

966/707

Specifications:

Approx Feed Flow: 2.00m³/hr*

Approx Permeate Flow: 0.54m³/hr*

Approx Recovery 27%*

**membrane manufacturer's recommendations*

Rejection: 99.5% (based on 15% recovery, 2,000mg/L NaCl, 225psi, 25°C)

Pump & Motor: GRUNDFOS CRI1-23 A-P-I-E HQQE

Membrane Vessels: 2 x 4040 Fibreglass

Membranes: 2 x RE-4040-BE CSM TFC

Prefilters: 1 x 4.5 x 20" 5µm Sediment.

1 x 4.5 x 20" 5µm Carbon

Connection: 1" Inlet, 1/2" Concentrate, 1/2" Permeate, 1/2" Brine

Flow Meters: Permeate 18Lpm / Concentrate 35Lpm

Pressure Gauges: Source 0-200psi / RO Outlet 0-500psi

Other Features: Dual TDS Meter

Auto Flush Controller

Low Pressure Switch

Provisions for a float switch



RE4040-BE

High productivity RO element with extended area for brackish water

CSM®

SPECIFICATIONS:

General Features	Permeate flow rate:	2,400 GPD (9.1 m ³ /day)
	Nominal salt rejection:	99.7%
	Effective membrane area:	85 ft ² (7.9 m ²)

1. The stated product performance is based on data taken after 30 minutes of operation at the following test conditions:

- 2,000 mg/L NaCl solution at 225 psig (1.5 MPa) applied pressure
- 15% recovery
- 77 °F (25 °C)
- pH 6.5–7.0

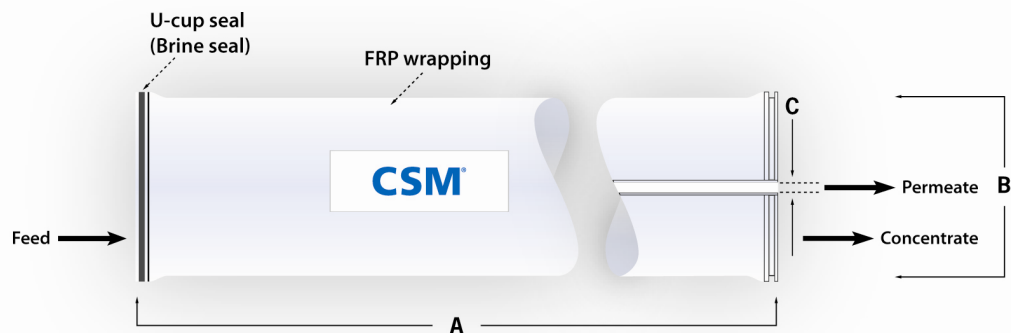
2. Minimum salt rejection is 99.4%.

3. Permeate flow rate for each element may vary but will be no more than 10% below the value shown.

4. All elements are vacuum sealed in a polyethylene bag containing 1.0% SBS (sodium bisulfite) solution and individually packaged in a cardboard box.

Membrane type:	Thin-Film Composite
Membrane material:	Polyamide (PA)
Element configuration:	Spiral-Wound, FRP Wrapping

Dimensions A = 21.0 inch (533 mm) B = 4.0 inch (102 mm) C = 0.75 inch (19.1 mm)



1. Each membrane element comes with one brine seal, one interconnector (coupler) and two o-rings.
2. All RE4040 elements fit nominal 4.0 inch (102 mm) I.D. pressure vessels.

