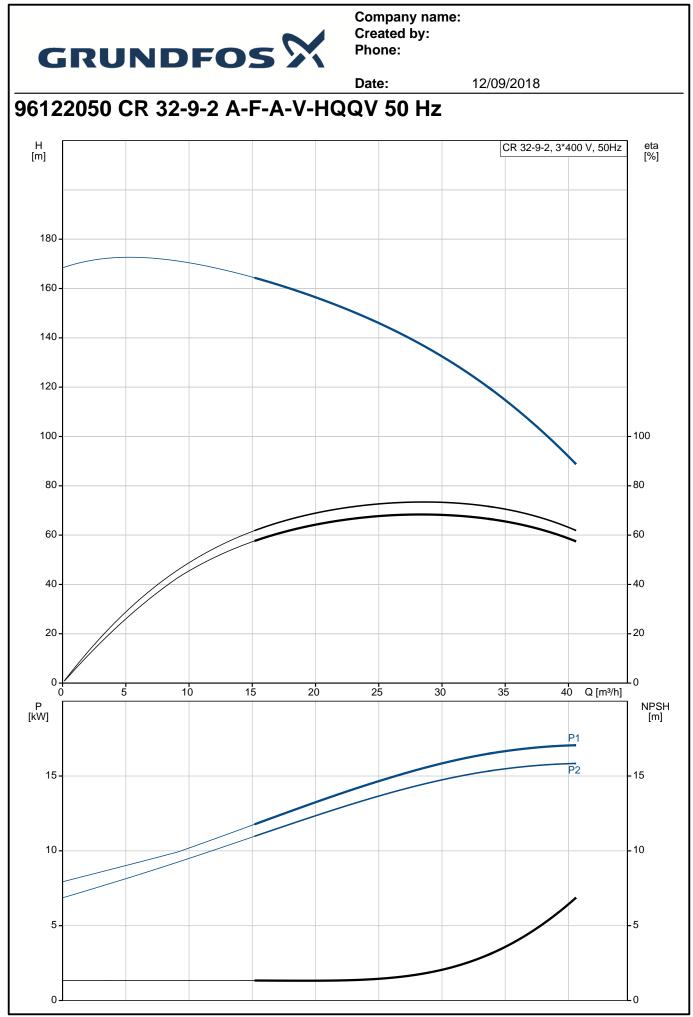
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|----------|--|--|--|-----|------------|--|--|
|          |  |  | Date:  |     | 12/09/2018 |  |  |
| Position | Qty.   | Description  |  |     |            |  |  |
|          | 1  | CR 32-9-2 A-F-A-V-HQQV   |  |     |            |  |  |
|          |  | Product No.: 96122050  |  |     |            |  |  |
|          | Vertical, multistage centrifugal pump with suction and discharge ports on same the level (in-line<br>enabling installation in a horizontal one-pipe system. The pump head and base are in cast iron<br>other wetted parts are in stainless steel. A cartridge shaft seal ensures high reliability, safe han<br>and easy service and access. Power transmission is via a rigid split coupling. Pipework connec<br>via DIN flanges.<br>The pump is fitted with a 3-phase, fan-cooled asynchronous motor. |  |  |     |            |  |  |
|          |  |  |  |     |            |  |  |
|          |  | Liquid:<br>Pumped liquid:<br>Liquid temperature range:<br>Liquid temperature during operation<br>Density:  | Vater<br>20 90 °C<br>on: 20 °C<br>998.2 kg/m³                                |     |            |  |  |
|          |  | <b>Technical:</b><br>Rated flow:<br>Rated head:<br>Pump orientation:<br>Shaft seal arrangement:<br>Code for shaft seal:<br>Approvals on nameplate:<br>Curve tolerance: | 30 m³/h<br>31.6 m<br>/ertical<br>Single<br>HQQV<br>CE, EAC<br>SO9906:2012 3B |     |            |  |  |
|          |  | <b>Materials:</b><br>Base:   | Cast iron<br>EN 1563 EN-GJS-<br>ASTM A536 80-55                              |     |            |  |  |
|          |  | Impeller:  | Stainless steel<br>EN 1.4301<br>AISI 304                                     | -00 |            |  |  |
|          |  | Bearing:<br>Support bearing:   | SIC<br>Graflon   |     |            |  |  |
|          |  | Installation:<br>Maximum ambient temperature:<br>Maximum operating pressure:<br>Max pressure at stated temp:   | 80 bar<br>80 bar /  90 °C  |     |            |  |  |
|          |  | Type of connection:<br>Size of inlet connection:<br>Size of outlet connection:<br>Pressure rating for pipe connecti<br>Flange size for motor:                          | 80 bar / -20 °C<br>DIN<br>DN 65<br>DN 65<br>n: PN 40<br>FF300                |     |            |  |  |
|          |  | Electrical data:<br>Motor standard:  | EC   |     |            |  |  |



