GRUNDFOS LENNTECH

GRUNDFOS **DATA BOOKLET**

CRN20-01 A-P-G-V-HQQV 3x230/400 50 HZ

Grundfos Pump 96500472



Thank you for your interest in our products
Please contact us for more information, or visit our website
http://www.lenntech.com/grundfos/CRN20/96500472/CRN-20-1-A-P-G-V-HQQV.html

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Position	Qty.	Description
	1	**CRN 20-1 A-P-G-V-HQQV**



Note! Product picture may differ from actual product

Product No.: 96500472

Vertical, multistage centrifugal pump with suction and discharge ports on same the level (in-line) enabling installation in a horizontal one-pipe system. Pump materials in contact with the liquid are in high-grade stainless steel. A cartridge shaft seal ensures high reliability, safe handling and easy service and access. Power transmission is via a split coupling. Pipework connection is via PJE (Victaulic®) couplings.

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

Further product details

The product carries the Grundfos Blueflux® label. It represents the best from Grundfos within energy-efficient motors and frequency converters. Grundfos Blueflux® solutions either meet or exceed legislative requirements such as the EuP IE3 grade.

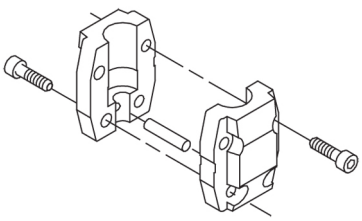
Steel, cast iron and aluminium components have an epoxy-based coating made in a cathodic electro-deposition (CED) process. CED is a high-quality dip-painting process where an electrical field around the products ensures deposition of paint particles as a thin, well-controlled layer on the surface. An integral part of the process is a pretreatment. The entire process consists of these elements:

1) Alkaline-based cleaning.
2) Zinc phosphating.
3) Cathodic electro-deposition.
4) Curing to a dry film thickness 18-22 my m.

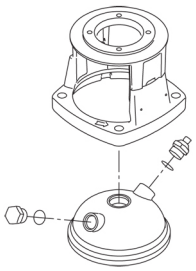
The colour code for the finished product is NCS 9000/RAL 9005.

Pump

A standard split coupling connects the pump and motor shaft. It is enclosed in the pump head/motor stool by means of two coupling guards.



The pump head and flange for motor mounting is made in one piece (cast iron). The pump head cover is a separate component (stainless steel). The pump head has a combined 1/2" priming plug and air vent screw.



The pump is fitted with a balanced O-ring seal unit with rigid torque transmission system. This seal type is assembled in a cartridge unit which makes replacement safe and easy. Due to the balancing, this seal type is suitable for high-pressure applications. The cartridge construction also protects the pump shaft from possible wear from a dynamic O-ring between pump shaft and shaft seal.

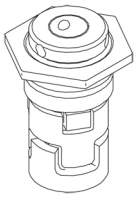
Primary seal:

- 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)

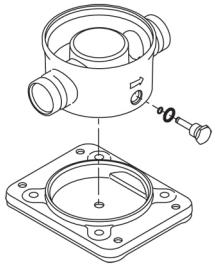
FKM has excellent resistance to oils and chemicals. Above 90 °C, FKM should only be used in media without water.



The shaft seal is screwed into the pump head.

The chambers and impellers are made of stainless steel sheet. The chambers are provided with a PTFE neck ring offering improved sealing and high efficiency. The impellers have smooth surface, and the shape of the blades ensure a high efficiency.

The pump has a stainless steel base mounted on a separate base plate. The base and base plate are kept in position by the tension of the staybolts which hold the pump together. The discharge side of the base has a drain plug. The pump is secured to the foundation by four bolts through the base plate. The base is prepared for connection by means of PJE (Victualic®) couplings.



Motor

The motor is a totally enclosed, fan-cooled motor with principal dimensions to IEC and DIN standards. The motor is flange-mounted with tapped-hole flange (FT).

Position	Qty.	Description

Motor mounting designation in accordance with IEC 60034-7: IM B 14 (Code I) / IM 3601 (Code II). Electrical tolerances comply with IEC 60034.

The motor efficiency is classified as IE3 in accordance with IEC 60034-30.

The motor does not incorporate motor protection and must be connected to a motor-protective circuit breaker which can be manually reset. The motor-protective circuit breaker must be set according to the rated current of the motor (I1/1).

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 Win-/WebCAPS.