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Product Specification Sheet / Model RE 4040-BE

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RE4040-BE

High productivity RO element with extended area for brackish water



APPLICATION DATA:

Operating Limits

· Max. Pressure Drop / Element	15 psi (0.1 MPa)
· Max. Pressure Drop / 240" Vessel	60 psi (0.41 MPa)
· Max. Operating Pressure	600 psi (4.14 MPa)
· Max. Feed Flow Rate	18 gpm (4.09 m ³ /hr)
· Min. Concentrate Flow Rate	4 gpm (0.91 m ³ /hr)
· Max. Operating Temperature	113 °F (45 °C)
· Operating pH Range	3.0–10.0
· CIP pH Range	2.0–11.0
· Max. Turbidity	1.0 NTU
· Max. SDI (15 min)	5.0
· Max. Chlorine Concentration	< 0.1 mg/L

Design Guidelines for Various Water Sources

· Wastewater Conventional (SDI < 5)	8–12 gfd
· Wastewater Pretreated by UF/MF (SDI < 3)	10–14 gfd
· Seawater, Open Intake (SDI < 5)	7–10 gfd
· Seawater, Beach Well (SDI < 3)	8–12 gfd
· Surface Water (SDI < 5)	12–16 gfd
· Surface Water (SDI < 3)	13–17 gfd
· Well water (SDI < 3)	13–17 gfd
· RO permeate (SDI < 1)	21–30 gfd

Saturation Limits (Using Antiscalants)[†]

· Langelier Saturation Index (LSI)	<+1.5
· Stiff and Davis Saturation Index (SDSI)	<+0.5
· CaSO ₄	230% saturation
· SrSO ₄	800% saturation
· BaSO ₄	6,000% saturation
· SiO ₂	100% saturation

[†]The above saturation limits are typically accepted by proprietary antiscalant manufacturers. It is the user's responsibility to ensure proper chemical(s) and concentration are dosed ahead of the membrane system to prevent scale formation anywhere within the membrane system. Membrane elements fouled or damaged due to scale formation are not covered by the limited warranty.

GENERAL HANDLING PROCEDURES

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight. If the polyethylene bag is damaged, a new preservative solution (sodium bisulfite) must be added and air-tight sealed to prevent drying and biological growth.
- Permeate from the first hour of operation should be discarded to flush out the preservative solution.
- Elements should be immersed in a preservative solution during storage, shipping and system shutdowns to prevent biological growth and freezing. The standard storage solution contains 1% by weight sodium bisulfite or sodium metabisulfite (food grade). For short term storage (i.e. one week or less) 1% by weight sodium metabisulfite solution is adequate for preventing biological growth.
- Keep elements moist at all times after initial wetting.
- Avoid excessive pressure and flow spikes.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.


