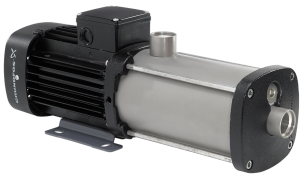
GRUNDFOS

Submittal Data

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

CM 3-4 A-S-I-E-AQQE E-A-A-N



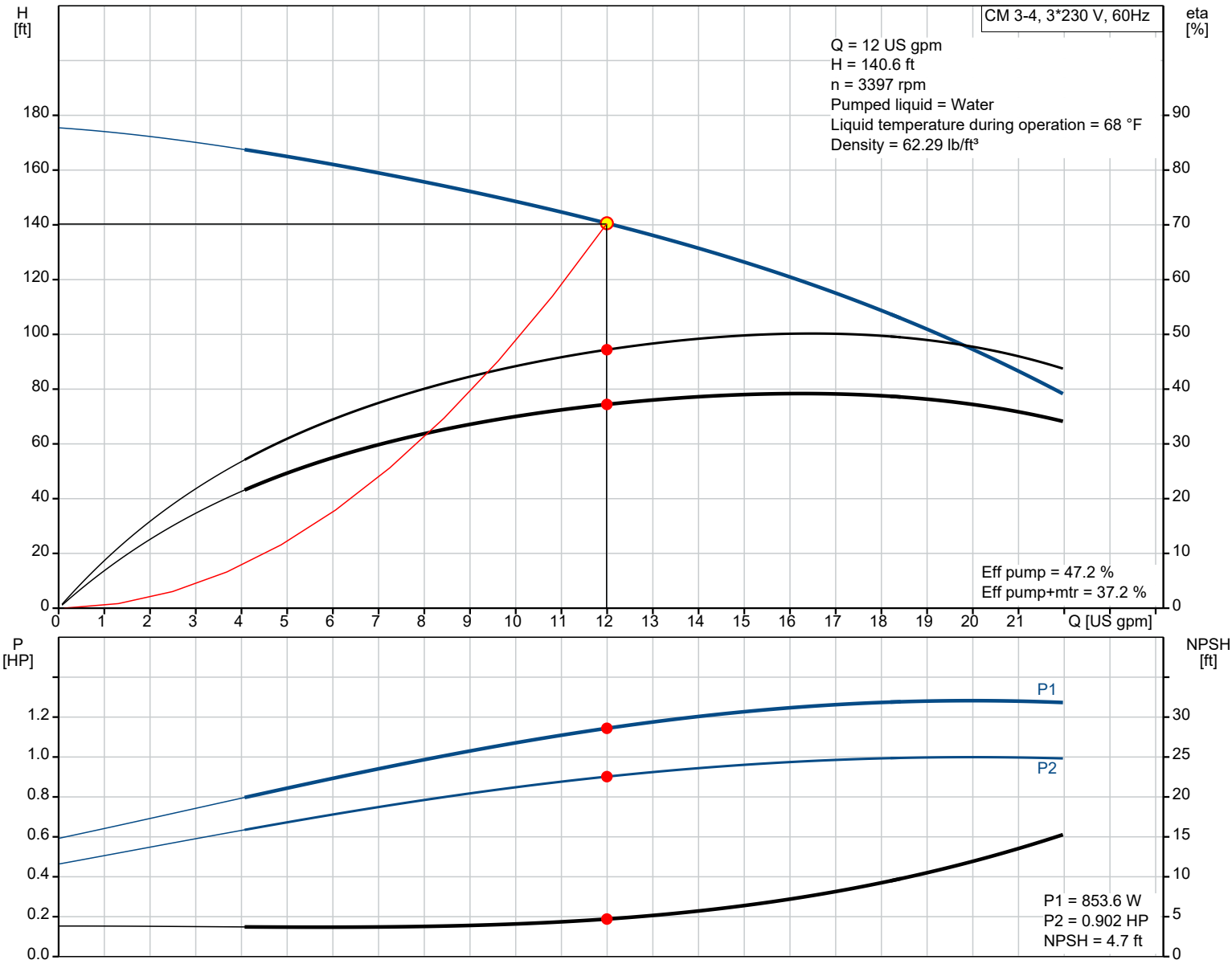
Product photo could vary from the actual product

