

Submittal Data

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

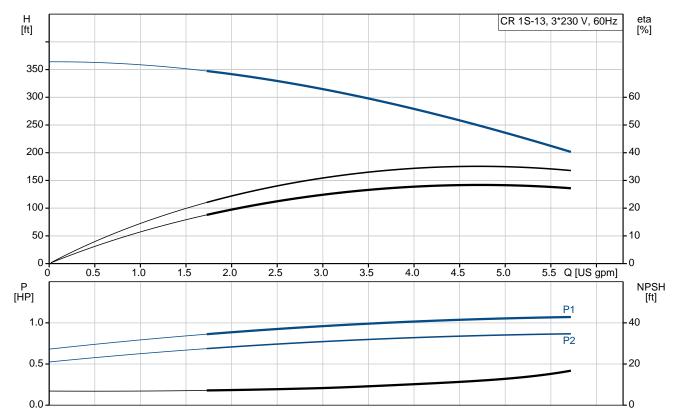


CR 1S-13 A-B-A-V-HQQV

Vertical, multistage centrifugal pump with suction and discharge ports on the same level. The pump head and base are in cast iron. All other wetted parts are in stainless steel (EN 1.4301)(AISI 304)

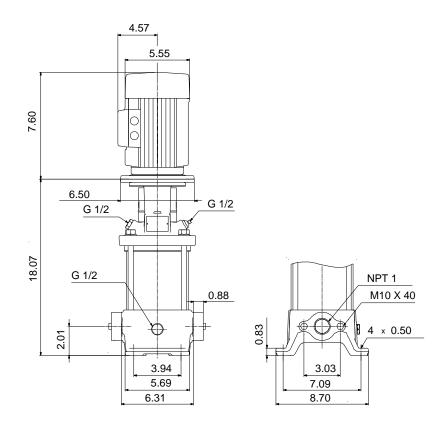
Product photo could vary from the actual product

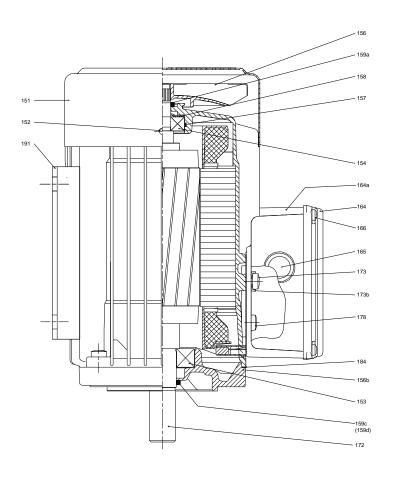
Conditions of Service		Pump Data Motor Da		Data	
Flow:		Max pressure at stated temperature:	232 psi / 194 °F	Rated power - P2:	1 HP
Head:		Liquid temperature range:	-4 194 °F	Rated voltage:	208-230YY/460Y V
Efficiency:		Maximum ambient temperature:	140 °F	Main frequency:	60 Hz
Liquid:	Water	Approvals:	CURUS	Enclosure class:	55 Dust/Jetting
Temperature:	68 °F	Shaft seal:	HQQV	Insulation class:	F
NPSH required:	ft	Product number:	96080968	Motor protection:	NONE
Viscosity:				Motor type:	71BB
Specific Gravity:	1.000			Motor_efficiency:	80.0 %



Submittal Data







Materials:
Base:

Impeller:

