



## Flygt 3068, 50Hz

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**FLYGT**  
a xylem brand

# Table of Contents

|                                                        |    |
|--------------------------------------------------------|----|
| <b>B-pump</b> .....                                    | 2  |
| Product description.....                               | 2  |
| Motor rating and performance curves.....               | 4  |
| <b>C-pump</b> .....                                    | 6  |
| Product description.....                               | 6  |
| Motor rating and performance curves.....               | 9  |
| <b>D-pump</b> .....                                    | 10 |
| Product description.....                               | 10 |
| Motor rating and performance curves 3068.180/.090..... | 12 |
| Motor rating and performance curves 3068.250/.590..... | 15 |
| <b>F-pump</b> .....                                    | 17 |
| Product description.....                               | 17 |
| Motor rating and performance curves.....               | 19 |
| <b>M-pump</b> .....                                    | 21 |
| Product description 3068.170/.890.....                 | 21 |
| Product description 3068.175.....                      | 23 |
| Motor rating and performance curves 3068.170/.890..... | 25 |
| Motor rating and performance curves 3068.175.....      | 26 |
| <b>Dimensions and Weight</b> .....                     | 28 |
| Drawings, B-pump.....                                  | 28 |
| Drawings, C-pump.....                                  | 28 |
| Drawings, D-pump.....                                  | 30 |
| Drawings, F-pump.....                                  | 34 |
| Drawings, M-pump 3068.170.....                         | 35 |
| Drawings, M-pump 3068.175.....                         | 36 |

# B-pump

## Product description

### Usage

Submersible pump for dewatering of construction sites, flood cleaning operations and other similar applications.

### Denomination

| Type     | Non explosion proof version | Explosion proof version | Pressure class | Installation types |
|----------|-----------------------------|-------------------------|----------------|--------------------|
| Standard | 3068.250                    | 3068.590                | HT – High head | P, S               |

The pump can be used in the following installations:

- P** Semi permanent, wet well arrangement with pump installed on two guide bars with automatic connection to discharge.
- S** Portable semi permanent, wet well arrangement with hose coupling or flange for connection to discharge pipeline.

### Application Limits

| Feature                                | Description                    |
|----------------------------------------|--------------------------------|
| Liquid temperature                     | Maximum 40°C, (104°F)          |
| Liquid temperature, warm water version | Maximum 70°C, (158°F)          |
| Depth of immersion                     | Maximum 20 m (65 ft)           |
| pH of the pumped liquid                | 5.5 – 14                       |
| Liquid density                         | Maximum 1100 kg/m <sup>3</sup> |

### Motor data

| Feature                          | Description                                                                                                                         |
|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| Motor type                       | Squirrel-cage induction motor                                                                                                       |
| Frequency                        | 50 Hz                                                                                                                               |
| Power supply                     | 1-phase or 3-phase                                                                                                                  |
| Starting method                  | <ul style="list-style-type: none"> <li>• Direct on-line</li> <li>• Star-delta</li> </ul>                                            |
| Number of starts per hour        | Maximum 15                                                                                                                          |
| Code compliance                  | IEC 60034-1                                                                                                                         |
| Rated output variation           | ±10%                                                                                                                                |
| Voltage variation                | <ul style="list-style-type: none"> <li>• Continuously running: Maximum ±5%</li> <li>• Intermittent running: Maximum ±10%</li> </ul> |
| Voltage imbalance between phases | Maximum 2%                                                                                                                          |
| Insulation class                 | F (+155°C)                                                                                                                          |

## Cables

| Application          | Type                                 | Denomination                                         |
|----------------------|--------------------------------------|------------------------------------------------------|
| Direct-on-line start | SUBCAB® heavy-duty submersible cable | 4G2.5 mm <sup>2</sup><br>4G1.5+2×1.5 mm <sup>2</sup> |
| Y/D start            | SUBCAB® heavy-duty submersible cable | 7G2.5 mm <sup>2</sup>                                |

## Monitoring Equipment

- Thermal contacts opening temperature 125° C (257° F)

## Materials

| Denomination            | Material                                                     | ASTM       | EN                             |
|-------------------------|--------------------------------------------------------------|------------|--------------------------------|
| Major castings          | Cast iron, gray                                              | 30B        | GJL-200                        |
| Pump housing            | Cast iron, gray                                              | 35B        | GJL-250                        |
| Impeller, alternative 1 | Steel, quenched and tempered                                 | -          | -                              |
| Impeller, alternative 2 | Stainless steel                                              | A 743 CF-8 | 1,4308                         |
| Lifting handle          | Stainless steel                                              | AISI 304   | 1,4301                         |
| Shaft                   | Stainless steel                                              | AISI 431   | 1.4057+QT800                   |
| Screws and nuts         | Stainless steel, A2                                          | AISI 304   | 1.4301, 1.4306, 1.4307, 1.4311 |
| O-rings, alternative 1  | Nitrile rubber (NBR) 70° IRH                                 | -          | -                              |
| O-rings, alternative 2  | Fluorinated rubber (FPM) 70° IRH                             | -          | -                              |
| Oil, part no 901752     | Medical white oil of paraffin type. Fulfills FDA 172.878 (a) | -          | -                              |

**Table 1: Mechanical face seals**

| Alternative | Inner seal                                                                 | Outer seal                                                                 |
|-------------|----------------------------------------------------------------------------|----------------------------------------------------------------------------|
| 1           | Carbon/ Aluminum oxide                                                     | Aluminum oxide/ Corrosion resistant cemented carbide                       |
| 2           | Carbon/ Aluminum oxide                                                     | Corrosion resistant cemented carbide/ Corrosion resistant cemented carbide |
| 3           | Corrosion resistant cemented carbide/ Corrosion resistant cemented carbide | Corrosion resistant cemented carbide/ Corrosion resistant cemented carbide |
| 4           | Corrosion resistant cemented carbide/ Corrosion resistant cemented carbide | Silicon carbide/ Silicon carbide                                           |
| 5           | Carbon/ Aluminum oxide                                                     | Silicon carbide/ Silicon carbide                                           |

Surface Treatment

| Priming                                                    | Finish                                                                                                                                                                 |
|------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Painted with a primer, see internal standard M0700.00.0002 | Navy gray color NCS 5804-B07G. Two-component high-solid top coating, see internal standard M0700.00.0004 for standard painting and M0700.00.0008 for special painting. |

Options

- Warm liquid version (non-explosion proof versions)
- Leakage sensor in the stator housing (FLS)
- Surface treatment (Epoxy)
- Other cables

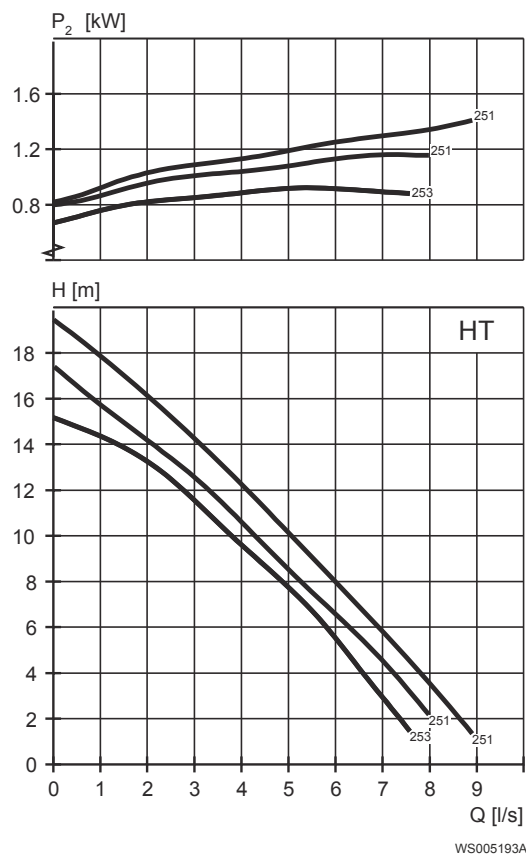
Accessories

Discharge connections, adapters, hose connections, and other mechanical accessories.  
Electrical accessories such as pump controller, control panels, starters, monitoring relays, cables.

Motor rating and performance curves

Star-delta starting current is 1/3 of Direct on-line starting current.

HT

**Table 2: 400 V, 50 Hz, 3-phase**

| Rated power<br>kW | Rated power<br>hp | Curve/<br>Impeller No | Revolutions<br>per minute,<br>rpm | Rated<br>current, A | Starting<br>current, A | Power factor,<br>$\cos \varphi$ | Installation |
|-------------------|-------------------|-----------------------|-----------------------------------|---------------------|------------------------|---------------------------------|--------------|
| 1.7               | 2.3               | 251                   | 2695                              | 3.8                 | 17                     | .87                             | P,S          |
| 1.7               | 2.3               | 253                   | 2695                              | 3.8                 | 17                     | .87                             | P,S          |

# C-pump

## Product description

### Usage

Submersible pump for pumping clean water, surface water and waste water containing solids or fibred material.

### Denomination

| Type     | Non explosion proof version | Explosion proof version | Pressure class | Installation types |
|----------|-----------------------------|-------------------------|----------------|--------------------|
| Standard | 3068.180                    | 3068.090                | HT – High head | F, P, S            |

The pump can be used in the following installations:

- F** Free standing semi permanent, wet well arrangement where the pump is placed on a firm surface.
- P** Semi permanent, wet well arrangement with pump installed on two guide bars with automatic connection to discharge.
- S** Portable semi permanent, wet well arrangement with hose coupling or flange for connection to discharge pipeline.