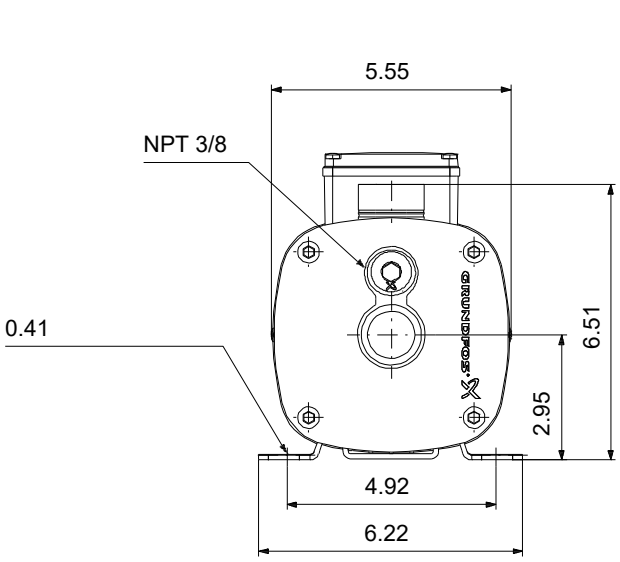
CM are reliable, quiet and compact horizontal end-suction pumps. The modular pump design makes it easy to make customised solutions. The CM pumps are available in cast iron and stainless steel

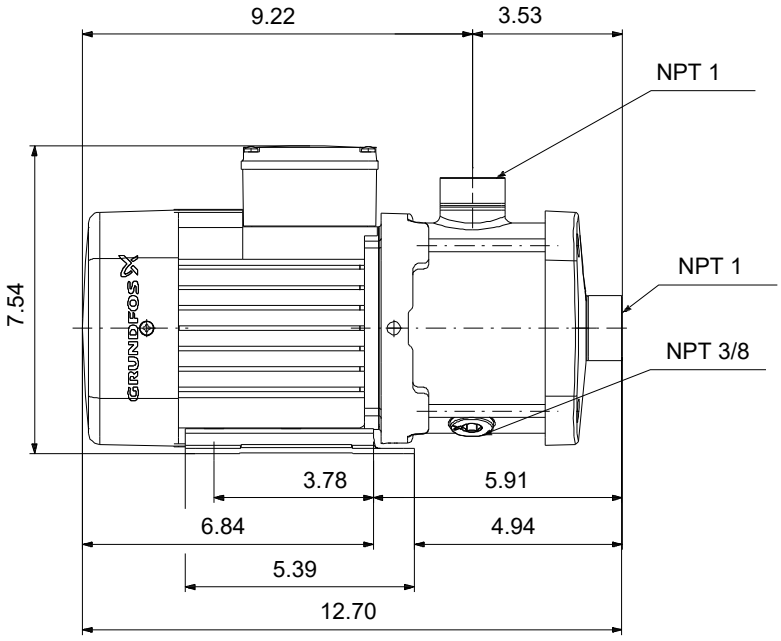
Conditions of Service	
Flow:	12 US gpm
Head:	140.6 ft
Efficiency:	37.2 %
Liquid:	Water
Temperature:	68 °F
NPSH required:	4.7 ft
Specific Gravity:	1.000

Pump Data	
Max pressure at stated temperature:	232 psi / 194 °F
Liquid temperature range:	-4 .. 248 °F
Maximum ambient temperature:	131 °F
Shaft seal:	AQQE
Product number:	On request

Motor Data	
Main frequency:	60 Hz
Enclosure class:	IP55







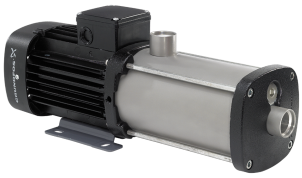
Materials:

Pump housing:	Stainless steel
Pump housing:	AISI 304
Impeller:	Stainless steel
Impeller:	AISI 304
Impeller:	EN 1.4301
Material code:	I
Code for rubber:	E

Company name: JL Sontag
Created by:
Phone:

Date: 6/23/2021

Count	Description
1	**CM 3-4 A-S-I-E-AQQE E-A-A-N**



Product photo could vary from the actual product

Product No.: On request

Compact, reliable, horizontal, multistage, end-suction centrifugal pump with axial suction port and radial discharge port. Pump materials in contact with the liquid are in stainless steel. The mechanical shaft seal is a special designed, unbalanced O-ring seal. Pipework connection is via internal NPT pipe threads.

The pump is fitted with a 3-phase, foot-mounted, fan-cooled asynchronous motor.

