

Date: 12/09/2018

**Position** Description Qty.

> 1 CR 45-3 A-F-A-V-HQQV



Product No.: 96122826

Vertical, multistage centrifugal pump with suction and discharge ports on same the level (in-line) enabling installation in a horizontal one-pipe system. 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 service and access. Power transmission is via a rigid split coupling. Pipework connection is via DIN flanges.

The pump is fitted with a 3-phase, fan-cooled asynchronous motor.

Liquid:

Pumped liquid: Water -20 .. 90 °C Liquid temperature range: Liquid temperature during operation: 20 °C Density: 998.2 kg/m<sup>3</sup>

Technical:

Rated flow: 45 m<sup>3</sup>/h Rated head: 59.4 m Pump orientation: Vertical Shaft seal arrangement: Single Code for shaft seal: HQQV Approvals on nameplate: CE, EAC

Curve tolerance: ISO9906:2012 3B

Materials:

Base: Cast iron

> EN 1563 EN-GJS-500-7 ASTM A536 80-55-06

Impeller: Stainless steel

> EN 1.4301 **AISI 304**

Bearing: SIC Support bearing: Graflon

Installation:

Maximum ambient temperature: 60 °C Maximum operating pressure: 16 bar Max pressure at stated temp:

16 bar / 90 °C

16 bar / -20 °C

Type of connection: DIN Size of inlet connection: **DN 80** Size of outlet connection: **DN 80** Pressure rating for pipe connection: PN 40 Flange size for motor: FF300