### Application Limits

| Feature                                | Description                    |
|----------------------------------------|--------------------------------|
| Liquid temperature                     | Maximum 40°C, (104°F)          |
| Liquid temperature, warm water version | Maximum 70°C, (158°F)          |
| Depth of immersion                     | Maximum 20 m (65 ft)           |
| pH of the pumped liquid                | 5.5 - 14                       |
| Liquid density                         | Maximum 1100 kg/m <sup>3</sup> |

### Motor data

| Feature                   | Description                                                                                                                         |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| Motor type                | Squirrel-cage induction motor                                                                                                       |
| Frequency                 | 50 Hz                                                                                                                               |
| Power supply              | 1-phase or 3-phase                                                                                                                  |
| Starting method           | <ul style="list-style-type: none"> <li>• Direct on-line</li> <li>• Star-delta</li> </ul>                                            |
| Number of starts per hour | Maximum 15                                                                                                                          |
| Code compliance           | IEC 60034-1                                                                                                                         |
| Rated output variation    | ±10%                                                                                                                                |
| Voltage variation         | <ul style="list-style-type: none"> <li>• Continuously running: Maximum ±5%</li> <li>• Intermittent running: Maximum ±10%</li> </ul> |

| Feature                          | Description |
|----------------------------------|-------------|
| Voltage imbalance between phases | Maximum 2%  |
| Insulation class                 | F (+155°C)  |

### Cables

| Application          | Type                                          | Denomination                                                                                                 |
|----------------------|-----------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| Direct-on-line start | SUBCAB® heavy-duty submersible cable          | 4G1.5 mm <sup>2</sup><br>4G2.5 mm <sup>2</sup><br>4G1.5+2×1.5 mm <sup>2</sup><br>4G2.5+2×1.5 mm <sup>2</sup> |
| Y/D start            | SUBCAB® heavy-duty submersible cable          | 7G2.5 mm <sup>2</sup>                                                                                        |
|                      | Screened SUBCAB® heavy-duty submersible cable | S3×2.5+3×2.5/3+4×1.5 mm <sup>2</sup>                                                                         |

### Monitoring Equipment

- Thermal contacts opening temperature 125° C (257° F)

### Materials

| Denomination           | Material                                                     | ASTM     | EN                             |
|------------------------|--------------------------------------------------------------|----------|--------------------------------|
| Major castings         | Cast iron, gray                                              | 35B      | GJL-250                        |
| Pump housing           | Cast iron, gray                                              | 30B      | GJL-200                        |
| Impeller               | Cast iron, gray                                              | 35B      | GJL-250                        |
| Wear ring              | Bronze                                                       | C924     | CC491K, CC492K                 |
| Lifting handle         | Stainless steel                                              | AISI 304 | 1,4301                         |
| Shaft                  | Stainless steel                                              | AISI 431 | 1.4057+QT800                   |
| Screws and nuts        | Stainless steel, A2                                          | AISI 304 | 1.4301, 1.4306, 1.4307, 1.4311 |
| O-rings, alternative 1 | Nitrile rubber (NBR) 70° IRH                                 | -        | -                              |
| O-rings, alternative 2 | Fluorinated rubber (FPM) 70° IRH                             | -        | -                              |
| Oil, part no 901752    | Medical white oil of paraffin type. Fulfills FDA 172.878 (a) | -        | -                              |

**Table 3: Mechanical face seals**

| Alternative | Inner seal                                                                 | Outer seal                                                                 |
|-------------|----------------------------------------------------------------------------|----------------------------------------------------------------------------|
| 1           | Carbon/ Aluminum oxide                                                     | Aluminum oxide/ Corrosion resistant cemented carbide                       |
| 2           | Carbon/ Aluminum oxide                                                     | Corrosion resistant cemented carbide/ Corrosion resistant cemented carbide |
| 3           | Corrosion resistant cemented carbide/ Corrosion resistant cemented carbide | Corrosion resistant cemented carbide/ Corrosion resistant cemented carbide |

| Alternative | Inner seal                                                                 | Outer seal                       |
|-------------|----------------------------------------------------------------------------|----------------------------------|
| 4           | Corrosion resistant cemented carbide/ Corrosion resistant cemented carbide | Silicon carbide/ Silicon carbide |
| 5           | Carbon/ Aluminum oxide                                                     | Silicon carbide/ Silicon carbide |

#### Surface Treatment

| Priming                                                    | Finish                                                                                                                                                                 |
|------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Painted with a primer, see internal standard M0700.00.0002 | Navy gray color NCS 5804-B07G. Two-component high-solid top coating, see internal standard M0700.00.0004 for standard painting and M0700.00.0008 for special painting. |

#### Options

- Warm liquid version (non-explosion proof versions)
- Leakage sensor in the stator housing (FLS)
- Surface treatment (Epoxy)
- Zinc anodes
- Other cables

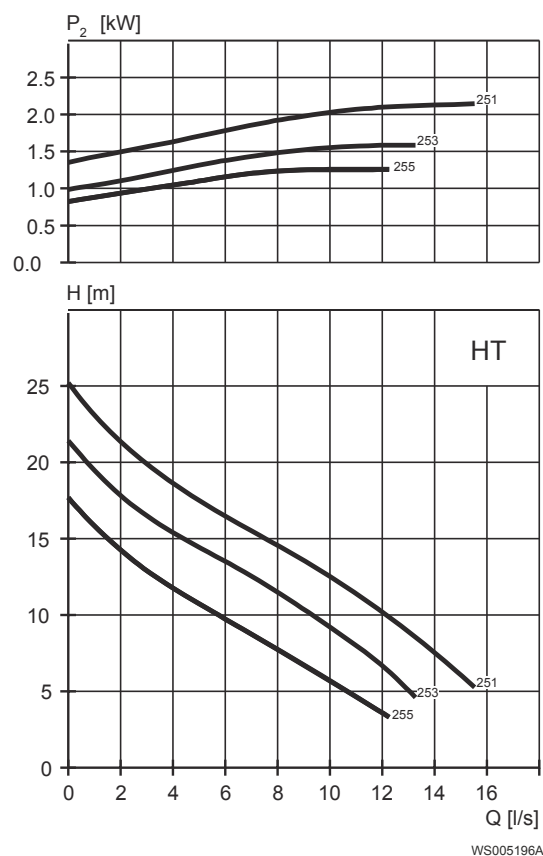
#### Accessories

Discharge connections, adapters, hose connections, and other mechanical accessories.

Electrical accessories such as pump controller, control panels, starters, monitoring relays, cables.

# Motor rating and performance curves

HT



**Table 4: 400 V, 50 Hz, 3-phase**

| Rated power<br>kW | Rated power<br>hp | Curve/<br>Impeller No | Revolutions<br>per minute,<br>rpm | Rated<br>current, A | Starting<br>current, A | Power factor,<br>cos φ | Installation |
|-------------------|-------------------|-----------------------|-----------------------------------|---------------------|------------------------|------------------------|--------------|
| 1.7               | 2.3               | 253                   | 2695                              | 3.8                 | 17                     | .87                    | F,P,S        |
| 1.7               | 2.3               | 255                   | 2695                              | 3.8                 | 17                     | .87                    | F,P,S        |
| 2.4               | 3.2               | 251                   | 2775                              | 5.1                 | 27                     | .86                    | F,P,S        |
| 2.4               | 3.2               | 253                   | 2775                              | 5.1                 | 27                     | .86                    | F,P,S        |
| 2.4               | 3.2               | 255                   | 2775                              | 5.1                 | 27                     | .86                    | F,P,S        |

**Table 5: 230 V, 50 Hz, 1-phase**

| Rated power<br>kW | Rated power<br>hp | Curve/<br>Impeller No | Revolutions<br>per minute,<br>rpm | Rated<br>current, A | Starting<br>current, A | Power factor,<br>cos φ | Installation |
|-------------------|-------------------|-----------------------|-----------------------------------|---------------------|------------------------|------------------------|--------------|
| 1.5               | 2                 | 253                   | 2695                              | 9.4                 | 27                     | 1                      | F,P,S        |
| 1.5               | 2                 | 255                   | 2695                              | 9.4                 | 27                     | 1                      | F,P,S        |

# D-pump

## Product description

### Usage 3068.180/.090

Submersible pump for pumping clean water, surface water and waste water containing solids or fibred material.

### Usage 3068.250/.590

Submersible pump for dewatering of construction sites, flood cleaning operations and other similar applications.

### Denomination

| Type     | Non explosion proof version | Explosion proof version | Pressure class                                                                             | Installation types |
|----------|-----------------------------|-------------------------|--------------------------------------------------------------------------------------------|--------------------|
| Standard | 3068.180                    | 3068.090                | <ul style="list-style-type: none"> <li>MT – Medium head</li> <li>HT – High head</li> </ul> | F, P, S            |
|          | 3068.250                    | 3068.590                | <ul style="list-style-type: none"> <li>LT – Low head</li> </ul>                            | P, S               |

The pump can be used in the following installations:

- F** Free standing semi permanent, wet well arrangement where the pump is placed on a firm surface.
- P** Semi permanent, wet well arrangement with pump installed on two guide bars with automatic connection to discharge.
- S** Portable semi permanent, wet well arrangement with hose coupling or flange for connection to discharge pipeline.

### Application Limits

| Feature                                | Description                    |
|----------------------------------------|--------------------------------|
| Liquid temperature                     | Maximum 40°C, (104°F)          |
| Liquid temperature, warm water version | Maximum 70°C, (158°F)          |
| Depth of immersion                     | Maximum 20 m (65 ft)           |
| pH of the pumped liquid                | 5.5 – 14                       |
| Liquid density                         | Maximum 1100 kg/m <sup>3</sup> |

### Motor data

| Feature                   | Description                                                                          |
|---------------------------|--------------------------------------------------------------------------------------|
| Motor type                | Squirrel-cage induction motor                                                        |
| Frequency                 | 50 Hz                                                                                |
| Power supply              | 1-phase or 3-phase                                                                   |
| Starting method           | <ul style="list-style-type: none"> <li>Direct on-line</li> <li>Star-delta</li> </ul> |
| Number of starts per hour | Maximum 15                                                                           |

| Feature                          | Description                                                                                                                     |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| Code compliance                  | IEC 60034-1                                                                                                                     |
| Rated output variation           | ±10%                                                                                                                            |
| Voltage variation                | <ul style="list-style-type: none"> <li>Continuously running: Maximum ±5%</li> <li>Intermittent running: Maximum ±10%</li> </ul> |
| Voltage imbalance between phases | Maximum 2%                                                                                                                      |
| Insulation class                 | F (+155°C)                                                                                                                      |

### Cables

| Application          | Type                                 | Denomination                                         |
|----------------------|--------------------------------------|------------------------------------------------------|
| Direct-on-line start | SUBCAB® heavy-duty submersible cable | 4G2.5 mm <sup>2</sup><br>4G2.5+2×1.5 mm <sup>2</sup> |
| Y/D start            | SUBCAB® heavy-duty submersible cable | 7G2.5 mm <sup>2</sup>                                |
|                      | NSSHÖU../3E+St                       | 3x2.5+3x2.5/3E+3x1.5 St                              |

### Monitoring Equipment

- Thermal contacts opening temperature 125° C (257° F)

### Materials

| Denomination                | Material                         | ASTM       | EN                             |
|-----------------------------|----------------------------------|------------|--------------------------------|
| Major castings              | Cast iron, gray                  | 35B        | GJL-250                        |
| Pump housing, alternative 1 | Cast iron, gray                  | 30B        | GJL-200                        |
| Pump housing, alternative 2 | Cast iron, gray                  | 35B        | GJL-250                        |
| Impeller, alternative 1     | Cast iron, gray                  | 35B        | GJL-250                        |
| Impeller, alternative 2     | Cast iron, gray                  | 30B        | GJL-200                        |
| Impeller, alternative 3     | Cast iron, Hard-Iron™            | A 532 IIIA | GJN-HB555(XCR23)               |
| Impeller, alternative 4     | Cast iron, Hard-Iron™            | A 532 IIIA | GJN-HB555(XCR23)               |
| Lifting handle              | Stainless steel                  | AISI 304   | 1,4301                         |
| Shaft                       | Stainless steel                  | AISI 431   | 1.4057+QT800                   |
| Screws and nuts             | Stainless steel, A2              | AISI 304   | 1.4301, 1.4306, 1.4307, 1.4311 |
| O-rings, alternative 1      | Nitrile rubber (NBR) 70° IRH     |            |                                |
| O-rings, alternative 2      | Fluorinated rubber (FPM) 70° IRH |            |                                |

| Denomination        | Material                                                     | ASTM | EN |
|---------------------|--------------------------------------------------------------|------|----|
| Oil, part no 901752 | Medical white oil of paraffin type. Fulfills FDA 172.878 (a) |      |    |