Further product details

Pump and motor are integrated in a compact and user-friendly design. The pump is fitted to a low base plate, making it ideal for installation in systems where compactness is important.

The state-of-the-art design and materials of the shaft seal ensure high wear resistance, improved sticking and dry-running capabilities and long operating life.

Servicing the pump requires no special service tools. Service parts are in stock for quick delivery and are available as kits, single parts or bulk. Service videos are available on www.youtube.com.

Pump

A combination of a stop ring and a Nord-lock® washer secures a tight and reliable fixation of the impeller spacing pipes to the splined pump shaft. It is possible to remove and fit the hydraulic parts from the pump side. The inlet and outlet port are integrated in the pump sleeve. The inlet part, chambers and discharge part are held together by four staybolts and a retaining flange.

The pump is fitted with an unbalanced O-ring seal with a rigid torque-transmission system. It has a fixed seal driver ensuring a reliable rotation of all parts. The dynamic secondary seal is an O-ring.

Primary seal:

- 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)

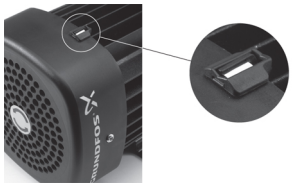
EPDM has excellent resistance to hot water. EPDM is not suitable for mineral oils.

The pump shaft is connected to the motor shaft through a left thread and tight fit. The shaft cannot be dismantled.

Motor

The motor is a totally enclosed, fan-cooled motor with principal dimensions to EN 50347. Electrical tolerances comply with EN 60034.

An installation indicator is fitted to the motor fan cover. Based on the motor cooling air, it indicates the direction of rotation of the motor. The motor is fitted with a directional sticker.



Technical data

Controls:

Frequency converter: NONE

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Company name: JL Sontag
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Count	Description

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:	3480 rpm
Actual calculated flow:	12 US gpm
Rated flow:	16.4 US gpm
Resulting head of the pump:	140.6 ft
Rated head:	129.4 ft
Code for shaft seal:	AQQE
Approvals:	CE,WRAS,ACS,CURUS,EAC
Curve tolerance:	ISO9906:2012 3B

Materials:

Pump housing:	Stainless steel
	EN 1.4301
	AISI 304
Impeller:	Stainless steel
	EN 1.4301
	AISI 304

Installation:

Range of ambient temperature:	-4 .. 131 °F
Maximum operating pressure:	232.06 psi
Max pressure at stated temperature:	232 psi / 194 °F
	145 psi / 250 °F
Type of connection:	NPT(F)
Size of suction port:	1 inch
Size of outlet port:	1 inch
Outlet position:	12

Electrical data:

Motor standard:	NEMA
Frame size:	71BA
Rated power - P2:	0.992 HP
Main frequency:	60 Hz
Suitable for 50/60 Hz:	N
Phase:	3
Rated voltage:	208-230YY/440-480Y V
Service factor:	1.00
Rated current:	3,4-3,6/1,7-1,8 A
Rated speed:	3220-3370 rpm
Enclosure class (IEC 34-5):	IP55
Insulation class (IEC 85):	F
Built-in motor protection:	NONE
Cable included (Yes/No):	N

Others:

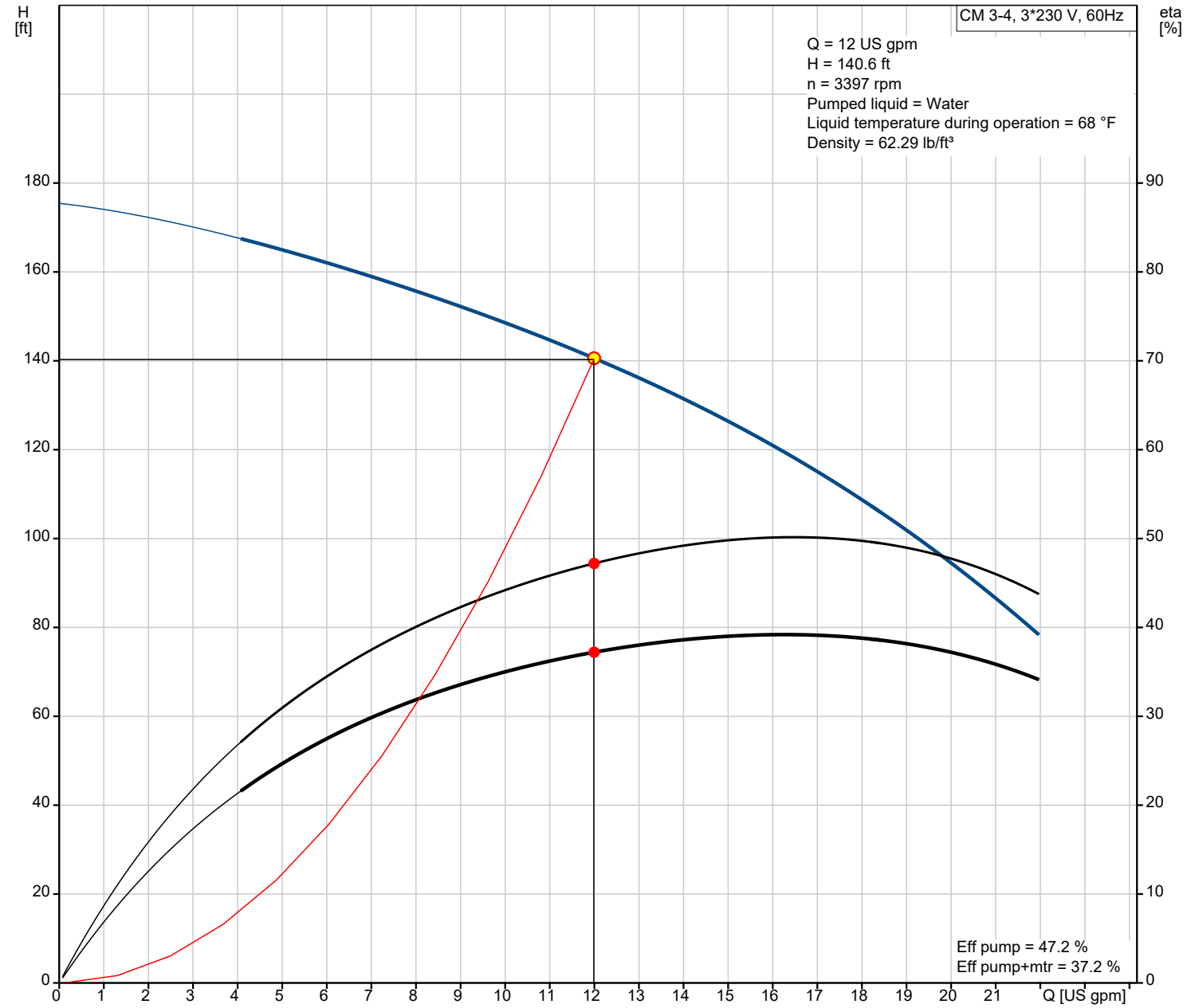
Terminal box position:	12
Minimum efficiency index, MEI ≥:	0.7
Net weight:	28.1 lb
Gross weight:	33.6 lb
Country of origin:	US
Custom tariff no.:	8413.70.2040

