

## Submittal Data

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

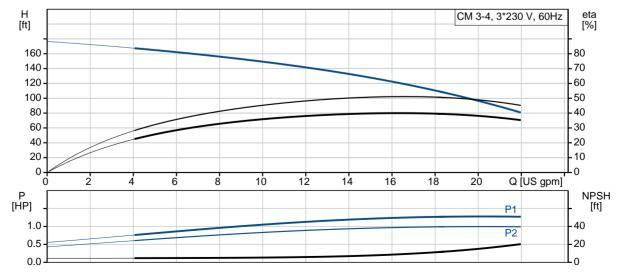
### CM 3-4 A-S-A-V-AQQV E-A-A-N



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

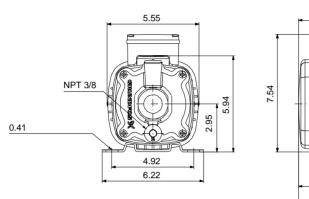
Product photo could vary from the actual product

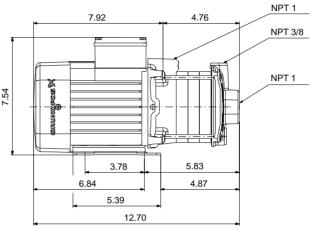
Conditions of Service		Pump Data	Pump Data		Motor Data	
Flow:		Max pressure at stated temperature:	145 psi / 194 °F	Main frequency:	60 Hz	
Head:		Liquid temperature range:	-4 194 °F	Enclosure class:	IP55	
Efficiency:		Maximum ambient temperature:	131 °F			
Liquid:	Water	Shaft seal:	AQQV			
Temperature:	68 °F	Product number:	97568364			
NPSH required:	ft					
Viscosity:						
Specific Gravity:	1.000	_				

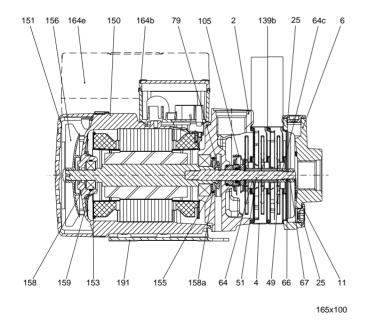




# Submittal Data







#### Materials:

Pump housing: Cast iron

**ASTM A48-25A** 

Impeller: Stainless steel

AISI 304

EN 1.4301

Material code: A Code for rubber: V



**Date:** 3/25/2020

Count | Description

CM 3-4 A-S-A-V-AQQV E-A-A-N



Product photo could vary from the actual product

Product No.: 97568364

Compact, reliable, horizontal, multistage, end-suction centrifugal pump with axial suction port and radial discharge port. The shaft, impellers and chambers are made of stainless steel. The inlet and discharge parts are made of cast iron. 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 part, chambers and discharge part are held together by four staybolts.

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  $^{\circ}$ C, FKM should only be used in media without water.



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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.



The motor can be connected to a variable speed drive for adjustment of pump performance to any duty point. Grundfos CUE offers a range of variable speed drives. Please find more information in Grundfos Product Center.

#### **Technical data**

**Controls:** 

Frequency converter: NONE

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: 3480 rpm

Rated flow: 16.4 US gpm Rated head: 130.8 ft Code for shaft seal: AQQV

Curve tolerance: ISO9906:2012 3B

Materials:

Pump housing: Cast iron

EN-GJL-200 ASTM A48-25A

Impeller: Stainless steel



**Date:** 3/25/2020

Count | Description

EN 1.4301 AISI 304

Installation:

Range of ambient temperature: -4 .. 131 °F Maximum operating pressure: 145.04 psi

Max pressure at stated temperature: 145 psi / 194 °F

145 psi / 194 °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: 71B
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

Others:

Terminal box position: 12
Minimum efficiency index, MEI ≥: 0.7
Net weight: 27 lb
Gross weight: 32.5 lb

