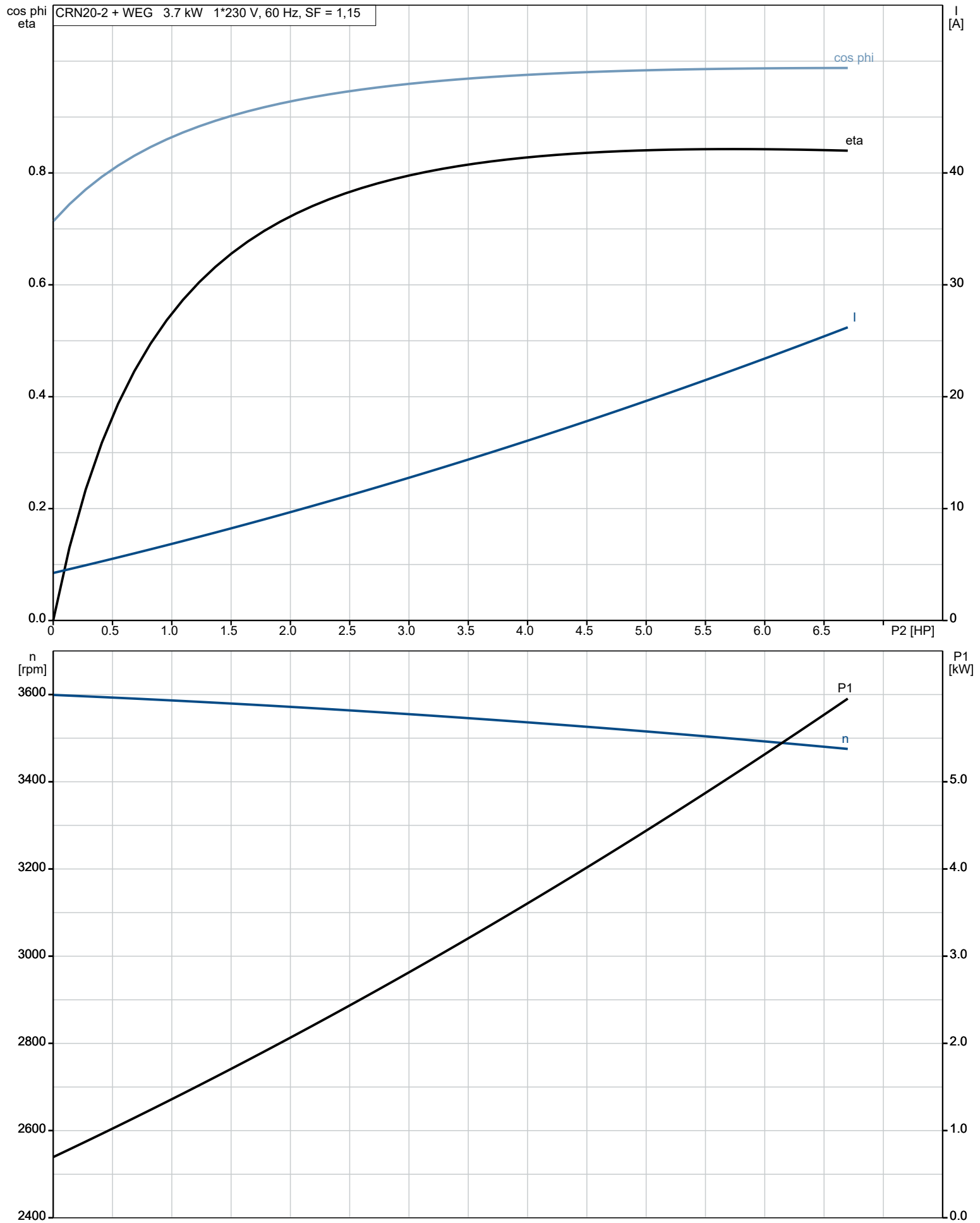
Company name:  
Created by:  
Phone:

