

# NSCF100-315/370/L46UCC4

## Technical data

Company name  
Contact  
Phone number  
e-mail address

| Operating data |                           |                  |  |                |
|----------------|---------------------------|------------------|--|----------------|
| 1              | Pumpe type                | Single head pump | Fluid                                      | Water, pure    |
| 2              | No. of pumps              | 1                | Operating temperature at A                 | °F 39.2        |
| 3              | Nominal flow              | US g.p.m. 0      | Max / Min Operating Temperature mech. Seal | °F 120 / -25   |
| 4              | Nominal head              | ft 0             | pH-value at t A                            | 7              |
| 5              | Static head               | ft 0             | Density at t A                             | lb/ft³ 62.4    |
| 6              | Inlet pressure            | psi 0            | Kin. viscosity at t A                      | ft²/s 1.689E-5 |
| 7              | Environmental temperature | °F 68            | Vapor pressure at t A                      | psi 14.5       |
| 8              | Available system NPSH     | ft 0             | Altitude                                   | 0              |

| Pump data |                       |                                    |                |                       |
|-----------|-----------------------|------------------------------------|----------------|-----------------------|
| 9         | Lubrication           | Standard, Grease lubrication [Std] |                |                       |
| 10        | Execution             | Standard coupling                  |                |                       |
| 11        | Design                | Horizontal                         |                |                       |
| 12        | Operating speed       | 1764 rpm                           | Stages         | 1                     |
| 13        | Suction nozzle        | DN125 / PN10/16 / EN1092-2         | Impeller Ø     | Max. inch 12 13/16    |
| 14        | Discharge nozzle      | DN100 / PN10/16 / EN1092-2         |                | designed inch 12 5/16 |
| 15        | Max. casing pressure  | psi                                | Flow           | Min. inch 10 9/16     |
| 16        | Max. working pressure | psi 70.2                           |                | Nominal US g.p.m.     |
| 17        | Impeller type         | Radial impeller                    |                | Max- US g.p.m. 1303.9 |
| 18        | Head H(Q=0)           | ft 160                             | Head           | Min- US g.p.m. 149.2  |
| 19        | Max. shaft power      | hp 48.1                            |                | Nominal ft            |
| 20        | Pump weight           | kg 255.7                           |                | at Qmax ft 99.7       |
| 21        | Total weight          | lb On demand                       | Shaft power hp | at Qmin ft 162.2      |
|           |                       |                                    | Efficiency %   |                       |
|           |                       |                                    | NPSH 3%        | ft                    |

| Materials |                              |   |                   |  |
|-----------|------------------------------|---|-------------------|--|
| 22        |                              | <b>Pump</b>   | <b>Shaft Seal</b> |  |
| 23        | Volute Casing                | Cast Iron, EN 1561 - GJL-250, ASTM Class 35           |                   | Single mechanical seal, without shaft sleeve                 |
| 24        | Impeller                     | Cast Iron, EN 1561 - GJL-200, ASTM Class 30           |                   | eMG12 - Ø38mm BQ7EGG-WA                                      |
| 25        | Casing Cover                 | Cast Iron, EN 1561 - GJL-250, ASTM Class 35           |                   | Mechanical seal diameter 1 1/2 inch                          |
| 26        | Shaft                        | Stainless steel, 1.4057, AISI 431                     |                   | 1. Rotating ring Carbon graphite resin impregnated           |
| 27        | Wear ring                    | Stainless steel, 1.4301, AISI 304                     |                   | 2. Stationary ring SiC, silicon carbide, sintered press.less |
| 28        | Impeller lock nut and washer | A4 (1.4401)   |                   | 3. Secondary seal Ethylene propylene rubber (EPDM)           |
| 29        | Impeller key                 | Stainless steel, 1.4571, AISI 316Ti                   |                   | 4. Springs CrNiMo - Steel                                    |
| 30        | Fill and drain plugs         | Galvanized carbon steel, EN 10277-3, AISI 1213 / 1215 |                   | 5. Others EPDM - WRAS  |
| 31        | Bearing bracket              | Cast Iron, EN 1561 - GJL-250, ASTM Class 35           |                   | Gaskets of the pump Ethylene propylene rubber (EPDM)         |
| 32        |                              |   |                   |  |
| 33        |                              |   |                   |  |
| 34        |                              |   |                   |  |
| 35        |                              |   |                   |  |
| 36        |                              |   |                   |  |
| 37        |                              |   |                   |  |
| 38        |                              |   |                   |  |
| 39        |                              |   |                   |  |
| 40        |                              |   |                   |  |
| 41        |                              |   |                   |  |