**Table 6: Mechanical face seals**

| Alternative | Inner seal                                                                 | Outer seal                                                                 |
|-------------|----------------------------------------------------------------------------|----------------------------------------------------------------------------|
| 1           | Carbon/ Aluminum oxide                                                     | Aluminum oxide/ Corrosion resistant cemented carbide                       |
| 2           | Carbon/ Aluminum oxide                                                     | Corrosion resistant cemented carbide/ Corrosion resistant cemented carbide |
| 3           | Corrosion resistant cemented carbide/ Corrosion resistant cemented carbide | Corrosion resistant cemented carbide/ Corrosion resistant cemented carbide |
| 4           | Corrosion resistant cemented carbide/ Corrosion resistant cemented carbide | Silicon carbide/ Silicon carbide                                           |
| 5           | Carbon/ Aluminum oxide                                                     | Silicon carbide/ Silicon carbide                                           |

**Surface Treatment**

| Priming                                                    | Finish                                                                                                                                                                 |
|------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Painted with a primer, see internal standard M0700.00.0002 | Navy gray color NCS 5804-B07G. Two-component high-solid top coating, see internal standard M0700.00.0004 for standard painting and M0700.00.0008 for special painting. |

**Options**

- Warm liquid version (non-explosion proof versions)
- Leakage sensor in the stator housing (FLS)
- Surface treatment (Epoxy)
- Zinc anodes
- Other cables

**Accessories**

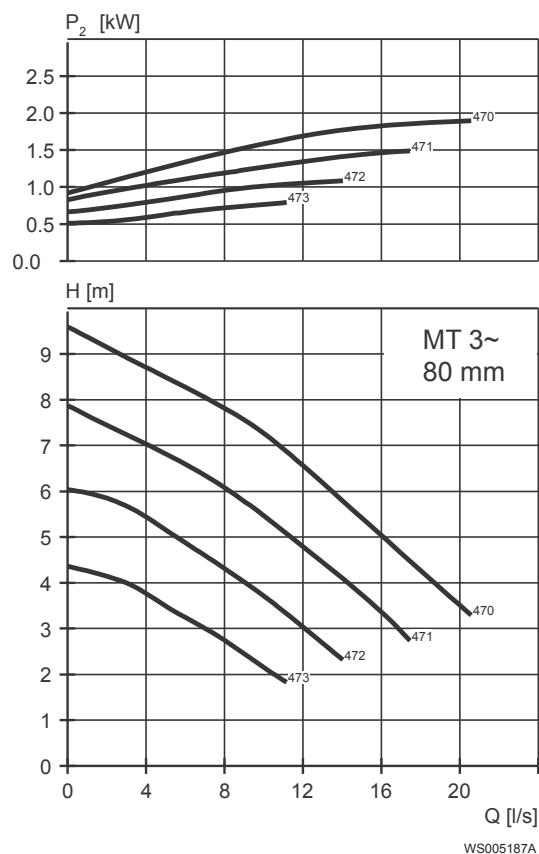
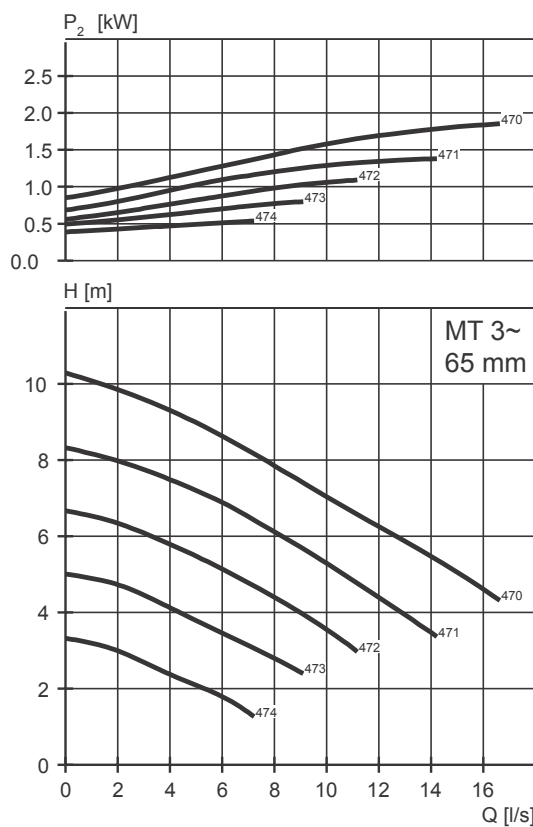
Discharge connections, adapters, hose connections, and other mechanical accessories.

Electrical accessories such as pump controller, control panels, starters, monitoring relays, cables.

**Motor rating and performance curves 3068.180/.090**

Star-delta starting current is 1/3 of Direct on-line starting current.

MT

**Table 7: 400 V, 50 Hz, 3-phase**

| Rated power<br>kW | Rated power<br>hp | Curve/<br>Impeller No | Revolutions<br>per minute,<br>rpm | Rated<br>current, A | Starting<br>current, A | Power factor,<br>$\cos \varphi$ | Installation |
|-------------------|-------------------|-----------------------|-----------------------------------|---------------------|------------------------|---------------------------------|--------------|
| 1.5               | 2                 | 471                   | 1370                              | 4.4                 | 16                     | .76                             | F,P,S        |
| 1.5               | 2                 | 472                   | 1370                              | 4.4                 | 16                     | .76                             | F,P,S        |
| 1.5               | 2                 | 473                   | 1370                              | 4.4                 | 16                     | .76                             | F,P,S        |
| 1.5               | 2                 | 474                   | 1370                              | 4.4                 | 16                     | .76                             | F,P,S        |
| 2                 | 2.7               | 470                   | 1360                              | 5.0                 | 20                     | .83                             | F,P,S        |
| 2                 | 2.7               | 471                   | 1360                              | 5.0                 | 20                     | .83                             | F,P,S        |
| 2                 | 2.7               | 472                   | 1360                              | 5.0                 | 20                     | .83                             | F,P,S        |
| 2                 | 2.7               | 473                   | 1360                              | 5.0                 | 20                     | .83                             | F,P,S        |
| 2                 | 2.7               | 474                   | 1360                              | 5.0                 | 20                     | .83                             | F,P,S        |

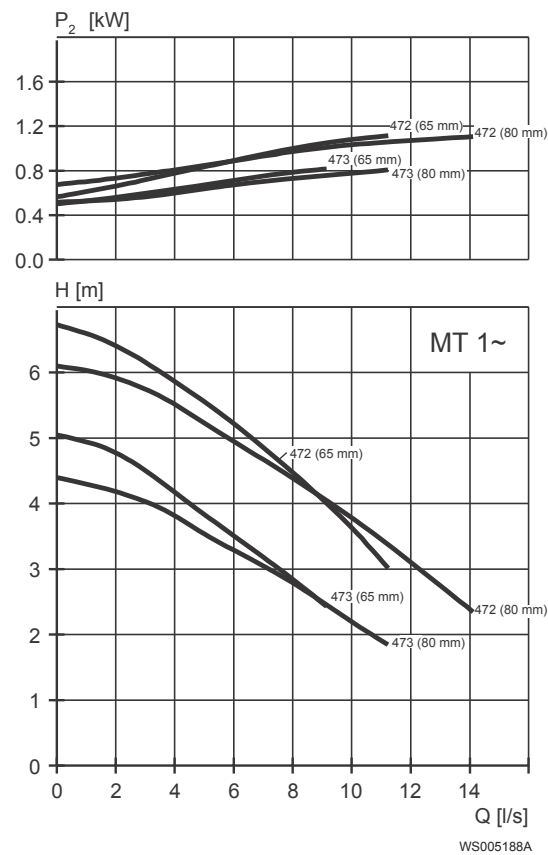
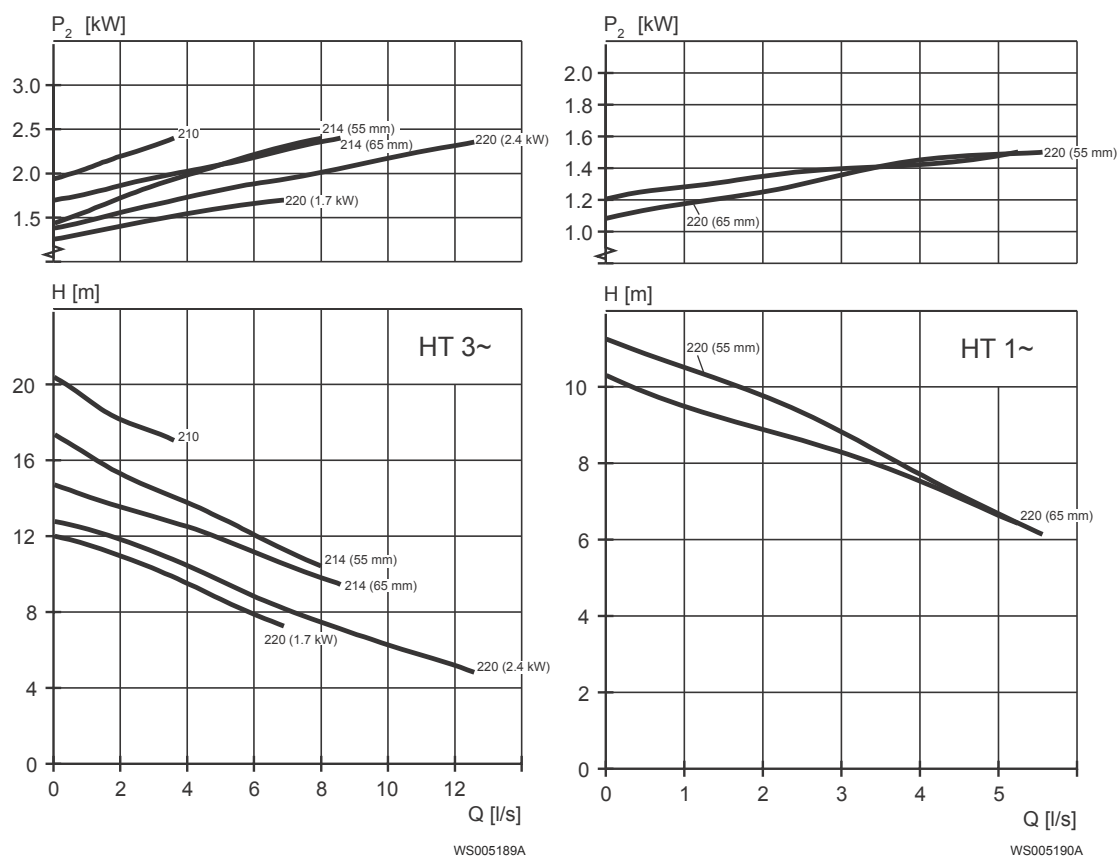