**Electrical data:** 

Motor standard: **IEC** 



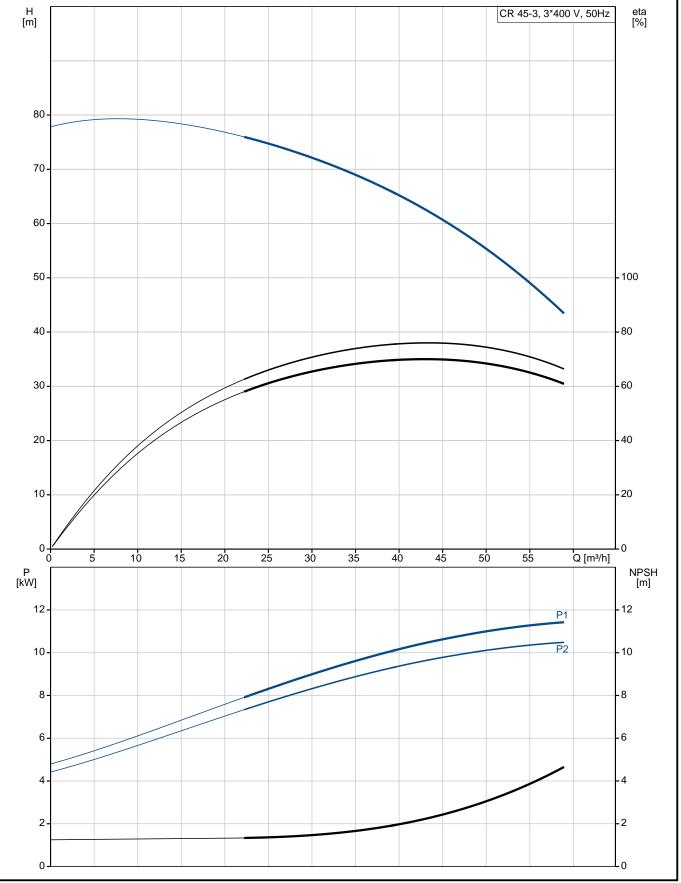
**Date:** 12/09/2018

|          |      |                                |                         | , |
|----------|------|--------------------------------|-------------------------|---|
| Position | Qty. | Description                    |                         |   |
|          |      | Motor type:                    | 160MB                   |   |
|          |      | IE Efficiency class:           | IE3                     |   |
|          |      | Rated power - P2:              | 11 kW                   |   |
|          |      | Power (P2) required by pump:   | 11 kW                   |   |
|          |      | Mains frequency:               | 50 Hz                   |   |
|          |      | Rated voltage:                 | 3 x 380-415D/660-690Y V |   |
|          |      | Rated current:                 | 20,8-19,8/12,0-11,8 A   |   |
|          |      | Starting current:              | 660-780 %               |   |
|          |      | Cos phi - power factor:        | 0.88-0.84               |   |
|          |      | Rated speed:                   | 2940-2950 rpm           |   |
|          |      | Efficiency:                    | IE3 91,2%               |   |
|          |      | Motor efficiency at full load: | 91.2-91.2 %             |   |
|          |      | Motor efficiency at 3/4 load:  | 91.8 %                  |   |
|          |      | Motor efficiency at 1/2 load:  | 91.3 %                  |   |
|          |      | Number of poles:               | 2                       |   |
|          |      | Enclosure class (IEC 34-5):    | 55 Dust/Jetting         |   |
|          |      | Insulation class (IEC 85):     | F                       |   |
|          |      | modiation diago (120 co).      | •                       |   |
|          |      | Controls:                      |                         |   |
|          |      | Frequency converter:           | NONE                    |   |
|          |      | 04.555                         |                         |   |
|          |      | Others:                        | 0.7                     |   |
|          |      | Minimum efficiency index, MEI  |                         |   |
|          |      | Net weight:                    | 163 kg                  |   |
|          |      | Gross weight:                  | 196 kg                  |   |
|          |      | Shipping volume:               | 0.495 m³                |   |
|          |      | Country of origin:             | GB                      |   |
|          |      | Custom tariff no.:             | 84137075                |   |
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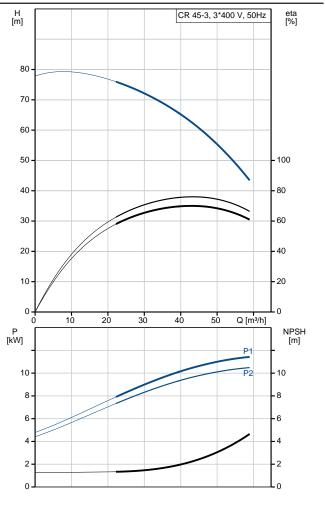
## 96122826 CR 45-3 A-F-A-V-HQQV 50 Hz





**Date:** 12/09/2018

| Description   | Value                      |
|---|----------------------------|
| General information:  |                            |
| Product name:   | CR 45-3 A-F-A-V-HQQV       |
| Product No:   | 96122826                   |
| EAN number:   | 5700396688701              |
| Price:  | 4.367,00 GBP               |
| Technical:  |                            |
| Rated flow:   | 45 m³/h                    |
| Rated head:   | 59.4 m                     |
| Stages:   | 3                          |
| Impellers:  | 3                          |
| Low NPSH:   | N                          |
| Pump orientation:   | Vertical                   |
| Shaft seal arrangement:   | Single                     |
| Code for shaft seal:  | HQQV                       |
| Approvals on nameplate:   | CE, EAC                    |
| Curve tolerance:  | ISO9906:2012 3B            |
| Pump version:   | A                          |
| Model:  | В                          |
| Materials:  |                            |
| Base:   | Cast iron                  |
|   | EN 1563 EN-GJS-500-7       |
|   | ASTM A536 80-55-06         |
| Impeller:   | Stainless steel            |
|   | EN 1.4301                  |
|   | AISI 304                   |
| Material code:  | Α                          |
| Code for rubber:  | V                          |
| Bearing:  | SIC                        |
| Support bearing:  | Graflon                    |
| Installation:   | 0.4                        |
| Maximum ambient temperature:                                    | 60 °C                      |
| Maximum operating pressure:                                     | 16 bar                     |
| Max pressure at stated temp:                                    | 16 bar / 90 °C             |
| wax produce at stated temp.                                     | 16 bar / -20 °C            |
| Type of connection:   | DIN                        |
| Size of inlet connection:                                       | DN 80                      |
| Size of outlet connection:                                      | DN 80                      |
| Pressure rating for pipe connection:                            | PN 40                      |
| Flange size for motor:  | FF300                      |
| Connect code:   | F                          |
| Liquid:   | I                          |
| Pumped liquid:  | Water                      |
| Liquid temperature range:                                       | -20 90 °C                  |
| Liquid temperature range.  Liquid temperature during operation: | 20 °C                      |
| Density:  |                            |
| Electrical data:  | 998.2 kg/m³                |
|   | IFC                        |
| Motor standard:   | IEC<br>400MB               |
| Motor type:   | 160MB                      |
| IE Efficiency class:  | IE3                        |
| Rated power - P2:   | 11 kW                      |
| Power (P2) required by pump:                                    | 11 kW                      |
| Mains frequency:  | 50 Hz                      |
| Rated voltage:  | 3 x 380-415D/660-690Y V    |
| Rated current:  | 20,8-19,8/12,0-11,8 A      |
|   | 660-780 %                  |
| Starting current:   |                            |
| Starting current: Cos phi - power factor: Rated speed:          | 0.88-0.84<br>2940-2950 rpm |