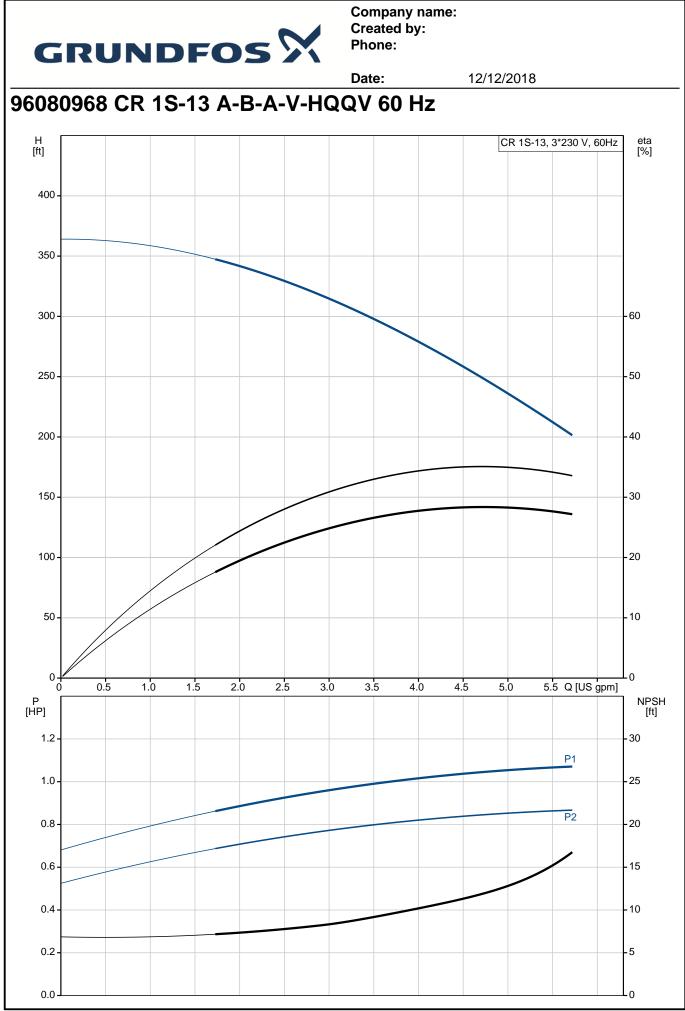
Material code: A Code for rubber: V

Cast iron EN 1561 EN-GJL-200 ASTM A48-25B Stainless steel AISI 304 EN 1.4301 A

C	GRUNDFO	sX	Company nan Created by: Phone:	ne:				
			Date:	12/12/2018				
Count	Description							
1	CR 1S-13 A-B-A-V-HQQV							
	Product No.: 96080968 Vertical, non-self-priming, multis centrifugal pump for installation							
	and mounting on a foundation. The pump has the following characteristics: - Impellers and intermediate chambers are made of - The shaft seal has assembly length according to EN 12756. - Power transmission is via cast iron split coupling.							
	The motor is a 3-phase AC mot	or.						
	Controls: Frequency converter:	NONE						
	Liquid: Pumped liquid: Liquid temperature range: Liquid temperature during opera Density:							
	Technical: Rated pump speed: Rated flow: Rated head: Pump orientation: Shaft seal arrangement: Code for shaft seal: Approvals on nameplate: Curve tolerance:	3484 rpm 4.84 US gpm 243.8 ft Vertical Single HQQV CURUS ISO9906:2012 3E	3					
	Materials: Base:	Cast iron EN 1561 EN-GJL ASTM A48-25B	-200					
	Impeller:	Stainless steel EN 1.4301 AISI 304						
	Bearing:	SIC						
	Installation: Maximum ambient temperature: Maximum operating pressure: Max pressure at stated tempera	232 psi iture: 232 psi / 19						
	Type of connection:	232 psi / -4 Oval / NPT(F)	۳F					



1		Date:	12/12/2018
+	Description		
	Size of suction port:	1 inch	
	Size of outlet port:	1 inch	
	Pressure rating for pipe connect		
	Flange size for motor:	56C	
	Electrical data:		
	Motor standard:	NEMA	
	Motor type:	71BB	
	IE Efficiency class:	NEMA Premium / IE3 60Hz	
	Rated power - P2:	1 HP	
	Power (P2) required by pump:	1 HP	
	Main frequency:	60 Hz	
	Rated voltage:	3 x 208-230YY/460Y V	
	Service factor:		
L		1.25	
	Rated current:	3,25-3,35/1,68 A	
	Starting current:	590-650 %	
	Cos phi - power factor:	0.81-0.72	
	Rated speed:	3430-3460 rpm	
	IE efficiency:	IE3 77,0%	
	Motor efficiency at full load:	80.0 %	
	Motor efficiency at 3/4 load:	79.5 %	
	Motor efficiency at 1/2 load:	75.0 %	
	Number of poles:	2	
	Enclosure class (IEC 34-5):	55 Dust/Jetting	
	Insulation class (IEC 85):	F	
	Others:		
	Net weight:	55.5 lb	
	Gross weight:	66.5 lb	
	Shipping volume:	6.11 ft ³	
	Country of origin:	US	
	Custom tariff no .:	8413.70.2040	