Date: 27/01/2023

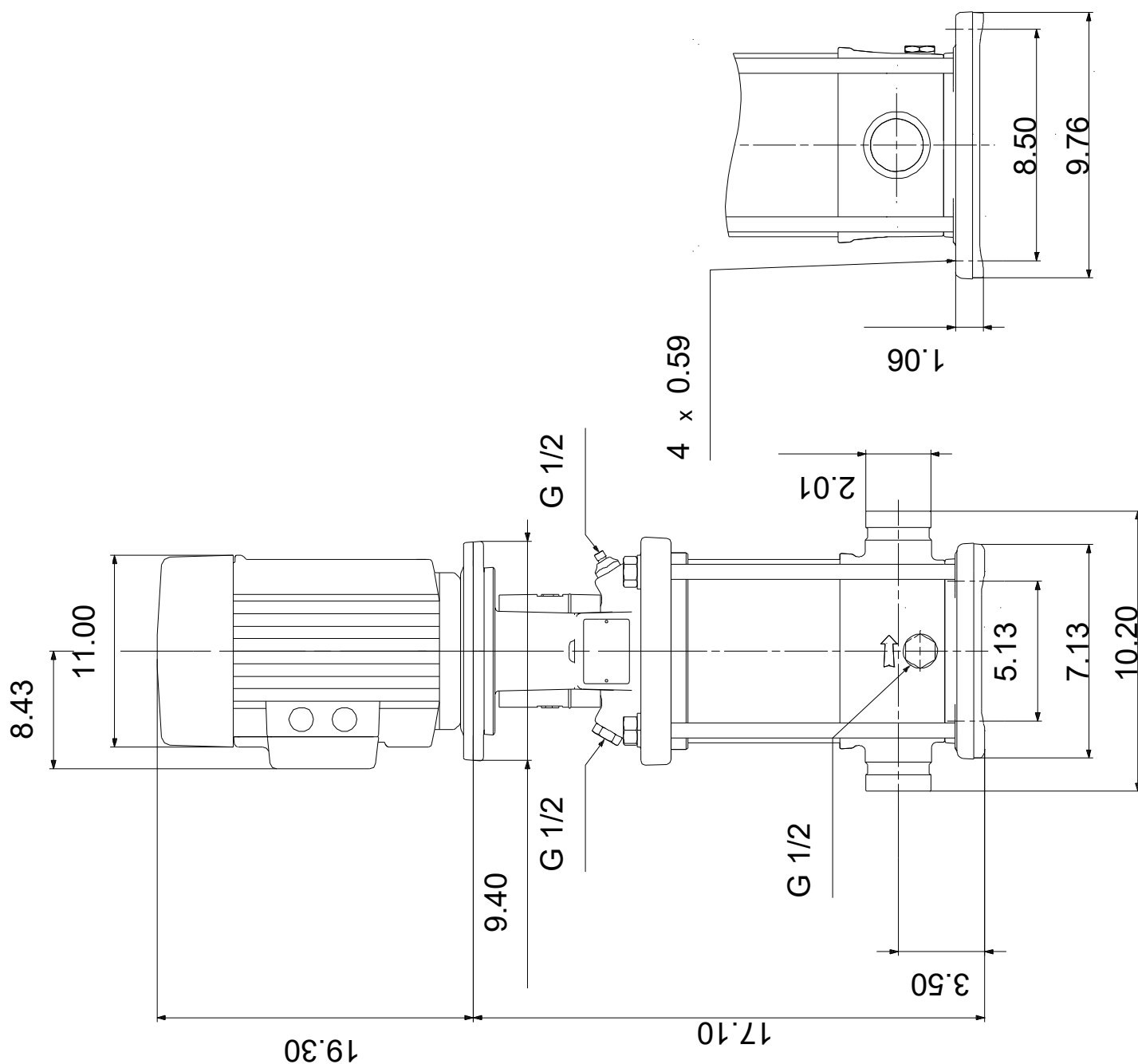
Description	Value
Number of poles:	2
Enclosure class (IEC 34-5):	IP55
Insulation class (IEC 85):	F
Built-in motor protection:	PTO
Motor No:	99883304
<b>Controls:</b>	
Frequency converter:	NONE
<b>Others:</b>	
DOE Pump Energy Index CL:	0.91
Net weight:	203 lb
Gross weight:	220 lb
Shipping volume:	13.1 ft³



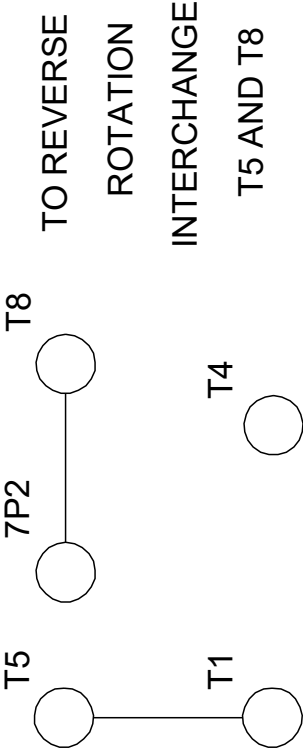
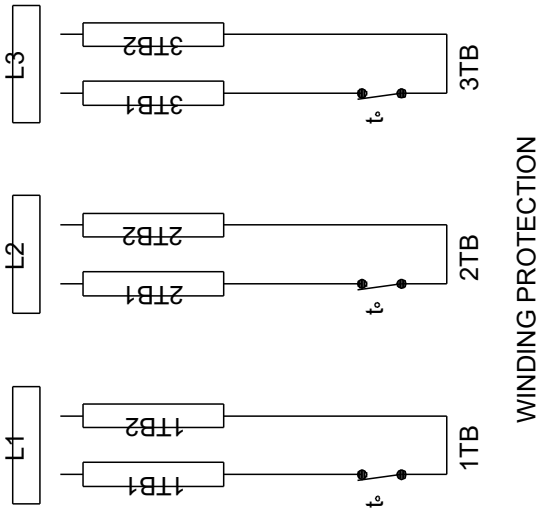
**99917858 CRN 20-2 A-P-A-V-HQQV 60 Hz**



## 99917858 CRN 20-2 A-P-A-V-HQQV 60 Hz



99917858 CRN 20-2 A-P-A-V-HQQV 60 Hz



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