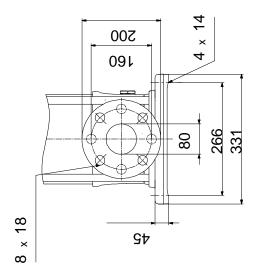
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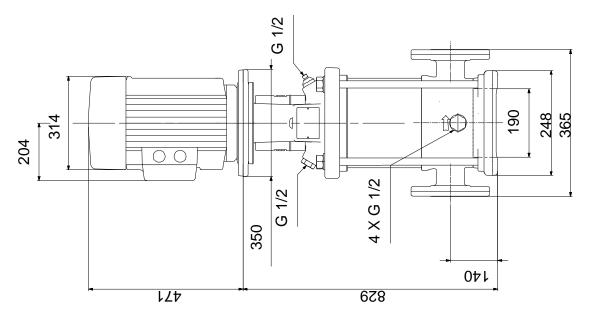
| Description                     | Value           |
|---------------------------------|-----------------|
| Motor efficiency at full load:  | 91.2-91.2 %     |
| Motor efficiency at 3/4 load:   | 91.8 %          |
| Motor efficiency at 1/2 load:   | 91.3 %          |
| Number of poles:                | 2               |
| Enclosure class (IEC 34-5):     | 55 Dust/Jetting |
| Insulation class (IEC 85):      | F               |
| Motor protec:                   | PTC             |
| Motor No:                       | 85U17524        |
| Controls:                       |                 |
| Frequency converter:            | NONE            |
| Others:                         |                 |
| Minimum efficiency index, MEI : | 0.7             |
| Net weight:                     | 163 kg          |
| Gross weight:                   | 196 kg          |
| Shipping volume:                | 0.495 m³        |
| Country of origin:              | GB              |
| Custom tariff no.:              | 84137075        |



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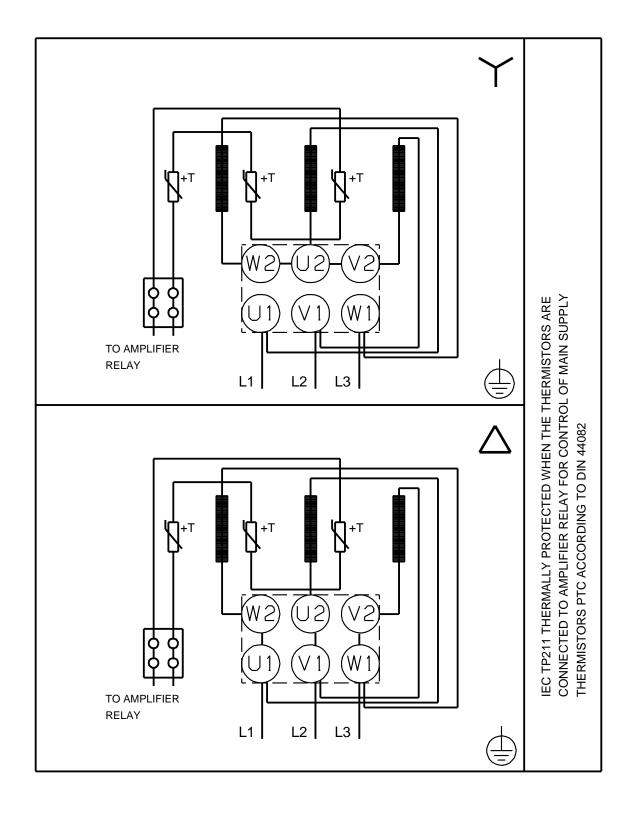
Note! All units are in [mm] unless others are stated. Disclaimer: This simplified dimensional drawing does not show all details.



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