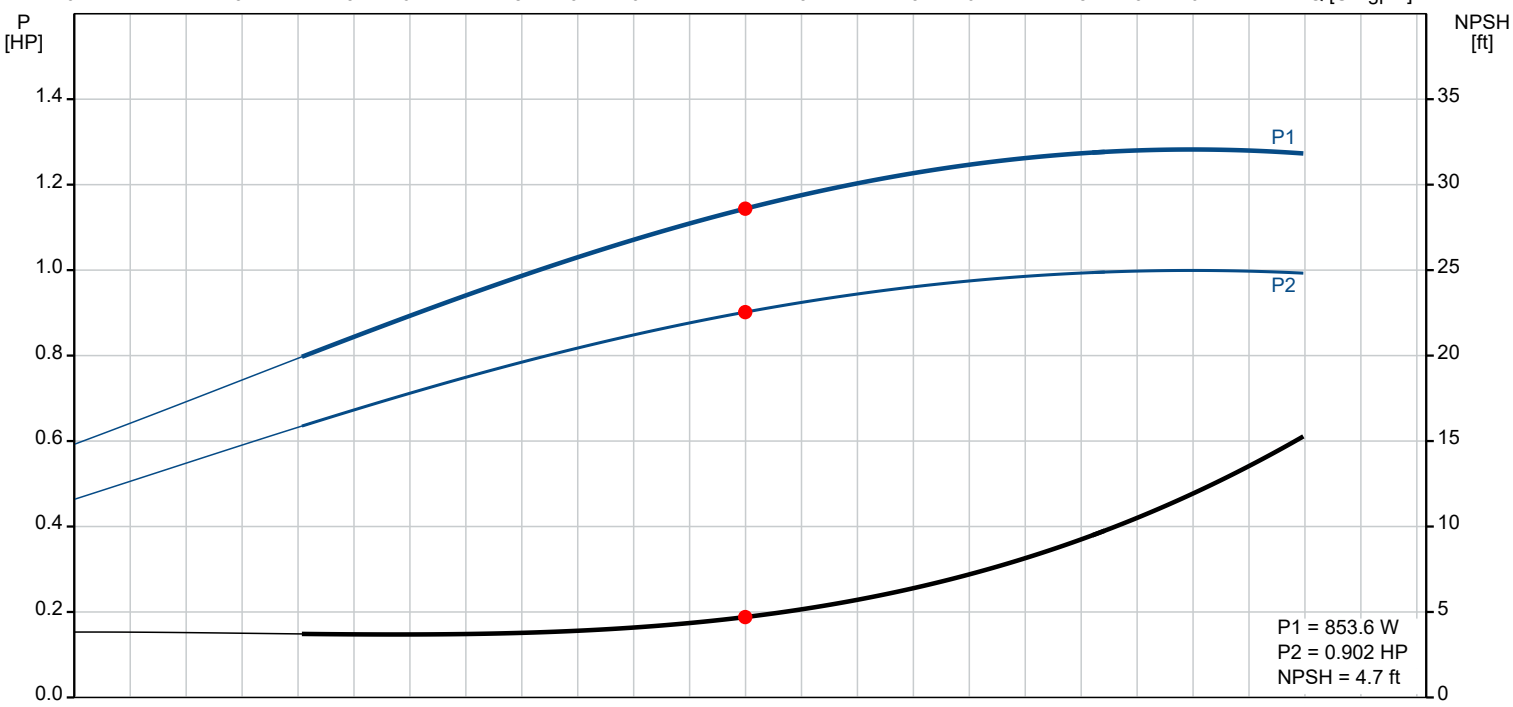
GRUNDFOS

Company name: JL Sontag
Created by:
Phone:

Date: 6/23/2021

On request CM 3-4 A-S-I-E-AQQE E-A-A-N 60 Hz

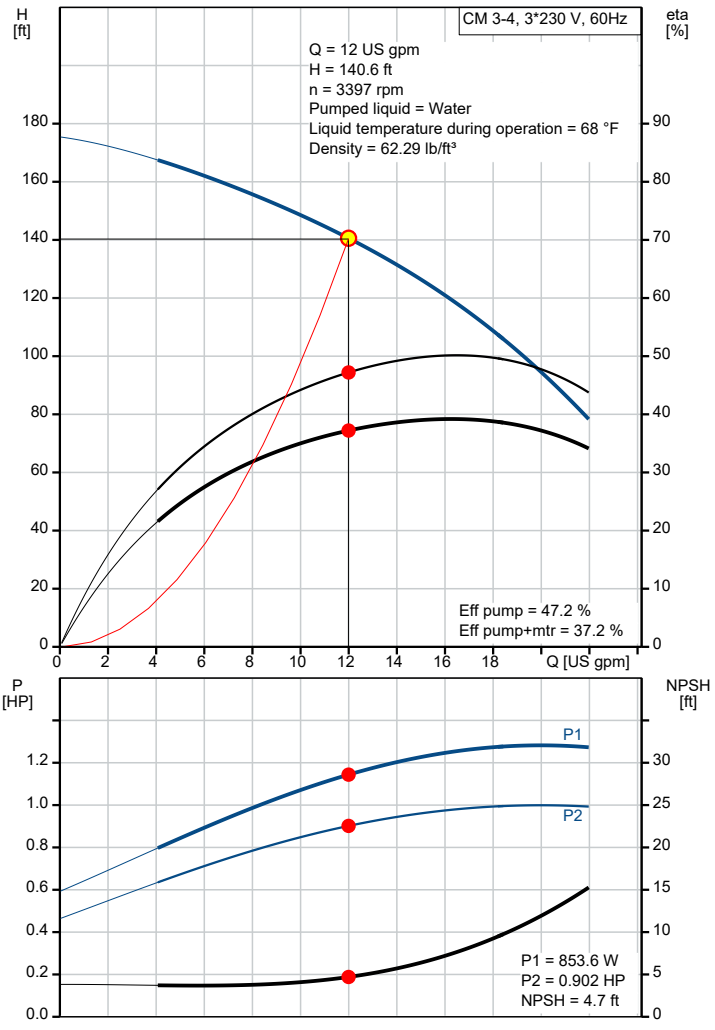


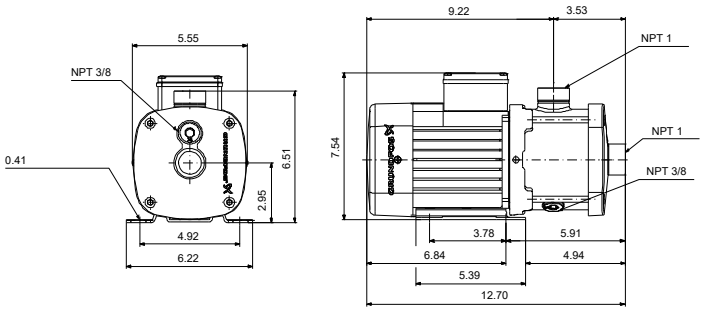


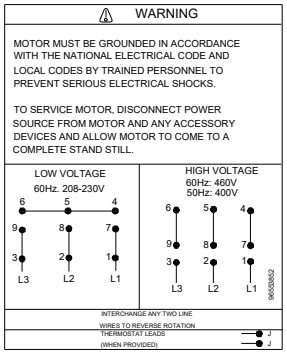
Company name: JL Sontag
Created by:
Phone:

Date: 6/23/2021

Description	Value
General information:	
Product name:	CM 3-4 A-S-I-E-AQQE E-A-A-N
Product No.:	On request
EAN:	On request
Technical:	
Pump speed on which pump data are based:	3480 rpm
Actual calculated flow:	12 US gpm
Rated flow:	16.4 US gpm
Resulting head of the pump:	140.6 ft
Rated head:	129.4 ft
Impellers:	4
Code for shaft seal:	AQQE
Approvals:	CE,WRAS,ACS,CURUS,EAC
Curve tolerance:	ISO9906:2012 3B
Pump version:	A
Model:	A
Materials:	
Pump housing:	Stainless steel
Pump housing:	EN 1.4301
Pump housing:	AISI 304
Impeller:	Stainless steel
Impeller:	EN 1.4301
Impeller:	AISI 304
Material code:	I
Code for rubber:	E
Installation:	
Range of ambient temperature:	-4 .. 131 °F
Maximum operating pressure:	232.06 psi
Max pressure at stated temperature:	232 psi / 194 °F
Max pressure at stated temperature:	145 psi / 250 °F
Type of connection:	NPT(F)
Size of suction port:	1 inch
Size of outlet port:	1 inch
Outlet position:	12
Connect code:	S
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
Frame size:	71BA
Rated power - P2:	0.992 HP
Main frequency:	60 Hz
Suitable for 50/60 Hz:	N
Phase:	3
Rated voltage:	208-230YY/440-480Y V
Service factor:	1.00
Rated current:	3,4-3,6/1,7-1,8 A
Rated speed:	3220-3370 rpm
Enclosure class (IEC 34-5):	IP55
Insulation class (IEC 85):	F
Built-in motor protection:	NONE
Cable included (Yes/No):	N
Controls:	
Frequency converter:	NONE
Others:	
Terminal box position:	12
Minimum efficiency index, MEI ≥:	0.7
Net weight:	28.1 lb
Gross weight:	33.6 lb
Country of origin:	US
Custom tariff no.:	8413.70.2040







