

Submittal Data

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

CM 10-2 A-S-I-V-AQQV E-A-A-N

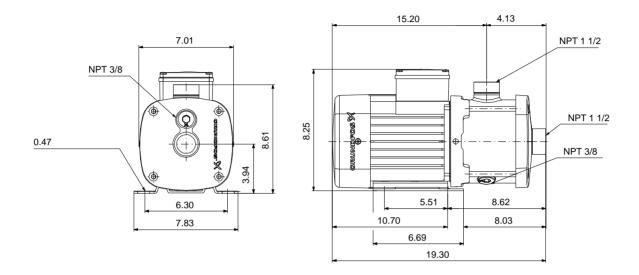
CM are reliable, quiet and compact horizontal end-suction pumps. The modular pump design makes it easy to make customised solutions. The CM pumps are available in cast iron and stainless steel

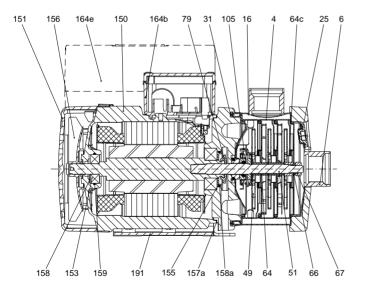
Product photo could vary from the actual product

Conditions of Service		Pump Data	Motor Data		
Flow:		Max pressure at stated temperature:	232 psi / 194 °F	Main frequency:	60 Hz
Head:		Liquid temperature range:	-4 248 °F	Enclosure class:	IP55
Efficiency:		Maximum ambient temperature:	131 °F		
Liquid:	Water	Shaft seal:	AQQV		
Temperature:	68 °F	Product number:	96946008		
NPSH required:					
Viscosity:					
Specific Gravity:	1.000				



Submittal Data





Materials:

Pump housing: Stainless steel

AISI 304

Impeller: Stainless steel

AISI 304

EN 1.4301

Material code: I Code for rubber: V

165x100



Date: 4/1/2020

Count | Description

CM 10-2 A-S-I-V-AQQV E-A-A-N



Product photo could vary from the actual product

Product No.: 96946008

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)

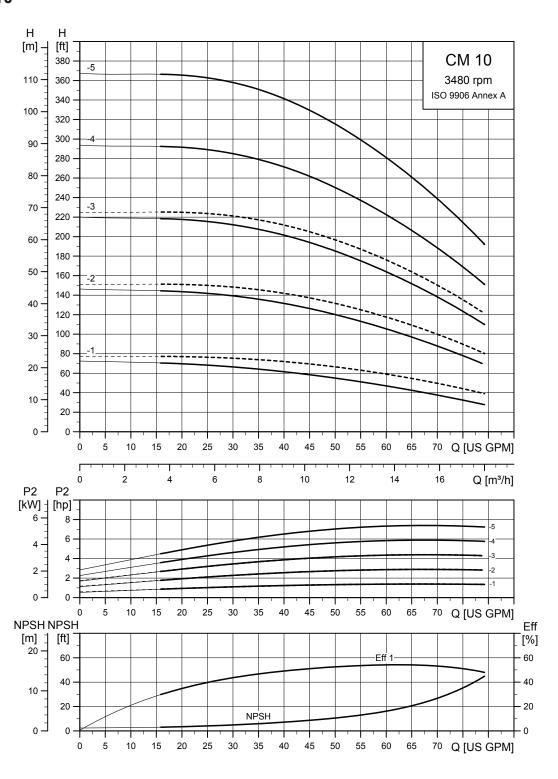
This material pairing is used where higher corrosion resistance is required. The high hardness of this material pairing offers good resistance against abrasive particles.

Secondary seal material: FKM (fluorocarbon rubber)

FKM has excellent resistance to oils and chemicals. Above 90 °C, FKM should only be used in media without water.



CM 10



Eff1 = Wire to water efficiency of the pump including motor (see page <u>39</u>).

---- A version

I, G versions



Date: 4/1/2020

Count | Description

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.

The motor efficiency is classified as IE2-IE3 in accordance with IEC 60034-30. The efficiency class and actual efficiency are related to the motor's voltage range, 208-230YY/440-480Y V, and thus dependent on the supply voltage available at the installation site.

The motor is IE2 in the lower end and IE3 in the upper end of the voltage range.

