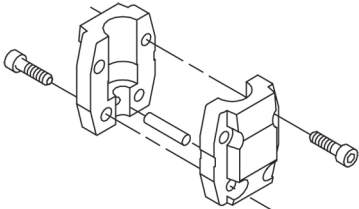
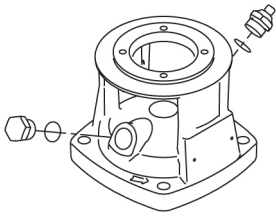
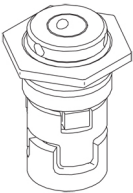
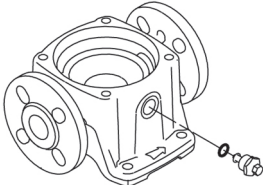


| Qty. | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | <p data-bbox="204 338 475 369"><b>CR 15-3 A-F-A-E-HQQE</b></p> <div data-bbox="343 465 450 817">  </div> <p data-bbox="595 884 1077 907">Note! Product picture may differ from actual product</p> <p data-bbox="204 913 467 940">Product No.: <a href="#">96501699</a></p> <p data-bbox="204 974 1455 1075">Vertical, multistage centrifugal pump with inlet and outlet ports on same the level (inline). The pump head and base are in cast iron – all other wetted parts are in 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 DIN flanges.</p> <p data-bbox="204 1115 935 1142">The pump is fitted with a 3-phase, fan-cooled asynchronous motor.</p> <p data-bbox="204 1176 520 1207"><b>Further product details</b></p> <p data-bbox="204 1211 1428 1312">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="204 1323 695 1440" style="list-style-type: none"> <li>1) Alkaline-based cleaning.</li> <li>2) Zinc phosphating.</li> <li>3) Cathodic electro-deposition.</li> <li>4) Curing to a dry film thickness 18-22 my m.</li> </ol> <p data-bbox="204 1442 908 1469">The colour code for the finished product is NCS 9000/RAL 9005.</p> <p data-bbox="204 1503 284 1534"><b>Pump</b></p> <p data-bbox="204 1538 1388 1590">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.</p> <div data-bbox="204 1597 563 1805">  </div> <p data-bbox="204 1836 1409 1888">The pump head, pump head cover and flange for motor mounting is made in one piece. The pump head has a combined 1/2" priming plug and vent screw.</p> <div data-bbox="204 1895 480 2110">  </div> |

| Qty. | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      | <p>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>Primary seal:</p> <ul style="list-style-type: none"> <li>• Rotating seal ring material: silicon carbide (SiC)</li> <li>• Stationary seat material: silicon carbide (SiC)</li> </ul> <p>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>Secondary seal material: EPDM (ethylene-propylene rubber)</p> <p>EPDM has excellent resistance to hot water. EPDM is not suitable for mineral oils.</p>  <p>The shaft seal is screwed into the pump head.</p> <p>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.</p> <p>The base is made of cast iron. The flanges and base are cast in one piece. The outlet side of the base has a drain plug. The pump is secured to the foundation by four bolts through the base plate.</p>  <p><b>Motor</b></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).</p> <p>Motor-mounting designation in accordance with IEC 60034-7: IM B 14 (Code I) / IM 3601 (Code II).</p> <p>Electrical tolerances comply with IEC 60034.</p> <p>The motor efficiency is classified as IE3 in accordance with IEC 60034-30-1.</p> <p>The motor has thermistors (PTC sensors) in the windings in accordance with DIN 44081/DIN 44082. The protection reacts to both slow- and quick-rising temperatures, e.g. constant overload and stalled conditions.</p> <p>Thermal switches must be connected to an external control circuit in a way which ensures that the automatic reset cannot cause accidents. The motors must be connected to a motor-protective circuit breaker according to local regulations.</p> <p>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 Grundfos Product Center.</p> <p><b>Technical data</b></p> <p><b>Controls:</b></p> <p>Frequency converter: NONE</p> <p><b>Liquid:</b></p> <p>Pumped liquid: Water</p> <p>Liquid temperature range: -20 .. 120 °C</p> <p>Liquid temperature during operation: 20 °C</p> |

| Qty. | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      | <p>Density: 998.2 kg/m<sup>3</sup></p> <p><b>Technical:</b><br/> Pump speed on which pump data are based: 2902 rpm<br/> Rated flow: 17 m<sup>3</sup>/h<br/> Rated head: 33.2 m<br/> Pump orientation: Vertical<br/> Shaft seal arrangement: Single<br/> Code for shaft seal: HQQE<br/> Approvals on nameplate: CE, EAC, ACS<br/> Curve tolerance: ISO9906:2012 3B</p> <p><b>Materials:</b><br/> Base: Cast iron<br/> EN 1561 EN-GJL-200<br/> ASTM A48-25B<br/> Impeller: Stainless steel<br/> EN 1.4301<br/> AISI 304<br/> Bearing: SIC</p> <p><b>Installation:</b><br/> Maximum ambient temperature: 60 °C<br/> Maximum operating pressure: 16 bar<br/> Max pressure at stated temp: 16 bar / 120 °C<br/> 16 bar / -20 °C<br/> Type of connection: DIN<br/> Size of inlet connection: DN 50<br/> Size of outlet connection: DN 50<br/> Pressure rating for pipe connection: PN 25<br/> Flange rating inlet: 300 lb<br/> Flange size for motor: FT130</p> <p><b>Electrical data:</b><br/> Motor standard: IEC<br/> Motor type: 100LC<br/> IE Efficiency class: IE3<br/> Rated power - P2: 3 kW<br/> Power (P2) required by pump: 3 kW<br/> Mains frequency: 50 Hz<br/> Rated voltage: 3 x 220-240D/380-415Y V<br/> Rated current: 11.0/6.30 A<br/> Starting current: 840-920 %<br/> Cos phi - power factor: 0.87-0.82<br/> Rated speed: 2900-2920 rpm<br/> Efficiency: IE3 87,1%<br/> Motor efficiency at full load: 87.1 %<br/> Motor efficiency at 3/4 load: 88.0 %<br/> Motor efficiency at 1/2 load: 87.7 %<br/> Number of poles: 2<br/> Enclosure class (IEC 34-5): 55 Dust/Jetting<br/> Insulation class (IEC 85): F</p> <p><b>Others:</b><br/> Minimum efficiency index, MEI <math>\hat{a}_{\%}</math>: 0.70<br/> Net weight: 59 kg<br/> Gross weight: 81 kg<br/> Shipping volume: 0.234 m<sup>3</sup><br/> Danish VVS No.: 385904330</p> |



Company name:

Created by:

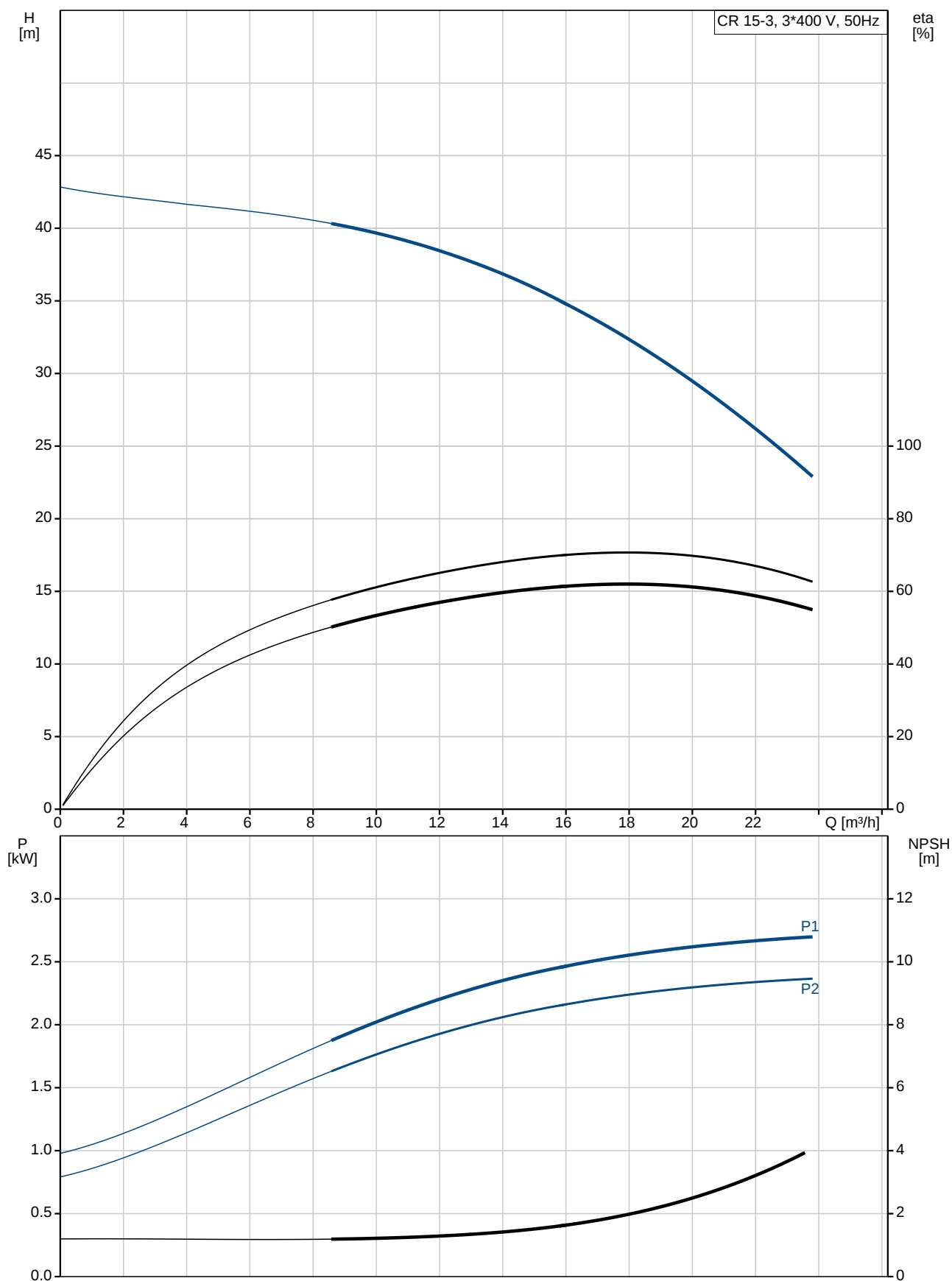
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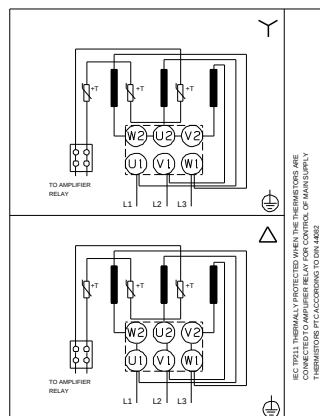
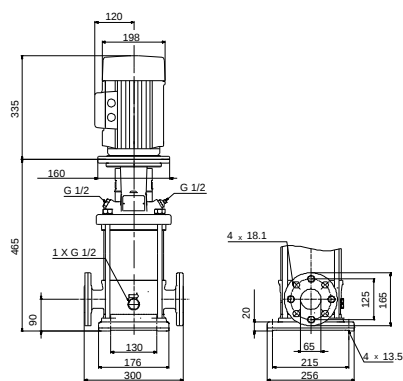
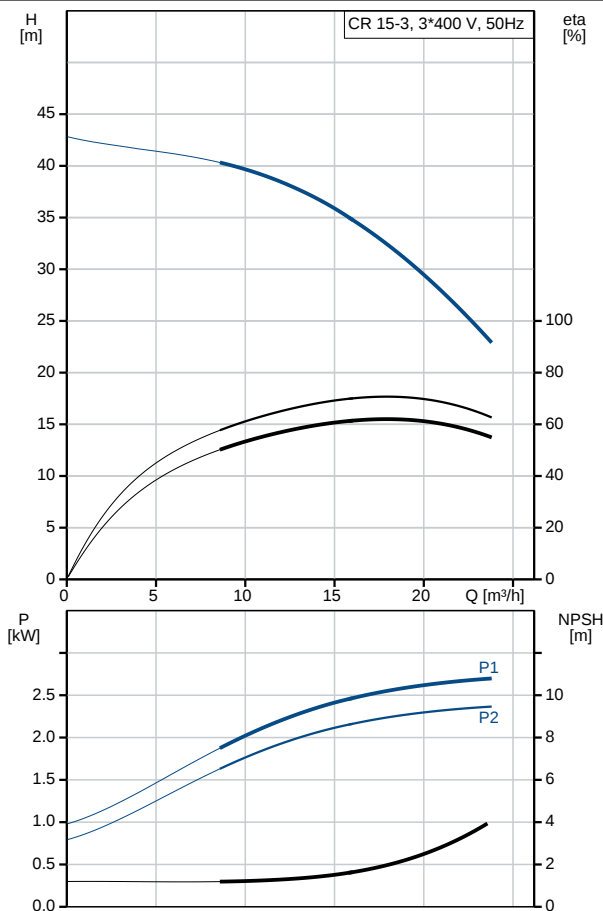
16/02/2019

| Qty. | Description                                                      |
|------|------------------------------------------------------------------|
|      | <div data-bbox="193 331 1474 369">Swedish RSK No.: 5823474</div> |

