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## **Inventflow: Grundfos A-partner**

### **Grundfos CRN 20-12 A-FGJ-A-E-HQQE**

Find the pump here:

<https://inventflow.nl/en/pompenfilter/crn/grundfos-crn-20-12-a-fgj-a-e-hqqe>

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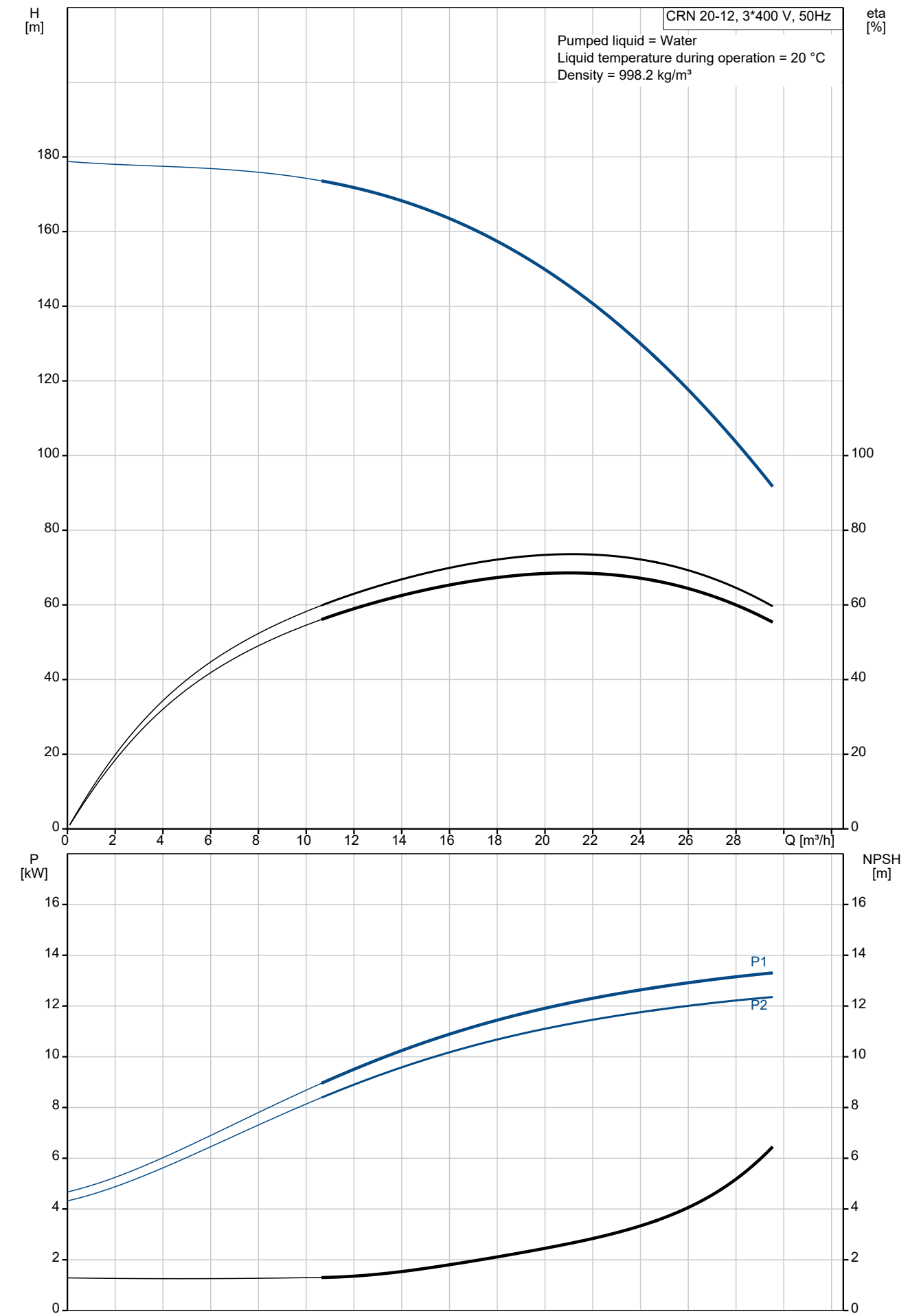
#### **Datasheet**



