

CRNE3-23 AN-FGJ-G-E-HQQE 3x380-500 60HZ

Grundfos pump 99072180



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<https://www.lenntech.com/grundfos/CRNE03/99072180/CRNE-3-23-AN-FGJ-G-E-HQQE.html>

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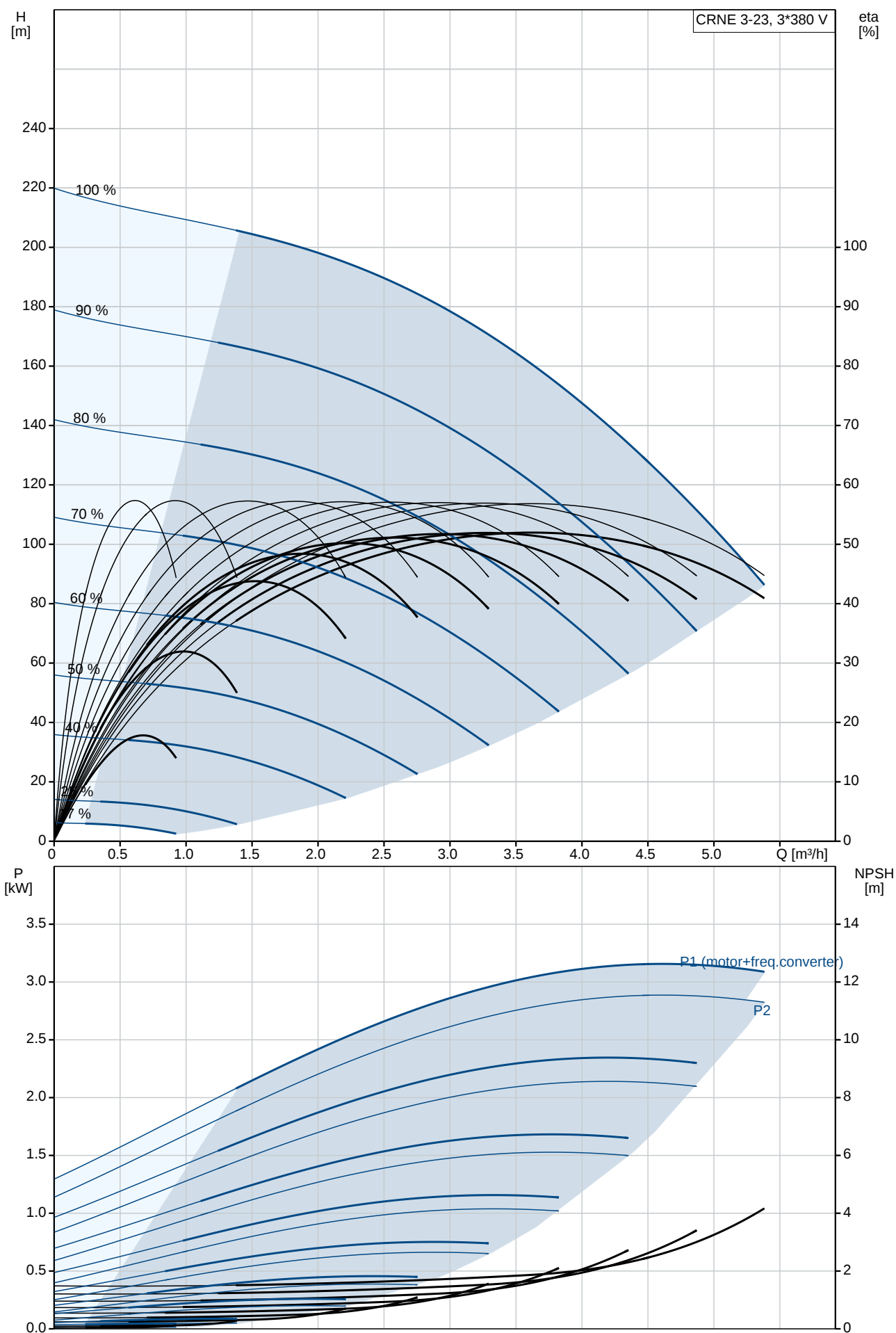
Position	Qty.	Description
	1	CRNE 3-23 N-FGJ-A-E-HQQE  Note! Product picture may differ from actual product Product No.: On request Vertical, multistage centrifugal pump with inlet and outlet ports on same the level (inline). Pump materials in contact with the liquid are in high-grade stainless steel. A cartridge shaft seal ensures high reliability, safe handling, and easy access and service. Power transmission is via a rigid split coupling. Pipe connection is via combined DIN-ANSI-JIS flanges. The pump is fitted with a 3-phase, fan-cooled, permanent-magnet, synchronous motor. The motor efficiency is classified as IE5 in accordance with IEC 60034-30-2. The motor includes a frequency converter and PI controller in the motor terminal box. This enables continuously variable control of the motor speed, which again enables adaptation of the performance to a given requirement. An operating panel on the motor terminal box enables setting of required setpoint as well as setting of pump to "Min." or "Max." operation or to "Stop". The Grundfos Eye indicator on the operating panel provides visual indication of pump status: • "Power on": Motor is running (rotating green indicator lights) or not running (permanently green indicator lights) • "Warning": Motor is