## 96501699 CR 15-3 A-F-A-E-HQQE 50 Hz



| Description                              | Value                                           |
|------------------------------------------|-------------------------------------------------|
| <b>General information:</b>              |                                                 |
| Product name:                            | CR 15-3<br>A-F-A-E-HQQE                         |
| Product No:                              | 96501699                                        |
| EAN number:                              | 5700396227443                                   |
| <b>Technical:</b>                        |                                                 |
| Pump speed on which pump data are based: | 2902 rpm                                        |
| Rated flow:                              | 17 m³/h                                         |
| Rated head:                              | 33.2 m                                          |
| Head max:                                | 42.7 m                                          |
| Stages:                                  | 3                                               |
| Impellers:                               | 3                                               |
| 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                                               |
| <b>Materials:</b>                        |                                                 |
| Base:                                    | Cast iron<br>EN 1561 EN-GJL-200<br>ASTM A48-25B |
| Impeller:                                | Stainless steel<br>EN 1.4301<br>AISI 304        |
| Material code:                           | A                                               |
| Code for rubber:                         | E                                               |
| Bearing:                                 | SIC                                             |
| <b>Installation:</b>                     |                                                 |
| Maximum ambient temperature:             | 60 °C                                           |
| Maximum operating pressure:              | 16 bar                                          |
