

## Submittal Data

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

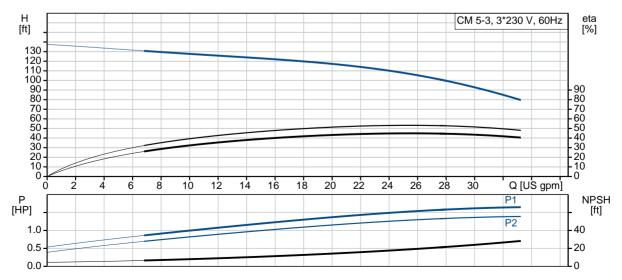
## CM 5-3 A-S-A-V-AQQV E-A-A-N



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

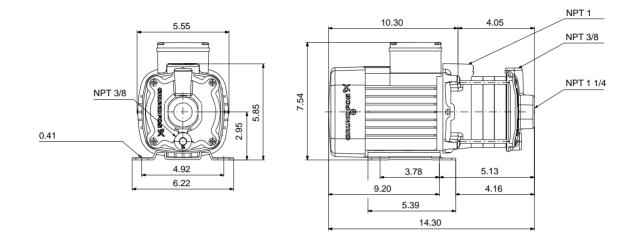
Product photo could vary from the actual product

Conditions of Service		Pump Data		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:	99059730		
NPSH required:	ft				
Viscosity:					
Specific Gravity:	1.000				

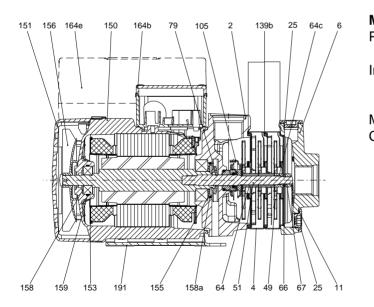


## Submittal Data





165x100



## Materials:

Pump housing:	Cast iron
	ASTM A48-25A
Impeller:	Stainless steel
	AISI 304
	EN 1.4301
Material code:	A
Code for rubber:	E



3/26/2020

Count Description CM 5-3 A-S-A-V-AQQV E-A-A-N 1 Product photo could vary from the actual product Product No.: 99155393 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 torgue-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.



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Date:
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3/26/2020



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 premium efficiency in accordance with EISA2007. 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.