still running (rotating yellow indicator lights) or has stopped (permanently yellow indicator lights) • "Alarm": Motor has stopped (flashing red indicator lights). Communication with the pump is possible by means of Grundfos GO Remote (accessory). The remote control enables further settings as well as reading out of a number of parameters such as "Actual value", "Speed", "Power input" and total "Power consumption". The terminal box has a number of inputs and outputs enabling the motor to be used in advanced applications where many inputs and outputs are required: • two dedicated digital inputs • three analog inputs, 0(4)-20 mA, 0-5 V, 0-10 V, 0.5 - 3.5 V; the factory-fitted pressure sensor is connected to one of these inputs • 5 V voltage supply to potentiometer and sensor • one analog output, 0-10 V, 0(4)-20 mA • two configurable digital inputs or open-collector outputs • two Pt100/Pt1000 inputs • LiqTec, dry-running protection sensor input • Grundfos Digital Sensor input and output • 24 V voltage supply for sensors • two signal-relay outputs (potential-free contacts) • GENIbus connection • interface for Grundfos CIM fieldbus module. Further product details The pump is equipped with a pressure sensor registering pump outlet pressure and enabling controlled pump operation based on constant pressure. An operating panel on the motor terminal box enables setting of required setpoint as well as setting of pump to "Min." or "Max." operation or to "Stop". The Grundfos Eye indicator on the operating panel provides visual indication of pump status:

Position	Qty.	Description
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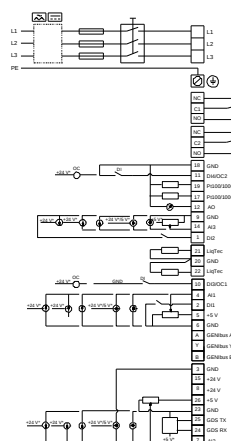
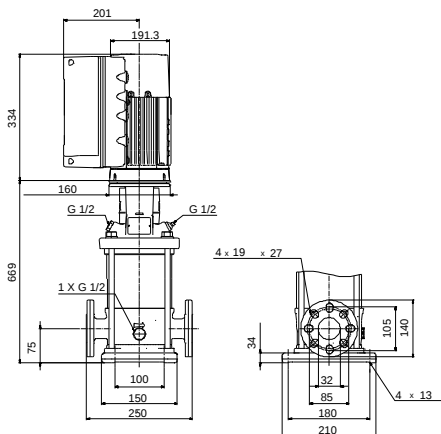
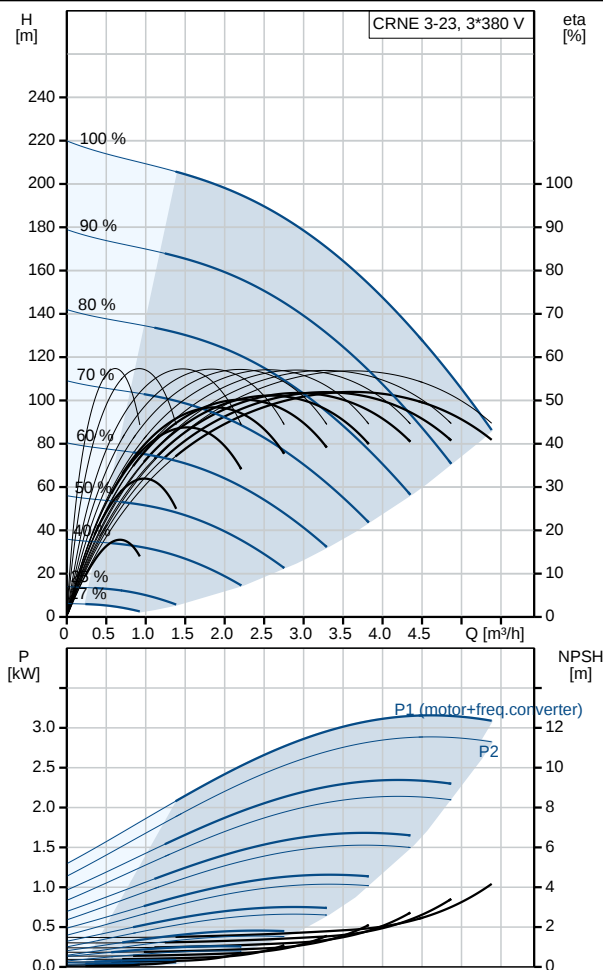
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		The chambers and impellers are made of stainless-steel sheet. The chambers are provided with a PTFE neck ring offering improved sealing and high efficiency. The impellers have smooth surfaces, and the shape of the blades ensure a high efficiency. The pump has a stainless-steel base mounted on a seperate base plate. This base and base plate are kept in position by the tension of the staybolts which hold the pump together. The outlet side of the base has a combined drain plug and bypass valve. The pump is secured to the foundation by four bolts through the base plate. The flanges and base are cast in one piece and prepared for connection by means of DIN, ANSI or JIS. 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). 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 IE5 in accordance with IEC 60034-30-2. The motor requires no external motor protection. The motor control unit incorporates protection against slow- and quick-rising temperatures, e.g. constant overload and stalled conditions. Technical data Controls: <table><tr><td>Frequency converter:</td><td>Built-in</td></tr><tr><td>Pressure sensor:</td><td>Y</td></tr></table> Liquid: <table><tr><td>Pumped liquid:</td><td>Water</td></tr><tr><td>Liquid temperature range:</td><td>-20 .. 120 °C</td></tr><tr><td>Liquid temperature during operation:</td><td>20 °C</td></tr><tr><td>Density:</td><td>998.2 kg/m³</td></tr></table> Technical: <table><tr><td>Rated flow:</td><td>3.5 m³/h</td></tr><tr><td>Rated head:</td><td>166.3 m</td></tr><tr><td>Pump orientation:</td><td>Vertical</td></tr><tr><td>Shaft seal arrangement:</td><td>Single</td></tr><tr><td>Code for shaft seal:</td><td>HQQE</td></tr><tr><td>Approvals on nameplate:</td><td>CE, EAC,ACS</td></tr><tr><td>Curve tolerance:</td><td>ISO9906:2012 3B</td></tr></table> Materials: <table><tr><td>Base:</td><td>Stainless steel EN 1.4408 AISI 316</td></tr><tr><td>Impeller:</td><td>Stainless