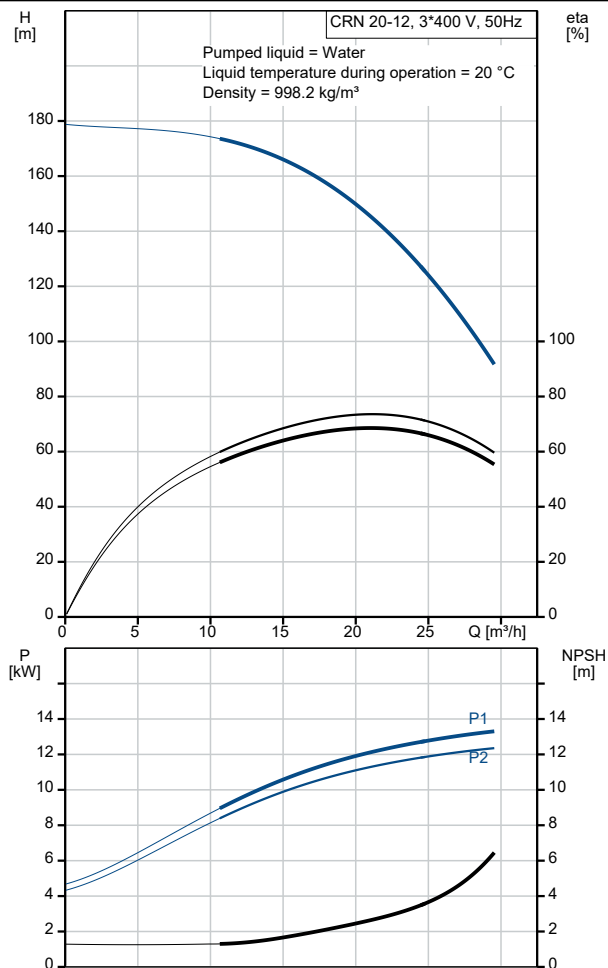
| Qty. | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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| 1    | <p><b>CRN 20-12 A-FGJ-A-E-HQQE</b></p>  <p>Product No.: <a href="#">96500577</a></p> <p>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"> <li>- Impellers, intermediate chambers and outer sleeve are made of</li> </ul> <p>Impeller: Stainless steel, EN 1.4401.</p> <ul style="list-style-type: none"> <li>- Pump head cover and base are made of</li> </ul> <p>Pump housing: Stainless steel, EN 1.4408.</p> <ul style="list-style-type: none"> <li>- The shaft seal has assembly length according to EN 12756.</li> <li>- Power transmission is via cast iron split coupling.</li> </ul> <p>Flange standard: - Pipework connection is via DIN / ANSI / JIS flanges/couplings.</p> <p>Phase: The motor is a 3-phase AC motor.</p> <p>Controls:</p> <p>Frequency converter: NONE</p> <p>Liquid:</p> <p>Pumped liquid: Water</p> <p>Liquid temperature range: -20 .. 120 °C</p> <p>Selected liquid temperature: 20 °C</p> <p>Density: 998.2 kg/m<sup>3</sup></p> <p>Technical:</p> <p>Pump speed on which pump data are based: 2923 rpm</p> <p>Rated flow: 21 m<sup>3</sup>/h</p> <p>Rated head: 142.7 m</p> <p>Pump orientation: Vertical</p> <p>Shaft seal arrangement: Single</p> <p>Code for shaft seal: HQQE</p> <p>Approvals on nameplate: CE,EAC,UKCA,WRAS,ACS</p> <p>Curve tolerance: ISO9906:2012 3B</p> <p>Materials:</p> <p>Base: Stainless steel<br/>EN 1.4408<br/>AISI 316</p> <p>Impeller: Stainless steel<br/>EN 1.4401<br/>AISI 316</p> <p>Bearing: SIC</p> <p>Installation:</p> <p>Maximum ambient temperature: 60 °C</p> <p>Maximum operating pressure: 25 bar</p> <p>Max pressure at stated temp: 25 bar / 120 °C<br/>25 bar / -20 °C</p> <p>Type of connection: DIN / ANSI / JIS</p> |

| Qty. | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      | Size of inlet connection: DN 50<br>Size of outlet connection: DN 50<br>Pressure rating for connection: PN 25<br>Flange rating inlet: 300 lb<br>Flange size for motor: FF300<br><br>Electrical data:<br>Motor standard: IEC<br>Motor type: 160MD<br>IE Efficiency class: IE3<br>Rated power - P2: 15 kW<br>Power (P2) required by pump: 15 kW<br>Mains frequency: 50 Hz<br>Rated voltage: 3 x 380-415D/660-690Y V<br>Rated current: 28,0-26,0/16,2-15,6 A<br>Starting current: 660-780 %<br>Cos phi - power factor: 0.89-0.87<br>Rated speed: 2930-2950 rpm<br>Efficiency: IE3 91,9%<br>Motor efficiency at full load: 91.9-91.9 %<br>Motor efficiency at 3/4 load: 92.4 %<br>Motor efficiency at 1/2 load: 92.4 %<br>Number of poles: 2<br>Enclosure class (IEC 34-5): 55 Dust/Jetting<br>Insulation class (IEC 85): F<br>Motor No: 85U17526<br><br>Others:<br>Minimum efficiency index, MEI ≥: 0.70<br>Net weight: 162 kg<br>Gross weight: 190 kg<br>Shipping volume: 0.488 m³<br>Country of origin: HU<br>Custom tariff no.: 84137075 |