| Motor data |                 |  |                           | Electrical and dimensional data refer to IE3 motor |                                       | Coupling         |  |
|------------|-----------------|--|---------------------------|--|---------------------------------------|------------------|--|
| 42         | Manufacturer    | Lowara                                     |                           | Manufacturer                                       | Flender                               |                  |  |
| 43         | Specific design | IE3 3ph Surface Motor - Premium Efficiency |                           | Series   | Standard Coupling - N-EUPEX - Type B  |                  |  |
| 44         | Type            | 3MAS 225 S B3 37 kW                        |                           | Shaft diameter                                     | Pump 1 1/4 inch                       | Motor 2 3/8 inch |  |
| 45         | Rated power     | 49.618 hp                                  | Rated current 69.2 A      | Frame size   | 140                                   |                  |  |
| 46         | Nominal speed   | 1764 rpm                                   | Rated voltage 380 V       | Spacer length                                      | inch 3/16                             |                  |  |
| 47         | Frame size      | 225 S                                      |                           | Weight   | lb 12.3                               |                  |  |
| 48         | Weight          | lb 531.7                                   | Degree of protection IP55 | Coupling protection                                | GR.COUPLGUARD ES32-190-23 A4 5.291 lb |                  |  |

| Base plate |        |                       | Remarks |  |
|------------|--------|-----------------------|---------|--|
| 49         | Name   | BASEFRAME_NSC80-6_C00 |         |  |
| 50         | Weight | lb 313.7              |         |  |

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## Performance curve

Company name  
Contact  
Phone number  
e-mail address

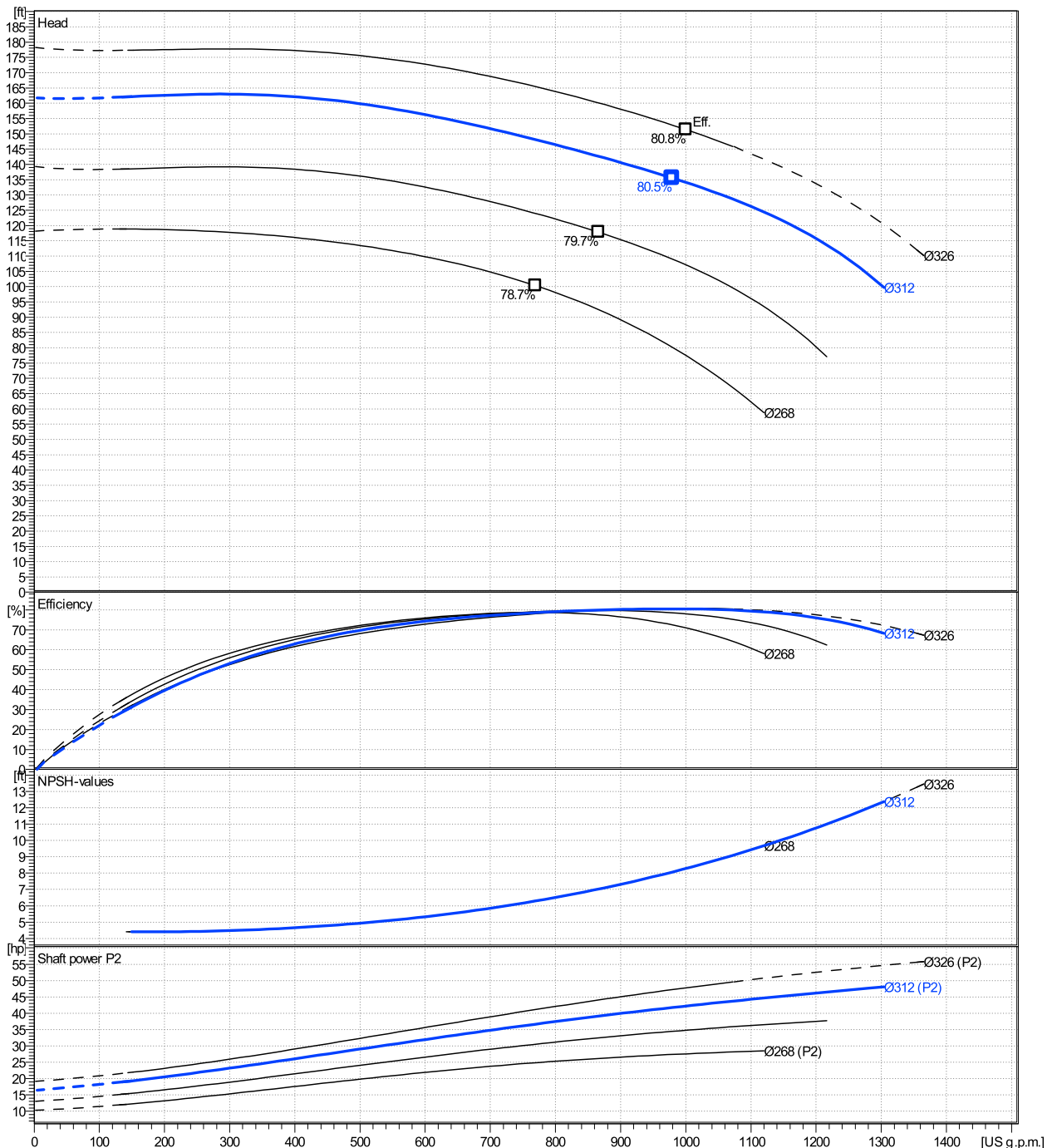
|        | Ø<br>mm  | Pump capacity<br>Operating range<br>η |                   |                   | Pump head<br>H(Q=0)<br>η |     | Shaft power P2<br>P2(Q=0)<br>η |            |         | Frequency<br>Hz |             |
|--------|----------|---------------------------------------|-------------------|-------------------|--------------------------|-----|--------------------------------|------------|---------|-----------------|-------------|
|        |          | Min.<br>US g.p.m.                     | Max.<br>US g.p.m. | Max.<br>US g.p.m. | ft                       | ft  | hp                             | Max.<br>hp | η<br>hp | rpm             |             |
| actual | 12 5/16  | 149                                   | 1300              | 979               | 162                      | 136 |                                | 48.1       | 41.7    | Operating speed | 1764        |
| Min.   | 0        | /                                     | /                 | 769               | 118                      | 100 |                                | /          | 24.9    | Nominal flow    | US g.p.m. 0 |
| Max.   | 12 13/16 | /                                     | /                 | 1000              | 178                      | 151 |                                | /          | 47.8    | Nominal head    | ft 0        |
|        |          |                                       |                   |                   |                          |     |                                |            |         | Inlet pressure  | psi 0       |
|        |          |                                       |                   |                   |                          |     |                                |            |         | Static head     | ft 0        |