steel EN 1.4401 AISI 316</td></tr><tr><td>Bearing:</td><td>SIC</td></tr></table> Installation: <table><tr><td>Maximum ambient temperature:</td><td>50 °C</td></tr><tr><td>Maximum operating pressure:</td><td>25 bar</td></tr><tr><td>Max pressure at stated temp:</td><td>25 bar / 120 °C 25 bar / -20 °C</td></tr><tr><td>Type of connection:</td><td>DIN / ANSI / JIS</td></tr><tr><td>Size of inlet connection:</td><td>DN 25/32 1 1/4 inch</td></tr><tr><td>Size of outlet connection:</td><td>DN 25/32 1 1/4 inch</td></tr><tr><td>Pressure rating for pipe connection:</td><td>PN 25</td></tr><tr><td>Flange rating inlet:</td><td>300 lb</td></tr><tr><td>Flange size for motor:</td><td>FT130</td></tr></table> Electrical data: <table><tr><td>Motor standard:</td><td>IEC</td></tr></table>	Frequency converter:	Built-in	Pressure sensor:	Y	Pumped liquid:	Water	Liquid temperature range:	-20 .. 120 °C	Liquid temperature during operation:	20 °C	Density:	998.2 kg/m³	Rated flow:	3.5 m³/h	Rated head:	166.3 m	Pump orientation:	Vertical	Shaft seal arrangement:	Single	Code for shaft seal:	HQQE	Approvals on nameplate:	CE, EAC,ACS	Curve tolerance:	ISO9906:2012 3B	Base:	Stainless steel EN 1.4408 AISI 316	Impeller:	Stainless steel EN 1.4401 AISI 316	Bearing:	SIC	Maximum ambient temperature:	50 °C	Maximum operating pressure:	25 bar	Max pressure at stated temp:	25 bar / 120 °C 25 bar / -20 °C	Type of connection:	DIN / ANSI / JIS	Size of inlet connection:	DN 25/32 1 1/4 inch	Size of outlet connection:	DN 25/32 1 1/4 inch	Pressure rating for pipe connection:	PN 25	Flange rating inlet:	300 lb	Flange size for motor:	FT130	Motor standard:	IEC
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Position	Qty.	Description
		Motor type: 100LA IE Efficiency class: IE5 Rated power - P2: 3 kW Power (P2) required by pump: 3 kW Mains frequency: 50 Hz Rated voltage: 3 x 380-500 V Rated current: 5.80-4.80 A Cos phi - power factor: 0.91-0.86 Rated speed: 360-4000 rpm Efficiency: 90.7% Motor efficiency at full load: 90.7 % Enclosure class (IEC 34-5): IP55 Insulation class (IEC 85): F Others: Minimum efficiency index, MEI $\geq$ 0.7 Net weight: 48.8 kg Gross weight: 69.8 kg Shipping volume: 0.285 m³