Table 8: 230 V, 50 Hz, 1-phase

| Rated power<br>kW | Rated power<br>hp | Curve/<br>Impeller No | Revolutions<br>per minute,<br>rpm | Rated<br>current, A | Starting<br>current, A | Power factor,<br>$\cos \varphi$ | Installation |
|-------------------|-------------------|-----------------------|-----------------------------------|---------------------|------------------------|---------------------------------|--------------|
| 1.3               | 1.7               | 472                   | 1400                              | 8.4                 | 28                     | 1                               | F,P,S        |
| 1.3               | 1.7               | 473                   | 1400                              | 8.4                 | 28                     | 1                               | F,P,S        |

HT

**Table 9: 400 V, 50 Hz, 3-phase**

| Rated power<br>kW | Rated power<br>hp | Curve/<br>Impeller No | Revolutions<br>per minute,<br>rpm | Rated<br>current, A | Starting<br>current, A | Power factor,<br>$\cos \varphi$ | Installation |
|-------------------|-------------------|-----------------------|-----------------------------------|---------------------|------------------------|---------------------------------|--------------|
| 1.7               | 2.3               | 220                   | 2695                              | 3.8                 | 17                     | .87                             | F,P,S        |
| 2.4               | 3.2               | 210                   | 2775                              | 5.1                 | 27                     | .86                             | F,P,S        |
| 2.4               | 3.2               | 214                   | 2775                              | 5.1                 | 27                     | .86                             | F,P,S        |
| 2.4               | 3.2               | 220                   | 2775                              | 5.1                 | 27                     | .86                             | F,P,S        |

**Table 10: 230 V, 50 Hz, 1-phase**

| Rated power<br>kW | Rated power<br>hp | Curve/<br>Impeller No | Revolutions<br>per minute,<br>rpm | Rated<br>current, A | Starting<br>current, A | Power factor,<br>$\cos \varphi$ | Installation |
|-------------------|-------------------|-----------------------|-----------------------------------|---------------------|------------------------|---------------------------------|--------------|
| 1.5               | 2.0               | 220                   | 2760                              | 8.7                 | 30                     | 0.98                            | F,P,S        |

## Motor rating and performance curves 3068.250/.590

Star-delta starting current is 1/3 of Direct on-line starting current.

LT

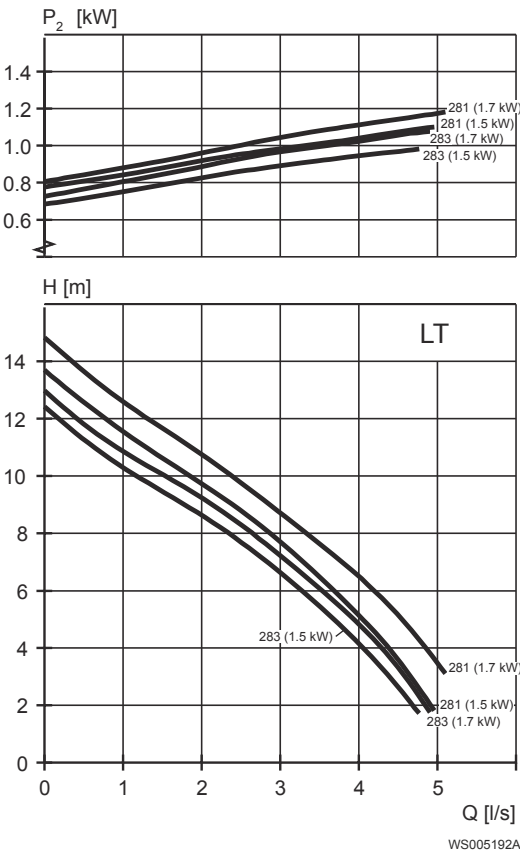


Table 11: 400 V, 50 Hz, 3-phase

| Rated power<br>kW | Rated power<br>hp | Curve/<br>Impeller No | Revolutions<br>per minute,<br>rpm | Rated<br>current, A | Starting<br>current, A | Power factor,<br>cos $\varphi$ | Installation |
|-------------------|-------------------|-----------------------|-----------------------------------|---------------------|------------------------|--------------------------------|--------------|
| 1.7               | 2.3               | 281                   | 2700                              | 3.8                 | 17                     | .87                            | P, S         |
| 1.7               | 2.3               | 283                   | 2700                              | 3.8                 | 17                     | .87                            | P, S         |

Table 12: 230 V, 50 Hz, 1-phase

| Rated power<br>kW | Rated power<br>hp | Curve/<br>Impeller No | Revolutions<br>per minute,<br>rpm | Rated<br>current, A | Starting<br>current, A | Power factor,<br>cos $\varphi$ | Installation |
|-------------------|-------------------|-----------------------|-----------------------------------|---------------------|------------------------|--------------------------------|--------------|
| 1.5               | 2                 | 281                   | 2730                              | 8.9                 | 28                     | .99                            | P, S         |
| 1.5               | 2                 | 283                   | 2730                              | 8.9                 | 28                     | .99                            | P, S         |

# F-pump

## Product description

### Usage

Submersible pump for pumping liquid manure, or heavily contaminated sewage and sludge. The impeller is S-shaped and fitted with a cutting device.

### Denomination

| Type     | Non explosion proof version | Explosion proof version | Pressure class | Installation types |
|----------|-----------------------------|-------------------------|----------------|--------------------|
| Standard | 3068.180                    | 3068.090                | LT – Low head  | P, S               |

The pump can be used in the following installations:

- P** Semi permanent, wet well arrangement with pump installed on two guide bars with automatic connection to discharge.
- S** Portable semi permanent, wet well arrangement with hose coupling or flange for connection to discharge pipeline.

### Application Limits

| Feature                                | Description                    |
|----------------------------------------|--------------------------------|
| Liquid temperature                     | Maximum 40°C, (104°F)          |
| Liquid temperature, warm water version | Maximum 70°C, (158°F)          |
| Depth of immersion                     | Maximum 20 m (65 ft)           |
| pH of the pumped liquid                | 5.5 – 14                       |
| Liquid density                         | Maximum 1100 kg/m <sup>3</sup> |

### Motor data

| Feature                          | Description                                                                                                                         |
|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| Motor type                       | Squirrel-cage induction motor                                                                                                       |
| Frequency                        | 50 Hz                                                                                                                               |
| Power supply                     | 3-phase                                                                                                                             |
| Starting method                  | <ul style="list-style-type: none"> <li>• Direct on-line</li> <li>• Star-delta</li> </ul>                                            |
| Number of starts per hour        | Maximum 15                                                                                                                          |
| Code compliance                  | IEC 60034-1                                                                                                                         |
| Rated output variation           | ±10%                                                                                                                                |
| Voltage variation                | <ul style="list-style-type: none"> <li>• Continuously running: Maximum ±5%</li> <li>• Intermittent running: Maximum ±10%</li> </ul> |
| Voltage imbalance between phases | Maximum 2%                                                                                                                          |
| Insulation class                 | F (+155°C)                                                                                                                          |

## Cables

| Application          | Type                                 | Denomination                                         |
|----------------------|--------------------------------------|------------------------------------------------------|
| Direct-on-line start | SUBCAB® heavy-duty submersible cable | 4G2.5 mm <sup>2</sup><br>4G2.5+2×1.5 mm <sup>2</sup> |
| Y/D start            | SUBCAB® heavy-duty submersible cable | 7G2.5 mm <sup>2</sup>                                |
|                      | NSSHÖU../3E+St                       | 3x2.5+3x2.5/3E+3x1.5 St                              |

## Monitoring Equipment

- Thermal contacts opening temperature 125° C (257° F)

## Materials

| Denomination           | Material                                                     | ASTM       | EN                             |
|------------------------|--------------------------------------------------------------|------------|--------------------------------|
| Major castings         | Cast iron, gray                                              | 30B        | GJL-200                        |
| Pump housing           | Cast iron, gray                                              | 35B        | GJL-250                        |
| Impeller               | Cast iron, Hard-Iron™                                        | A 532 IIIA | GJN-HB555(XCR23)               |
| Suction cover          | Cast iron, gray                                              | 30B        | GJL-200                        |
| Lifting handle         | Stainless steel                                              | AISI 304   | 1,4301                         |
| Shaft                  | Stainless steel                                              | AISI 431   | 1.4057+QT800                   |
| Screws and nuts        | Stainless steel, A2                                          | AISI 304   | 1.4301, 1.4306, 1.4307, 1.4311 |
| O-rings, alternative 1 | Nitrile rubber (NBR) 70° IRH                                 | -          | -                              |
| O-rings, alternative 2 | Fluorinated rubber (FPM) 70° IRH                             | -          | -                              |
| Oil, part no 901752    | Medical white oil of paraffin type. Fulfills FDA 172.878 (a) | -          | -                              |

**Table 13: Mechanical face seals**

| Alternative | Inner seal                                                                 | Outer seal                                                                 |
|-------------|----------------------------------------------------------------------------|----------------------------------------------------------------------------|
| 1           | Carbon/ Aluminum oxide                                                     | Aluminum oxide/ Corrosion resistant cemented carbide                       |
| 2           | Carbon/ Aluminum oxide                                                     | Corrosion resistant cemented carbide/ Corrosion resistant cemented carbide |
| 3           | Corrosion resistant cemented carbide/ Corrosion resistant cemented carbide | Corrosion resistant cemented carbide/ Corrosion resistant cemented carbide |
| 4           | Corrosion resistant cemented carbide/ Corrosion resistant cemented carbide | Silicon carbide/ Silicon carbide                                           |
| 5           | Carbon/ Aluminum oxide                                                     | Silicon carbide/ Silicon carbide                                           |

**Surface Treatment**

| Priming                                                    | Finish                                                                                                                                                                 |
|------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Painted with a primer, see internal standard M0700.00.0002 | Navy gray color NCS 5804-B07G. Two-component high-solid top coating, see internal standard M0700.00.0004 for standard painting and M0700.00.0008 for special painting. |

**Options**

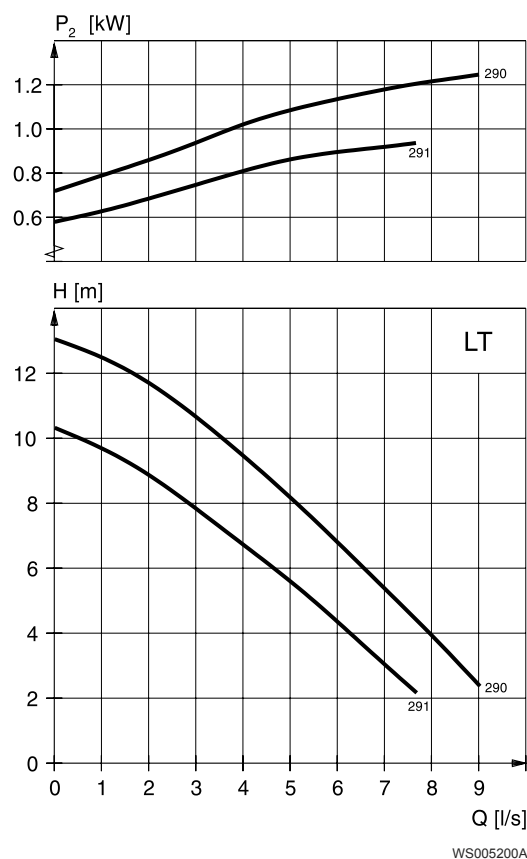
- Warm liquid version (non-explosion proof versions)
- Leakage sensor in the stator housing (FLS)
- Surface treatment (Epoxy)
- Zinc anodes
- Other cables

**Accessories**

Discharge connections, adapters, hose connections, and other mechanical accessories.  
Electrical accessories such as pump controller, control panels, starters, monitoring relays, cables.