| Max pressure at stated temp:             | 16 bar / 120 °C<br>16 bar / -20 °C              |
| Type of connection:                      | DIN                                             |
| Size of inlet connection:                | DN 50                                           |
| Size of outlet connection:               | DN 50                                           |
| Pressure rating for pipe connection:     | PN 25                                           |
| Flange rating inlet:                     | 300 lb                                          |
| Flange size for motor:                   | FT130                                           |
| Connect code:                            | F                                               |
| <b>Liquid:</b>                           |                                                 |
| Pumped liquid:                           | Water                                           |
| Liquid temperature range:                | -20 .. 120 °C                                   |
| Liquid temperature during operation:     | 20 °C                                           |
| Density:                                 | 998.2 kg/m³                                     |
| <b>Electrical data:</b>                  |                                                 |
| Motor standard:                          | IEC                                             |
| Motor type:                              | 100LC                                           |
| IE Efficiency class:                     | IE3                                             |
| Rated power - P2:                        | 3 kW                                            |
| Power (P2) required by pump:             | 3 kW                                            |
| Mains frequency:                         | 50 Hz                                           |
| Rated voltage:                           | 3 x 220-240D/380-415V<br>V                      |
| Rated current:                           | 11.0/6.30 A                                     |





Company name:

Created by:

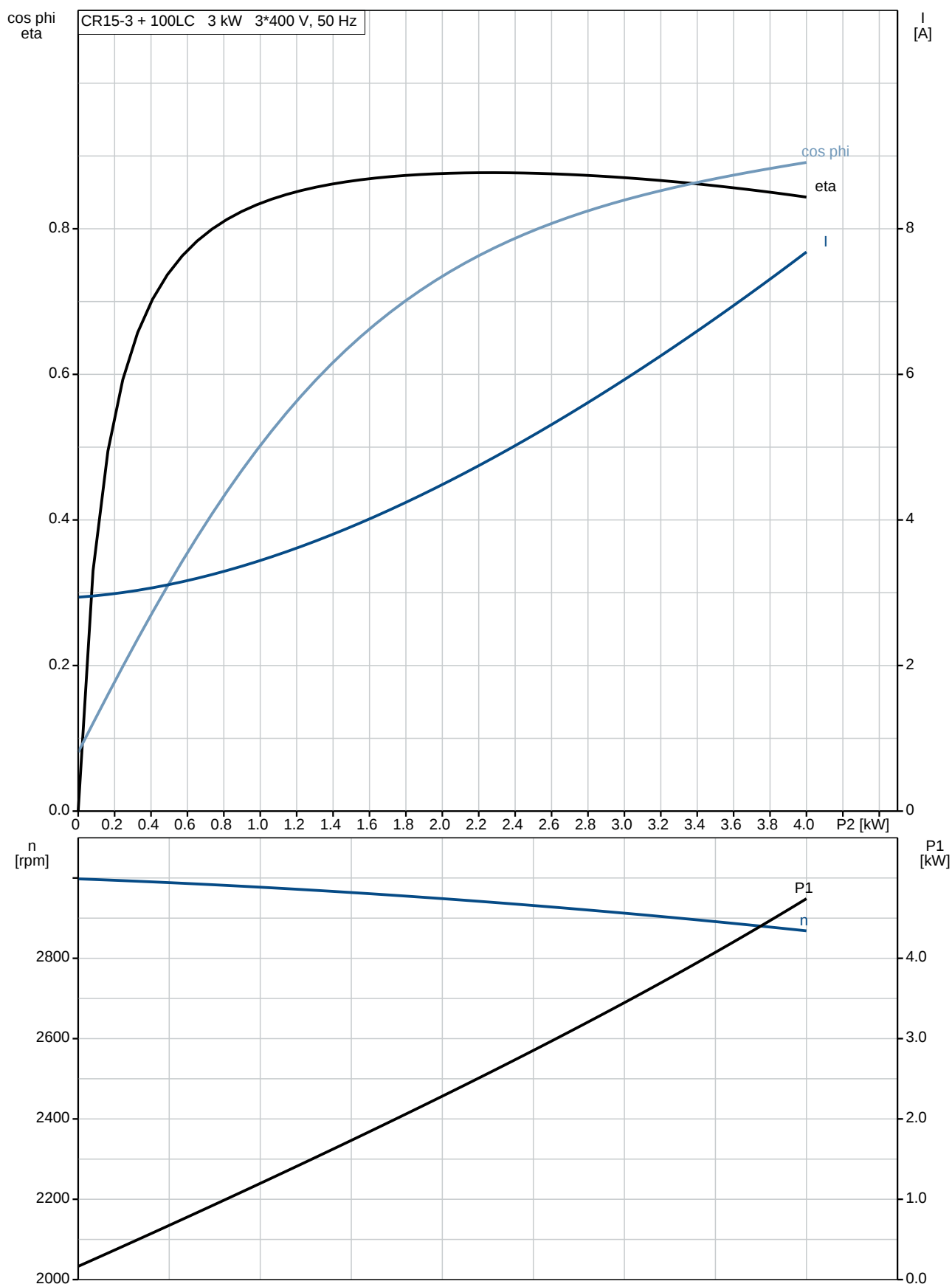
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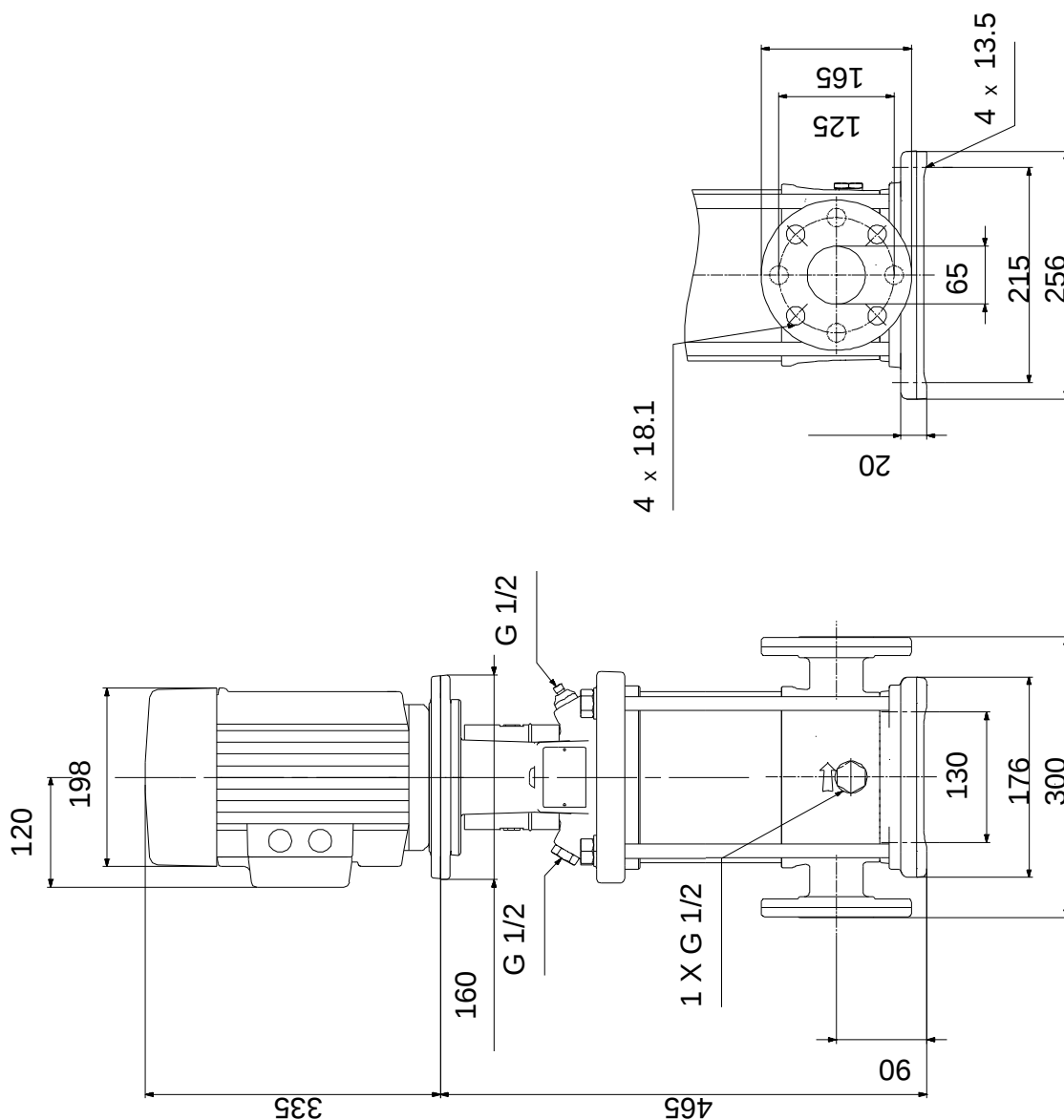
16/02/2019