Company name: Created by: Phone:

|          |      |                                | Date:                   | 12/09/2018 |
|----------|------|--------------------------------|-------------------------|------------|
| Position | Qty. | Description                    |                         |            |
|          |      | Motor type:                    | 160LB                   |            |
|          |      | IE Efficiency class:           | IE3                     |            |
|          |      | Rated power - P2:              | 18.5 kW                 |            |
|          |      | Power (P2) required by pump:   |                         |            |
|          |      | Mains frequency:               | 50 Hz                   |            |
|          |      | Rated voltage:                 | 3 x 380-415D/660-690Y V |            |
|          |      | Rated current:                 | 34,5-32,5/20,0-18,8 A   |            |
|          |      | Starting current:              | 830-980 %               |            |
|          |      | Cos phi - power factor:        | 0.89-0.85               |            |
|          |      | Rated speed:                   | 2940-2950 rpm           |            |
|          |      | Efficiency:                    | IE3 92,4%               |            |
|          |      | Motor efficiency at full load: | 92.4-92.4 %             |            |
|          |      | Motor efficiency at 3/4 load:  | 93.2 %                  |            |
|          |      | Motor efficiency at 1/2 load:  | 93.2 %                  |            |
|          |      | Number of poles:               | 2                       |            |
|          |      | Enclosure class (IEC 34-5):    | 55 Dust/Jetting         |            |
|          |      | Insulation class (IEC 85):     | F                       |            |
|          |      |                                |                         |            |
|          |      | Controls:                      |                         |            |
|          |      | Frequency converter:           | NONE                    |            |
|          |      | Others:                        |                         |            |
|          |      | Minimum efficiency index, MEI  |                         |            |
|          |      | Net weight:                    | 198 kg                  |            |
|          |      | Gross weight:                  | 237 kg                  |            |
|          |      | Shipping volume:               | 0.805 m³                |            |
|          |      | Country of origin:             | GB                      |            |
|          |      | Custom tariff no.:             | 84137075                |            |
|          |      |                                |                         |            |
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## Company name: Created by: Phone:

|                                      |                         |          |         | 12/09/2018   |               |          |
|--------------------------------------|-------------------------|----------|---------|--------------|---------------|----------|
| Description                          | Value                   | H<br>[m] |         | CR 32-9-2, 3 | 3*400 V, 50Hz | et<br>[% |
| General information:                 |                         |          |         |              |               |          |
| Product name:                        | CR 32-9-2 A-F-A-V-HQQV  |          |         |              |               |          |
| Product No:                          | 96122050                | 180 -    |         |              |               |          |
| EAN number:                          | 5700396680941           |          |         |              |               |          |
| Price:                               | 6.358,00 GBP            | 160 -    |         |              |               |          |
| Technical:                           |                         | 110      |         |              |               |          |
| Rated flow:                          | 30 m³/h                 | 140 -    |         |              |               |          |
| Rated head:                          | 131.6 m                 | 120 -    |         |              |               |          |
| Stages:                              | 9                       | 120      |         |              |               |          |
| Impellers:                           | 9                       | 100 -    |         |              |               | - 100    |
| Number of reduced-diameter impellers | : 2                     | 80 -     |         |              |               | - 80     |
| Low NPSH:                            | Ν                       |          |         |              |               | - 00     |
| Pump orientation:                    | Vertical                | 60 -     |         |              |               | - 60     |
| Shaft seal arrangement:              | Single                  |          |         |              |               |          |
| Code for shaft seal:                 | HQQV                    | 40 -     |         |              |               | - 40     |
| Approvals on nameplate:              | CE, EAC                 |          |         |              |               |          |
| Curve tolerance:                     | ISO9906:2012 3B         | 20 -     |         |              |               | - 20     |
| Pump version:                        | A                       |          |         |              |               |          |
| Model:                               |                         |          | 10 15 2 | 20 25 30 3   | 35 Q [m³/h]   | -0       |
| Model:<br>Materials:                 | В                       | Р        | 10 10 2 |              |               | NF       |
| Base:                                | Cast iron               | [kW]     |         |              | P1            | [r       |
| Sase.                                |                         | 15 -     |         |              | P2            | - 15     |
|                                      | EN 1563 EN-GJS-500-7    | 15-      |         |              | P2            | - 15     |
|                                      | ASTM A536 80-55-06      |          |         |              |               |          |
| mpeller:                             | Stainless steel         | 10 -     |         |              |               | - 10     |
|                                      | EN 1.4301               |          |         |              |               |          |
|                                      | AISI 304                |          |         |              | 1             |          |
| Material code:                       | A                       | 5 -      |         |              |               | -5       |
| Code for rubber:                     | V                       |          |         |              |               |          |
| Bearing:                             | SIC                     | 0        |         |              |               | 0        |
| Support bearing:                     | Graflon                 | 0-       |         |              |               | -0       |
| nstallation:                         |                         |          |         |              |               |          |
| Maximum ambient temperature:         | 60 °C                   |          |         |              |               |          |
| Maximum operating pressure:          | 30 bar                  |          |         |              |               |          |
| Max pressure at stated temp:         | 30 bar / 90 °C          |          |         |              |               |          |
|                                      | 30 bar / -20 °C         |          |         |              |               |          |
| Type of connection:                  | DIN                     |          |         |              |               |          |
| Size of inlet connection:            | DN 65                   |          |         |              |               |          |
| Size of outlet connection:           | DN 65                   |          |         |              |               |          |
| Pressure rating for pipe connection: | PN 40                   |          |         |              |               |          |
| Flange size for motor:               | FF300                   |          |         |              |               |          |
| Connect code:                        | F                       |          |         |              |               |          |
| Liquid:                              |                         |          |         |              |               |          |
| Pumped liquid:                       | Water                   |          |         |              |               |          |
| Liquid temperature range:            | -20 90 °C               |          |         |              |               |          |
| Liquid temperature during operation: | 20 °C                   |          |         |              |               |          |
| Density:                             | 998.2 kg/m³             |          |         |              |               |          |
| Electrical data:                     |                         |          |         |              |               |          |
| Motor standard:                      | IEC                     |          |         |              |               |          |
| Motor type:                          | 160LB                   |          |         |              |               |          |
| IE Efficiency class:                 | IE3                     |          |         |              |               |          |
| Rated power - P2:                    | 18.5 kW                 |          |         |              |               |          |
| Power (P2) required by pump:         | 18.5 kW                 |          |         |              |               |          |
| Mains frequency:                     | 50 Hz                   |          |         |              |               |          |
| Rated voltage:                       | 3 x 380-415D/660-690Y V |          |         |              |               |          |
| Rated current:                       | 34,5-32,5/20,0-18,8 A   |          |         |              |               |          |
|                                      | , , ,                   |          |         |              |               |          |
| Starting current:                    | 830-980 %               |          |         |              |               |          |

NPSH [m]



Company name: Created by: Phone:

Date: 12/09/2018 Description Value Rated speed: 2940-2950 rpm Efficiency: IE3 92,4% Motor efficiency at full load: 92.4-92.4 % Motor efficiency at 3/4 load: 93.2 % Motor efficiency at 1/2 load: 93.2 % Number of poles: 2 Enclosure class (IEC 34-5): 55 Dust/Jetting Insulation class (IEC 85): F PTC Motor protec: Motor No: 85U17528 Controls: Frequency converter: NONE Others: Minimum efficiency index, MEI : 0.7 Net weight: 198 kg Gross weight: 237 kg Shipping volume: 0.805 m<sup>3</sup> Country of origin: GB Custom tariff no .: 84137075