## Motor rating and performance curves

Star-delta starting current is 1/3 of Direct on-line starting current.

**Table 14: 400 V, 50 Hz, 3-phase**

| Rated power<br>kW | Rated power<br>hp | Curve/<br>Impeller No | Revolutions<br>per minute,<br>rpm | Rated<br>current, A | Starting<br>current, A | Power factor,<br>$\cos \varphi$ | Installation |
|-------------------|-------------------|-----------------------|-----------------------------------|---------------------|------------------------|---------------------------------|--------------|
| 1.7               | 2.3               | 290                   | 2695                              | 3.8                 | 17                     | .87                             | S            |
| 1.7               | 2.3               | 291                   | 2695                              | 3.8                 | 17                     | .87                             | P            |
| 2.4               | 3.2               | 290                   | 2775                              | 5.1                 | 27                     | .86                             | S            |
| 2.4               | 3.2               | 291                   | 2775                              | 5.1                 | 27                     | .86                             | P            |

# M-pump

## Product description 3068.170/.890

### Usage

Submersible pump for pumping waste water containing solids that need to be macerated. The impeller is equipped with a grinder device.

### Denomination

| Type     | Non explosion proof version | Explosion proof version | Pressure class | Installation types |
|----------|-----------------------------|-------------------------|----------------|--------------------|
| Standard | 3068.170                    | 3068.890                | HT – High head | F, P               |

The pump can be used in the following installations:

- F** Free standing semi permanent, wet well arrangement where the pump is placed on a firm surface.
- P** Semi permanent, wet well arrangement with pump installed on two guide bars with automatic connection to discharge.

### Application Limits

| Feature                                | Description                    |
|----------------------------------------|--------------------------------|
| Liquid temperature                     | Maximum 40°C, (104°F)          |
| Liquid temperature, warm water version | Maximum 70°C, (158°F)          |
| Depth of immersion                     | Maximum 20 m (65 ft)           |
| pH of the pumped liquid                | 5.5 – 14                       |
| Liquid density                         | Maximum 1100 kg/m <sup>3</sup> |

### Motor data

| Feature                          | Description                                                                                                                         |
|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| Motor type                       | Squirrel-cage induction motor                                                                                                       |
| Frequency                        | 50 Hz                                                                                                                               |
| Power supply                     | 1-phase or 3-phase                                                                                                                  |
| Starting method                  | <ul style="list-style-type: none"> <li>• Direct on-line</li> <li>• Star-delta</li> </ul>                                            |
| Number of starts per hour        | Maximum 15                                                                                                                          |
| Code compliance                  | IEC 60034-1                                                                                                                         |
| Rated output variation           | ±10%                                                                                                                                |
| Voltage variation                | <ul style="list-style-type: none"> <li>• Continuously running: Maximum ±5%</li> <li>• Intermittent running: Maximum ±10%</li> </ul> |
| Voltage imbalance between phases | Maximum 2%                                                                                                                          |
| Insulation class                 | F (+155°C)                                                                                                                          |

## Cables

| Application          | Type                                 | Denomination                                                                                                 |
|----------------------|--------------------------------------|--------------------------------------------------------------------------------------------------------------|
| Direct-on-line start | SUBCAB® heavy-duty submersible cable | 4G1.5 mm <sup>2</sup><br>4G1.5+2×1.5 mm <sup>2</sup><br>4G2.5 mm <sup>2</sup><br>4G2.5+2×1.5 mm <sup>2</sup> |
| Y/D start            | SUBCAB® heavy-duty submersible cable | 7G2.5 mm <sup>2</sup>                                                                                        |

## Monitoring Equipment

- Thermal contacts opening temperature 125° C (257° F)

## Materials

| Denomination                  | Material                                                     | ASTM       | EN                             |
|-------------------------------|--------------------------------------------------------------|------------|--------------------------------|
| Major castings, alternative 1 | Cast iron, gray                                              | 30B        | GJL-200                        |
| Major castings, alternative 2 | Cast iron, gray                                              | 35B        | GJL-250                        |
| Pump housing                  | Cast iron, gray                                              | 30B        | GJL-200                        |
| Impeller                      | Cast iron, gray                                              | 30B        | GJL-200                        |
| Suction cover                 | Cast iron, gray                                              | 30B        | GJL-200                        |
| Cutter wheel                  | Cast iron, Hard-Iron™                                        | A 532 IIIA | GJN-HB555(XCR23)               |
| Cutter plate                  | Stainless steel                                              | -          | -                              |
| Lifting handle                | Stainless steel                                              | AISI 304   | 1,4301                         |
| Shaft                         | Stainless steel                                              | AISI 431   | 1.4057+QT800                   |
| Screws and nuts               | Stainless steel, A2                                          | AISI 304   | 1.4301, 1.4306, 1.4307, 1.4311 |
| O-rings, alternative 1        | Nitrile rubber (NBR) 70° IRH                                 | -          | -                              |
| O-rings, alternative 2        | Fluorinated rubber (FPM) 70° IRH                             | -          | -                              |
| Oil, part no 901752           | Medical white oil of paraffin type. Fulfills FDA 172.878 (a) | -          | -                              |

**Table 15: Mechanical face seals**

| Alternative | Inner seal             | Outer seal                                                                 |
|-------------|------------------------|----------------------------------------------------------------------------|
| 1           | Carbon/ Aluminum oxide | Aluminum oxide/ Corrosion resistant cemented carbide                       |
| 2           | Carbon/ Aluminum oxide | Corrosion resistant cemented carbide/ Corrosion resistant cemented carbide |

## Surface Treatment

| Priming                                                    | Finish                                                                                                                                                                 |
|------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Painted with a primer, see internal standard M0700.00.0002 | Navy gray color NCS 5804-B07G. Two-component high-solid top coating, see internal standard M0700.00.0004 for standard painting and M0700.00.0008 for special painting. |

## Options

- Leakage sensor in the stator housing (FLS)
- Surface treatment (Epoxy)
- Zinc anodes
- Other cables

## Accessories

Discharge connections, adapters, hose connections, and other mechanical accessories.

Electrical accessories such as pump controller, control panels, starters, monitoring relays, cables.

# Product description 3068.175

## Usage

Submersible pump for pumping waste water containing solids that need to be macerated. The impeller is equipped with a grinder device.

## Denomination

| Type     | Non explosion proof version | Explosion proof version | Pressure class | Installation types |
|----------|-----------------------------|-------------------------|----------------|--------------------|
| Standard | 3068.175                    | –                       | HT – High head | F, H               |

The pump can be used in the following installations:

- F** Free standing semi permanent, wet well arrangement where the pump is placed on a firm surface.
- H** Semi permanent, wet well quick connection suspended arrangement, incorporating integral non-return valve.

## Application Limits

| Feature                 | Description                    |
|-------------------------|--------------------------------|
| Liquid temperature      | Maximum 40°C, (104°F)          |
| Depth of immersion      | Maximum 20 m (65 ft)           |
| pH of the pumped liquid | 6 – 11                         |
| Liquid density          | Maximum 1100 kg/m <sup>3</sup> |

## Motor data

| Feature                   | Description                                                                              |
|---------------------------|------------------------------------------------------------------------------------------|
| Motor type                | Squirrel-cage induction motor                                                            |
| Frequency                 | 50 Hz                                                                                    |
| Power supply              | 1-phase or 3-phase                                                                       |
| Starting method           | <ul style="list-style-type: none"> <li>• Direct on-line</li> <li>• Star-delta</li> </ul> |
| Number of starts per hour | Maximum 15                                                                               |
| Code compliance           | IEC 60034-1                                                                              |
| Rated output variation    | ±10%                                                                                     |

| Feature                          | Description                                                                                                                                                       |
|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Voltage variation                | <ul style="list-style-type: none"> <li>Continuously running: Maximum <math>\pm 5\%</math></li> <li>Intermittent running: Maximum <math>\pm 10\%</math></li> </ul> |
| Voltage imbalance between phases | Maximum 2%                                                                                                                                                        |
| Insulation class                 | F (+155°C)                                                                                                                                                        |

### Cables

| Application          | Type                                 | Denomination                                                                                                 |
|----------------------|--------------------------------------|--------------------------------------------------------------------------------------------------------------|
| Direct-on-line start | SUBCAB® heavy-duty submersible cable | 4G1.5 mm <sup>2</sup><br>4G1.5+2×1.5 mm <sup>2</sup><br>4G2.5 mm <sup>2</sup><br>4G2.5+2×1.5 mm <sup>2</sup> |
| Y/D start            | SUBCAB® heavy-duty submersible cable | 7G2.5 mm <sup>2</sup>                                                                                        |

### Monitoring Equipment

- Thermal contacts opening temperature 125° C (257° F)

### Materials

| Denomination         | Material                     | AISI/ASTM        | EN                |
|----------------------|------------------------------|------------------|-------------------|
| Stator housing       | Cast iron, gray              | 35B              | GJL-250           |
| Pump housing         | Cast iron, gray              | ASTM A 48 NO 30B | 1561:1997-GJL-200 |
| Rubber stator        | Nitrile rubber (NBR) 75° IRH | -                | -                 |
| Spiral rotor         | Stainless steel              | AISI 304         | 1.4301 and 1.4541 |
| Shaft                | Stainless steel              | AISI 431         | 1.4057+QT800      |
| Studs, screws & nuts | Stainless steel, A2          | AISI 304         | 1.4301 and 1.4541 |
| O-rings              | Nitrile rubber (NBR) 70° IRH | -                | -                 |

**Table 16: Mechanical face seals**

| Alternative | Inner seal             | Outer seal                                                                 |
|-------------|------------------------|----------------------------------------------------------------------------|
| 1           | Carbon/ Aluminum oxide | Aluminum oxide/ Corrosion resistant cemented carbide                       |
| 2           | Carbon/ Aluminum oxide | Corrosion resistant cemented carbide/ Corrosion resistant cemented carbide |

### Surface Treatment

| Priming                                                    | Finish                                                                                                                                                                 |
|------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Painted with a primer, see internal standard M0700.00.0002 | Navy gray color NCS 5804-B07G. Two-component high-solid top coating, see internal standard M0700.00.0004 for standard painting and M0700.00.0008 for special painting. |

## Options

- Leakage sensor in the stator housing (FLS)
- Surface treatment (Epoxy)
- Zinc anodes
- Other cables

## Accessories

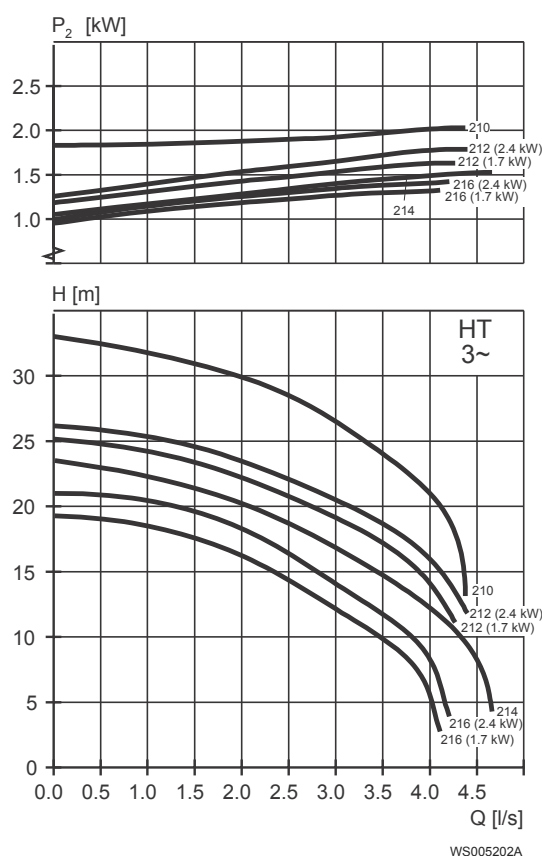
Discharge connections, adapters, hose connections, and other mechanical accessories.