| Description                      | Value                |
|----------------------------------|----------------------|
| Starting current:                | 840-920 %            |
| Cos phi - power factor:          | 0.87-0.82            |
| Rated speed:                     | 2900-2920 rpm        |
| Efficiency:                      | IE3 87,1%            |
| Motor efficiency at full load:   | 87.1 %               |
| Motor efficiency at 3/4 load:    | 88.0 %               |
| Motor efficiency at 1/2 load:    | 87.7 %               |
| Number of poles:                 | 2                    |
| Enclosure class (IEC 34-5):      | 55 Dust/Jetting      |
| Insulation class (IEC 85):       | F                    |
| Motor protec:                    | PTC                  |
| Motor No:                        | 85U05510             |
| <b>Controls:</b>                 |                      |
| Frequency converter:             | NONE                 |
| <b>Others:</b>                   |                      |
| Minimum efficiency index, MEI %: | 0.70                 |
| Net weight:                      | 59 kg                |
| Gross weight:                    | 81 kg                |
| Shipping volume:                 | 0.234 m <sup>3</sup> |
| Danish VVS No.:                  | 385904330            |
| Swedish RSK No.:                 | 5823474              |

## 96501699 CR 15-3 A-F-A-E-HQQE 50 Hz

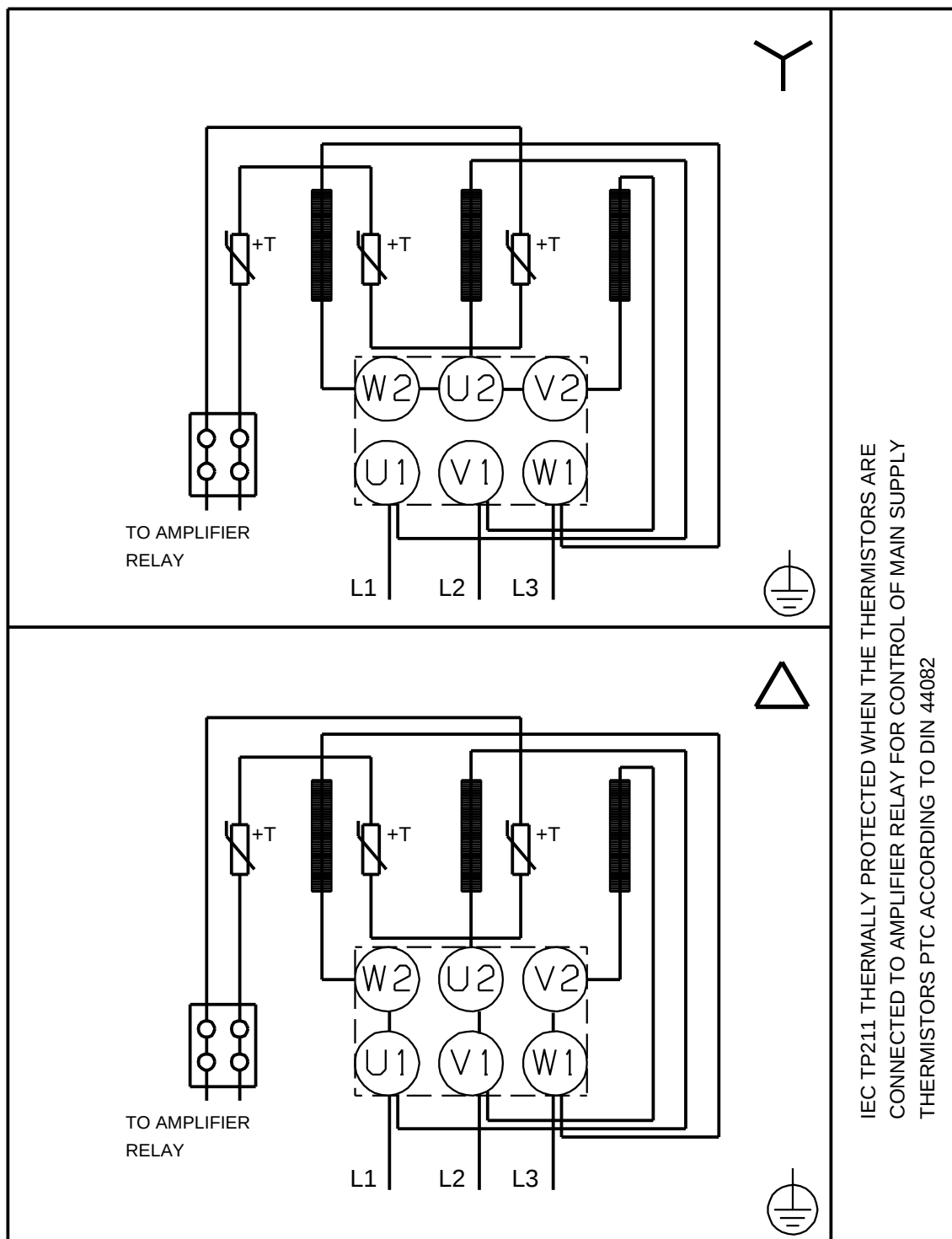


## 96501699 CR 15-3 A-F-A-E-HQQE 50 Hz



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

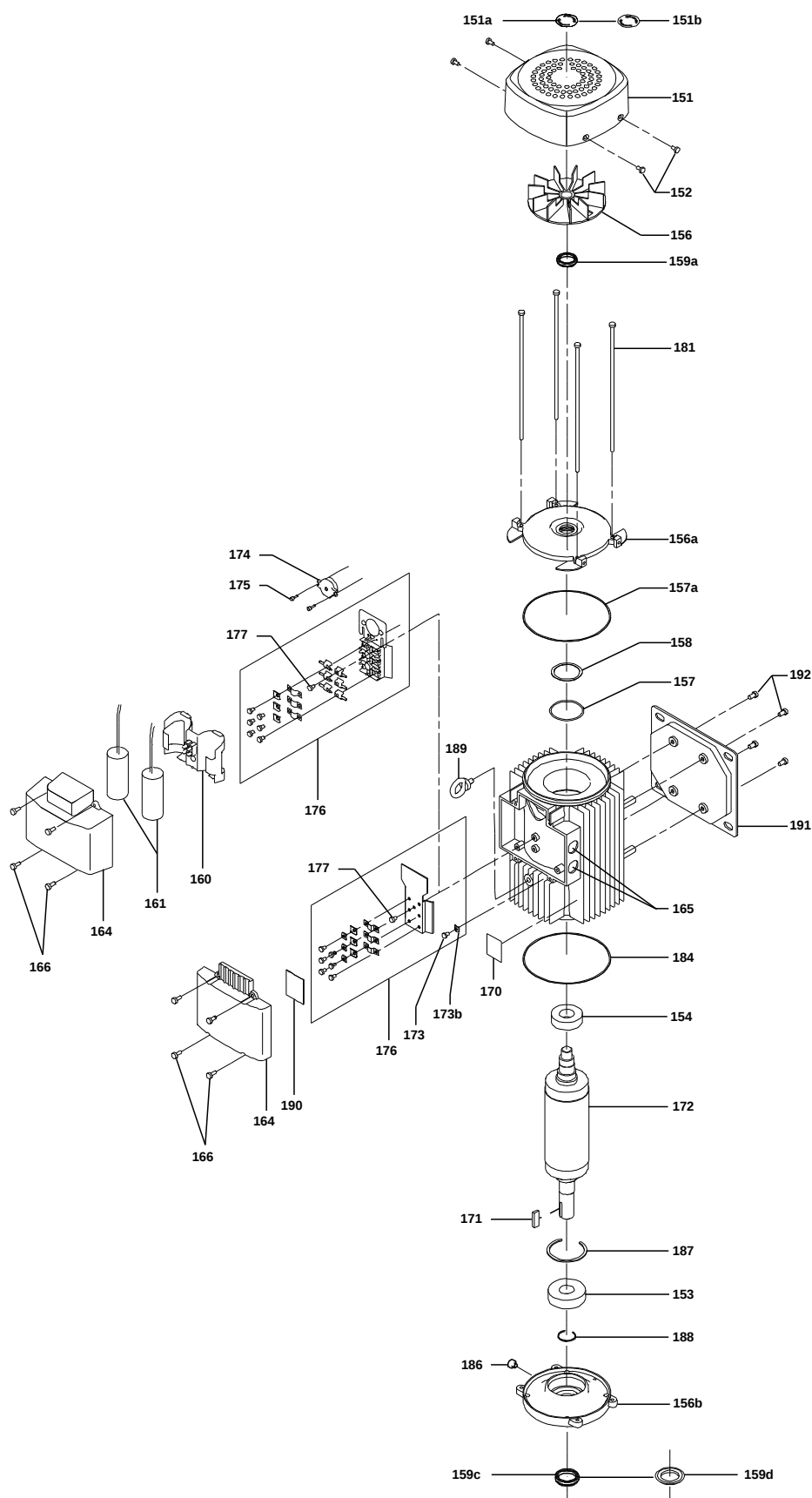
## 96501699 CR 15-3 A-F-A-E-HQQE 50 Hz



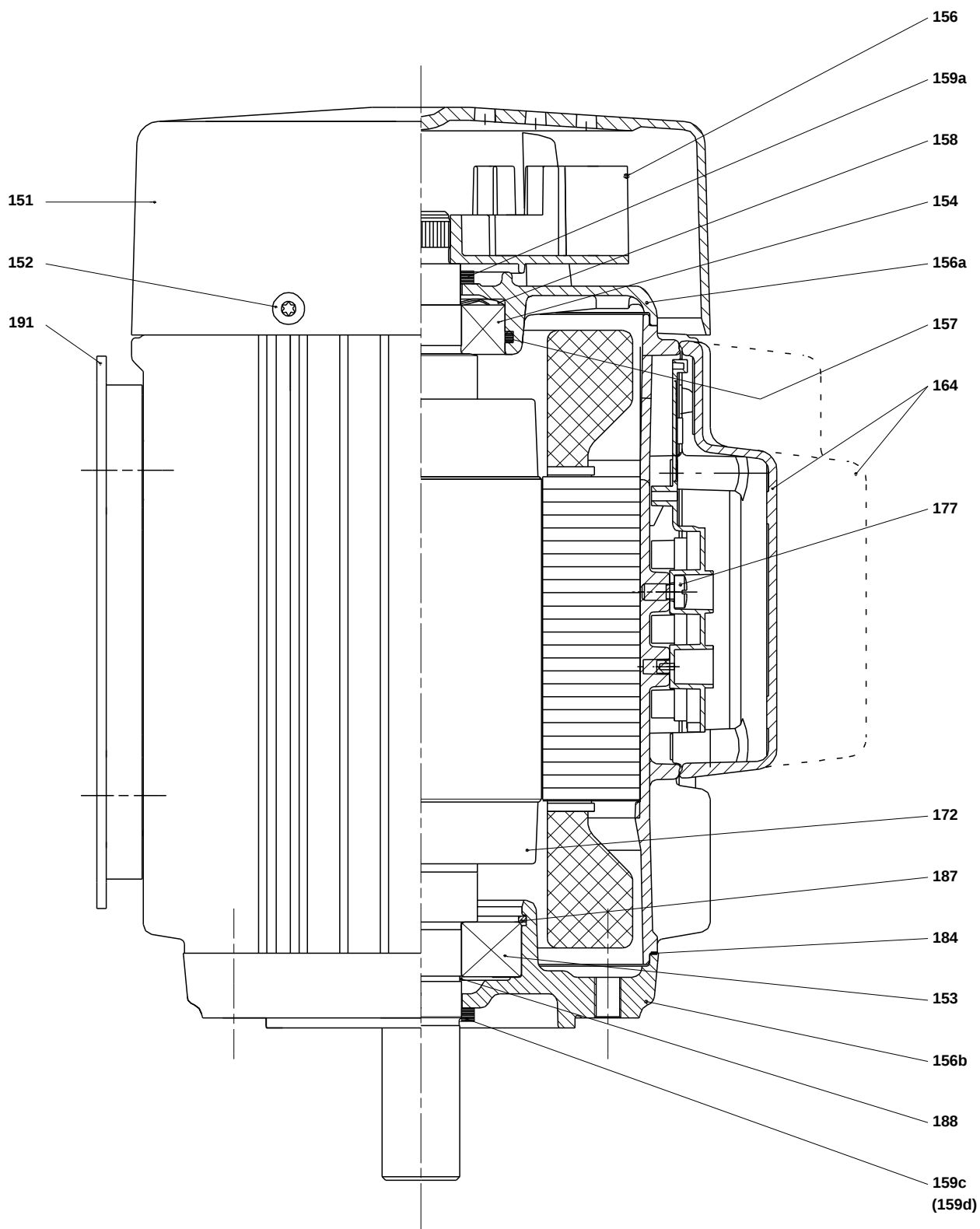
Note! All units are in [mm] unless others are stated.

16/02/2019

(tm029184 0505)



(tm029178 2004)



## Spare parts CR 15-3, Product No. 96501699

Valid from 1.1.2011 (1152)

| Pos   | Description                    | Annotation | Classification Data                                    | Part no. | Qty. | Unit |
|-------|--------------------------------|------------|--------------------------------------------------------|----------|------|------|
| -     | Kit, chamber stack             |            |                                                        | 96508455 | 1    | pcs  |
| - 80  | Chamber stack                  |            |                                                        |          | 1    |      |
| - 3   | Top intermediate chamber       |            |                                                        |          |      |      |
|       | Front plate                    |            |                                                        |          |      |      |
|       | Spare, turbulence optimizer KP |            |                                                        |          |      |      |
|       | Guide vane                     |            |                                                        |          |      |      |
| - 4a  | Intermediate chamber cpl.      |            |                                                        |          |      |      |
|       | Bearing plate                  |            |                                                        |          |      |      |
| 3     | Intermediate chamber           |            |                                                        |          |      |      |
| 45a   | Neck ring cpl.                 |            |                                                        |          |      |      |
| 47    | Bearing bush                   |            |                                                        |          |      |      |
| 65    | Retainer for upper seal ring   |            |                                                        |          |      |      |
| - 4   | Intermediate chamber cpl.      |            |                                                        |          |      |      |