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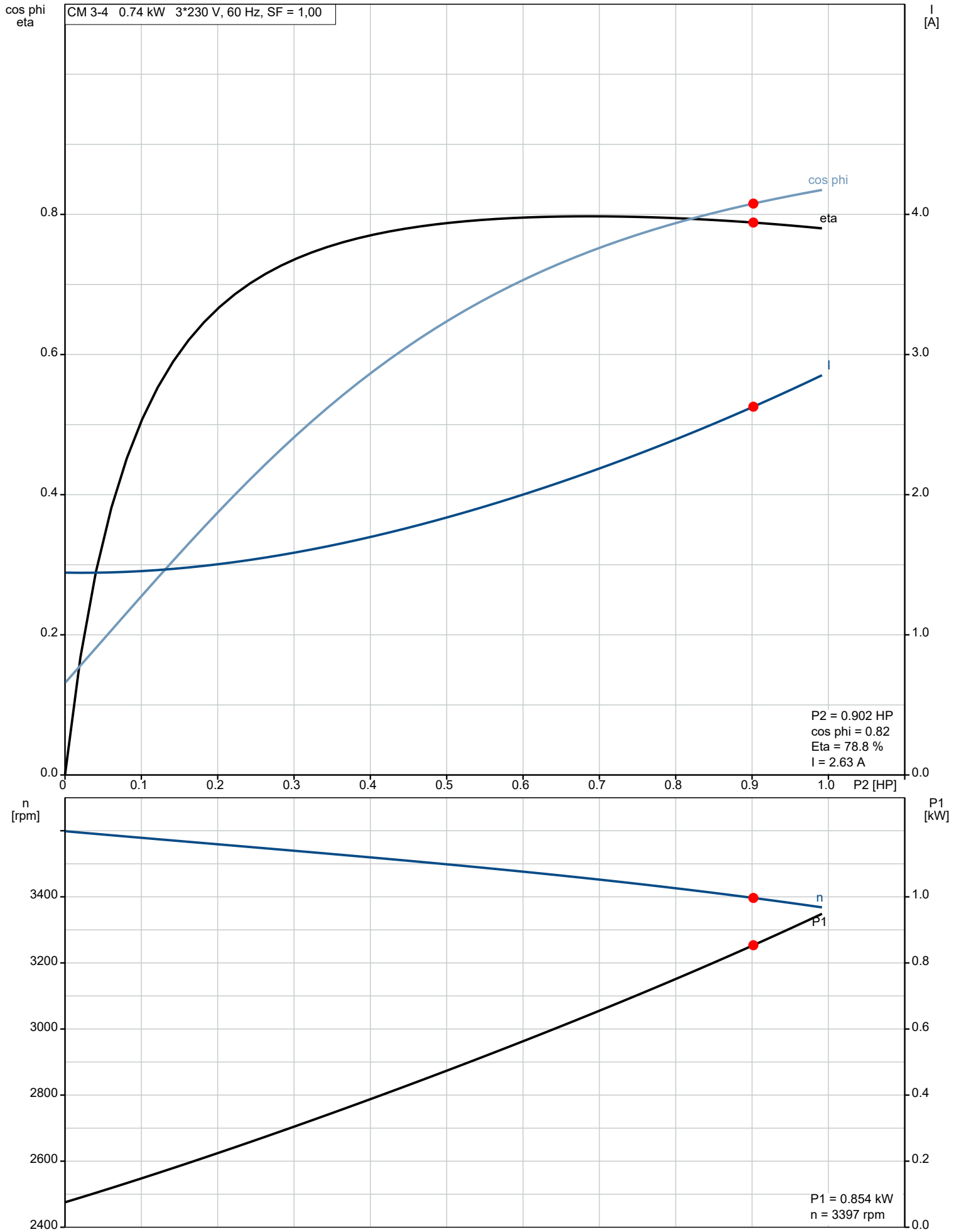
On request CM 3-4 A-S-I-E-AQQE E-A-A-N 60 Hz