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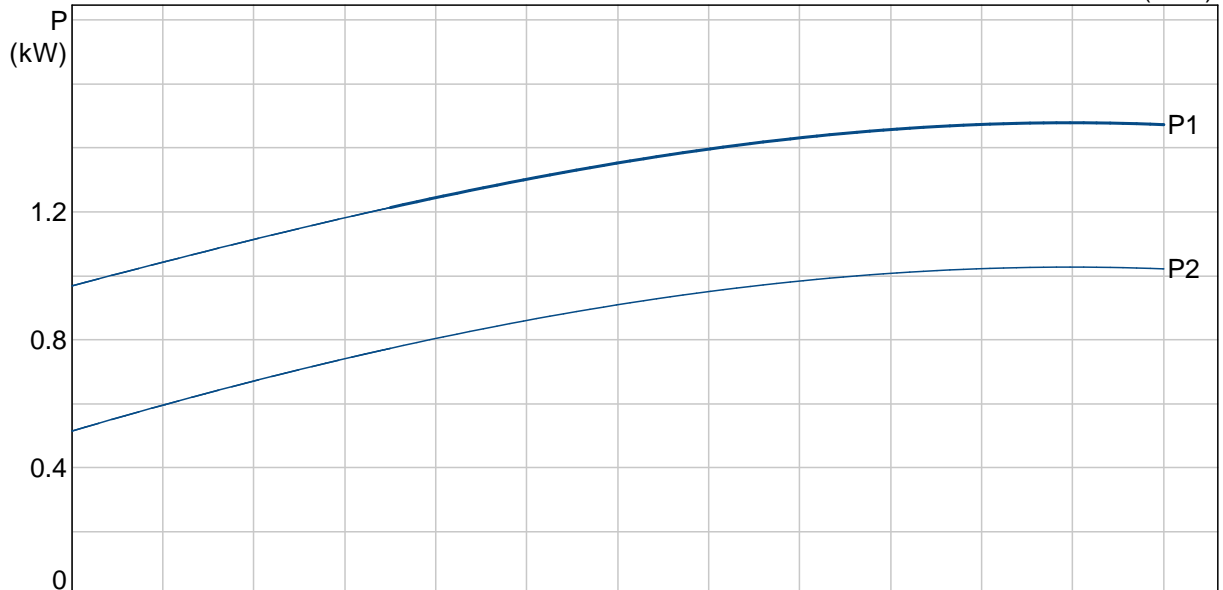
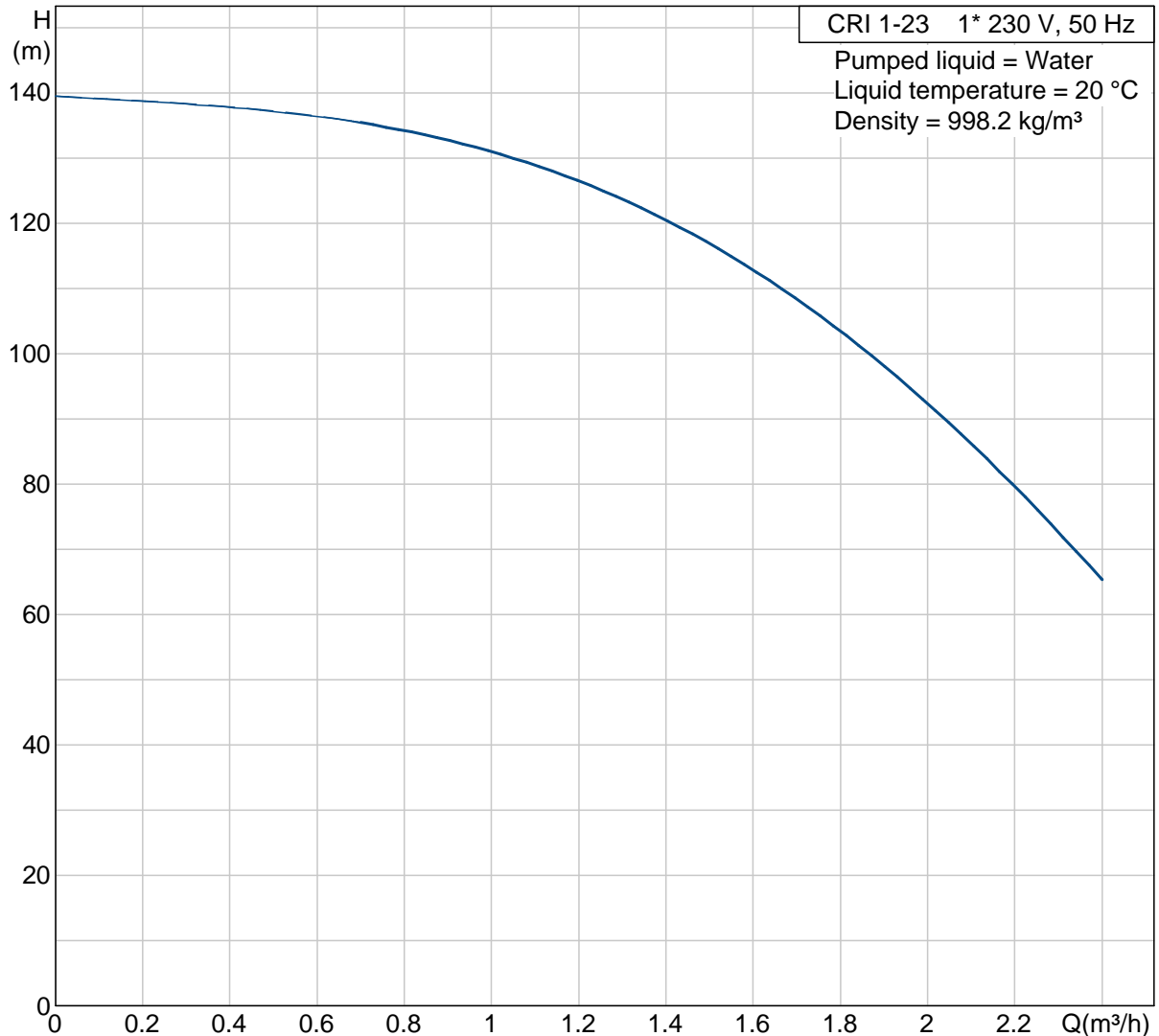


