

CRN1S-13 A-P-G-E-HQQE 1x220/240 50HZ Grundfos pump 96532157




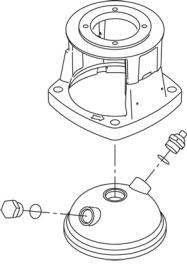
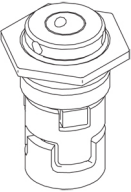
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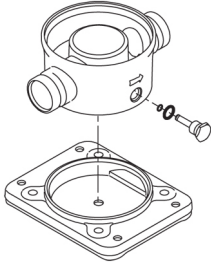
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info@lenntech.com

tel. +31 152 610 900

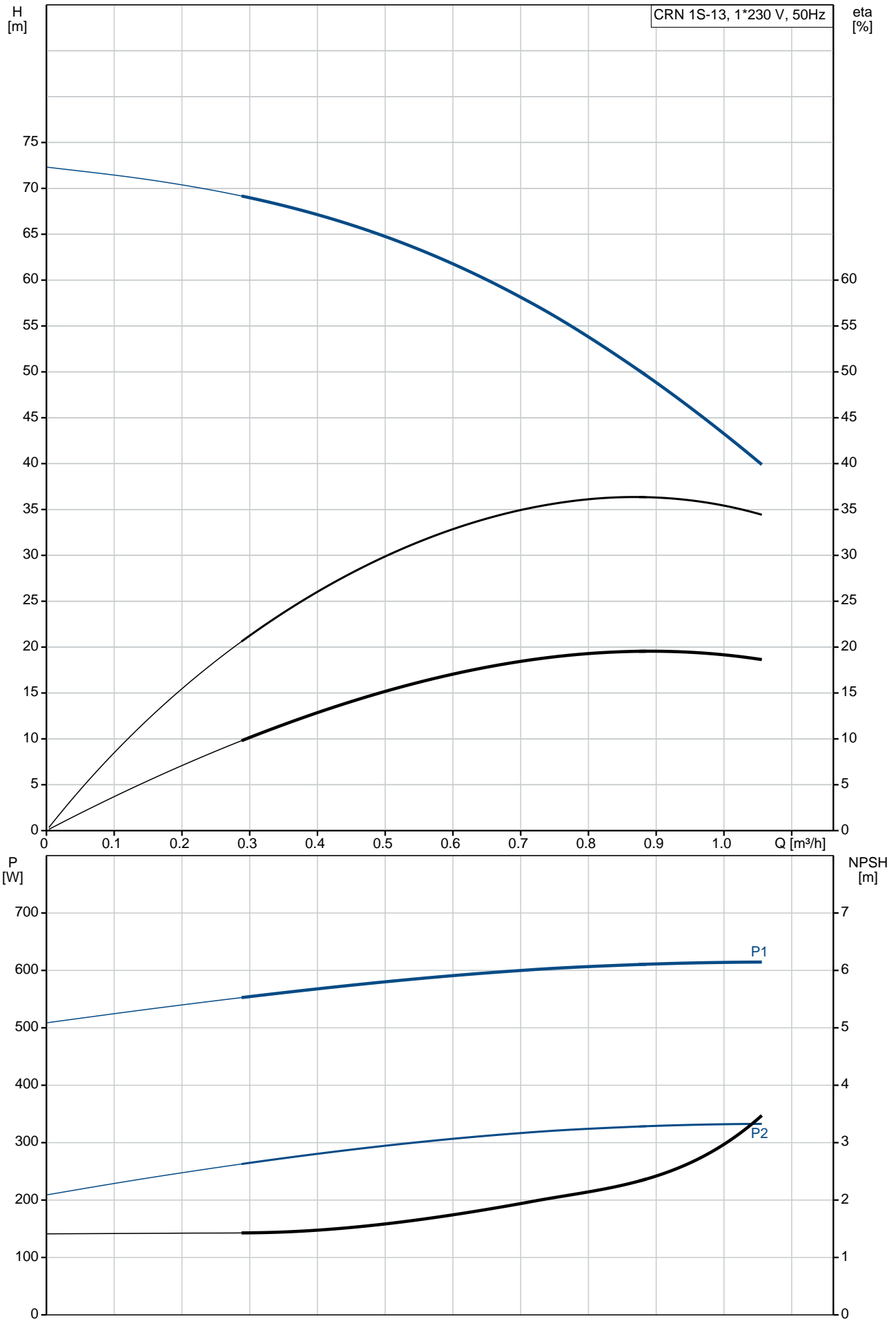
fax. +31 152 616 289

| Position | Qty. | Description |
|----------|------|---|
| | 1 | <p data-bbox="323 163 630 197">CRN 1S-13 A-P-A-E-HQQE</p>  <p data-bbox="323 488 598 521">Product No.: On request</p> <p data-bbox="323 544 1420 622">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. Power transmission is via a rigid split coupling. Pipe connection is via PJE (Victaulic®) couplings.</p> <p data-bbox="323 656 1053 689">The pump is fitted with a 1-phase, fan-cooled asynchronous motor.</p> <p data-bbox="323 723 638 757">Further product details</p> <p data-bbox="323 757 1444 857">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:</p> <ol data-bbox="323 869 813 992" style="list-style-type: none"> 1) Alkaline-based cleaning. 2) Zinc phosphating. 3) Cathodic electro-deposition. 4) Curing to a dry film thickness 18-22 my m. <p data-bbox="323 992 1029 1014">The colour code for the finished product is NCS 9000/RAL 9005.</p> <p data-bbox="323 1048 406 1081">Pump</p> <p data-bbox="323 1081 1444 1160">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 vent screw.</p>  <p data-bbox="323 1462 1428 1563">The pump is fitted with a balanced O-ring seal unit with a 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.</p> <p data-bbox="323 1574 470 1608">Primary seal:</p> <ul data-bbox="359 1608 917 1664" style="list-style-type: none"> • Rotating seal ring material: silicon carbide (SiC) • Stationary seat material: silicon carbide (SiC) <p data-bbox="323 1664 1428 1720">This material pairing is used where higher corrosion resistance is required. The high hardness of this material pairing offers good resistance against abrasive particles.</p> <p data-bbox="323 1720 981 1753">Secondary seal material: EPDM (ethylene-propylene rubber)</p> <p data-bbox="323 1753 1220 1787">EPDM has excellent resistance to hot water. EPDM is not suitable for mineral oils.</p>  <p data-bbox="323 2022 821 2056">The shaft seal is screwed into the pump head.</p> |