| 45a   | Neck ring cpl.                 |            |                                                        |          |      |      |
| 65    | Retainer for upper seal ring   |            |                                                        |          |      |      |
| 26a   | Strap cpl.                     |            |                                                        |          |      |      |
| 26.c  | Washer                         |            | Designation: DIN 125A<br>Thickness: 1,6                |          |      |      |
| 26.b  | Hex head screw                 |            |                                                        |          |      |      |
| - 44a | Inlet part cpl.                |            |                                                        |          |      |      |
| 45a   | Neck ring cpl.                 |            |                                                        |          |      |      |
| 65    | Retainer for upper seal ring   |            |                                                        |          |      |      |
| 47    | Bearing ring                   |            |                                                        |          |      |      |
| + 49  | Impeller cpl.                  |            |                                                        |          |      |      |
| - 51  | Shaft, spline, cpl.            |            |                                                        |          |      |      |
|       | Bar                            |            |                                                        |          |      |      |
| 62    | Stop ring                      |            |                                                        |          |      |      |
| 64d   | Spacing bush                   |            |                                                        |          |      |      |
| 64c   | Spacing pipe                   |            | Length (mm): 12.7                                      |          |      |      |
| 64a   | Spacing pipe                   |            | Internal diameter: 17,5                                |          |      |      |
|       |                                |            | Length (mm): 17                                        |          |      |      |
| 64    | Spacing pipe                   |            | Length (mm): 43.6                                      |          |      |      |
| 66    | Wedge lock washer              |            |                                                        |          |      |      |
| 67    | Lock nut                       |            | Thread: M8                                             |          |      |      |
| 69    | Spacing bush                   |            |                                                        |          |      |      |
| -     | Kit, coupling                  |            |                                                        | 96511350 | 1    | pcs  |
|       | Adjusting fork                 |            |                                                        |          | 1    |      |
| 9     | Hex socket head cap screw      |            | Designation: DIN 912<br>Length (mm): 25<br>Thread: M8  |          | 4    |      |
| 10a   | Coupling half                  |            |                                                        |          | 2    |      |
| 10    | Shaft pin                      |            | Diameter: 5<br>Length (mm): 26                         |          | 1    |      |
| -     | Kit, coupling guard            |            |                                                        | 96509612 | 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    |      |
| 38a   | O-ring                         |            | Diameter: 5,3<br>Material type: EPDM<br>Thickness: 2,4 |          | 1    |      |