Position	Qty.	Description	Single Price
	1	<p>CRI 1-23 A-P-I-E HQQE</p>  <p>Note! Product picture may differ from actual product</p> <p>Product No.: 96533082 Vertical, non-self-priming, multistage, in-line, centrifugal pump for installation in pipe systems and mounting on a foundation.</p> <p>The pump has the following characteristics:</p> <ul style="list-style-type: none"> - Impellers, intermediate chambers and outer sleeve are made of Stainless steel DIN W.-Nr. DIN W.-Nr. 1.4301. - Pump head cover and base are made of Stainless steel DIN W.-Nr. DIN W.-Nr. 1.4408. - The shaft seal has assembly length according to EN 12756. - Power transmission is via cast iron split coupling. - Pipework connection is via PJE flanges/couplings. <p>The motor is a 1-phase AC motor.</p> <p>Liquid:</p> <p>Liquid temperature range: -20 .. 120 °C Liquid temp: 20 °C Density: 998.2 kg/m³</p> <p>Technical:</p> <p>Speed for pump data: 2789 rpm Rated flow: 1.8 m³/h Rated head: 98.4 m Shaft seal: HQQE Approvals on nameplate: CE Curve tolerance: ISO 9906 Annex A</p> <p>Materials:</p> <p>Pump housing: Stainless steel DIN W.-Nr. 1.4408 ASTM A 351 CF 8M</p> <p>Impeller: Stainless steel DIN W.-Nr. 1.4301 AISI 304</p> <p>Installation:</p> <p>Maximum ambient temperature: 40 °C Max pressure at stated temp: 25 bar / 120 °C 25 bar / -20 °C</p>	On request