On request CRNE 3-23 N-FGJ-A-E-HQQE 50 Hz

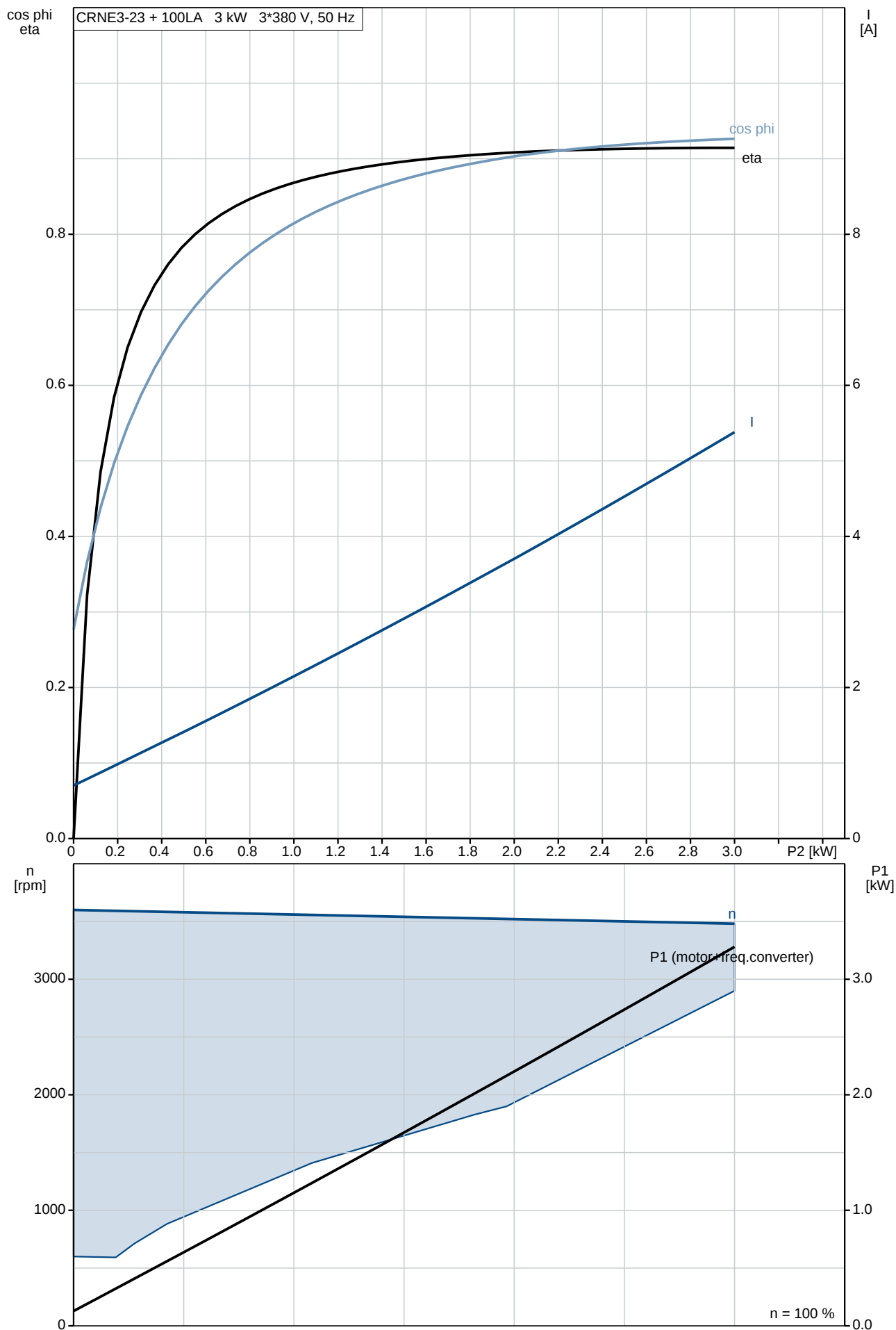


Description	Value
General information:	
Product name:	CRNE 3-23 N-FGJ-A-E-HQQE
Product No:	On request
EAN number:	On request
Technical:	
Rated flow:	3.5 m³/h
Rated head:	166.3 m
Stages:	23
Impellers:	23
Number of reduced-diameter impellers:	0
Low NPSH:	N
Pump orientation:	Vertical
Shaft seal arrangement:	Single
Code for shaft seal:	HQQE
Approvals on nameplate:	CE, EAC, ACS
Curve tolerance:	ISO9906:2012 3B
Pump version:	N
Model:	A
Materials:	
Base:	Stainless steel EN 1.4408 AISI 316
Impeller:	Stainless steel EN 1.4401 AISI 316
Material code:	A
Code for rubber:	E
Bearing:	SIC
Installation:	
Maximum ambient temperature:	50 °C
Maximum operating pressure:	25 bar
Max pressure at stated temp:	25 bar / 120 °C 25 bar / -20 °C
Type of connection:	DIN / ANSI / JIS
Size of inlet connection:	DN 25/32 1 1/4 inch
Size of outlet connection:	DN 25/32 1 1/4 inch
Pressure rating for pipe connection:	PN 25
Flange rating inlet:	300 lb
Flange size for motor:	FT130
Connect code:	FGJ
Liquid:	
Pumped liquid:	Water
Liquid temperature range:	-20 .. 120 °C
Liquid temperature during operation:	20 °C
Density:	998.2 kg/m³
Electrical data:	
Motor standard:	IEC
Motor type:	100LA
IE Efficiency class:	IE5
Rated power - P2:	3 kW
Power (P2) required by pump:	3 kW
Mains frequency:	50 Hz
Rated voltage:	3 x 380-500 V
Rated current:	5.80-4.80 A
Cos phi - power factor:	0.91-0.86
Rated speed:	360-4000 rpm
Efficiency:	90.7%
Motor efficiency at full load:	90.7 %
Enclosure class (IEC 34-5):	IP55
Insulation class (IEC 85):	F