| Pos  | Description               | Annotation | Classification Data   | Part no. | Qty. | Unit |
|------|---------------------------|------------|-----------------------|----------|------|------|
| 38   | O-ring                    |            | Diameter: 16,3        |          | 1    |      |
|      |                           |            | Material type: EPDM   |          |      |      |
|      |                           |            | Thickness: 2,4        |          |      |      |
| 38   | O-ring                    |            | Diameter: 16,3        |          | 2    |      |
|      |                           |            | Material type: EPDM   |          |      |      |
|      |                           |            | Thickness: 2,4        |          |      |      |
| 60   | Spring                    |            |                       |          | 4    |      |
| 415  | Gasket                    |            |                       |          | 2    |      |
| 441b | Gasket                    |            | Internal diameter: 49 |          | 2    |      |
|      |                           |            | Outer diameter: 92    |          |      |      |
|      |                           |            | Thickness: 2          |          |      |      |
| -    | Kit, plug                 |            |                       | 96511311 | 1    | pcs  |
| - 18 | Air vent screw            |            |                       |          | 1    |      |
|      | Spindle                   |            |                       |          |      |      |
|      | Plug                      |            |                       |          |      |      |
| 25a  | Drain plug                |            |                       |          | 1    |      |
| 25   | Plug                      |            |                       |          | 1    |      |
| 38a  | O-ring                    |            | Diameter: 5,3         |          | 1    |      |
|      |                           |            | Material type: FKM    |          |      |      |
|      |                           |            | Thickness: 2,4        |          |      |      |
| 38a  | O-ring                    |            | Diameter: 5,3         |          | 1    |      |
|      |                           |            | Material type: EPDM   |          |      |      |
|      |                           |            | 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        |          |      |      |
| 38   | O-ring                    |            | Diameter: 16,3        |          | 1    |      |
|      |                           |            | Material type: EPDM   |          |      |      |
|      |                           |            | Thickness: 2,4        |          |      |      |
| 38   | O-ring                    |            | Diameter: 16,3        |          | 2    |      |
|      |                           |            | Material type: EPDM   |          |      |      |
|      |                           |            | Thickness: 2,4        |          |      |      |
| -    | Kit, shaft seal HQQE      |            |                       | 96511844 | 1    | pcs  |
|      | Emery cloth               |            |                       |          | 1    |      |
|      | Grinding device           |            |                       |          | 1    |      |
| 105  | Shaft seal                |            | Material type: HQQE   |          | 1    |      |
| -    | Kit, wear parts           |            |                       | 96511824 | 1    | pcs  |
| - 4a | Intermediate chamber cpl. |            |                       |          | 1    |      |
|      | Sand Lifter               |            |                       |          |      |      |
|      | Guide cup                 |            |                       |          |      |      |
|      | Bearing plate             |            |                       |          |      |      |
|      | Guide vane                |            |                       |          |      |      |
| 3    | Intermediate chamber      |            |                       |          |      |      |
| 45a  | Neck ring cpl.            |            |                       |          |      |      |
| 47   | Bearing bush              |            |                       |          |      |      |
| 65   | Retainer                  |            |                       |          |      |      |
| 26.c | Washer                    |            | Designation: DIN 125A |          | 2    |      |
|      |                           |            | Thickness: 1,6        |          |      |      |
| 26.b | Hex head screw            |            |                       |          | 2    |      |
| 45a  | Neck ring cpl.            |            |                       |          | 5    |      |
| 47   | Bearing ring              |            |                       |          | 1    |      |
| 49c  | Wear ring                 |            |                       |          | 6    |      |
| 62   | Retaining ring            |            |                       |          | 1    |      |
| 64d  | Spacing bush              |            |                       |          | 1    |      |
| 64c  | Spacing pipe              |            | Length (mm): 12.7     |          | 1    |      |
| 64b  | Spacing bush              |            | Length (mm): 5.00     |          | 1    |      |

| Pos   | Description                            | Annotation | Classification Data                                          | Part no. | Qty. | Unit |
|-------|----------------------------------------|------------|--------------------------------------------------------------|----------|------|------|
| 64a   | Spacing pipe                           |            | Internal diameter: 17,5<br>Length (mm): 17                   |          | 1    |      |
| 65    | Retainer                               |            |                                                              |          | 5    |      |
| 66    | Wedge lock washer                      |            |                                                              |          | 1    |      |
| 67    | Lock nut                               |            | Thread: M8                                                   |          | 1    |      |
| -     | Motor                                  |            |                                                              | 85903730 | 1    | pcs  |
| -     | Kit, Ball bearing                      |            |                                                              | 96279795 | 1    |      |
| 99a   | Retaining ring                         |            |                                                              |          |      |      |
| 99    | Retaining ring                         |            |                                                              |          |      |      |
| 111   | Ball bearing                           |            |                                                              |          |      |      |
| 111   | Ball bearing                           |            |                                                              |          |      |      |
| 157   | O-ring                                 |            | Diameter: 52<br>Material type: NBR<br>Thickness: 3           |          |      |      |
| 158   | Waved washer                           |            |                                                              |          |      |      |
| -     | Kit, end shield                        |            |                                                              | 96279831 | 1    |      |
| 156a  | End shield                             |            |                                                              |          |      |      |
| 157   | O-ring                                 |            | Diameter: 52<br>Material type: NBR<br>Thickness: 3           |          |      |      |
| 158   | Waved washer                           |            |                                                              |          |      |      |
| 159a  | Seal ring                              |            |                                                              |          |      |      |
| -     | Kit, fan                               |            |                                                              | 96279757 | 1    |      |
| 156   | Fan                                    |            |                                                              |          |      |      |
| 159a  | Seal ring                              |            |                                                              |          |      |      |
| -     | Kit, fan cover                         |            |                                                              | 96279826 | 1    |      |
| 151b  | Label                                  |            |                                                              |          |      |      |
| 151   | Fan cover                              |            |                                                              |          |      |      |
| 152   | Pan head thread forming screw          |            |                                                              |          |      |      |
| -     | Kit, flange                            |            |                                                              | 96279828 | 1    |      |
| 156b  | Flange                                 |            |                                                              |          |      |      |
| 156.c | Drain plug                             |            |                                                              |          |      |      |
| 159.c | Seal ring                              |            |                                                              |          |      |      |
| -     | Kit, retaining ring                    |            |                                                              | 96279799 | 1    |      |
| 99    | Retaining ring                         |            |                                                              |          |      |      |
| 188   | Retaining ring                         |            |                                                              |          |      |      |
| -     | Kit, shaft seal                        |            |                                                              | 96279762 | 1    |      |
| 159c  | Seal ring                              |            |                                                              |          |      |      |
| 159a  | Seal ring                              |            |                                                              |          |      |      |
| -     | Kit, staybolts                         |            |                                                              | 96279832 | 1    |      |
| 181   | Pan head staybolt                      |            |                                                              |          |      |      |
| -     | Kit, terminal board                    |            |                                                              | 96279769 | 1    |      |
| 173a  | Base                                   |            |                                                              |          |      |      |
| 173   | Pan head thread forming screw          |            | Designation: COMBI TORX T25                                  |          |      |      |
| 176   | Slot cheese head screw                 |            | Designation: COMBI TORX T25<br>Length (mm): 10<br>Thread: M5 |          |      |      |
| 176   | Terminal                               |            |                                                              |          |      |      |
| 176   | Connecting piece                       |            |                                                              |          |      |      |
| 176   | Wire clamp                             |            |                                                              |          |      |      |
| 176   | Terminal board                         |            |                                                              |          |      |      |
| 177   | Pan head screw                         |            |                                                              |          |      |      |
| -     | Kit, terminal box                      |            |                                                              | 96279771 | 1    |      |
| 164   | Terminal box cover w/gasket            |            |                                                              |          |      |      |
| 166   | Pan head thread forming screw          |            |                                                              |          |      |      |
| 2a    | Pump head                              |            |                                                              | 98785091 | 1    | pcs  |
| + 3   | Bulk, Top intermediate chamber (3 pcs) |            |                                                              | 96538971 | 1    | pcs  |
| + 3   | Top intermediate chamber               |            |                                                              | 98371105 | 1    | pcs  |