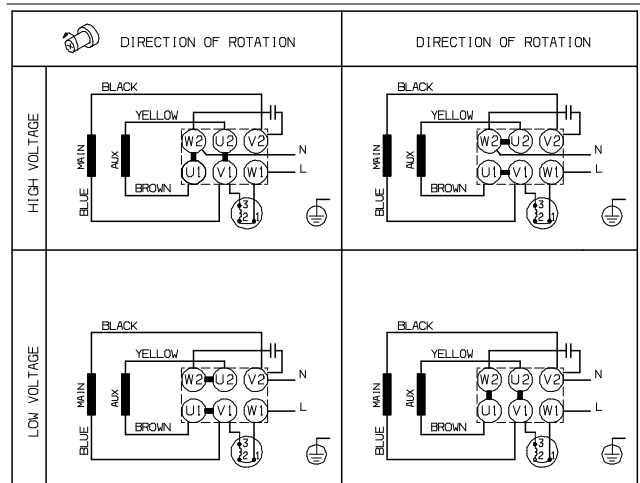
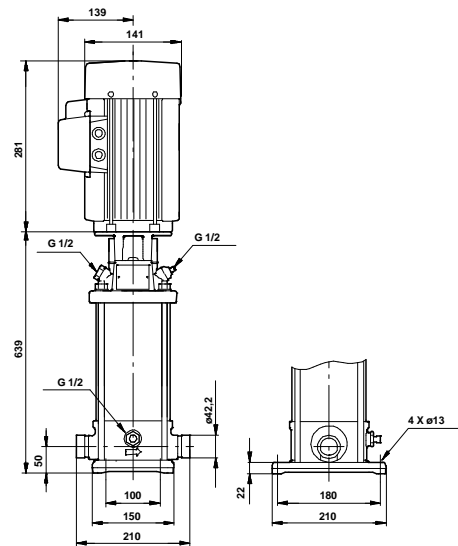
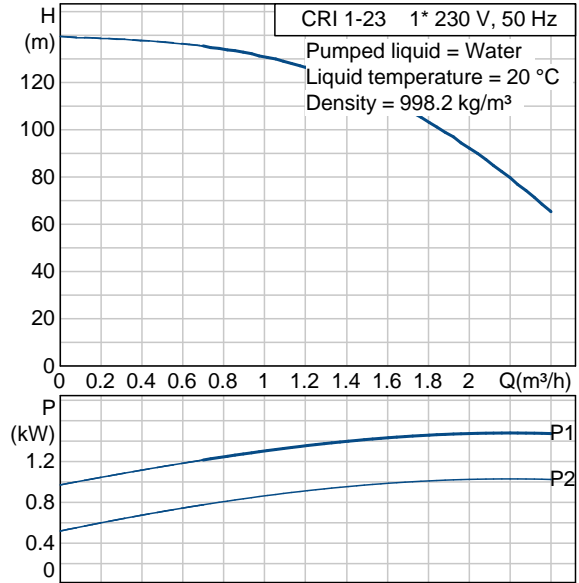
Position	Qty.	Description	Single Price
		Flange standard: PJE Pipe connection: 42,4 mm Flange size for motor: FT115 Electrical data: Motor type: 90SB Efficiency class: NA Number of poles: 2 Rated power - P2: 1.1 kW Power (P2) required by pump: 1.1 kW Mains frequency: 50 Hz Rated voltage: 1 x 220-230 / 240 V Rated current: 7.4 / 6.7 A Starting current: 390 % Cos phi - power factor: 0,98/0,99 Rated speed: 2770 rpm Motor efficiency at full load: 73-71 % Enclosure class (IEC 34-5): 55 (Protect. water jets/dust) Insulation class (IEC 85): F Others: Net weight: 33.3 kg Gross weight: 36.8 kg Shipping volume: 0.08 m3	