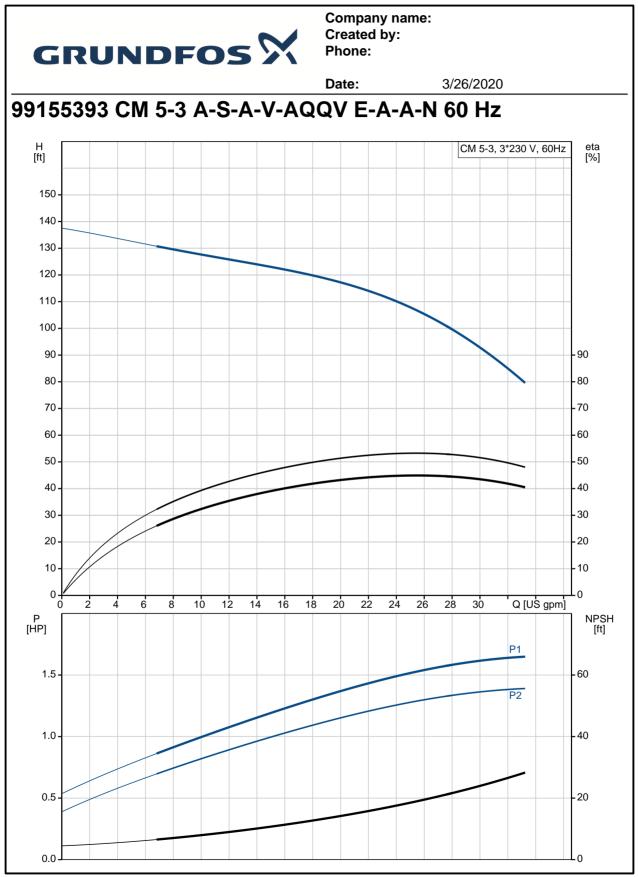
### **Technical data**

Controls: Frequency converter:	NONE
<b>Liquid:</b> Pumped liquid: Liquid temperature range: Selected liquid temperature: Density:	Water -4 194 °F 68 °F 62.29 lb/ft³
<b>Technical:</b> Pump speed on which pump da Rated flow: Rated head: Code for shaft seal: Curve tolerance:	ata are based: 3480 rpm 24.8 US gpm 107.5 ft AQQE ISO9906:2012 3B
Materials: Pump housing:	Cast iron EN-GJL-200

ASTM A48-25A



		D	ate:	3/26/2020
ount	Description			
	Impeller:	Stainless steel EN 1.4301 AISI 304		
	Installation:			
	Range of ambient temperature:	-4 131 °F		
	Maximum operating pressure:	145.04 psi		
	Max pressure at stated tempera	ature: 145 psi / 19 145 psi / 19		
	Type of connection:	NPT(F)		
	Size of suction port:	1 1/4 inch		
	Size of outlet port:	1 inch		
	Outlet position:	12		
	Electrical data:			
	Motor standard:	NEMA		
	Frame size:	80B		
	IE efficiency class:	IE3 / NEMA Prer	nium	
	Rated power - P2:	1.48 HP		
	Main frequency:	60 Hz		
	Suitable for 50/60 Hz:	Ν		
	Phase:	3		
	Rated voltage:	208-230YY/440-	480Y V	
	Service factor:	1.00		
	Rated current:	5,2-5,1/2,55-2,65	5 A	
	Rated speed:	3430-3470 rpm		
	Enclosure class (IEC 34-5):	IP55		
	Insulation class (IEC 85):	F		
	Built-in motor protection:	NONE		
	Others:	10		
	Terminal box position:			
	Minimum efficiency index, MEI a Net weight:	a‰∓. 0.7 33 lb		
	Gross weight:	38.5 lb		
	Approvals:	CE,WRAS,ACS,	TR FAC	
	Country of origin:	US	11(,2/10	
	Custom tariff no.:	8413.70.2040		



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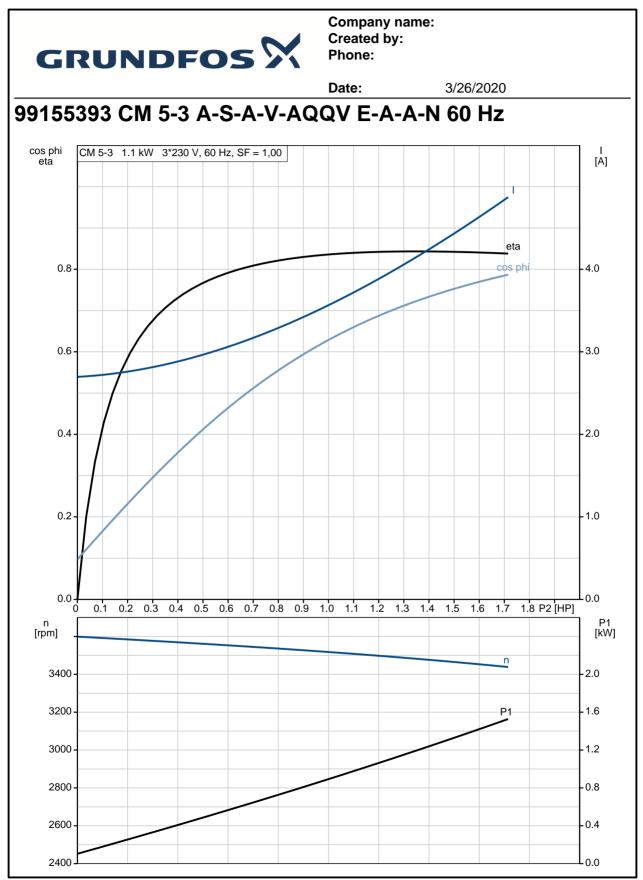