96500577 CRN 20-12 A-FGJ-A-E-HQQE 50 Hz

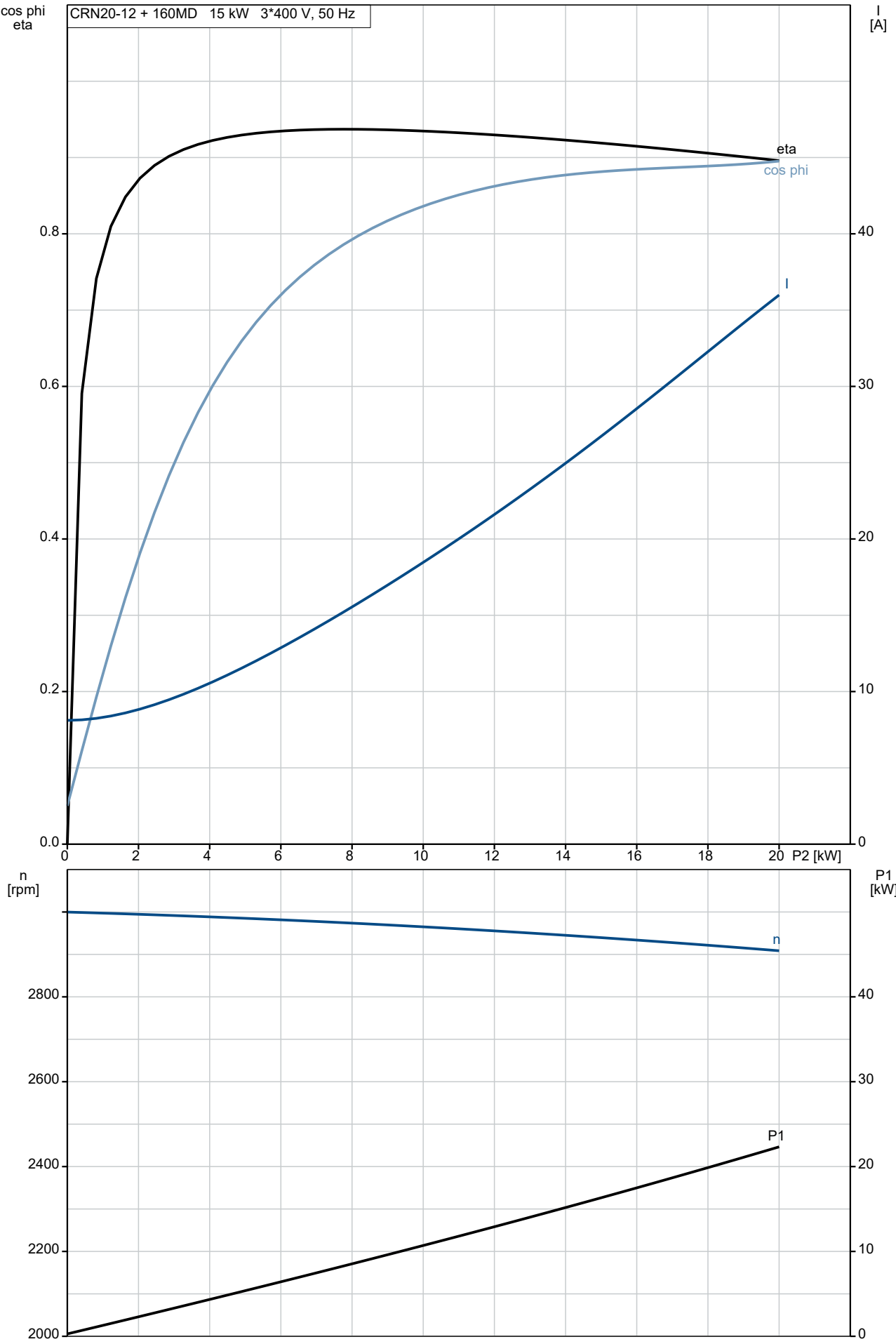


| Description                              | Value                       |
|------------------------------------------|-----------------------------|
| <b>General information:</b>              |                             |
| Product name:                            | CRN 20-12<br>A-FGJ-A-E-HQQE |
| Product No:                              | 96500577                    |
| EAN number:                              | 5700396204604               |
| <b>Technical:</b>                        |                             |
| Pump speed on which pump data are based: | 2923 rpm                    |
| Rated flow:                              | 21 m³/h                     |
| Rated head:                              | 142.7 m                     |
| Maximum head:                            | 178 m                       |
| Stages:                                  | 12                          |
| Impellers:                               | 12                          |
| 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,UKCA,WRAS,AC S       |
| Curve tolerance:                         | ISO9906:2012 3B             |
| Pump version:                            | A                           |
| Model:                                   | A                           |
| <b>Materials:</b>                        |                             |
| Base:                                    | Stainless steel             |
| Base:                                    | EN 1.4408                   |
| Base:                                    | AISI 316                    |
| Impeller:                                | Stainless steel             |
| Impeller:                                | EN 1.4401                   |
| Impeller:                                | AISI 316                    |
| Material code:                           | A                           |
| Code for rubber:                         | E                           |
| Bearing:                                 | SIC                         |
| <b>Installation:</b>                     |                             |
| Maximum ambient temperature:             | 60 °C                       |
| Maximum operating pressure:              | 25 bar                      |
| Max pressure at stated temp:             | 25 bar / 120 °C             |
| Max pressure at stated temp:             | 25 bar / -20 °C             |
| Type of connection:                      | DIN / ANSI / JIS            |
| Size of inlet connection:                | DN 50                       |
| Size of outlet connection:               | DN 50                       |
| Pressure rating for connection:          | PN 25                       |
| Flange rating inlet:                     | 300 lb                      |
| Flange size for motor:                   | FF300                       |
| Connect code:                            | FGJ                         |
| <b>Liquid:</b>                           |                             |
| Pumped liquid:                           | Water                       |
| Liquid temperature range:                | -20 .. 120 °C               |
| Selected liquid temperature:             | 20 °C                       |
| Density:                                 | 998.2 kg/m³                 |
| <b>Electrical data:</b>                  |                             |
| Motor standard:                          | IEC                         |
| Motor type:                              | 160MD                       |
| IE Efficiency class:                     | IE3                         |
| Rated power - P2:                        | 15 kW                       |
| Power (P2) required by pump:             | 15 kW                       |
| Mains frequency:                         | 50 Hz                       |
| Rated voltage:                           | 3 x 380-415D/660-690Y V     |
| Rated current:                           | 28,0-26,0/16,2-15,6 A       |
| Starting current:                        | 660-780 %                   |
| Cos phi - power factor:                  | 0.89-0.87                   |
| Rated speed:                             | 2930-2950 rpm               |
| Efficiency:                              | IE3 91,9%                   |
| Motor efficiency at full load:           | 91.9-91.9 %                 |