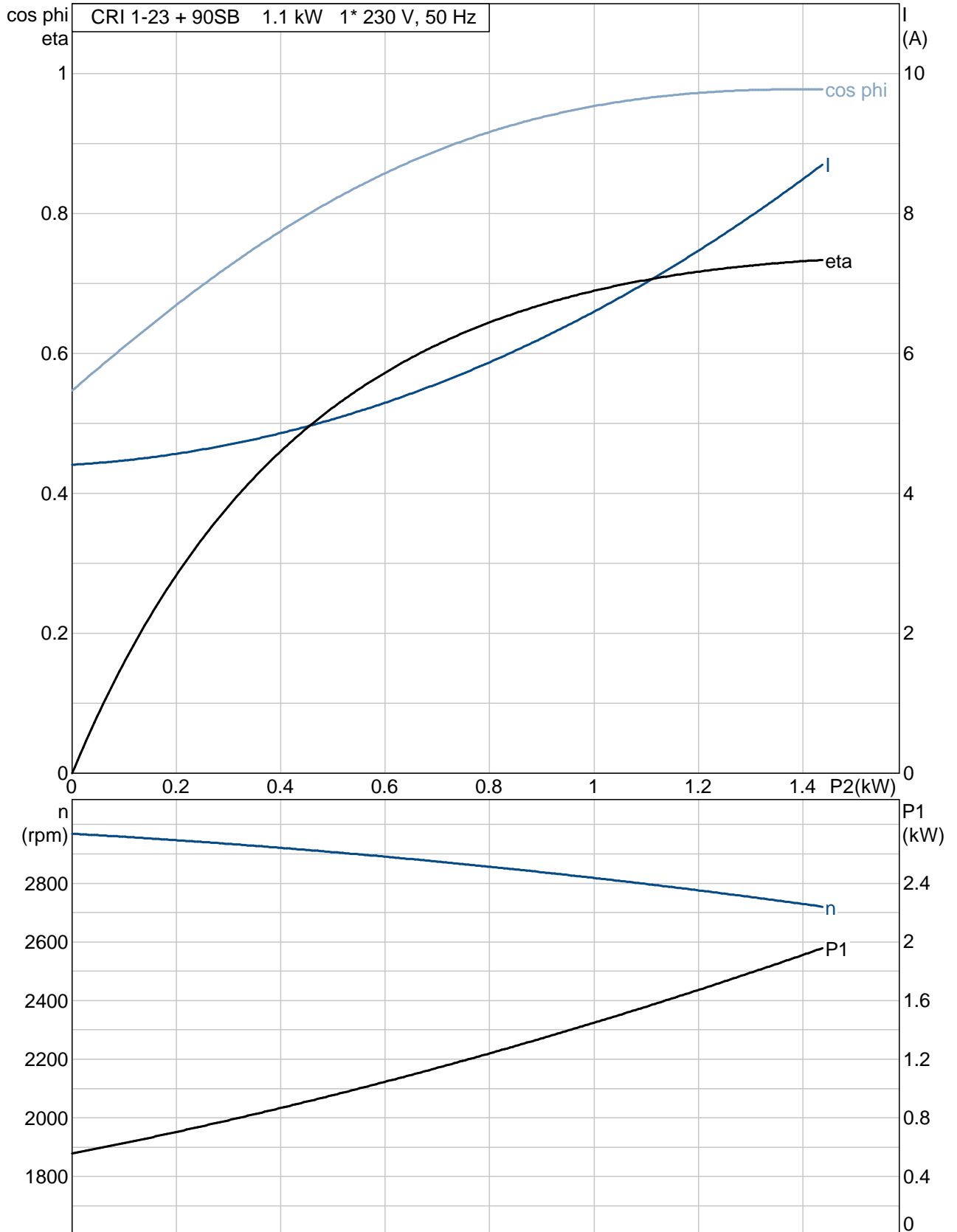
96533082 CRI 1-23 50 Hz



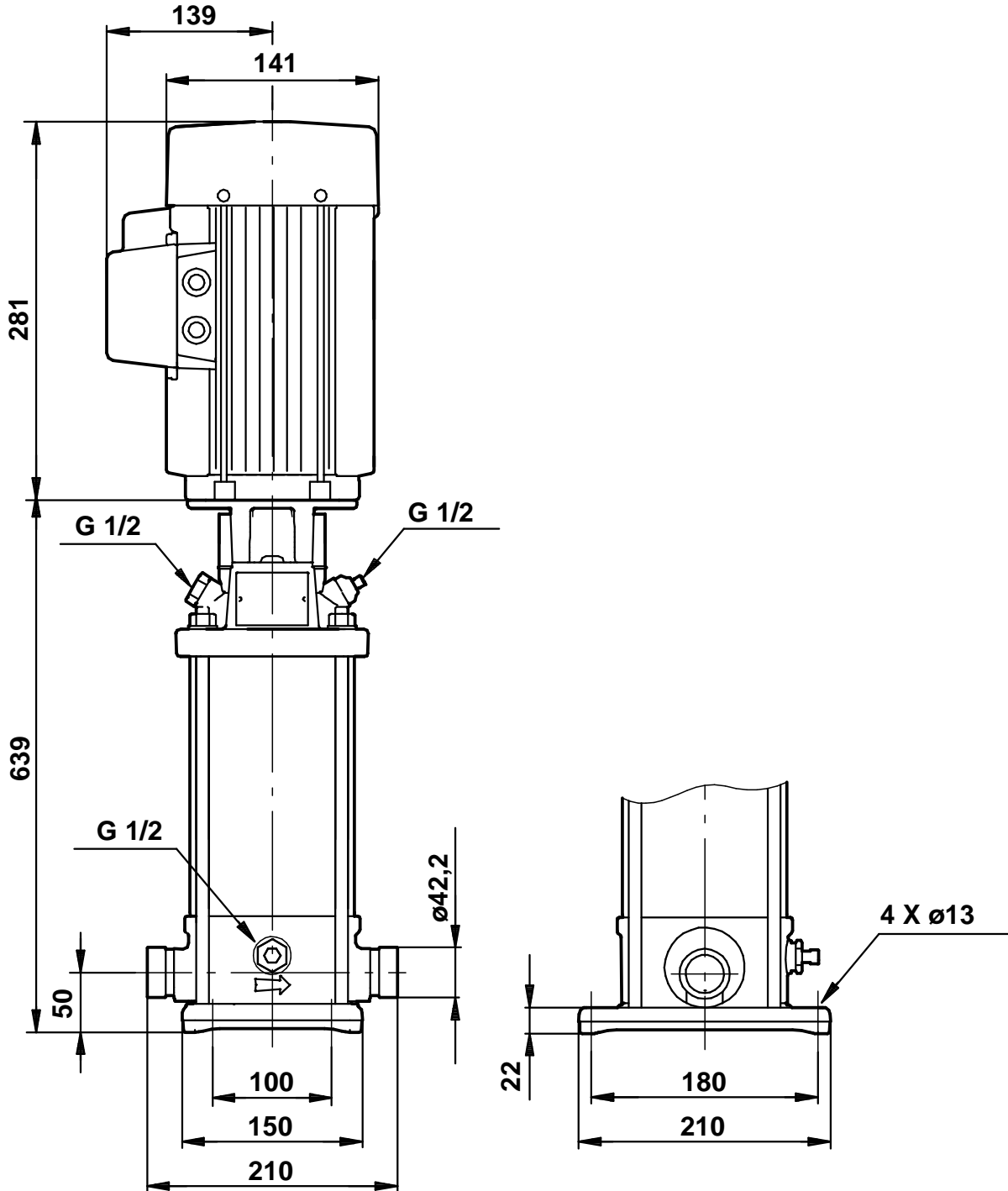
Description	Value
Product name:	CRI 1-23 A-P-I-E HQQE
Product No:	96533082
EAN number:	5700397422427
Technical:	
Speed for pump data:	2789 rpm
Rated flow:	1.8 m ³ /h
Rated head:	98.4 m
Impellers:	23
Shaft seal:	HQQE
Approvals on nameplate:	CE
Curve tolerance:	ISO 9906 Annex A
Stages:	23
Pump version:	A
Model:	A
Materials:	
Pump housing:	Stainless steel DIN W.-Nr. 1.4408 ASTM A 351 CF 8M
Impeller:	Stainless steel DIN W.-Nr. 1.4301 AISI 304
Material code:	I
Code for rubber:	E
Installation:	
Maximum ambient temperature:	40 °C
Max pressure at stated temp:	25 bar / 120 °C 25 bar / -20 °C
Flange standard:	PJE
Connect code:	P
Pipe connection:	42,4 mm
Flange size for motor:	FT115
Liquid:	
Liquid temperature range:	-20 .. 120 °C
Liquid temp:	20 °C
Density:	998.2 kg/m ³
Electrical data:	
Motor type:	90SB
Efficiency class:	NA
Number of poles:	2
Rated power - P2:	1.1 kW
Power (P2) required by pump:	1.1 kW
Mains frequency:	50 Hz
Rated voltage:	1 x 220-230 / 240 V
Rated current:	7.4 / 6.7 A
Starting current:	390 %
Cos phi - power factor:	0,98/0,99
Rated speed:	2770 rpm
Motor efficiency at full load:	73-71 %
Enclosure class (IEC 34-5):	55 (Protect. water jets/dust)
Insulation class (IEC 85):	F
Motor protec:	PTO
Motor No:	85215705
Others:	
Net weight:	33.3 kg
Gross weight:	36.8 kg
Shipping volume:	0.08 m ³