Electrical accessories such as pump controller, control panels, starters, monitoring relays, cables.

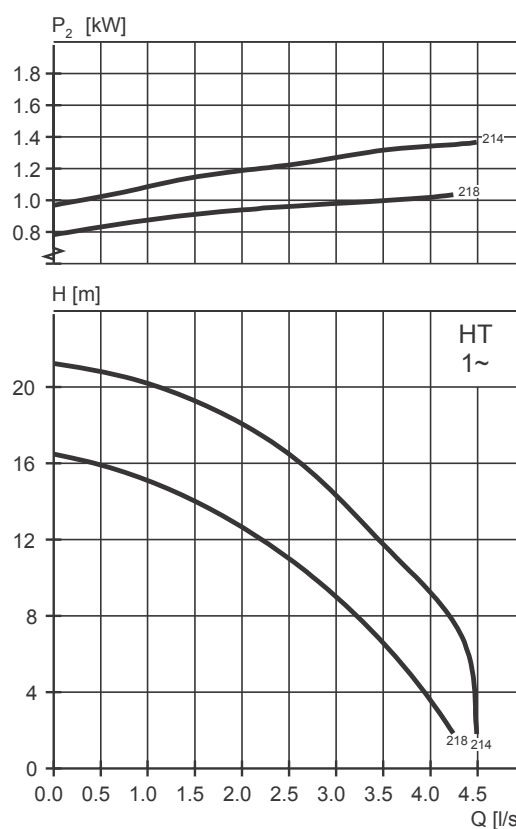
## Motor rating and performance curves 3068.170/.890

Star-delta starting current is 1/3 of Direct on-line starting current.

## HT



WS005202A



WS005203A

**Table 17: 400 V, 50 Hz, 3-phase**

| Rated power<br>kW | Rated power<br>hp | Curve/<br>Impeller No | Revolutions<br>per minute,<br>rpm | Rated<br>current, A | Starting<br>current, A | Power factor,<br>cos φ | Installation |
|-------------------|-------------------|-----------------------|-----------------------------------|---------------------|------------------------|------------------------|--------------|
| 1.7               | 2.3               | 212                   | 2695                              | 3.8                 | 17                     | .87                    | F,P          |
| 1.7               | 2.3               | 214                   | 2695                              | 3.8                 | 17                     | .87                    | F,P          |
| 1.7               | 2.3               | 216                   | 2695                              | 3.8                 | 17                     | .87                    | F,P          |
| 2.4               | 3.2               | 210                   | 2700                              | 5.3                 | 24                     | .87                    | F,P          |
| 2.4               | 3.2               | 212                   | 2700                              | 5.3                 | 24                     | .87                    | F,P          |

| Rated power<br>kW | Rated power<br>hp | Curve/<br>Impeller No | Revolutions<br>per minute,<br>rpm | Rated<br>current, A | Starting<br>current, A | Power factor,<br>cos $\varphi$ | Installation |
|-------------------|-------------------|-----------------------|-----------------------------------|---------------------|------------------------|--------------------------------|--------------|
| 2.4               | 3.2               | 214                   | 2700                              | 5.3                 | 24                     | .87                            | F,P          |
| 2.4               | 3.2               | 216                   | 2700                              | 5.3                 | 24                     | .87                            | F,P          |

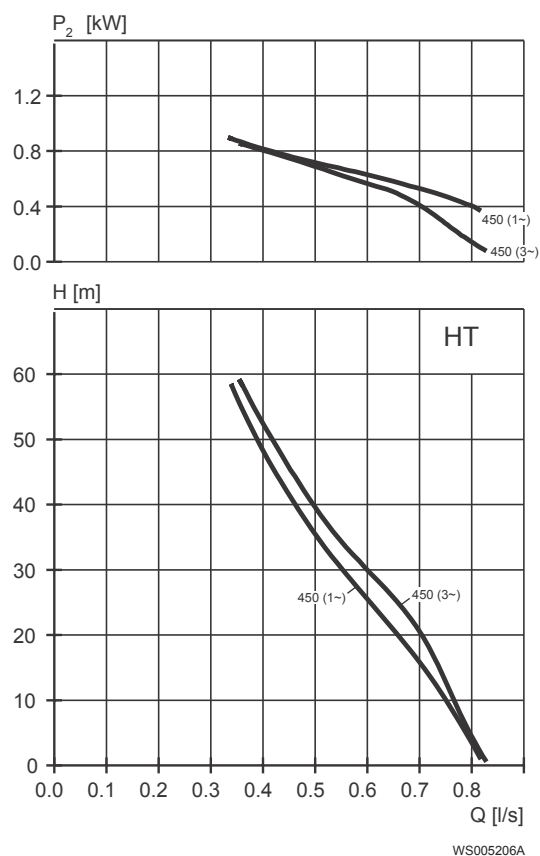
**Table 18: 230 V, 50 Hz, 1-phase**

| Rated power<br>kW | Rated power<br>hp | Curve/<br>Impeller No | Revolutions<br>per minute,<br>rpm | Rated<br>current, A | Starting<br>current, A | Power factor,<br>cos $\varphi$ | Installation |
|-------------------|-------------------|-----------------------|-----------------------------------|---------------------|------------------------|--------------------------------|--------------|
| 1.5               | 2                 | 214                   | 2695                              | 9.4                 | 31                     | 1                              | F, P         |
| 1.5               | 2                 | 218                   | 2695                              | 9.4                 | 31                     | 1                              | F, P         |

## Motor rating and performance curves 3068.175

Star-delta starting current is 1/3 of Direct on-line starting current.

HT

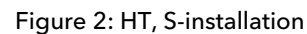
**Table 19: 400 V, 50 Hz, 3-phase**

| Rated power<br>kW | Rated power<br>hp | Curve/<br>Impeller No | Revolutions<br>per minute,<br>rpm | Rated<br>current, A | Starting<br>current, A | Power factor,<br>$\cos \varphi$ | Installation |
|-------------------|-------------------|-----------------------|-----------------------------------|---------------------|------------------------|---------------------------------|--------------|
| .9                | 1.2               | 450                   | 1430                              | 3.5                 | 16                     | .58                             | F,H          |

**Table 20: 230 V, 50 Hz, 1-phase**

| Rated power<br>kW | Rated power<br>hp | Curve/<br>Impeller No | Revolutions<br>per minute,<br>rpm | Rated<br>current, A | Starting<br>current, A | Power factor,<br>$\cos \varphi$ | Installation |
|-------------------|-------------------|-----------------------|-----------------------------------|---------------------|------------------------|---------------------------------|--------------|
| .9                | 1.2               | 450                   | 1435                              | 6.1                 | 26                     | 1                               | F,H          |

All dimensions are in mm.



All dimensions are in mm.