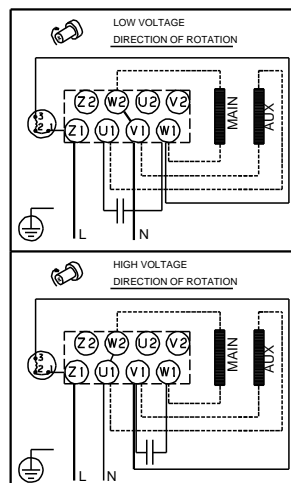
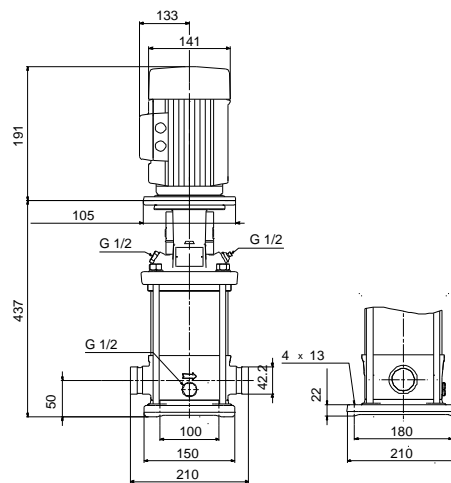
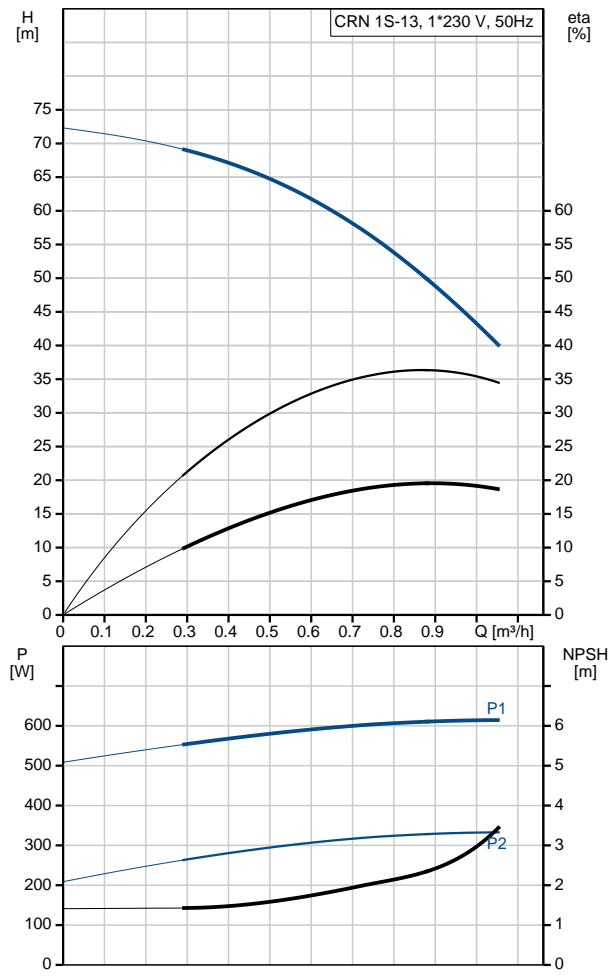
| Position | Qty. | Description |
|----------|------|---|
| | | <p>The pump has a stainless-steel base mounted on a separate base plate. The base and base plate are kept in position by the tension of the staybolts which hold the pump together. The outlet side of the base has a combined drain plug and bypass valve. The pump is secured to the foundation by four bolts through the base plate. The base is prepared for connection by means of PJE (Victualic®) couplings.</p>  <p>Motor</p> <p>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.</p> <p>The motor has built-in thermal protection (PTO current and temperature sensors) in accordance with IEC 60034-11 and requires no further motor protection. The protection reacts to both slow- and quick-rising temperatures, e.g. constant overload and stalled conditions.</p> <p>As the thermal protection incorporates automatic reset, the motor must be connected in a way which ensures that the automatic reset cannot cause accidents.</p> <p>Technical data</p> <p>Controls: Frequency converter: NONE</p> <p>Liquid: Pumped liquid: Water Liquid temperature range: -20 .. 120 °C Liquid temperature during operation: 20 °C Density: 998.2 kg/m³</p> <p>Technical: Rated flow: 0.9 m³/h Rated head: 53.4 m Pump orientation: Vertical Shaft seal arrangement: Single Code for shaft seal: HQQE Approvals on nameplate: CE, EAC, ACS Curve tolerance: ISO9906:2012 3B</p> <p>Materials: Base: Stainless steel EN 1.4408 AISI 316 Impeller: Stainless steel EN 1.4401 AISI 316 Bearing: SIC</p> <p>Installation: Maximum ambient temperature: 40 °C Maximum operating pressure: 25 bar Max pressure at stated temp: 25 bar / 120 °C 25 bar / -20 °C Type of connection: PJE Size of inlet connection: DN 32 1 1/4 inch Size of outlet connection: DN 32 1 1/4 inch</p> |

| Position | Qty. | Description |
|----------|------|---|
| | | Pressure rating for pipe connection: PN 50 Flange size for motor: FT85 Electrical data: Motor standard: IEC Motor type: 71B Rated power - P2: 0.37 kW Power (P2) required by pump: 0.37 kW Mains frequency: 50 Hz Rated voltage: 1 x 220-230/240 V Rated current: 2.95/2.70 A Starting current: 280 % Cos phi - power factor: 0.99 Rated speed: 2770 rpm Motor efficiency at full load: 60.0-56.0 % Number of poles: 2 Enclosure class (IEC 34-5): 55 Dust/Jetting Insulation class (IEC 85): F Others: Minimum efficiency index, MEI : 0.54 Net weight: 21.3 kg Gross weight: 24.1 kg Shipping volume: 0.074 m ³ |