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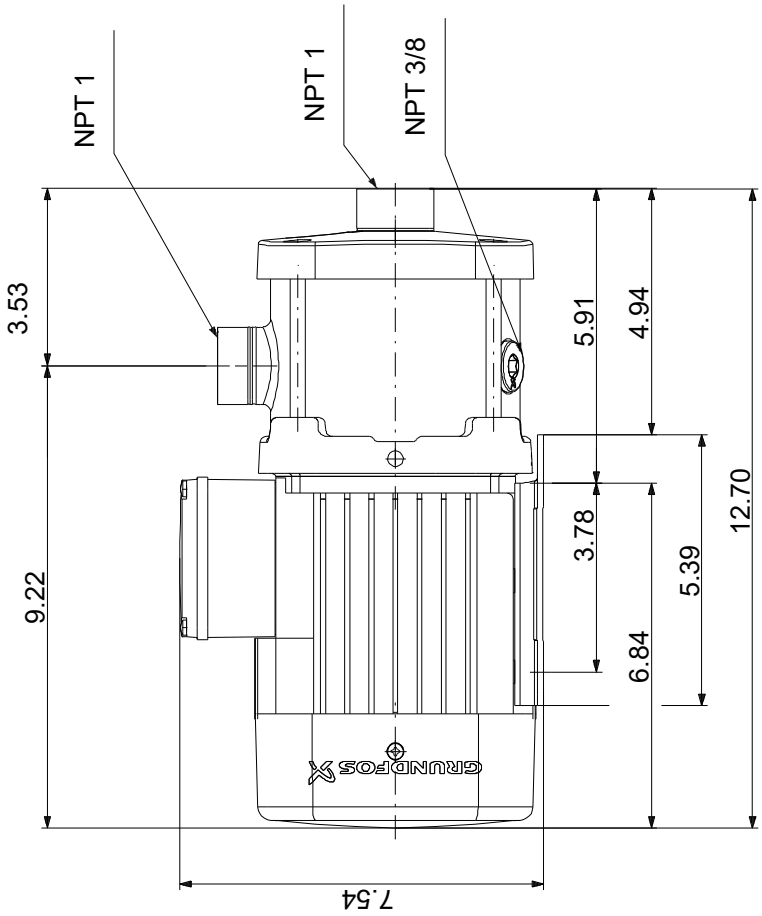
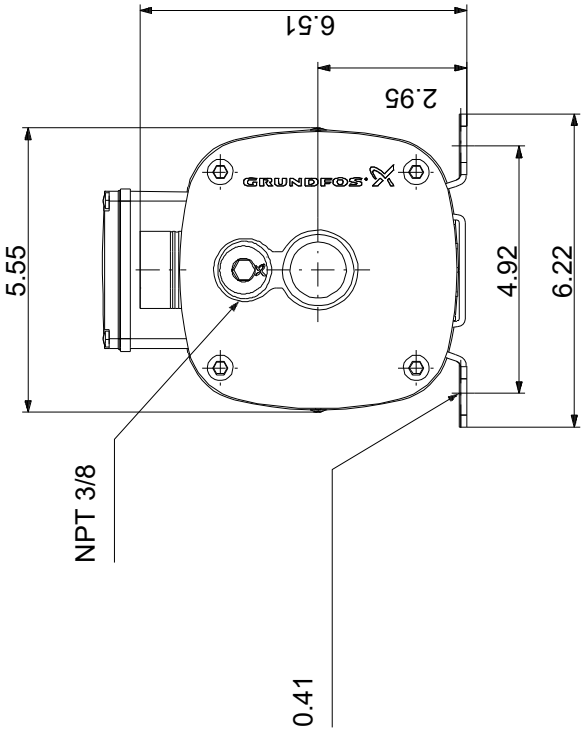
On request CM 3-4 A-S-I-E-AQQE E-A-A-N 60 Hz





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

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Phone:

Date: 6/23/2021

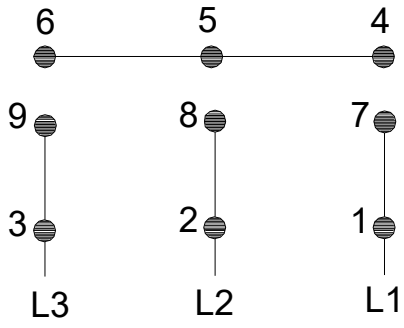
On request CM 3-4 A-S-I-E-AQQE E-A-A-N 60 Hz

WARNING

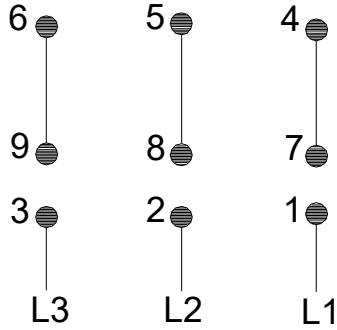
MOTOR MUST BE GROUNDED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND LOCAL CODES BY TRAINED PERSONNEL TO PREVENT SERIOUS ELECTRICAL SHOCKS.

TO SERVICE MOTOR, DISCONNECT POWER SOURCE FROM MOTOR AND ANY ACCESSORY DEVICES AND ALLOW MOTOR TO COME TO A COMPLETE STAND STILL.

LOW VOLTAGE
60Hz. 208-230V



HIGH VOLTAGE
60Hz: 460V
50Hz: 400V



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INTERCHANGE ANY TWO LINE WIRES TO REVERSE ROTATION

THERMOSTAT LEADS (WHEN PROVIDED) — J — J

All units are [in] unless otherwise presented.