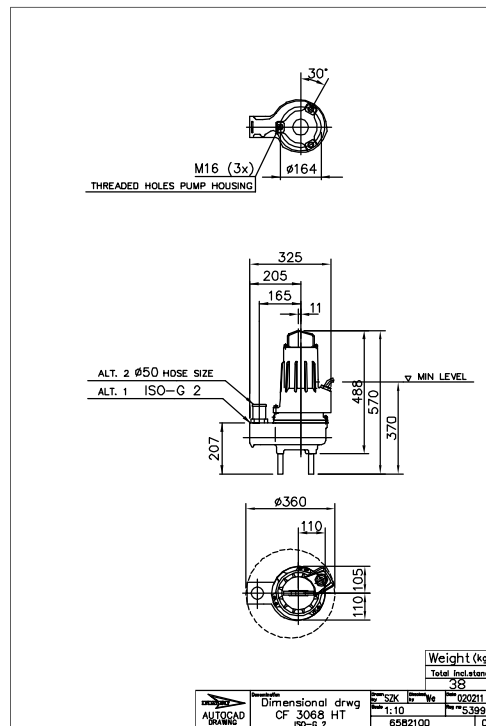


Figure 3: HT, F-installation

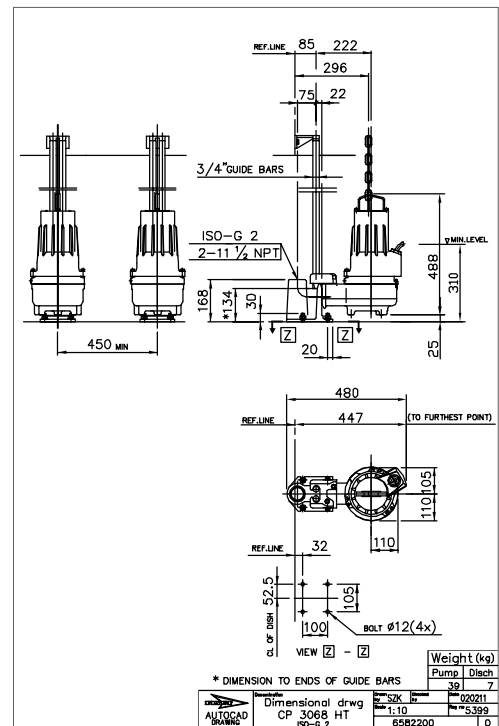


Figure 4: HT, P-installation

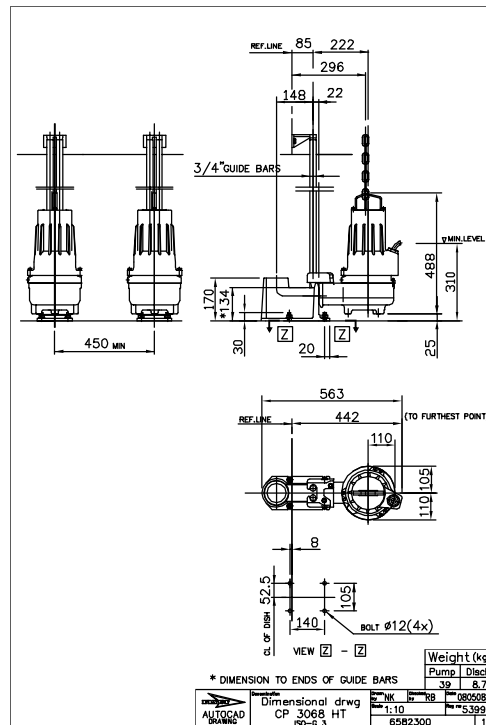


Figure 5: HT, P-installation

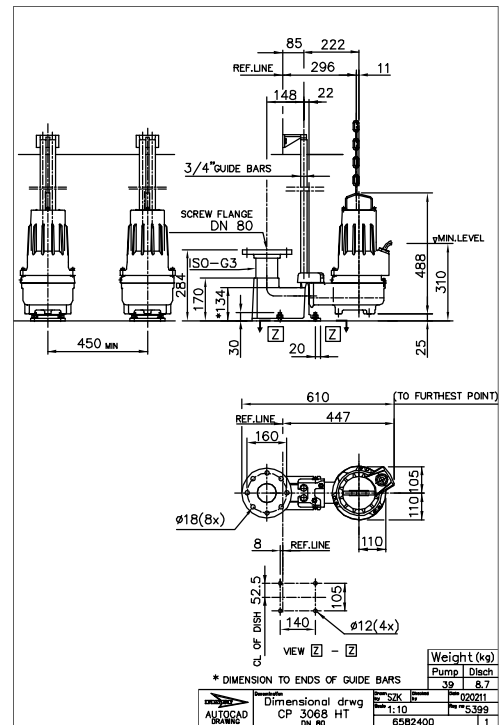


Figure 6: HT, P-installation

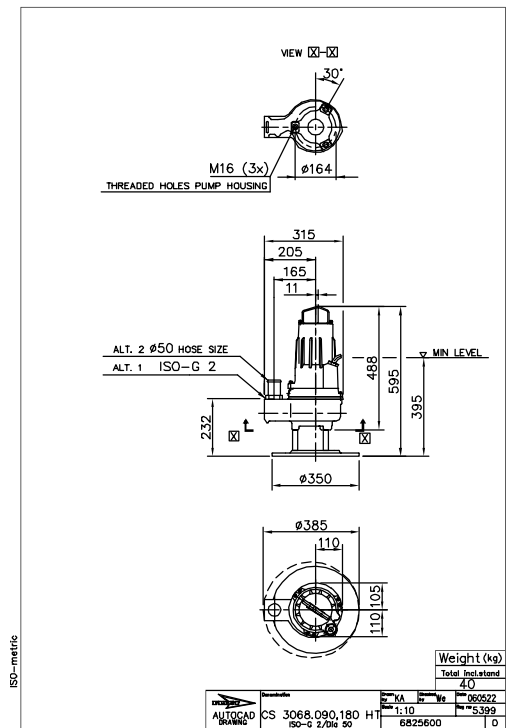


Figure 7: HT, S-installation

## Drawings, D-pump

All drawings are available as Acrobat documents (.pdf) and AutoCad drawings (.dwg).  
Contact your sales representative for more information.  
All dimensions are in mm.

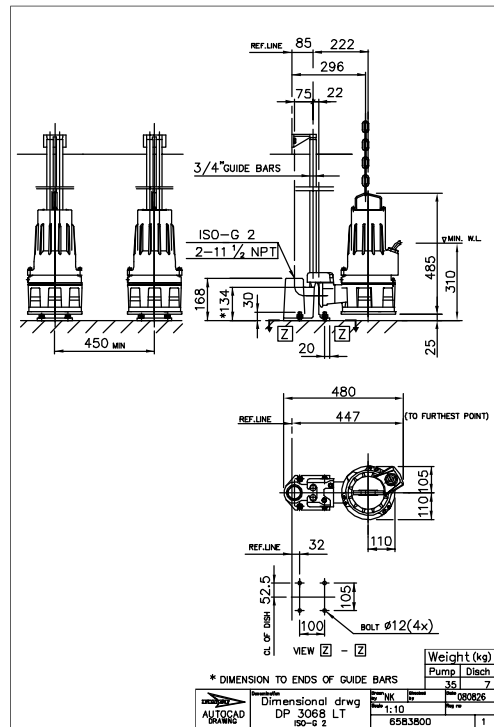


Figure 8: LT, P-installation

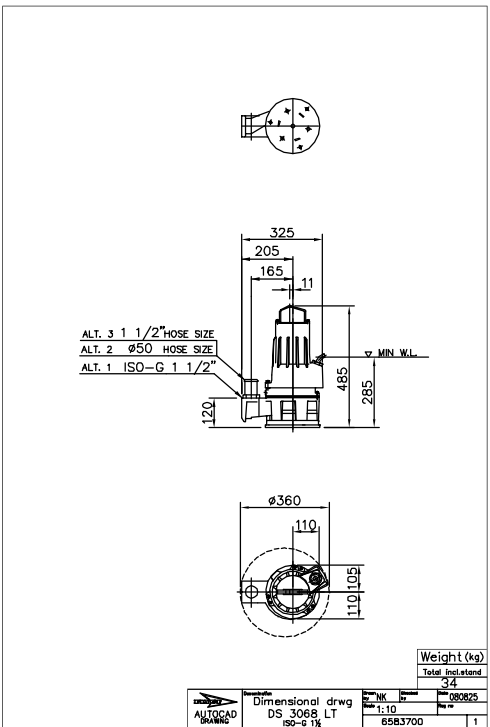
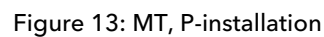
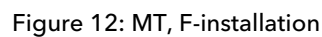
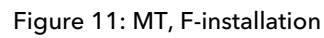
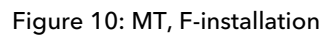