Technical data

Liquid:

Pumped liquid:	Water
Liquid temperature range:	253 .. 363 K
Liquid temp:	293 K
Density:	998.2 kg/m³

Technical:

Speed for pump data:	2853 rpm
Rated flow:	21 m³/h
Rated head:	9.9 m
Shaft seal:	HQQV
Approvals on nameplate:	CE,TR
Curve tolerance:	ISO 9906:1999 Annex A

Materials:

Pump housing:	Stainless steel DIN W.-Nr. 1.4408 ASTM A 351 CF 8M
Impeller:	Stainless steel DIN W.-Nr. 1.4401 AISI 316

Installation:

Maximum ambient temperature:	333 K
Max pressure at stated temp:	25 bar / 90 °C 25 bar / -20 °C
Flange standard:	PJE
Pipe connection:	60,1 mm
Flange size for motor:	FT100

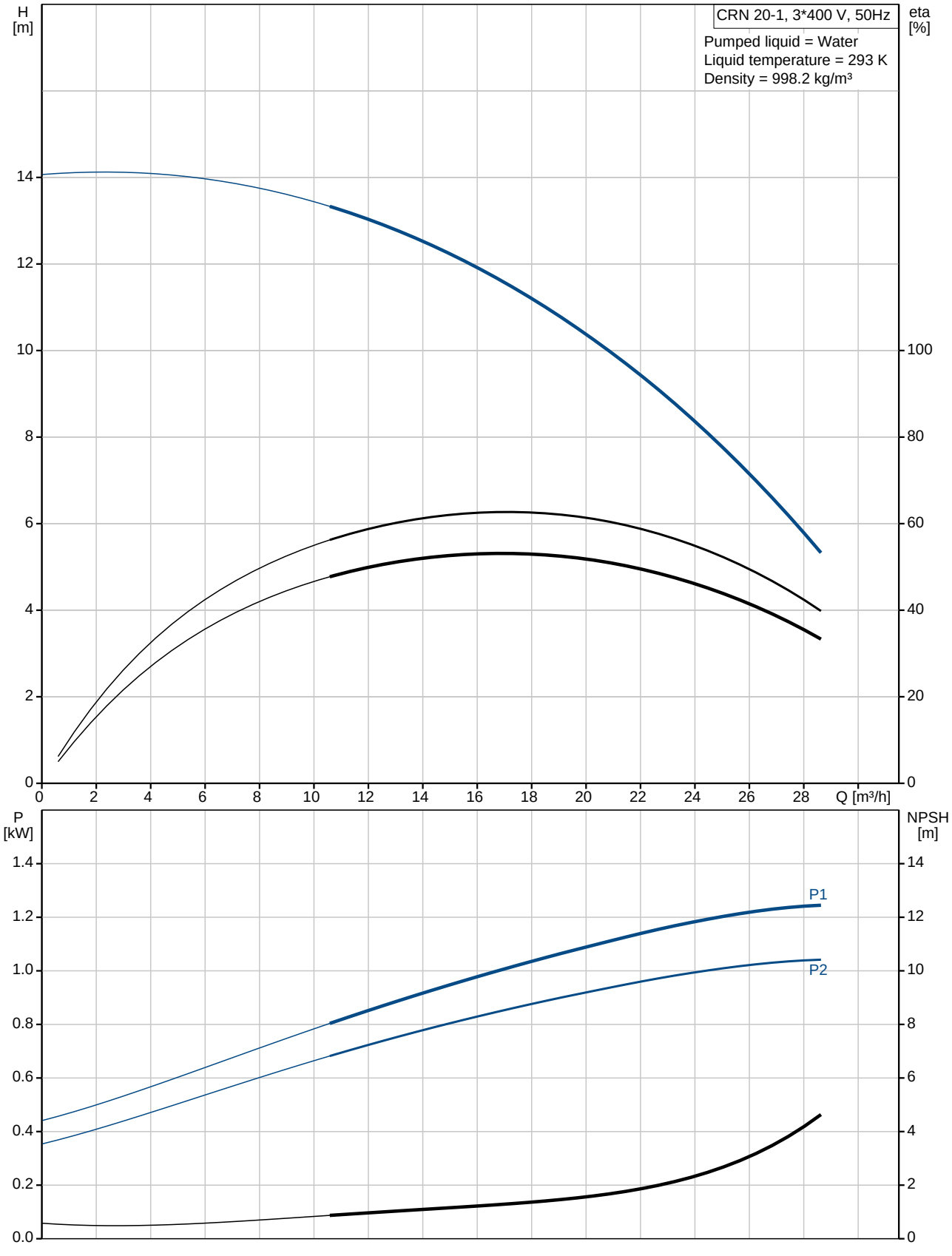
Electrical data:

Motor type:	80C
IE Efficiency class:	IE3
Number of poles:	2
Rated power - P2:	1.1 kW
Power (P2) required by pump:	1.1 kW
Mains frequency:	50 Hz
Rated voltage:	3 x 220-240 D/380-415 Y V
Rated current:	4,35/2,50 A
Starting current:	450-500 %
Cos phi - power factor:	0,83-0,76
Rated speed:	2840-2870 rpm

Position	Qty.	Description
		Efficiency: IE3 82,7% Enclosure class (IEC 34-5): 55 (Protect. water jets/dust) Insulation class (IEC 85): F **Others:** Label: Grundfos Blueflux Minimum efficiency index, MEI ≥: 0.7 Net weight: 34 kg Gross weight: 38 kg Shipping volume: 0.09 m3

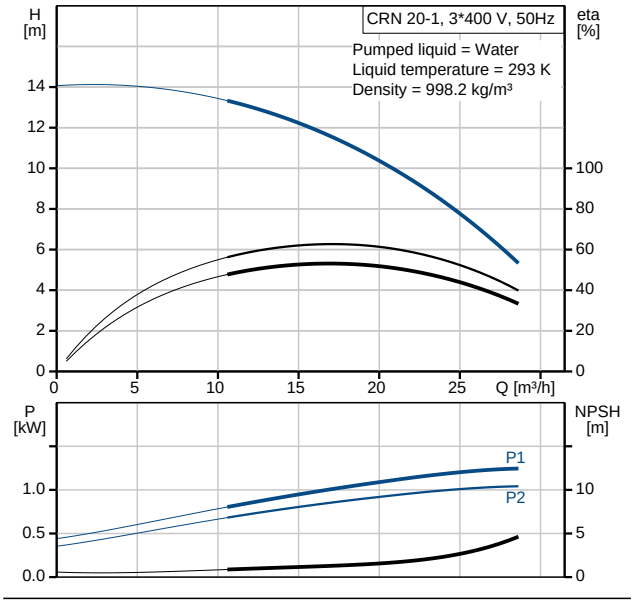
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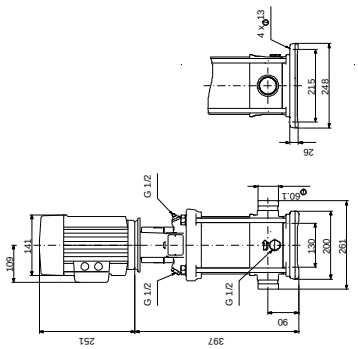
96500472 CRN 20-1 50 Hz

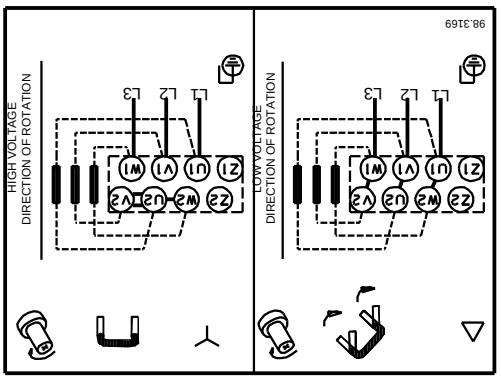


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Description	Value
Product name:	CRN 20-1 A-P-G-V-HQQV
Product No:	96500472
EAN number:	5700396202501
Technical:	
Speed for pump data:	2853 rpm
Rated flow:	21 m³/h
Rated head:	9.9 m
Impellers:	01
Shaft seal:	HQQV
Approvals on nameplate:	CE,TR
Curve tolerance:	ISO 9906:1999 Annex A
Stages:	02
Pump version:	A
Model:	A
Materials:	
Pump housing:	Stainless steel
	DIN W.-Nr. 1.4408
	ASTM A 351 CF 8M
Impeller:	Stainless steel
	DIN W.-Nr. 1.4401
	AISI 316
Material code:	G
Code for rubber:	V
Installation:	
Maximum ambient temperature:	333 K
Max pressure at stated temp:	25 bar / 90 °C
	25 bar / -20 °C
Flange standard:	PJE
Connect code:	P
Pipe connection:	60,1 mm
Flange size for motor:	FT100
Liquid:	
Pumped liquid:	Water
Liquid temperature range:	253 .. 363 K
Liquid temp:	293 K
Density:	998.2 kg/m³
Electrical data:	
Motor type:	80C
IE Efficiency class:	IE3
Number of poles:	2
Rated power - P2:	1.1 kW
Power (P2) required by pump:	1.1 kW
Mains frequency:	50 Hz
Rated voltage:	3 x 220-240 D/380-415 Y V
Rated current:	4,35/2,50 A
Starting current:	450-500 %
Cos phi - power factor:	0,83-0,76
Rated speed:	2840-2870 rpm
Efficiency:	IE3 82,7%
Enclosure class (IEC 34-5):	55 (Protect. water jets/dust)
Insulation class (IEC 85):	F
Motor protec:	NONE
Motor No:	85U05105
Others:	
Label:	Grundfos Blueflux
Minimum efficiency index, MEI ≥:	0.7
Net weight:	34 kg
Gross weight:	38 kg