Approvals: CE,CULUS,WRAS,ACS,TR,EAC,CURUS

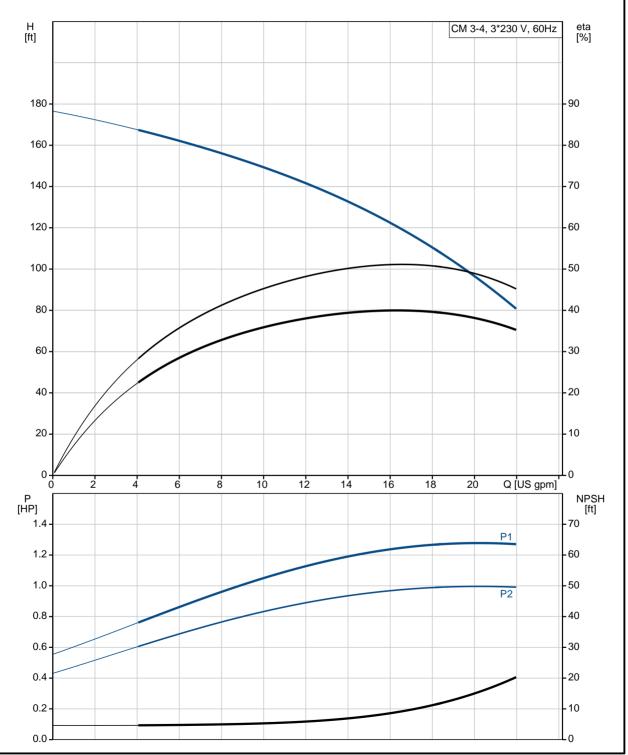
Country of origin: US

Custom tariff no.: 8413.70.2040



**Date:** 3/25/2020

## 97568364 CM 3-4 A-S-A-V-AQQV E-A-A-N 60 Hz





**Date:** 3/25/2020

Description	Value
General information:	
Product name:	CM 3-4 A-S-A-V-AQQV E-A-A-N
Product No.:	97568364
EAN:	5700318669252
	5700318669252
Technical:	
Pump speed on which pump data are based:	3480 rpm
Rated flow:	16.4 US gpm
Rated head:	130.8 ft
Impellers:	4
Code for shaft seal:	AQQV
Curve tolerance:	ISO9906:2012 3B
Pump version:	Α
Model:	A
Materials:	
Pump housing:	Cast iron
	EN-GJL-200
	ASTM A48-25A
Impeller:	Stainless steel
	EN 1.4301
	AISI 304
Material code:	Α
Code for rubber:	V
Installation:	
Range of ambient temperature:	-4 131 °F
Maximum operating pressure:	145.04 psi
Max pressure at stated temperature:	145 psi / 194 °F
	145 psi / 194 °F
Type of connection:	NPT(F)
Size of suction port:	1 inch

1 inch

Water -4 .. 194 °F

68 °F

NEMA

0.992 HP

71B

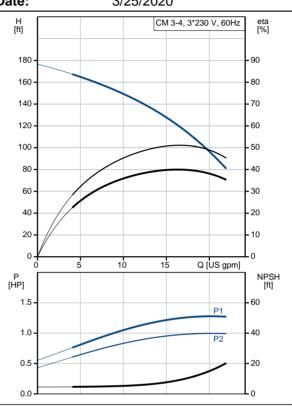
60 Hz

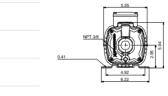
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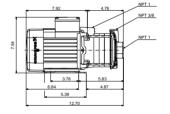
3

62.29 lb/ft3

12 S







MOTOR MUST BE GROUNDED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND LOCAL CODES BY TRAINED PERSONNELT O PREVENT SERVICUS ELECTRICAL SHOCKS.  TO SERVICE MOTOR, DISCONNECT POWER SOURCE FROM MOTOR AND ANY ACCESSORY DEVICES AND ALLOW MOTOR TO COME TO A COMPLETE STAND STUI.					
	V VOLT/ z. 208-2 5 8	7 T	6	IGH VOI 0Hz: 460 0Hz: 400 5 8	W
L3	L2	L1	L3	L2	L1 g