Figure 9: LT, S-installation





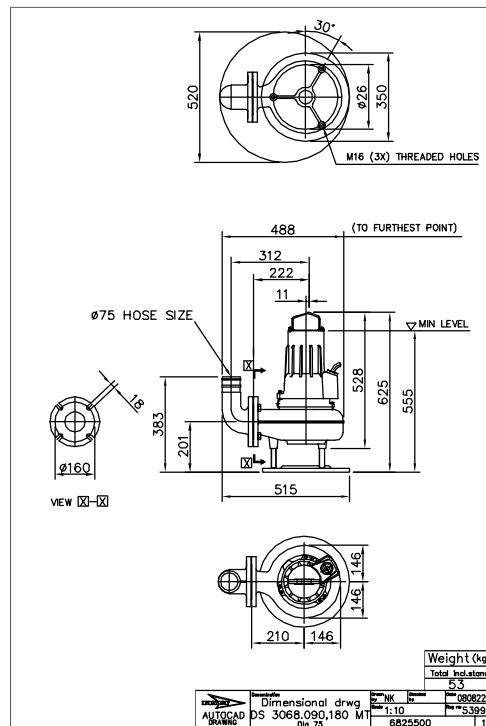


Figure 18: MT, S-installation

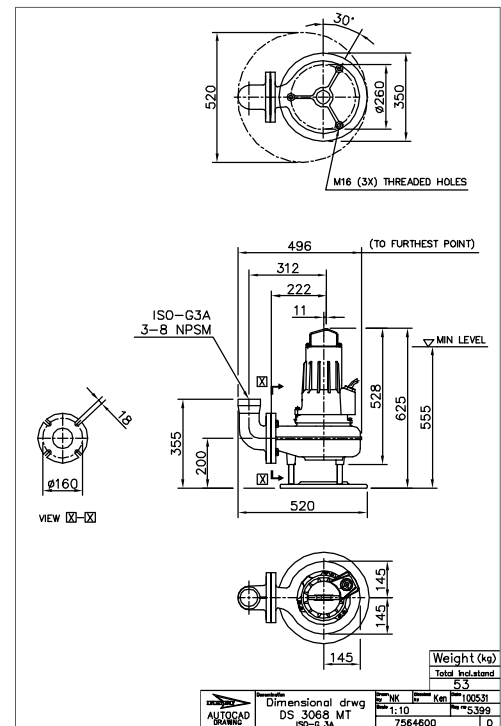


Figure 19: MT, S-installation

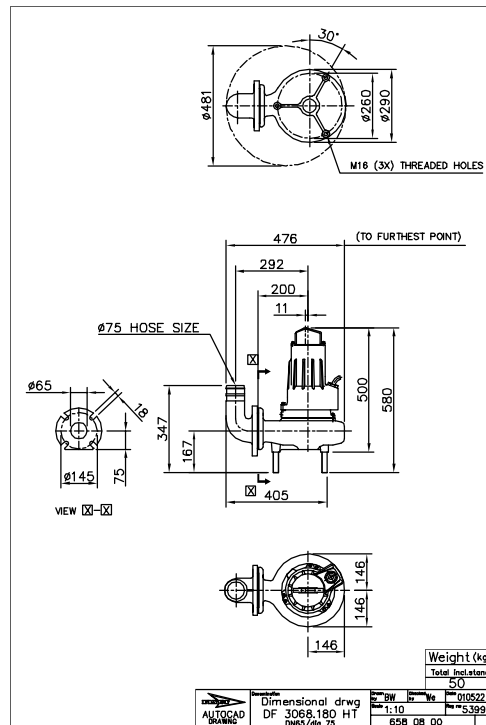


Figure 20: HT, F-installation

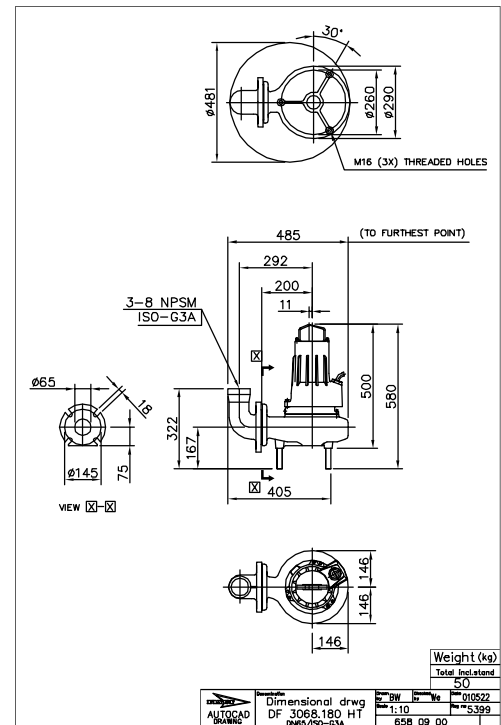
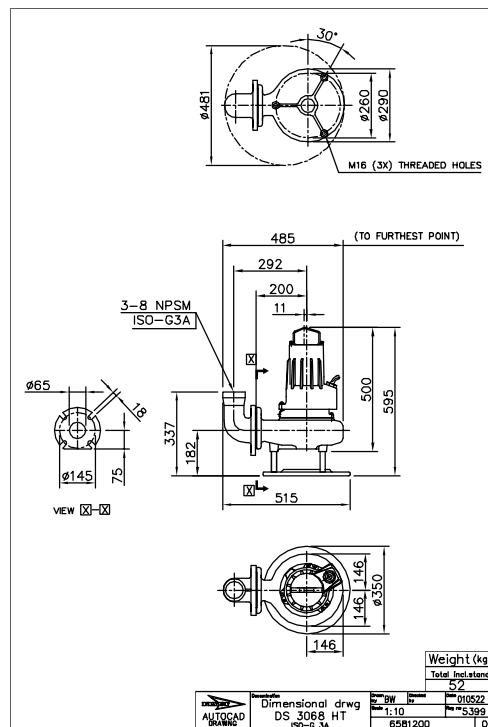
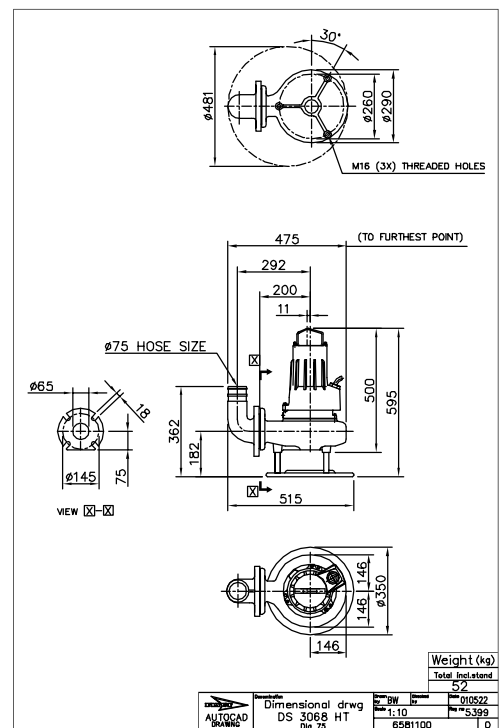
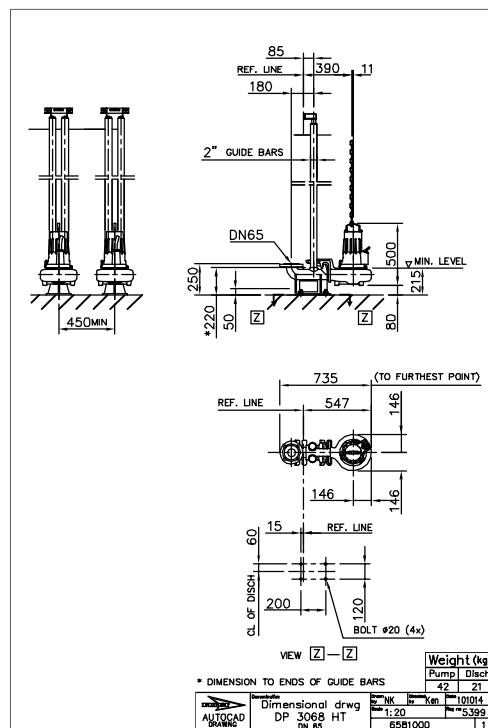


Figure 21: HT, F-installation



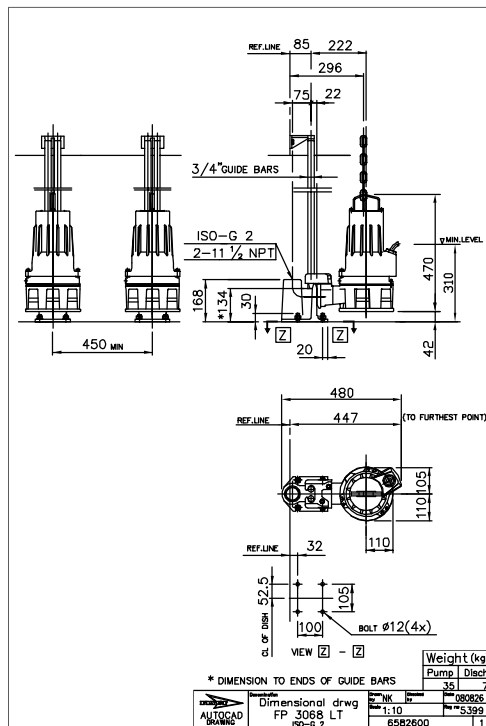


Figure 25: LT, P-installation

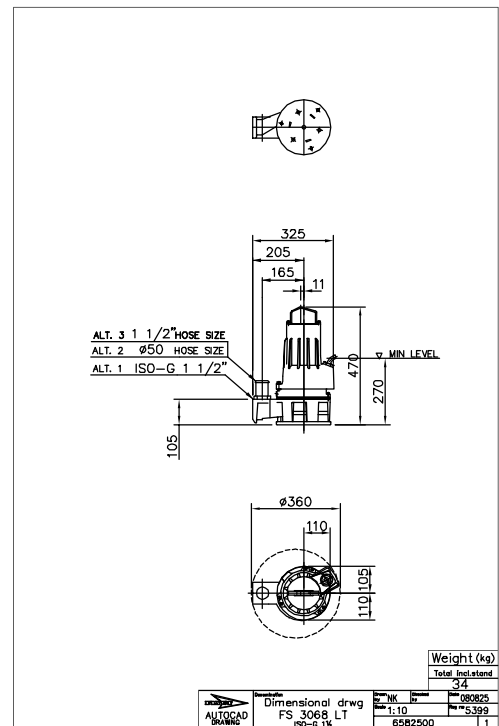


Figure 26: LT, S-installation

## Drawings, M-pump 3068.170

All drawings are available as Acrobat documents (.pdf) and AutoCad drawings (.dwg). Contact your sales representative for more information.

All dimensions are in mm.

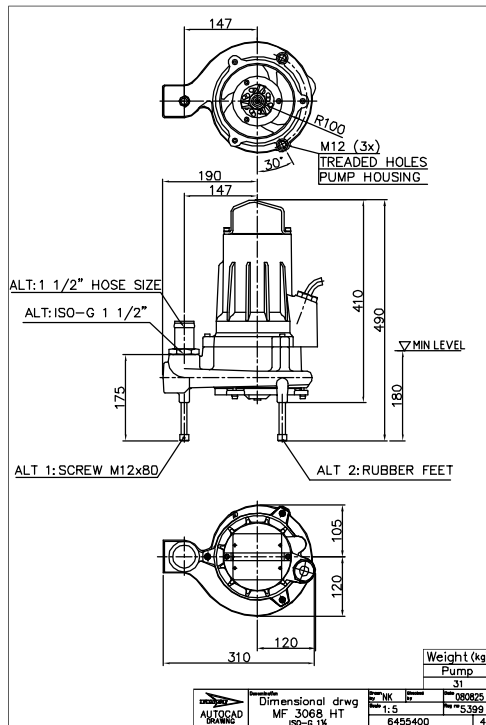


Figure 27: HT, F-installation

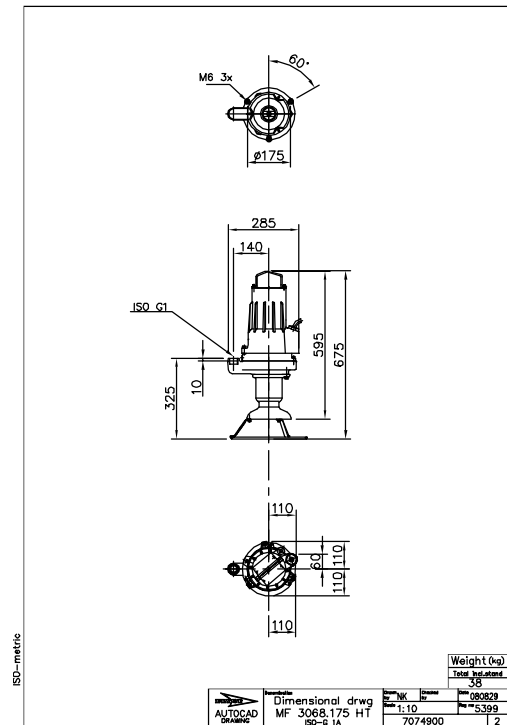


Figure 28: HT, F-installation

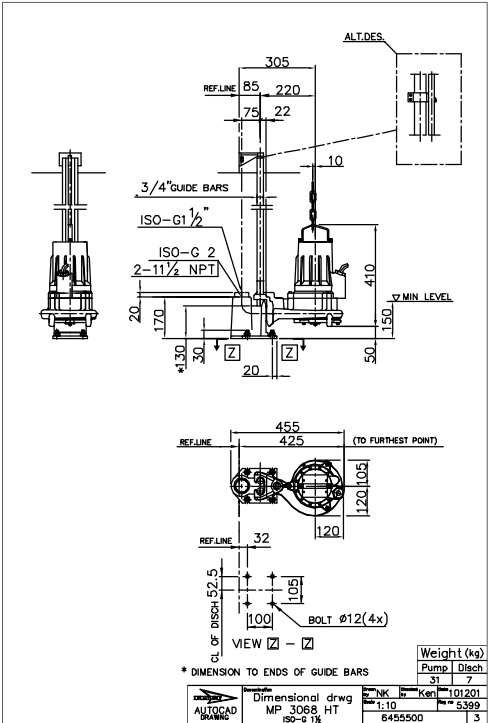


Figure 29: HT, P-installation

# Drawings, M-pump 3068.175

All drawings are available as Acrobat documents (.pdf) and AutoCad drawings (.dwg).  
Contact your sales representative for more information.  
All dimensions are in mm.

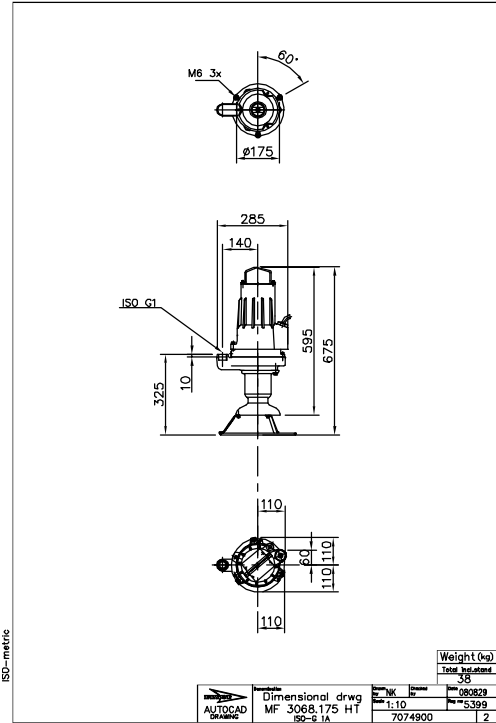


Figure 30: HT, F-installation



# Xylem |'zīləm|

- 1) The tissue in plants that brings water upward from the roots
- 2) A leading global water technology company

We're 12,500 people unified in a common purpose: creating innovative solutions to meet our world's water needs. Developing new technologies that will improve the way water is used, conserved, and re-used in the future is central to our work. We move, treat, analyze, and return water to the environment, and we help people use water efficiently, in their homes, buildings, factories and farms. In more than 150 countries, we have strong, long-standing relationships with customers who know us for our powerful combination of leading product brands and applications expertise, backed by a legacy of innovation.



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The original instruction is in English. All non-English instructions are translations of the original instruction.

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