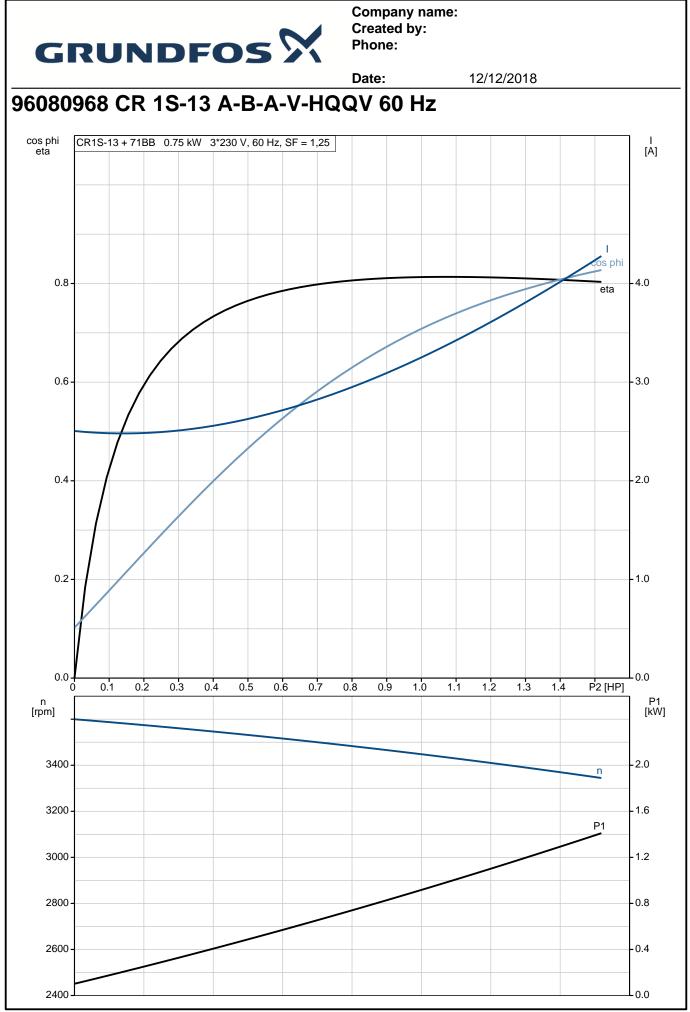
Printed from Grundfos Product Center [2018.08.000]