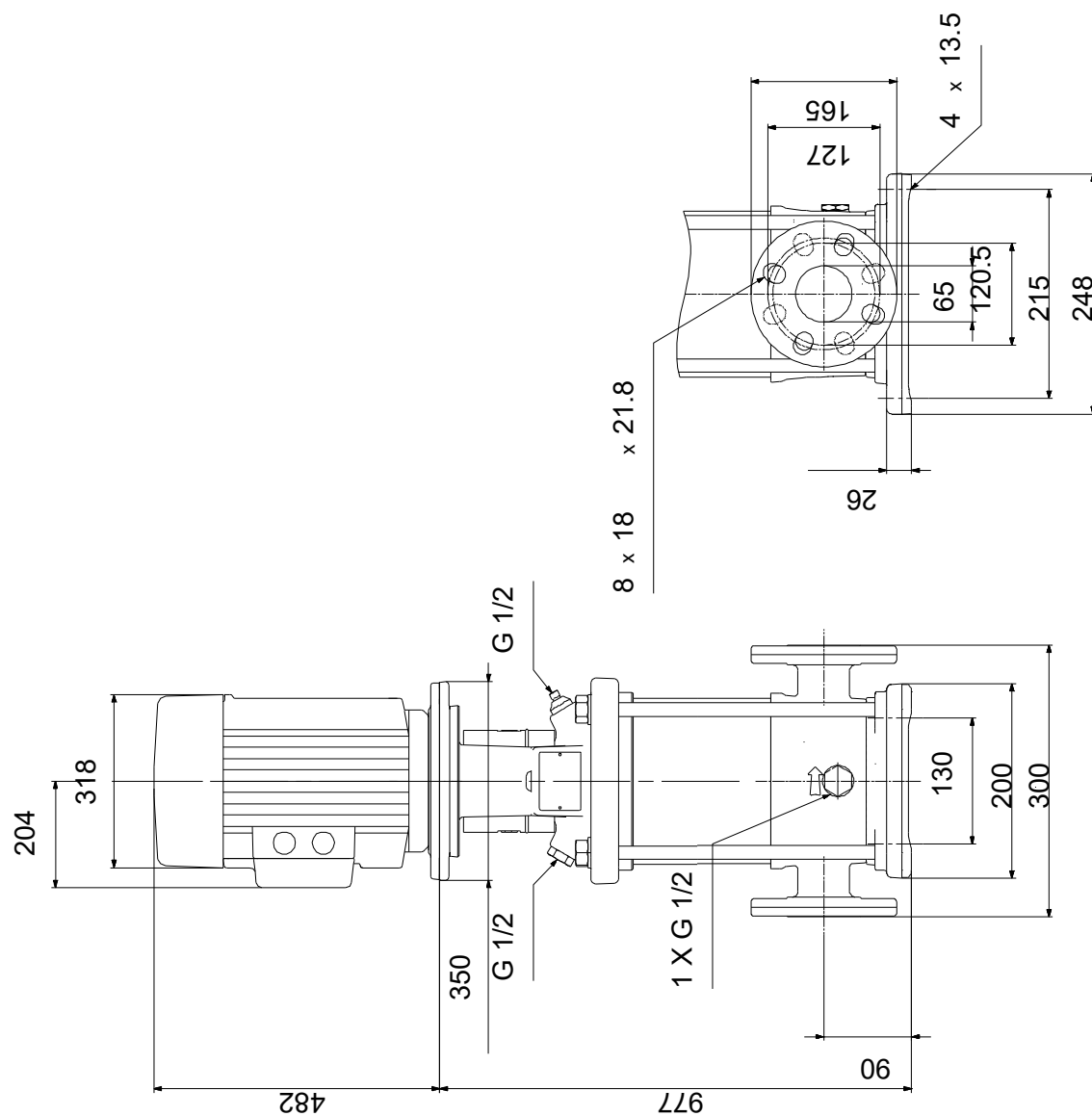


| Description                      | Value                |
|----------------------------------|----------------------|
| Motor efficiency at 3/4 load:    | 92.4 %               |
| Motor efficiency at 1/2 load:    | 92.4 %               |
| Number of poles:                 | 2                    |
| Enclosure class (IEC 34-5):      | 55 Dust/Jetting      |
| Insulation class (IEC 85):       | F                    |
| Motor protec:                    | PTC                  |
| Motor No:                        | 85U17526             |
| <b>Controls:</b>                 |                      |
| Frequency converter:             | NONE                 |
| <b>Others:</b>                   |                      |
| Minimum efficiency index, MEI ≥: | 0.70                 |
| Net weight:                      | 162 kg               |
| Gross weight:                    | 190 kg               |
| Shipping volume:                 | 0.488 m <sup>3</sup> |
| Country of origin:               | HU                   |
| Custom tariff no.:               | 84137075             |