On request CRN 1S-13 A-P-A-E-HQQE 50 Hz



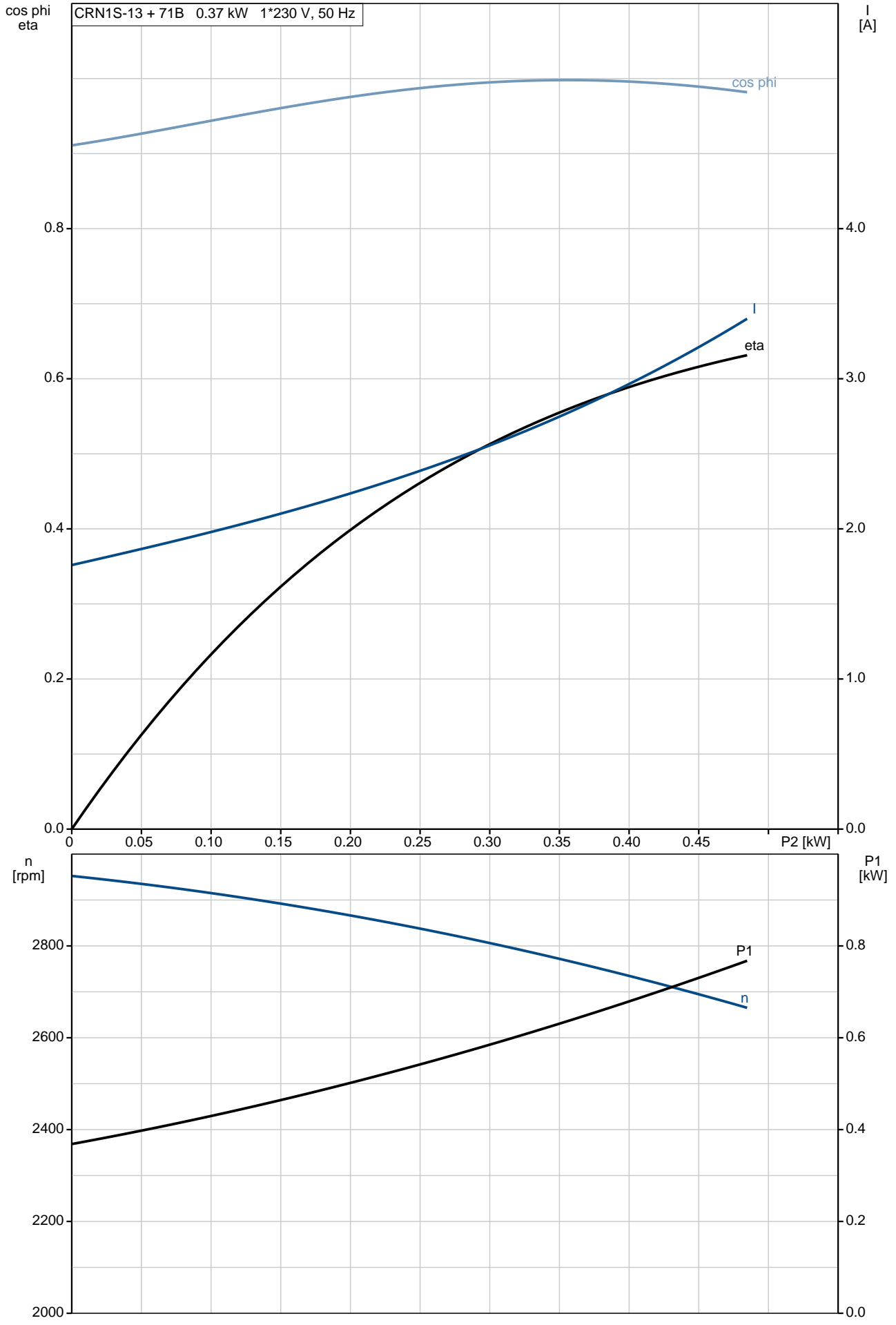
| Description | Value |
|---------------------------------------|--|
| General information: | |
| Product name: | CRN 1S-13 A-P-A-E-HQQE |
| Product No: | On request |
| EAN number: | On request |
| Technical: | |
| Rated flow: | 0.9 m ³ /h |
| Rated head: | 53.4 m |
| Stages: | 13 |
| Impellers: | 13 |
| 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: | A |
| 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: | 40 °C |
| Maximum operating pressure: | 25 bar |
| Max pressure at stated temp: | 25 bar / 120 °C 25 bar / -20 °C |
| Type of connection: | PJE |
| Size of inlet connection: | DN 32 1 1/4 inch |
| Size of outlet connection: | DN 32 1 1/4 inch |
| Pressure rating for pipe connection: | PN 50 |
| Flange size for motor: | FT85 |
| Connect code: | P |
| Liquid: | |
| Pumped liquid: | Water |
| Liquid temperature range: | -20 .. 120 °C |
| Liquid temperature during operation: | 20 °C |
| Density: | 998.2 kg/m ³ |
| Electrical data: | |
| Motor standard: | IEC |
| Motor type: | 71B |
| Rated power - P2: | 0.37 kW |
| Power (P2) required by pump: | 0.37 kW |
| Mains frequency: | 50 Hz |
| Rated voltage: | 1 x 220-230/240 V |
| Rated current: | 2.95/2.70 A |
| Starting current: | 280 % |
| Cos phi - power factor: | 0.99 |
| Rated speed: | 2770 rpm |
| Motor efficiency at full load: | 60.0-56.0 % |
| Number of poles: | 2 |
| Enclosure class (IEC 34-5): | 55 Dust/Jetting |
| Insulation class (IEC 85): | F |
| Motor protec: | PTO |
| Motor No: | 85215102 |