		н	CM 5-3, 3*230 V, 60Hz	eta
Description	Value	[ft]	CM 5-3, 3*230 V, 60Hz	eta [%]
General information:		150 -		
Product name:	CM 5-3 A-S-A-V-AQQV E-A-A-N	140 <b>-</b> 130 <b>-</b>		
Product No.:	99155393	120 -		
EAN:	5712605981596	110 -		
	5712605981596	100 -		
Technical:		90 -		- 90
Pump speed on which pump data are based:	3480 rpm	80 <b>-</b> 70 <b>-</b>	<b>`````````````````````````````````````</b>	- 80 - 70
Rated flow:	24.8 US gpm	60 -		- 60
Rated head:	107.5 ft	50 -		- 50
Impellers:	3	40 -		- 40
Code for shaft seal:	AQQE	- 30 -		- 30
Curve tolerance:	ISO9906:2012 3B	20 -		- 20
Pump version:	A	10-		- 10
Model:	A		10 15 20 25 Q [US gpm]	- 0
Materials:		P		NPS
Pump housing:	Cast iron	[HP]	P1	[fi
r amp neading.	EN-GJL-200	1.5 -	P2	- 60
	ASTM A48-25A		P2	
Impeller:	Stainless steel	1.0 -		- 40
	EN 1.4301	-		
	AISI 304	0.5 -		- 20
Material code:	A 6			
Code for rubber:	E	0.0		- 0
Installation:	L			
	-4 131 °F		5.55 10.30 4.05	NPT 1
Range of ambient temperature:	-4131 F 145.04 psi	-		NPT 3/
Maximum operating pressure: Max pressure at stated	145.04 psi			NPT 1
temperature:	145 psi / 194 °F	0.41		
<b>-</b> ( )	145 psi / 194 °F	_ Ť	4.92 3.78 5.13	
Type of connection:	NPT(F)	-	9.20 4.16	
Size of suction port:	1 1/4 inch		14.30	
Size of outlet port:	1 inch			
Outlet position:	12			
Connect code:	S			
Liquid:				
Pumped liquid:	Water			
Liquid temperature range:	-4 194 °F	_		
Selected liquid temperature:	68 °F	۵	WARNING	
Density:	62.29 lb/ft <sup>3</sup>	MOTOR MUST BE GROU WITH THE NATIONAL EL LOCAL CODES BY TRAI PREVENT SERIOUS ELE	INDED IN ACCORDANCE ECTRICAL CODE AND VED PERSONNEL TO ETTICAL SUPERFE	
Electrical data:		TO SERVICE MOTOR D	SCONNECT POWER	
Motor standard:	NEMA	SOURCE FROM MOTOR DEVICES AND ALLOW M COMPLETE STAND STIL	AND ANY AUCESSORY ODTOR TO COME TO A L	
Frame size:	80B	LOW VOLTAGE 60Hz. 208-230V	HIGH VOLTAGE 60Hz-460V 50Hz-400V	
IE efficiency class:	IE3 / NEMA Premium	6 5 4 9 <b>●</b> 8 <b>●</b> 7 <b>●</b>	6 <b>•</b> 5 <b>•</b> 4 <b>•</b>	
Rated power - P2:	1.48 HP	3 2 1 L3 L2 L1	9-é a.é. 7-é   3-¶ 2-¶ 1.¶   1   8	
Main frequency:	60 Hz	L3 L2 L1		
Suitable for 50/60 Hz:	Ν	WRES TO	JERNESE KOTANON KATLANG J BONNON	
Phase:	3			

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		Date:	3/26/2020
Description	Value		
Rated voltage:	208-230YY/440-480Y V		
Service factor:	1.00		
Rated current:	5,2-5,1/2,55-2,65 A		
Rated speed:	3430-3470 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:	33 lb		
Gross weight:	38.5 lb		
Approvals:	CE,WRAS,ACS,TR,EAC		
Country of origin:	US		
Custom tariff no.:	8413.70.2040		



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