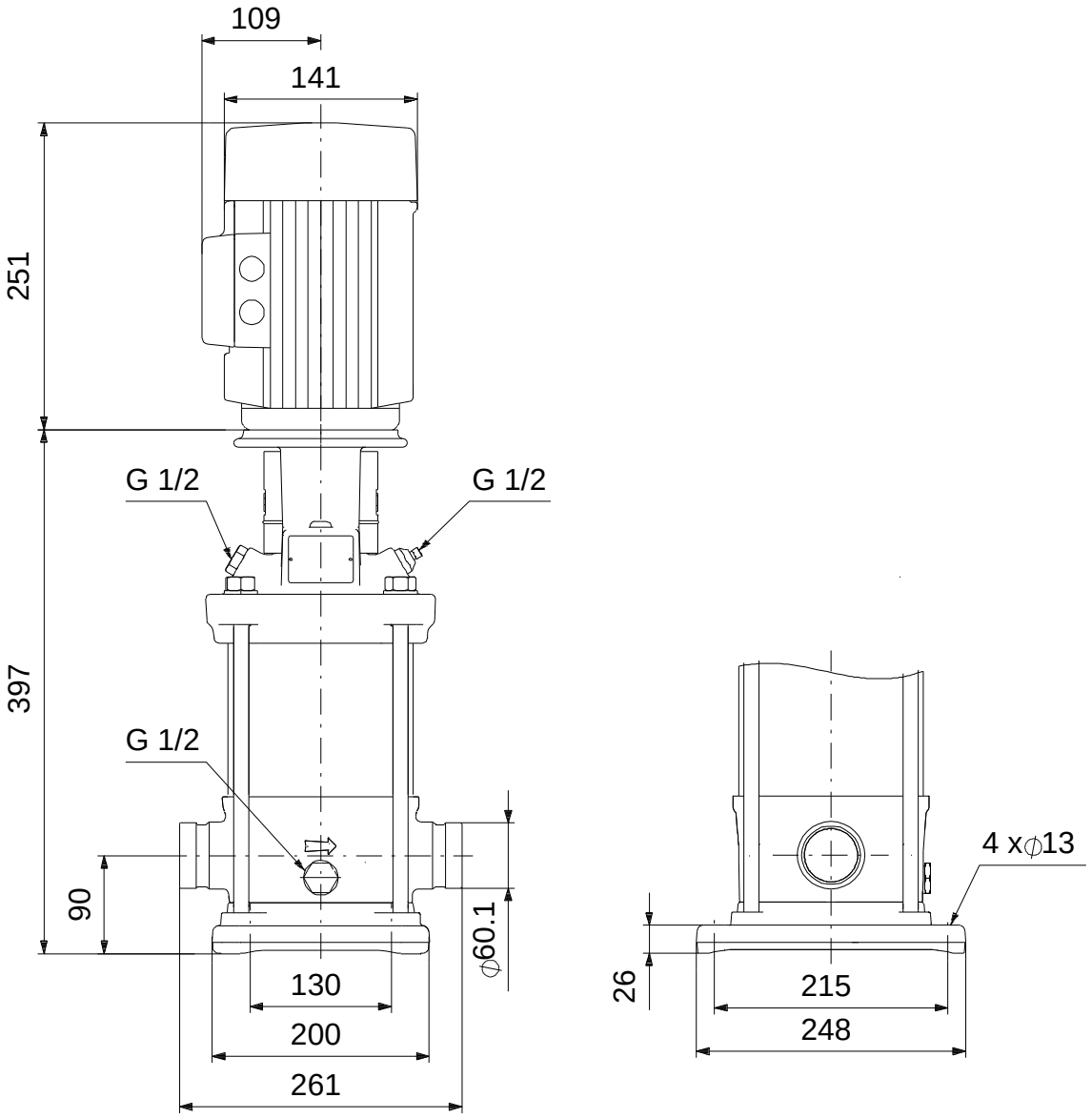




Description	Value
Shipping volume:	0.09 m3

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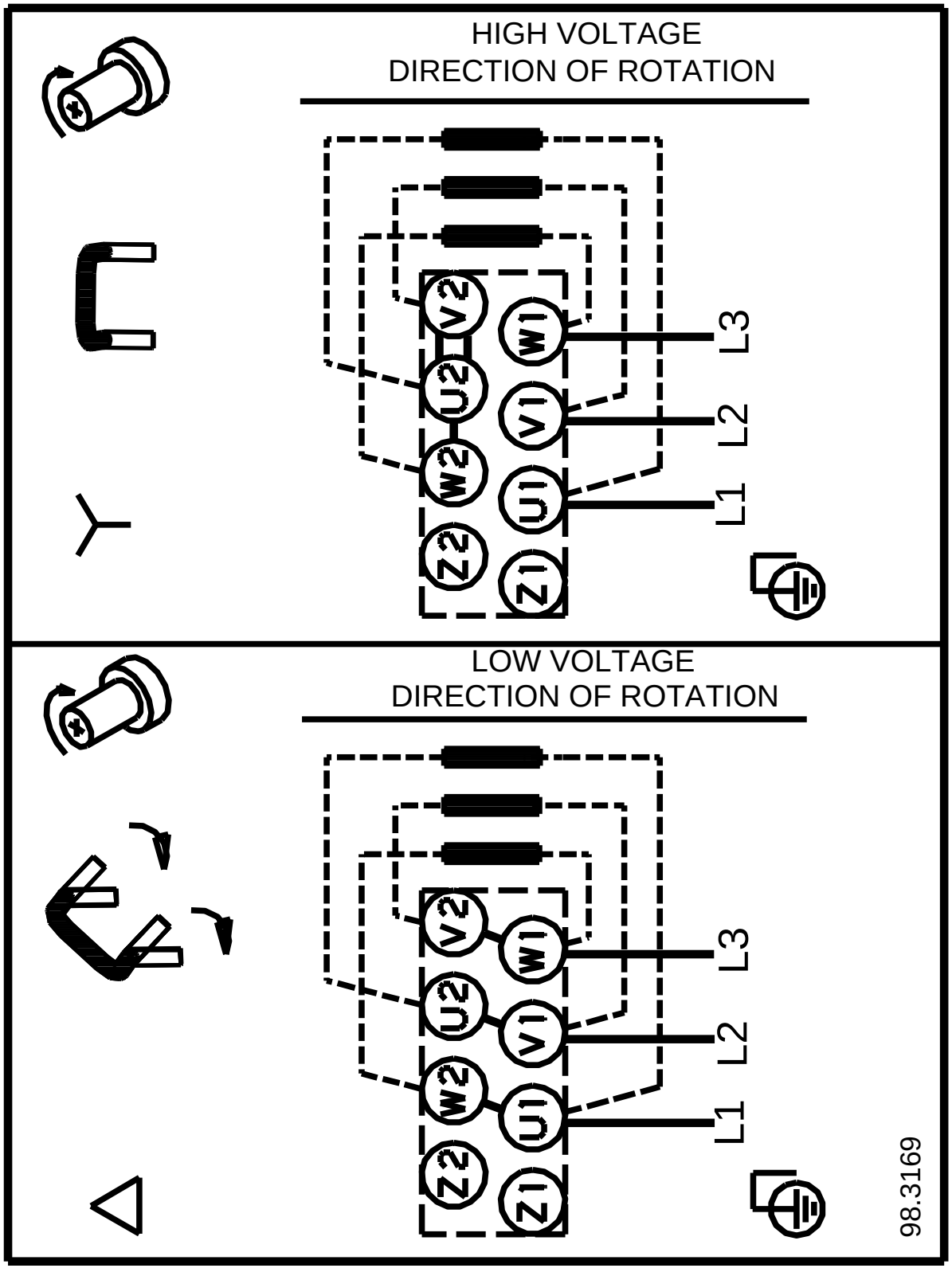
96500472 CRN 20-1 50 Hz



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

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96500472 CRN 20-1 50 Hz



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Disclaimer: The information about the Grundfos pump in this document may be outdated.
Data may be subject to alterations without further notice.
Please contact us to verify the data above is still accurate/up-to-date.

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