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

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

Rated flow: 52.8 US gpm Rated head: 116.3 ft Code for shaft seal: AQQV

Curve tolerance: ISO9906:2012 3B

Materials:

Impeller:

Pump housing: Stainless steel

EN 1.4301 AISI 304 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



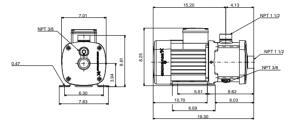
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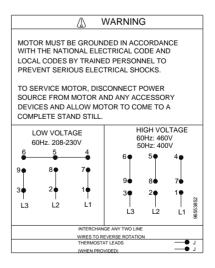
Count **Description** 145 psi / 250 °F Type of connection: NPT(F) Size of suction port: 1 1/2 inch Size of outlet port: 1 1/2 inch Outlet position: 12 Electrical data: Motor standard: **NEMA** Frame size: 90B IE efficiency class: IE2 - IE3 Rated power - P2: 0 HP Main frequency: 60 Hz Suitable for 50/60 Hz: Ν Phase: Rated voltage: 208-230YY/440-480Y V Service factor: 1.00 Rated current: 9,70-9,40/4,60-4,65 A Starting current: 830-870 % Rated speed: 3485-3505 rpm Enclosure class (IEC 34-5): IP55 Insulation class (IEC 85): F Built-in motor protection: NONE Others: Terminal box position: 12 Minimum efficiency index, MEI ≥: 0.52 Net weight: 63 lb Gross weight: 68.5 lb Approvals: CE,CULUS,WRAS,ACS,TR,EAC Country of origin: US Custom tariff no .: 8413.70.2040



Date: 4/1/2020

Description	Value	
General information:		
Product name:	CM 10-2 A-S-I-V-AQQV E-A-A-N	
Product No.:	96946008	
EAN:	5700314386504	
	5700314386504	
Technical:		
Pump speed on which pump data are based:	3480 rpm	
Rated flow:	52.8 US gpm	
Rated head:	116.3 ft	
Impellers:	2	
Code for shaft seal:	AQQV	
Curve tolerance:	ISO9906:2012 3B	
Pump version:	Α	
Model:	Α	
Materials:		
Pump housing:	Stainless steel	
	EN 1.4301	
	AISI 304	
Impeller:	Stainless steel	
	EN 1.4301	
	AISI 304	
Material code:	I	
Code for rubber:	V	
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 1/2 inch	
Size of outlet port:	1 1/2 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/ft ³	
Electrical data:		
B.4. () 1 1	N. I	





NEMA

IE2 - IE3

90B

0 HP 60 Hz

Ν

3

Motor standard:

IE efficiency class:

Rated power - P2:

Main frequency: Suitable for 50/60 Hz:

Frame size:

Phase:



Date: 4/1/2020

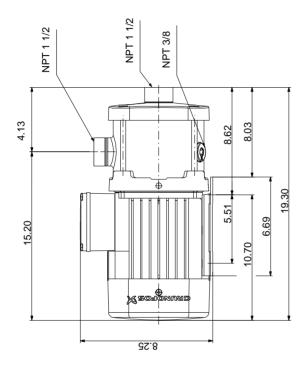
Description	Value
Rated voltage:	208-230YY/440-480Y V
Service factor:	1.00
Rated current:	9,70-9,40/4,60-4,65 A
Starting current:	830-870 %
Rated speed:	3485-3505 rpm
Enclosure class (IEC 34-5):	IP55
Insulation class (IEC 85):	F
Built-in motor protection:	NONE
Controls:	
Frequency converter:	NONE
Others:	
Terminal box position:	12
Minimum efficiency index, MEI ≥:	0.52
Net weight:	63 lb
Gross weight:	68.5 lb
Approvals:	CE,CULUS,WRAS,ACS,T R,EAC
Country of origin:	US
Custom tariff no.:	8413.70.2040

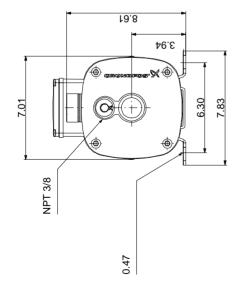


Date:

4/1/2020

96946008 CM 10-2 A-S-I-V-AQQV 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.



Date:

4/1/2020

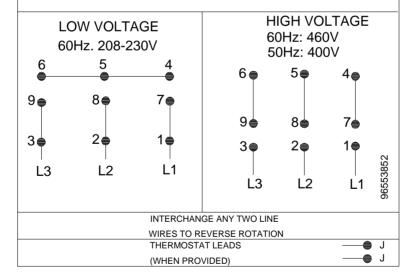
96946008 CM 10-2 A-S-I-V-AQQV E-A-A-N 60 Hz

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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.



All units are [in] unless otherwise presented.