# 96500577 CRN 20-12 A-FGJ-A-E-HQQE 50 Hz



# 96500577 CRN 20-12 A-FGJ-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.

**Spare parts CRN 20-12, Product No. 96500577**  
**Produced After 1101 (production year and week number)**

| Pos   | Omschrijving              | Opmerking tekst | Classificatie Gegevens  | Onderdeelnr. | Aantal | Eenheid |
|-------|---------------------------|-----------------|-------------------------|--------------|--------|---------|
| -     | Kit, chamber stack        |                 |                         | 96491793     | 1      | pcs     |
| - 80  | Chamber stack             |                 |                         |              | 1      |         |
| - 3   | Top intermediate chamber  |                 |                         |              | 1      |         |
|       | Guide vane                |                 |                         |              |        |         |
|       | Cover plate               |                 |                         |              |        |         |
| 3     | Intermediate chamber      |                 |                         |              |        |         |
| - 4a  | Intermediate chamber cpl. |                 |                         |              | 3      |         |
|       | Sand Lifter               |                 |                         |              |        |         |
|       | Guide cup                 |                 |                         |              |        |         |
|       | Bearing plate             |                 |                         |              |        |         |
|       | Guide vane                |                 |                         |              |        |         |
| 3     | Intermediate chamber      |                 |                         |              |        |         |
| 45    | Neck ring cpl.            |                 |                         |              |        |         |
| 47    | Bearing bush              |                 |                         |              |        |         |
| 65    | Retainer                  |                 |                         |              |        |         |
| - 4   | Intermediate chamber cpl. |                 |                         |              | 8      |         |
| 3     | Intermediate chamber      |                 |                         |              |        |         |
| 45    | Neck ring cpl.            |                 |                         |              |        |         |
| 65    | Retainer                  |                 |                         |              |        |         |
| 26a   | Strap cpl.                |                 |                         |              | 2      |         |
| 26.c  | Washer                    |                 | Designation: DIN 125A   |              | 2      |         |
|       |                           |                 | Thickness: 1,6          |              |        |         |
| 26.b  | Hex head screw            |                 |                         |              | 2      |         |
| 44b   | Inlet part                |                 |                         |              | 1      |         |
| - 44a | Inlet part cpl.           |                 |                         |              | 1      |         |
| 45    | Neck ring cpl.            |                 |                         |              |        |         |
| 65    | Retainer                  |                 |                         |              |        |         |
| 47a   | Bearing ring              |                 |                         |              | 3      |         |
| - 49  | Impeller cpl.             |                 |                         |              | 12     |         |
| 49c   | Wear ring                 |                 |                         |              |        |         |
| 49    | Impeller                  |                 |                         |              |        |         |
| - 51  | Shaft, spline, cpl.       |                 |                         |              | 1      |         |
|       | Bar                       |                 |                         |              |        |         |
| 62    | Stop ring                 |                 |                         |              |        |         |
| 64d   | Spacing bush              |                 |                         |              | 3      |         |
| 64c   | Spacer                    |                 |                         |              | 1      |         |
| 64b   | Spacing bush              |                 | Length (mm): 5.00       |              | 1      |         |
| 64a   | Spacing pipe              |                 | Internal diameter: 17,5 |              | 3      |         |
|       |                           |                 | Length (mm): 17         |              |        |         |
| 64    | Spacing pipe              |                 | Length (mm): 43.6       |              | 8      |         |
| 66    | Wedge lock washer         |                 |                         |              | 1      |         |
| 67    | Lock nut                  |                 | Thread: M8              |              | 1      |         |
| 69    | Spacing bush              |                 |                         |              | 1      |         |
| -     | Kit, coupling             |                 |                         | 96511352     | 1      | pcs     |
|       | Adjusting fork            |                 |                         |              | 1      |         |
| - 8   | Coupling                  |                 |                         |              | 1      |         |
| 9     | Hex socket head cap screw |                 | Designation: DIN 912    |              | 4      |         |
|       |                           |                 | Length (mm): 25         |              |        |         |
|       |                           |                 | Thread: M10             |              |        |         |
| 10a   | Coupling half             |                 |                         |              | 2      |         |
| 10    | Shaft pin                 |                 | Diameter: 5             |              | 1      |         |
|       |                           |                 | Length (mm): 26         |              |        |         |
| -     | Kit, coupling guard       |                 |                         | 96509614     | 1      | pcs     |
| 7.a   | Combi Slot Torx screw     |                 |                         |              | 4      |         |
| 7     | Coupling guard            |                 |                         |              | 2      |         |
| -     | Kit, gaskets              |                 |                         | 96509609     | 1      | pcs     |
|       | Gasket                    |                 |                         |              | 2      |         |
| 24    | O-ring                    |                 |                         |              | 2      |         |
| 37    | O-ring                    |                 |                         |              | 2      |         |