96533082 CRI 1-23 50 Hz

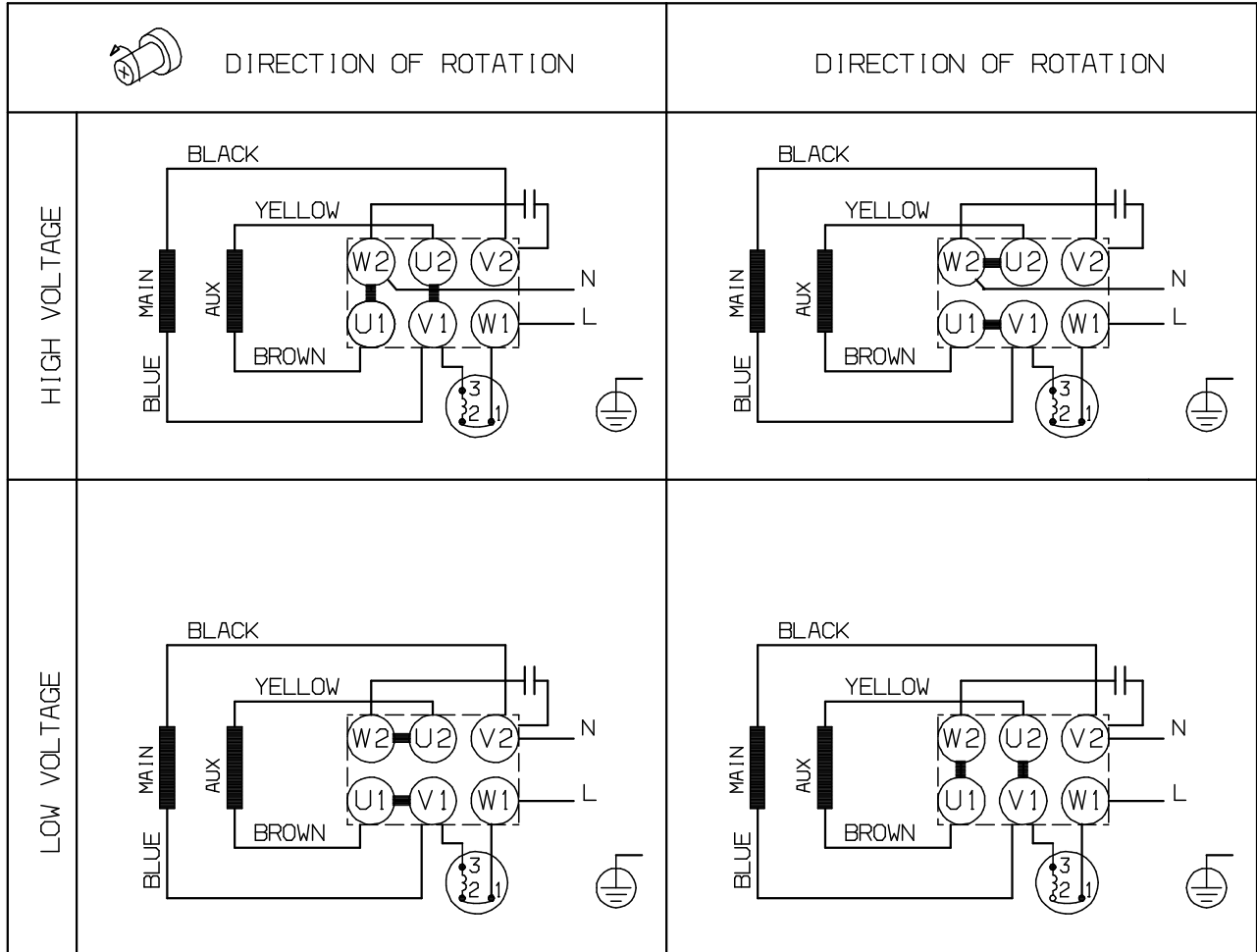


96533082 CRI 1-23 50 Hz



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

96533082 CRI 1-23 50 Hz



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