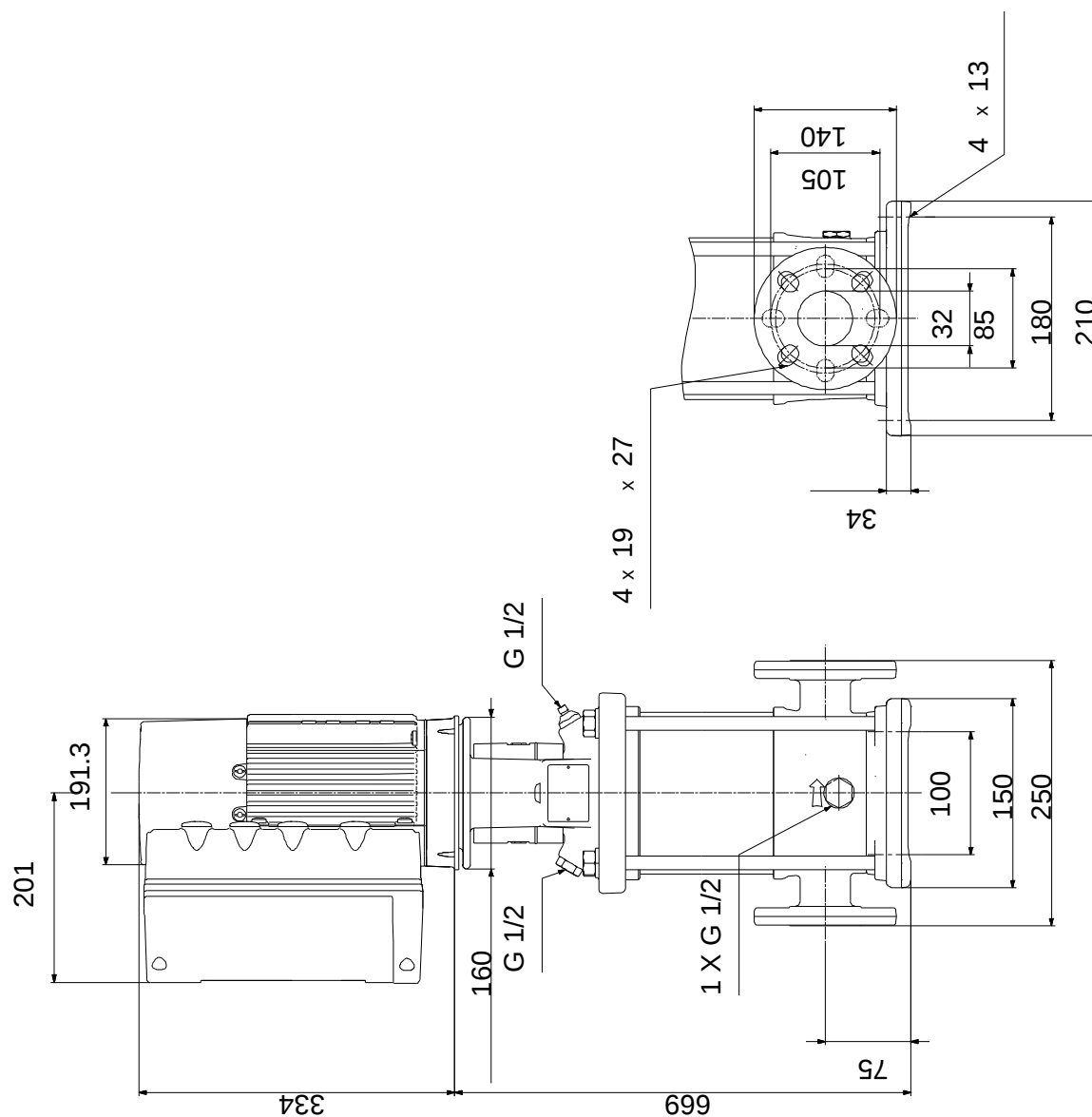


Description	Value
Motor protec:	YES
Motor No:	98971049
Controls:	
Control panel:	Standard
Function Module:	FM300 - Advanced
Frequency converter:	Built-in
Pressure sensor:	Y
Others:	
Minimum efficiency index, MEI ≥:	0.7
Net weight:	48.8 kg
Gross weight:	69.8 kg
Shipping volume:	0.285 m³