| Pos   | Description                                 | Annotation | Classification Data                                                                   | Part no. | Qty. | Unit |
|-------|---------------------------------------------|------------|---------------------------------------------------------------------------------------|----------|------|------|
| - 4a  | Bulk, Intermediate chamber cpl. (10 pcs)    |            |                                                                                       | 96538842 | 1    | pcs  |
| 3     | Bulk, Intermediate chamber (3 pcs)          |            |                                                                                       | 96535086 | 1    |      |
| + 4a  | Intermediate chamber cpl.                   |            |                                                                                       | 98371109 | 1    | pcs  |
| - 4   | Bulk, Intermediate chamber cpl. (10 pcs)    |            |                                                                                       | 96538817 | 1    | pcs  |
| 65    | Bulk, Retainer for upper seal ring (20 pcs) |            |                                                                                       | 97699527 | 1    |      |
| 65    | Retainer for upper seal ring                |            |                                                                                       | 96587913 | 1    |      |
| + 4   | Intermediate chamber cpl.                   |            |                                                                                       | 98371107 | 1    | pcs  |
| 6     | Base                                        |            |                                                                                       | 98681111 | 1    | pcs  |
| 7.a   | Bulk, Combi Slot Torx screw (1000 pcs)      |            |                                                                                       | 96886324 | 4    | pcs  |
| 10    | Bulk, Shaft pin (10 pcs)                    |            | Diameter: 5<br>Length (mm): 26                                                        | 96536473 | 1    | pcs  |
| + 18  | Bulk, Air vent screw (5 pcs)                |            |                                                                                       | 96547461 | 1    | pcs  |
| + 18  | Air vent screw                              |            |                                                                                       | 95061351 | 1    | pcs  |
| 25    | Bulk, Plug (10 pcs)                         |            |                                                                                       | 96536013 | 1    | pcs  |
| 25a   | Bulk, Drain plug (10 pcs)                   |            |                                                                                       | 96535881 | 1    | pcs  |
| 26a   | Strap cpl.                                  |            |                                                                                       | 98952934 | 2    | pcs  |
| 26.c  | Bulk, Washer (4 pcs)                        |            | Designation: DIN 125A<br>Thickness: 1,6                                               | 99262704 | 2    | pcs  |
| 26.c  | Washer                                      |            | Designation: DIN 125A<br>Thickness: 1,6                                               | 96586880 | 2    | pcs  |
| 26    | Staybolt                                    |            |                                                                                       | 98982840 | 4    | pcs  |
| 28    | Bulk, Hex head screw (4 pcs)                |            | Length (mm): 25<br>Thread: M8                                                         | 99335941 | 4    | pcs  |
| 32    | Bulk, Washer (100 pcs)                      |            | Designation: DIN 125 A<br>Internal diameter: 17<br>Outer diameter: 30<br>Thickness: 3 | 98923051 | 4    | pcs  |
| 36    | Bulk, Hex nut (20 pcs)                      |            | Thread: M16                                                                           | 96620480 | 4    | pcs  |
| 37    | Bulk, O-ring (20 pcs)                       |            |                                                                                       | 96538857 | 2    | pcs  |
| 38a   | Bulk, O-ring (10 pcs)                       |            | Diameter: 5,3<br>Material type: EPDM<br>Thickness: 2,4                                | 99198791 | 1    | pcs  |
| 38    | Bulk, O-ring (10 pcs)                       |            | Diameter: 16,3<br>Material type: EPDM<br>Thickness: 2,4                               | 99198815 | 2    | pcs  |
| 38    | Bulk, O-ring (50 pcs)                       |            | Diameter: 16,3<br>Material type: EPDM<br>Thickness: 2,4                               | 99412727 | 2    | pcs  |
| + 44a | Inlet part cpl.                             |            |                                                                                       | 98818924 | 1    | pcs  |
| 47    | Bulk, Bearing ring (10 pcs)                 |            |                                                                                       | 96538795 | 1    | pcs  |
| + 49  | Bulk, Impeller cpl. (5 pcs)                 |            |                                                                                       | 98394287 | 3    | pcs  |
| + 49  | Impeller cpl.                               |            |                                                                                       | 98394448 | 3    | pcs  |
| + 51  | Shaft, spline, cpl.                         |            |                                                                                       | 98368607 | 1    | pcs  |
| 55    | Outer sleeve                                |            |                                                                                       | 98812621 | 1    | pcs  |
| 60    | Bulk, Spring (20 pcs)                       |            |                                                                                       | 96538963 | 4    | pcs  |
| 64d   | Bulk, Spacing bush (20 pcs)                 |            |                                                                                       | 96538947 | 1    | pcs  |
| 64c   | Bulk, Spacing pipe (5 pcs)                  |            | Length (mm): 12.7                                                                     | 97980241 | 1    | pcs  |
| 64a   | Bulk, Spacing pipe (10 pcs)                 |            | Internal diameter: 17,5<br>Length (mm): 17                                            | 98417487 | 1    | pcs  |
| 64    | Bulk, Spacing pipe (20 pcs)                 |            | Length (mm): 43.6                                                                     | 96535107 | 1    | pcs  |
| 66    | Bulk, Wedge lock washer (10 pcs)            |            |                                                                                       | 96536157 | 1    | pcs  |
| 67    | Bulk, Lock nut (10 pcs)                     |            | Thread: M8                                                                            | 98277008 | 1    | pcs  |
| 69    | Bulk, Spacing bush (20 pcs)                 |            |                                                                                       | 96538949 | 1    | pcs  |
| 76a   | Bulk, Rivet (100 pcs)                       |            |                                                                                       | 96620489 | 1    | pcs  |
| 105   | Bulk, Shaft seal (11 pcs)                   |            | Material type: HQQE                                                                   | 96538914 | 1    | pcs  |