Size of outlet port:

Liquid temperature range: Selected liquid temperature:

Outlet position:

Connect code: Liquid: Pumped liquid:

Density:

Electrical data: Motor standard:

Rated power - P2:

Suitable for 50/60 Hz:

Main frequency:

Frame size:

Phase:



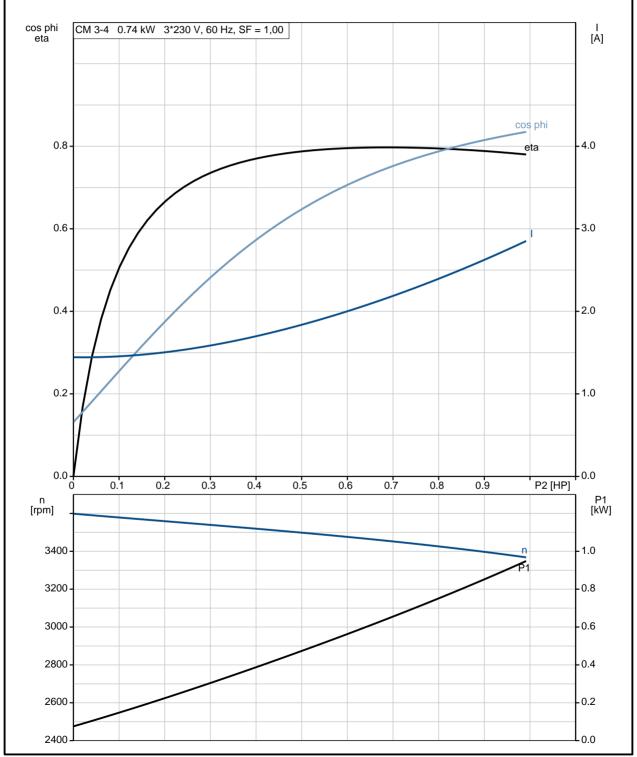
**Date:** 3/25/2020

Description	Value
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
Controls:	
Frequency converter:	NONE
Others:	
Terminal box position:	12
Minimum efficiency index, MEI ≥:	0.7
Net weight:	27 lb
Gross weight:	32.5 lb
Approvals:	CE,CULUS,WRAS,ACS,TR,E AC,CURUS
Country of origin:	US
Custom tariff no.:	8413.70.2040



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### 97568364 CM 3-4 A-S-A-V-AQQV E-A-A-N 60 Hz

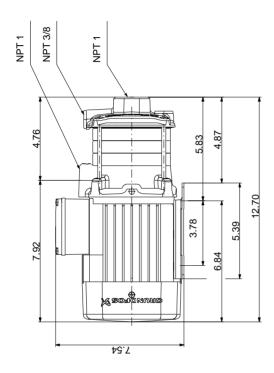


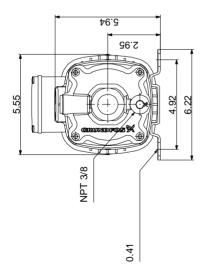


Date:

3/25/2020

### 97568364 CM 3-4 A-S-A-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:

3/25/2020

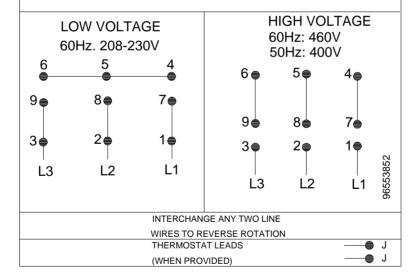
### 97568364 CM 3-4 A-S-A-V-AQQV E-A-A-N 60 Hz

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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.