On request CRNE 3-23 N-FGJ-A-E-HQQE 50 Hz



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

Exploded view



Sectional drawing (TM058200 for TPE2,TPE3)



TM058200

Exploded view (TM057026 for MGE model H/I)



Parts list CRNE 3-23, Product No. On request
Valid from 1.1.2004 (0401)

Pos	Description	Annotation	Données de classification	Référence	Quantité	Unité
+	Motor				1	pcs
-	Base cpl.				1	pcs
6	Base				1	
56	Base plate				1	
201.a	Flange				2	
203	Lock ring				2	
	Pressure transmitter				1	pcs
-	Sealing parts				1	pcs
- 25	Drain plug w/bypass valve				1	
38	O-ring		Diameter: 16,3		1	
			Material type: EPDM			
			Thickness: 2,4			
37	O-ring				2	
100	O-ring		Diameter: 16,3		2	
			Material type: EPDM			
			Thickness: 2,4			
- 2	Pump head cpl.				1	pcs
2	Pump head				1	
7	Coupling guard				2	
7a	Combi Slot Torx screw				4	
- 18	Air vent screw				1	
	Plug				1	
	Spindle				1	
28	Hex head screw		Length (mm): 25		4	
			Thread: M8			
60	Formed wire spring				1	
77	Pump cover				1	
- 8	Coupling cpl.				1	pcs
9	Hex socket head cap screw		Designation: DIN 912		4	
			Length (mm): 25			
			Thread: M8			
10	Shaft pin		Diameter: 5		1	
			Length (mm): 26			
10a	Coupling half				2	
26	Staybolt		Length (mm): 511		4	pcs
			Thread: M12			
36	Nut		Thread: M12		4	pcs
55	Outer sleeve				1	pcs
66a	Washer		Designation: DIN 125 A2		4	pcs
			Internal diameter: 13			
			Outer diameter: 24			
			Thickness: 2,5			
- 80	Chamber stack				1	pcs
- 4	Chamber cpl.				19	
4a	Intermediate chamber				1	
45	Neck ring				1	
65	Neck ring retainer				1	
- 4a	Chamber w. bearing cpl.				3	
4a	Intermediate chamber				1	
45	Neck ring				1	
65	Neck ring retainer				1	
- 5a	Chamber cpl.				1	
4a	Intermediate chamber				1	
45	Neck ring				1	
65	Neck ring retainer				1	
36	Lock nut		Thread: M8		1	
47a	Bearing ring, rotating				3	
49	Impeller cpl.				23	
- 50a	Guide vane cpl.				1	

Pos	Description	Annotation	Données de classification	Référence	Quantité	Unité
	Guide vane				6	
	Plate				1	
50b	Top plate				1	
- 51	Shaft, spline, cpl.				1	
51	Shaft				1	
62	Stop ring				1	
64a	Spacing pipe				19	
64a	Spacing pipe		Internal diameter: 12,85		3	
			Outer diameter: 15,85			
			Length (mm): 4,50			
64c	Clamp, splined		Internal diameter: 8,5		1	
			Outer diameter: 15			
66	Wedge lock washer				1	
- 105	Shaft seal		Material type: HQQE		1	pcs
	O-ring				1	
	O-ring				1	
	Seal driver, upper				1	
	Seal driver, lower				1	
	Spacer ring				1	
	Pipe				1	
	Plug				1	
	Plug				1	
	Compression spring				1	
	Socket set screw				1	
102	O-ring		Diameter: 22,00		1	
			Material type: EPDM			
			Thickness: 2,75			
103	Seal ring, stationary				1	
105	Seal ring, rotating				1	
107	O-ring				1	
113	Driver				1	

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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