| Pos   | Omschrijving              | Opmerking tekst | Classificatie Gegevens  | Onderdeelnr. | Aantal | Eenheid |
|-------|---------------------------|-----------------|-------------------------|--------------|--------|---------|
| 38    | O-ring                    |                 |                         |              | 1      |         |
| 38    | O-ring                    |                 |                         |              | 1      |         |
| 38    | O-ring                    |                 |                         |              | 2      |         |
| 60    | Spring                    |                 |                         |              | 4      |         |
| 415   | Gasket                    |                 | Internal diameter: 44   |              | 2      |         |
|       |                           |                 | Outer diameter: 60      |              |        |         |
|       |                           |                 | Thickness: 2            |              |        |         |
| 441b  | Gasket                    |                 | Internal diameter: 49   |              | 2      |         |
|       |                           |                 | Outer diameter: 92      |              |        |         |
|       |                           |                 | Thickness: 2            |              |        |         |
| -     | Kit, plug                 |                 |                         | 96511312     | 1      | pcs     |
| - 18  | Air vent screw            |                 |                         |              | 1      |         |
|       | Spindle                   |                 |                         |              | 1      |         |
|       | Plug                      |                 |                         |              | 1      |         |
| 25a   | Drain plug                |                 |                         |              | 1      |         |
| 25    | Plug                      |                 |                         |              | 1      |         |
| 38    | O-ring                    |                 |                         |              | 1      |         |
| 38    | O-ring                    |                 |                         |              | 1      |         |
| 38    | O-ring                    |                 |                         |              | 2      |         |
| 38    | O-ring                    |                 | Diameter: 5,3           |              | 1      |         |
|       |                           |                 | Material type: FKM      |              |        |         |
|       |                           |                 | Thickness: 2,4          |              |        |         |
| 38    | O-ring                    |                 | Diameter: 16,3          |              | 1      |         |
|       |                           |                 | Material type: FKM      |              |        |         |
|       |                           |                 | Thickness: 2,4          |              |        |         |
| 38    | O-ring                    |                 | Diameter: 16,3          |              | 2      |         |
|       |                           |                 | Material type: FKM      |              |        |         |
|       |                           |                 | Thickness: 2,4          |              |        |         |
| -     | Kit, shaft seal HQQE      |                 |                         | 96511844     | 1      | pcs     |
| 105   | Shaft seal                |                 | Material type: HQQE     |              | 1      |         |
| -     | Kit, wear parts           |                 |                         | 96511830     | 1      | pcs     |
| - 4a  | Intermediate chamber cpl. |                 |                         |              | 3      |         |
|       | Sand Lifter               |                 |                         |              | 1      |         |
|       | Guide cup                 |                 |                         |              | 1      |         |
|       | Bearing plate             |                 |                         |              | 1      |         |
|       | Guide vane                |                 |                         |              | 10     |         |
| 3     | Intermediate chamber      |                 |                         |              | 1      |         |
| 45    | Neck ring cpl.            |                 |                         |              | 1      |         |
| 47    | Bearing bush              |                 |                         |              | 1      |         |
| 65    | Retainer                  |                 |                         |              | 1      |         |
| 26.c  | Washer                    |                 | Designation: DIN 125A   |              | 2      |         |
|       |                           |                 | Thickness: 1,6          |              |        |         |
| 26.b  | Hex head screw            |                 |                         |              | 2      |         |
| 45    | Neck ring cpl.            |                 |                         |              | 14     |         |
| 47a   | Bearing ring              |                 |                         |              | 3      |         |
| 49c   | Wear ring                 |                 |                         |              | 17     |         |
| 62    | Retaining ring            |                 |                         |              | 1      |         |
| 64d   | Spacing bush              |                 |                         |              | 3      |         |
| 64c   | Spacer                    |                 |                         |              | 1      |         |
| 64b   | Spacing bush              |                 | Length (mm): 5.00       |              | 1      |         |
| 64a   | Spacing pipe              |                 | Internal diameter: 17,5 |              | 3      |         |
|       |                           |                 | Length (mm): 17         |              |        |         |
| 65    | Retainer                  |                 |                         |              | 14     |         |
| 66    | Wedge lock washer         |                 |                         |              | 1      |         |
| 67    | Lock nut                  |                 | Thread: M8              |              | 1      |         |
| -     | Motor                     |                 |                         |              | 1      | pcs     |
| +     | Kit, bearing cpl.         |                 |                         | 96796676     | 1      |         |
| -     | Kit, bearing plate        |                 |                         | 96796664     | 1      |         |
| 155.a | Bearing cover             |                 |                         |              | 1      |         |
| 208a  | Gasket                    |                 |                         |              | 3      |         |
| 208   | Hex socket head cap screw |                 | Designation: DIN912     |              | 3      |         |
|       |                           |                 | Length (mm): 40         |              |        |         |
|       |                           |                 | Thread: M5              |              |        |         |
| -     | Kit, eyebolt              |                 |                         | 96796712     | 1      |         |