**Power datas referred to:**

hydr. Performance acceptance acc. To EN ISO 9906 Class Grade 3B

Water, pure [100%] ; 39.2°F; 62.4lb/ft³; 1.69E-5ft²/s

MEI: 0,64 - according to Ecodesign Directive 2009/125/EC and Regulation (EU) No.547/2012



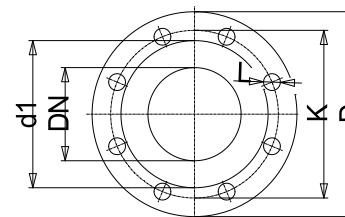
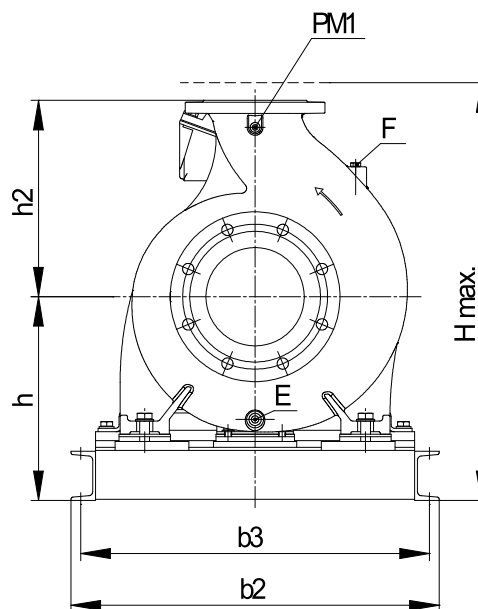
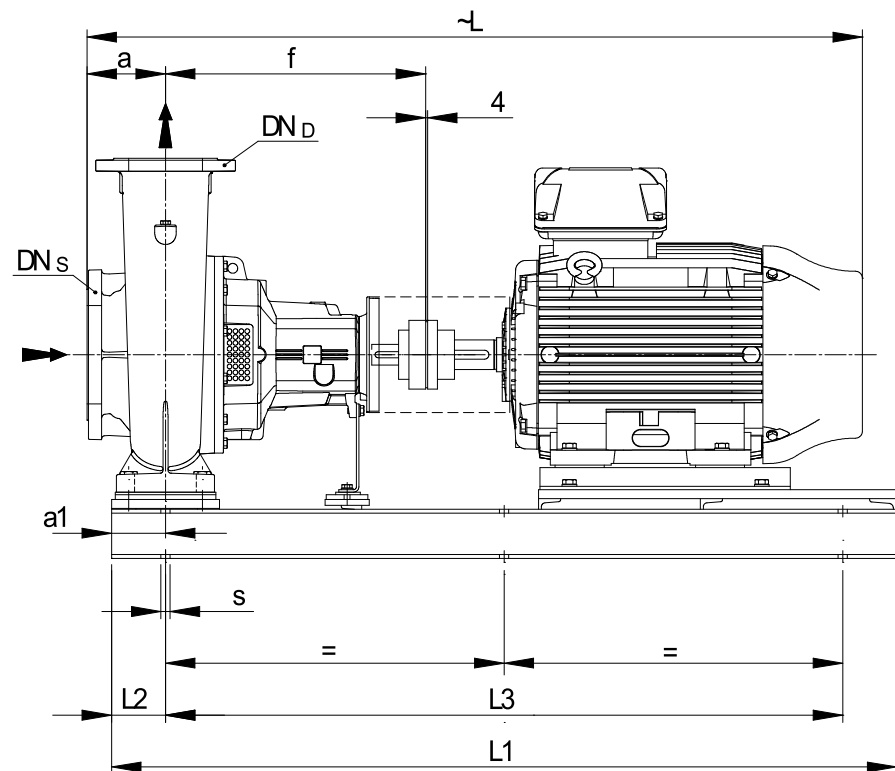
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## Dimensions