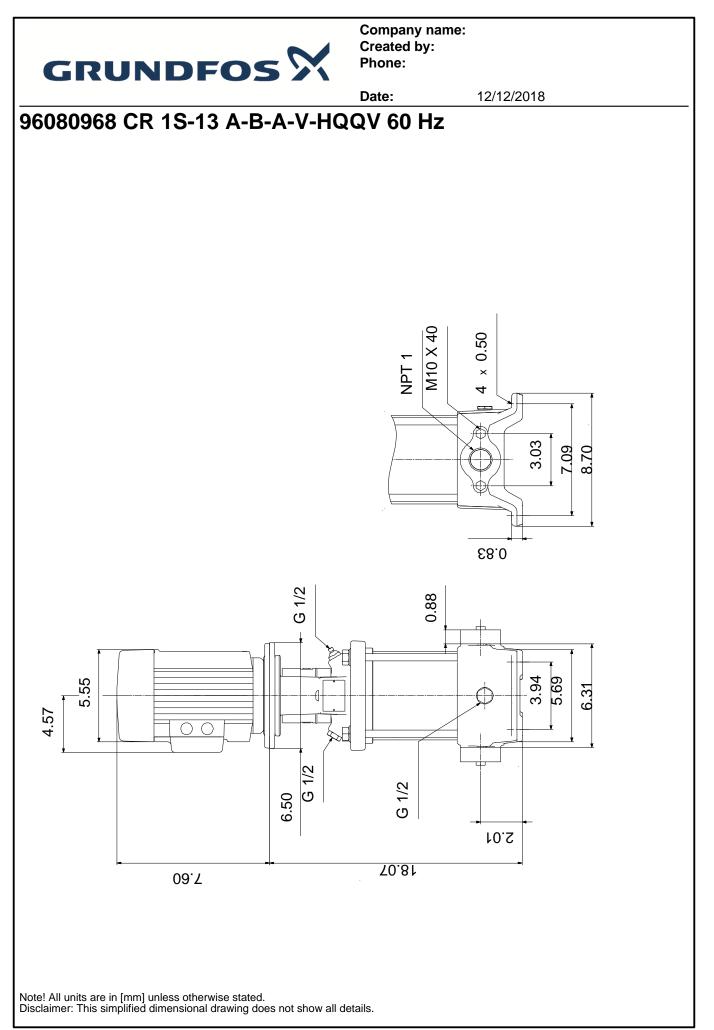


		Date:	12/12	12/12/2018		
Description	Value	H [ft]		CR 1S-13, 3	*230 V, 60Hz	eta [%]
General information:		400 -				
Product name:	CR 1S-13 A-B-A-V-HQQV	400				1
Product No.:	96080968	-				
EAN:	5700395154269	350 -				1
Technical:	5700555154205	-				
	2404	300 -				- 60
Rated pump speed:	3484 rpm	_				
Rated flow:	4.84 US gpm	250 -				- 50
Rated head:	243.8 ft	_				
Head max:	365.5 ft	200 -				40
Stages:	13	200-				Γ40
Impellers:	13					
Number of reduced-diameter impellers:	0	150 -				- 30
Low NPSH:	No	100 -				20
Pump orientation:	Vertical	-				
Shaft seal arrangement:	Single	50 -				10
Code for shaft seal:	HQQV	- ~1 //				- 10
		_				
Approvals on nameplate:	CURUS	0 	1.0 1.5 2.0 2.5	3.0 3.5 4.0 4.5	Q [US gpm]	L ₀
Curve tolerance:	ISO9906:2012 3B	P [HP]			- 120 abin]	NPSH
Pump version:	A	[HP]				[ft]
Model:	A				P1	
Cooling:	TEFC	1.0 -				- 25
Materials:		0.8 -			P2	- 20
Base:	Cast iron	0.0				20
	EN 1561 EN-GJL-200	0.6				- 15
	ASTM A48-25B	0.4				- 10
Impeller:	Stainless steel	0.4				Γ
	EN 1.4301	0.2 -				-5
	AISI 304	0.0				-0
Material code:	A		4.57			
Code for rubber:	V		5.55			
Bearing:	SIC	_				
Installation:		2.60				
Maximum ambient temperature:	140 °F	~	<u> </u>			
Maximum operating pressure:	232 psi					
Max pressure at stated temperature:	232 psi / 194 °F	6.50	G 1/2			
	232 psi / -4 °F	- <u>G 1</u>				
Type of connection:	Oval / NPT(F)	- ·	THE R	· ·		
Size of suction port:	1 inch	6. 8 <u>G 1/2</u>		NPT 1	_	
Size of outlet port:	1 inch	-		M10 X	40	
Pressure rating for pipe connection:	PN 16	5.01	tt \		50	
		~	3.94	3.03		
Flange size for motor:	56C		<u>5.69</u> 6.31	7.09		
Connect code:	В		1 4 -4	+ 0.10		
Liquid:						
Pumped liquid:	Water	_				
Liquid temperature range:	-4 194 °F					
Liquid temperature during operation:	68 °F		WARNING			
Density:	62.29 lb/ft ³	MOTOR MUST BE	GROUNDED IN ACCORDANCE VAL ELECTRICAL CODE AND			
Electrical data:		LOCAL CODES B	VAL ELECTRICAL CODE AND / TRAINED PERSONNEL TO JS ELECTRICAL SHOCKS.			
Motor standard:	NEMA	TO SERVICE MO	OR. DISCONNECT POWER			
Motor type:	71BB	SOURCE FROM N	IOTOR AND ANY ACCESSORY LOW MOTOR TO COME TO A			
	NEMA Premium / IE3 60Hz	LOW VOLTA	HIGH VOLTAGE			
IE Efficiency class:		60Hz. 208-23				
Rated power - P2:	1 HP	98 99	7			
Power (P2) required by pump:	1 HP	3♥ 2♥	1● 3● 2● 1●	R		
Main frequency:	60 Hz	L3 L2	L1 L3 L2 L1	3653		
Rated voltage:	3 x 208-230YY/460Y V		INTERCHANGE ANY TWO LINE	_		
Service factor:	1.25		THERMOSTAT LEADS	<u>.</u>		
Rated current:	3,25-3,35/1,68 A					



Date: 12/12/2018 Description Value Starting current: 590-650 % Load current: 4,0-3,9/1,95 A Cos phi - power factor: 0.81-0.72 Rated speed: 3430-3460 rpm IE efficiency: IE3 77,0% Motor efficiency at full load: 80.0 % Motor efficiency at 3/4 load: 79.5 % Motor efficiency at 1/2 load: 75.0 % Number of poles: 2 Enclosure class (IEC 34-5): 55 Dust/Jetting Insulation class (IEC 85): F Motor protection: NONE Motor Number: 85900703 Controls: NONE Frequency converter: Others: Net weight: 55.5 lb Gross weight: 66.5 lb Shipping volume: 6.11 ft³ Country of origin: US Custom tariff no .: 8413.70.2040







Date: 12/12/2018 96080968 CR 1S-13 A-B-A-V-HQQV 60 Hz WARNING \bigwedge 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. **HIGH VOLTAGE** LOW VOLTAGE 60Hz: 460V 60Hz. 208-230V 50Hz: 400V 5 6 4 5⊜ 6⊜ 4⊜ 9 8⊜ 7⊜ 9 7⊜ 8 2 3⊜ 1⊜ 3⊜ 2⊜ 1⊜ 96553852 L1 L2 L3 L3 L2 L1 INTERCHANGE ANY TWO LINE WIRES TO REVERSE ROTATION THERMOSTAT LEADS 🖨 J 🌒 J (WHEN PROVIDED)