| Pos   | Omschrijving                  | Opmerking tekst | Classificatie Gegevens | Onderdeelnr. | Aantal | Eenheid |
|-------|-------------------------------|-----------------|------------------------|--------------|--------|---------|
| 189   | Eyebolt                       |                 |                        |              | 2      |         |
| -     | Kit, fan                      |                 |                        | 96796654     | 1      |         |
| 156.c | Retaining ring                |                 |                        |              | 1      |         |
| 156   | Fan                           |                 |                        |              | 1      |         |
| -     | Kit, fan cover                |                 |                        | 96796647     | 1      |         |
| 151   | Fan cover                     |                 |                        |              | 1      |         |
| 152.a | Rubber bush                   |                 |                        |              | 4      |         |
| 152   | Hex head cap screw            |                 |                        |              | 4      |         |
| 196   | Diaphragm                     |                 |                        |              | 1      |         |
| -     | Kit, flange                   |                 |                        | 96796662     | 1      |         |
| 156.b | Flange                        |                 |                        |              | 1      |         |
| 159.b | Seal ring                     |                 |                        |              | 1      |         |
| 185.b | Nut                           |                 |                        |              | 4      |         |
| 185   | Hex socket head cap screw     |                 |                        |              | 4      |         |
| 186   | Drain plug                    |                 |                        |              | 4      |         |
| 195.a | Grease nipple                 |                 |                        |              | 1      |         |
| -     | Kit, gaskets                  |                 |                        | 96798508     | 1      |         |
| 184   | O-ring                        |                 | Diameter: 235          |              | 2      |         |
| -     | Kit, lubrication nipple       |                 |                        | 96796671     | 1      |         |
| 195.b | Grease nipple                 |                 |                        |              | 2      |         |
| 195.a | Grease nipple                 |                 |                        |              | 1      |         |
| -     | Kit, ND-end shield cpl.       |                 |                        | 96796669     | 1      |         |
| 32b   | Waved washer                  |                 |                        |              | 1      |         |
| 156.a | End shield NDE                |                 |                        |              | 1      |         |
| 157   | O-ring                        |                 |                        |              | 1      |         |
| 159   | V-ring                        |                 |                        |              | 1      |         |
| 185.c | Nut                           |                 |                        |              | 4      |         |
| 185.a | Hex socket head cap screw     |                 |                        |              | 4      |         |
| 195.b | Grease nipple                 |                 |                        |              | 1      |         |
| -     | Kit, shaft seal               |                 |                        | 96843459     | 1      |         |
| 159.b | V-ring                        |                 |                        |              | 1      |         |
| 159   | V-ring                        |                 |                        |              | 1      |         |
| -     | Kit, terminal board           |                 |                        | 96796657     | 1      |         |
|       | Terminal connection           |                 |                        |              | 3      |         |
|       | Washer                        |                 |                        |              | 12     |         |
| 36    | Hex nut                       |                 |                        |              | 12     |         |
| 173   | Torx Screw                    |                 |                        |              | 1      |         |
| 176.d | Terminal board                |                 |                        |              | 1      |         |
| 176   | Terminal board                |                 |                        |              | 1      |         |
| 177   | Torx Screw                    |                 |                        |              | 1      |         |
| -     | Kit, terminal box cover       |                 |                        | 96796659     | 1      |         |
| 164   | Terminal box cover            |                 |                        |              | 1      |         |
| 273a  | Pan head thread forming screw |                 |                        |              | 4      |         |
| -     | Motor                         |                 |                        |              | 1      | pcs     |
| +     | Kit, bearing cpl.             |                 |                        | 96796676     | 1      |         |
| -     | Kit, bearing plate            |                 |                        | 96796664     | 1      |         |
| 155.a | Bearing cover                 |                 |                        |              | 1      |         |
| 208a  | Gasket                        |                 |                        |              | 3      |         |
| 208   | Hex socket head cap screw     |                 | Designation: DIN912    |              | 3      |         |
|       |                               |                 | Length (mm): 40        |              |        |         |
|       |                               |                 | Thread: M5             |              |        |         |
| -     | Kit, eyebolt                  |                 |                        | 96796712     | 1      |         |
| 189   | Eyebolt                       |                 |                        |              | 2      |         |
| -     | Kit, fan                      |                 |                        | 96796654     | 1      |         |
| 156.c | Retaining ring                |                 |                        |              | 1      |         |
| 156   | Fan                           |                 |                        |              | 1      |         |
| -     | Kit, fan cover                |                 |                        | 96796647     | 1      |         |
| 151   | Fan cover                     |                 |                        |              | 1      |         |
| 152.a | Rubber bush                   |                 |                        |              | 4      |         |
| 152   | Hex head cap screw            |                 |                        |              | 4      |         |
| 196   | Diaphragm                     |                 |                        |              | 1      |         |
| -     | Kit, flange                   |                 |                        | 96796662     | 1      |         |
| 156.b | Flange                        |                 |                        |              | 1      |         |
| 159.b | Seal ring                     |                 |                        |              | 1      |         |