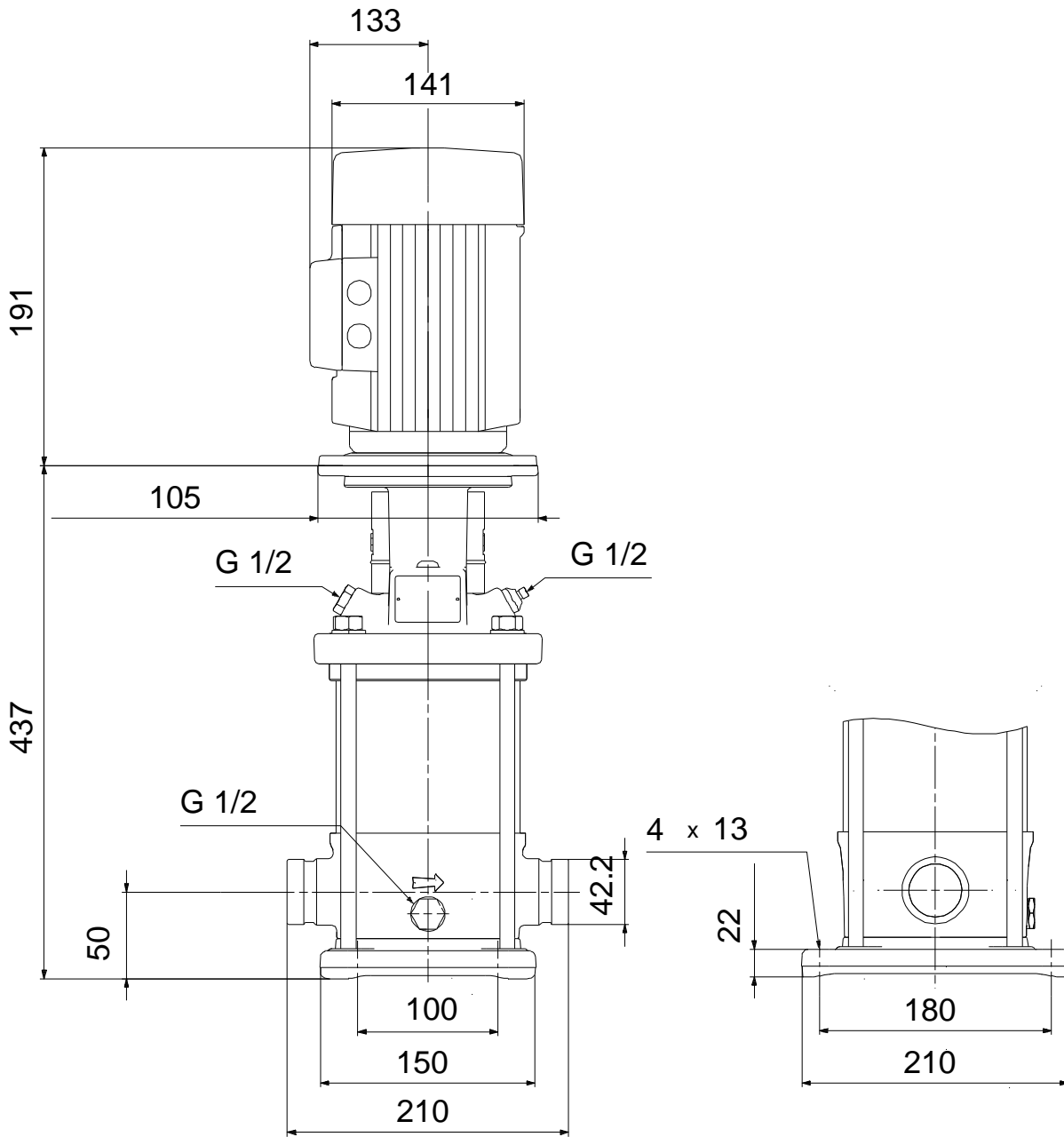
| Description | Value |
|---------------------------------|----------------------|
| Controls: | |
| Frequency converter: | NONE |
| Others: | |
| Minimum efficiency index, MEI : | 0.54 |
| Net weight: | 21.3 kg |
| Gross weight: | 24.1 kg |
| Shipping volume: | 0.074 m ³ |
| Sales region: | GB |