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Frame mounted  
Standard coupling  
3MAS 225 S B3 37 kW

Electrical and dimensional data refer to IE3 motor



Value C, D may vary from Standard

| Dimensions |                                  | [ inch ] |  |
|------------|----------------------------------|----------|--|
| a          | 5 <sup>1</sup> / <sub>2</sub>    |          |  |
| a1         | 4 <sup>5</sup> / <sub>16</sub>   |          |  |
| b2         | 29 <sup>1</sup> / <sub>2</sub>   |          |  |
| b3         | 27 <sup>15</sup> / <sub>16</sub> |          |  |
| CTO        |                                  |          |  |
| DNd        | 3 <sup>15</sup> / <sub>16</sub>  |          |  |
| DNs        | 4 <sup>15</sup> / <sub>16</sub>  |          |  |
| E          | 3/8"                             |          |  |
| F          | 3/8"                             |          |  |
| f          | 18 <sup>1</sup> / <sub>2</sub>   |          |  |
| Guard      | 8 <sup>13</sup> / <sub>16</sub>  |          |  |
| h          | 15 <sup>15</sup> / <sub>16</sub> |          |  |
| h2         | 12 <sup>3</sup> / <sub>8</sub>   |          |  |
| Hmax       | 28 <sup>11</sup> / <sub>16</sub> |          |  |
| L1         | 61 <sup>1</sup> / <sub>32</sub>  |          |  |
| L2         | 4 <sup>5</sup> / <sub>16</sub>   |          |  |
| L3         | 52 <sup>3</sup> / <sub>8</sub>   |          |  |
| PM1        | 1/4"                             |          |  |
| s          | 6xØ19                            |          |  |
| Trim       |                                  |          |  |
| Volumen    | 1/16                             |          |  |

| Weight       |              |
|--------------|--------------|
| Total weight | On demand kg |

| Connections    |                                 |                  |                                |
|----------------|---------------------------------|------------------|--------------------------------|
| Suction nozzle |                                 | Discharge nozzle |                                |
| DN125          |                                 | DN100            |                                |
| PN10/16        |                                 | PN10/16          |                                |
| EN1092-2       |                                 | EN1092-2         |                                |
| C              | 1 <sup>1</sup> / <sub>32</sub>  | C                | 1 <sup>5</sup> / <sub>16</sub> |
| D              | 10 <sup>1</sup> / <sub>16</sub> | D                | 9 <sup>1</sup> / <sub>16</sub> |
| d1             | 7 <sup>1</sup> / <sub>4</sub>   | d1               | 6 <sup>3</sup> / <sub>16</sub> |
| K              | 8 <sup>1</sup> / <sub>4</sub>   | K                | 7 <sup>1</sup> / <sub>16</sub> |
| L              | 3/4                             | L                | 3/4                            |
| Z              | 5/16                            | Z                | 5/16                           |

### Dimensions and weight without obligation

|         |                         |            |           |             |           |
|---------|-------------------------|------------|-----------|-------------|-----------|
| Project | Xylect-20182283         | Created by |           | Last update | 1/11/2025 |
| Block   | NSCF100-315/450/L46UCC4 | Created on | 1/11/2025 |             |           |