| Pos   | Omschrijving                  | Opmerking tekst         | Classificatie Gegevens | Onderdeelnr. | Aantal | Eenheid |
|-------|-------------------------------|-------------------------|------------------------|--------------|--------|---------|
| 185.b | Nut                           |                         |                        |              | 4      |         |
| 185   | Hex socket head cap screw     |                         |                        |              | 4      |         |
| 186   | Drain plug                    |                         |                        |              | 4      |         |
| 195.a | Grease nipple                 |                         |                        |              | 1      |         |
| -     | Kit, gaskets                  |                         |                        | 96798508     | 1      |         |
| 184   | O-ring                        | Diameter: 235           |                        |              | 2      |         |
| -     | Kit, lubrication nipple       |                         |                        | 96796671     | 1      |         |
| 195.b | Grease nipple                 |                         |                        |              | 2      |         |
| 195.a | Grease nipple                 |                         |                        |              | 1      |         |
| -     | Kit, ND-end shield cpl.       |                         |                        | 96796669     | 1      |         |
| 32b   | Waved washer                  |                         |                        |              | 1      |         |
| 156.a | End shield NDE                |                         |                        |              | 1      |         |
| 157   | O-ring                        |                         |                        |              | 1      |         |
| 159   | V-ring                        |                         |                        |              | 1      |         |
| 185.c | Nut                           |                         |                        |              | 4      |         |
| 185.a | Hex socket head cap screw     |                         |                        |              | 4      |         |
| 195.b | Grease nipple                 |                         |                        |              | 1      |         |
| -     | Kit, shaft seal               |                         |                        | 96843459     | 1      |         |
| 159.b | V-ring                        |                         |                        |              | 1      |         |
| 159   | V-ring                        |                         |                        |              | 1      |         |
| -     | Kit, terminal board           |                         |                        | 96796657     | 1      |         |
|       | Terminal connection           |                         |                        |              | 3      |         |
|       | Washer                        |                         |                        |              | 12     |         |
| 36    | Hex nut                       |                         |                        |              | 12     |         |
| 173   | Torx Screw                    |                         |                        |              | 1      |         |
| 176.d | Terminal board                |                         |                        |              | 1      |         |
| 176   | Terminal board                |                         |                        |              | 1      |         |
| 177   | Torx Screw                    |                         |                        |              | 1      |         |
| -     | Kit, terminal box cover       |                         |                        | 96796659     | 1      |         |
| 164   | Terminal box cover            |                         |                        |              | 1      |         |
| 273a  | Pan head thread forming screw |                         |                        |              | 4      |         |
| 1a    | Pump head                     |                         |                        | 98998053     | 1      | pcs     |
| 1     | Flange                        |                         |                        | 98913788     | 1      | pcs     |
| 2     | Pump cover                    |                         |                        | 98481138     | 1      | pcs     |
| + 3   | Top intermediate chamber      |                         |                        | 98734577     | 1      | pcs     |
| + 4a  | Intermediate chamber cpl.     |                         |                        | 96538853     | 3      | pcs     |
| + 4a  | Intermediate chamber cpl.     |                         |                        | 98371117     | 3      | pcs     |
| - 4   | Intermediate chamber cpl.     |                         |                        | 96538840     | 8      | pcs     |
| 3     | Intermediate chamber          |                         |                        | 98371143     | 1      |         |
| 65    | Retainer                      |                         |                        | 96547341     | 1      |         |
| + 4   | Intermediate chamber cpl.     |                         |                        | 98371115     | 8      | pcs     |
| 6     | Base                          |                         |                        | 98482550     | 1      | pcs     |
| 10    | Shaft pin                     | Diameter: 5             |                        | 96536473     | 1      | pcs     |
|       |                               | Length (mm): 26         |                        |              |        |         |
| 10    | Shaft pin                     | Diameter: 5             |                        | 96587588     | 1      | pcs     |
|       |                               | Length (mm): 26         |                        |              |        |         |
| + 18  | Air vent screw                |                         |                        | 96547461     | 1      | pcs     |
| + 18  | Air vent screw                |                         |                        | 95061351     | 1      | pcs     |
| 25    | Plug                          |                         |                        | 96536013     | 1      | pcs     |
| 26a   | Strap cpl.                    |                         |                        | 98911039     | 2      | pcs     |
| 26.c  | Washer                        | Designation: DIN 125A   |                        | 99262704     | 2      | pcs     |
|       |                               | Thickness: 1,6          |                        |              |        |         |
| 26.c  | Washer                        | Designation: DIN 125A   |                        | 99886930     | 2      | pcs     |
|       |                               | Thickness: 1,6          |                        |              |        |         |
| 26    | Staybolt                      | Length (mm): 720        |                        | 98982887     | 4      | pcs     |
| 28    | Hex head screw                | Length (mm): 25         |                        | 99522923     | 4      | pcs     |
|       |                               | Thread: M12             |                        |              |        |         |
| 32    | Washer                        | Designation: DIN 125 A2 |                        | 99944260     | 4      | pcs     |
|       |                               | Internal diameter: 17   |                        |              |        |         |
|       |                               | Outer diameter: 30      |                        |              |        |         |
|       |                               | Thickness: 3            |                        |              |        |         |
| 36    | Nut                           | Thread: M16             |                        | 99944257     | 4      | pcs     |
| 36    | Hex nut                       | Thread: M16             |                        | 96620480     | 4      | pcs     |
| 37.a  | O-ring                        |                         |                        | 96538857     | 1      | pcs     |

| Pos   | Omschrijving        | Opmerking tekst | Classificatie Gegevens  | Onderdeelnr. | Aantal | Eenheid |
|-------|---------------------|-----------------|-------------------------|--------------|--------|---------|
| 38    | O-ring              |                 |                         | 99198791     | 1      | pcs     |
| 38    | O-ring              |                 |                         | 99198815     | 2      | pcs     |
| 38    | O-ring              |                 |                         | 99412727     | 2      | pcs     |
| 44b   | Inlet part          |                 |                         | 98814593     | 1      | pcs     |
| + 44a | Inlet part cpl.     |                 |                         | 98818922     | 1      | pcs     |
| 47a   | Bearing ring        |                 |                         | 96538795     | 3      | pcs     |
| - 49  | Impeller cpl.       |                 |                         | 98394459     | 12     | pcs     |
| 49c   | Wear ring           |                 |                         | 96547340     | 1      |         |
| + 51  | Shaft, spline, cpl. |                 |                         | 98368642     | 1      | pcs     |
| 55    | Outer sleeve        |                 |                         | 98812646     | 1      | pcs     |
| 56    | Base plate          |                 |                         | 98481136     | 1      | pcs     |
| 60    | Spring              |                 |                         | 96538963     | 4      | pcs     |
| 64d   | Spacing bush        |                 |                         | 96538947     | 3      | pcs     |
| 64c   | Spacer              |                 |                         | 97980241     | 1      | pcs     |
| 64b   | Spacing bush        |                 | Length (mm): 5.00       | 96535098     | 1      | pcs     |
| 64a   | Spacing pipe        |                 | Internal diameter: 17,5 | 98417487     | 3      | pcs     |
|       |                     |                 | Length (mm): 17         |              |        |         |
| 64    | Spacing pipe        |                 | Length (mm): 43.6       | 96535107     | 8      | pcs     |
| 66    | Wedge lock washer   |                 |                         | 96536157     | 1      | pcs     |
| 66    | Wedge lock washer   |                 |                         | 92575609     | 1      | pcs     |
| 67    | Lock nut            |                 | Thread: M8              | 98277008     | 1      | pcs     |
| 69    | Spacing bush        |                 |                         | 96538949     | 1      | pcs     |
| 76a   | Rivet               |                 |                         | 96620489     | 1      | pcs     |
| 105   | Shaft seal          |                 | Material type: HQQE     | 96538914     | 1      | pcs     |
| 440b  | Lock ring           |                 |                         | 96536453     | 2      | pcs     |