On request CRN 1S-13 A-P-A-E-HQQE 50 Hz

CRN1S-13 + 71B 0.37 kW 1*230 V, 50 Hz



On request CRN 1S-13 A-P-A-E-HQQE 50 Hz



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 CRN 1S-13, 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 | |
| 25 | Plug | | | | 2 | |
| 56 | Base plate | | | | 1 | |
| - | 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 | |
| 7.a | Combi Slot Torx screw | | | | 4 | |
| - 18 | Air vent screw | | | | 1 | |
| | Plug | | | | 1 | |
| | Spindle | | | | 1 | |
| 23a | Plug | | | | 1 | |
| 28 | Hex head screw | | Length (mm): 20 | | 4 | |
| | | | Thread: M6 | | | |
| 60 | Formed wire spring | | | | 1 | |
| 77 | Pump cover | | | | 1 | |
| - 8 | Coupling | | | | 1 | pcs |
| 9 | Hex socket head cap screw | | Designation: DIN 912 | | 4 | |
| | | | Length (mm): 20 | | | |
| | | | Thread: M6 | | | |
| 10 | Shaft pin | | Diameter: 5 | | 1 | |
| | | | Length (mm): 26 | | | |
| 10a | Coupling half | | | | 2 | |
| 26 | Staybolt | | Length (mm): 335 | | 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. | | | | 10 | |
| 4a | Intermediate chamber | | | | 1 | |
| 45 | Neck ring | | | | 1 | |
| 65 | Neck ring retainer | | | | 1 | |
| - 4a | Chamber w. bearing cpl. | | | | 2 | |
| 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 | | | | 2 | |
| - 49 | Impeller cpl. | | | | 13 | |
| 49 | Impeller | | | | 1 | |
| - 50a | Guide vane | | | | 1 | |

| Pos | Description | Annotation | Données de classification | Référence | Quantité | Unité |
|-------|-----------------------|------------|---------------------------|-----------|----------|-------|
| | Plate | | | | 1 | |
| 50b | Top plate | | | | 1 | |
| 51 | Shaft, spline, cpl. | | | | 1 | |
| 64a | Spacing pipe | | | | 10 | |
| 64a | Spacing pipe | | Internal diameter: 12,85 | | 2 | |
| | | | 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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info@lenntech.com

<https://www.lenntech.com>

tel. +31 152 610 900

fax. +31 152 616 289