



Flygt 3057, 50Hz

Table of Contents

| | |
|--|----|
| C-pump | 2 |
| Product description..... | 2 |
| Motor rating and performance curves..... | 4 |
| D-pump | 6 |
| Product description..... | 6 |
| Motor rating and performance curves..... | 8 |
| Dimensions and Weight | 10 |
| Drawings, D-pump..... | 10 |
| Drawings, D-pump..... | 11 |

C-pump

Product description

Usage

Submersible pump for pumping waste water and sludge. It can also be used for pumping ground water and other liquids containing solids.

Denomination

| Type | Non explosion proof version | Explosion proof version | Pressure class | Installation types |
|----------|-----------------------------|-------------------------|----------------|--------------------|
| Standard | 3057.181 | 3057.091 | 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 ³ |

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"> • Direct on-line • Star-delta |
| Number of starts per hour | Maximum 15 |
| Code compliance | IEC 60034-1 |
| Rated output variation | ±10% |
| Voltage variation | <ul style="list-style-type: none"> • Continuously running: Maximum ±5% • Intermittent running: Maximum ±10% |

| 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 ² 4G2.5 mm ² 4G2.5+2×1.5 mm ² |
| Y/D start | SUBCAB® heavy-duty submersible cable | 7G2.5 mm ² 7G2.5+2×1.5 mm ² |

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 | Stainless steel | AISI 304 | 1,4301 |
| Suction cover | Stainless steel | AISI 304 | 1,4301 |
| 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 |

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)
- Zinc anodes
- Other cables

Accessories

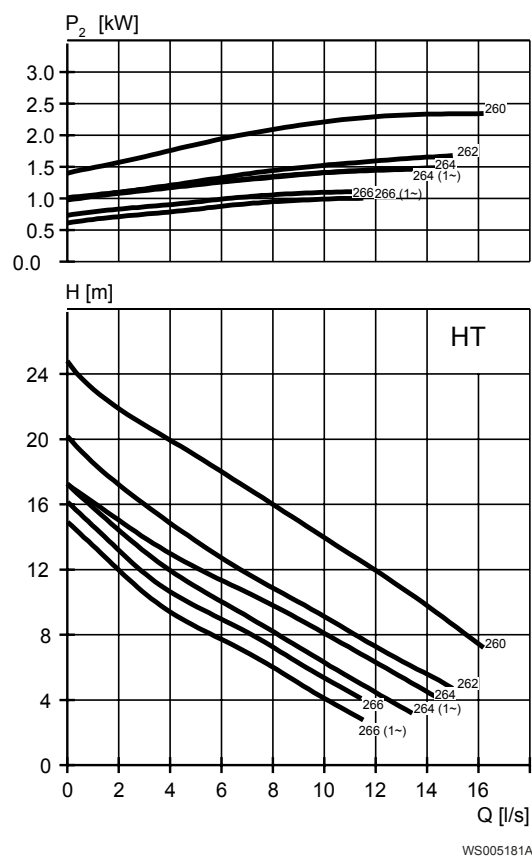
Discharge connections, adapters, hose connections, and other mechanical accessories.

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.

HT

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

| Rated power kW | Rated power hp | Curve/ Impeller No | Revolution s per minute, rpm | Rated current, A | Starting current, A | Power factor, cos φ | Impeller thoughtlet, mm | Installation |
|----------------|----------------|--------------------|------------------------------|------------------|---------------------|-----------------------------|-------------------------|--------------|
| 1.7 | 2.3 | 262 | 2695 | 3.8 | 17 | .87 | 48 | F,P,S |
| 1.7 | 2.3 | 264 | 2695 | 3.8 | 17 | .87 | 48 | F,P,S |
| 1.7 | 2.3 | 266 | 2695 | 3.8 | 17 | .87 | 48 | F,P,S |
| 2.4 | 3.2 | 260 | 2775 | 5.1 | 27 | .86 | 48 | F,P,S |
| 2.4 | 3.2 | 262 | 2775 | 5.1 | 27 | .86 | 48 | F,P,S |
| 2.4 | 3.2 | 264 | 2775 | 5.1 | 27 | .86 | 48 | F,P,S |
| 2.4 | 3.2 | 266 | 2775 | 5.1 | 27 | .86 | 48 | F,P,S |
| 2.4 | 3.2 | 266 | 2775 | 5.1 | 27 | .86 | 48 | F,P,S |

Table 3: 230 V, 50 Hz, 1-phase

| Rated power kW | Rated power hp | Curve/ Impeller No | Revolution s per minute, rpm | Rated current, A | Starting current, A | Power factor, cos φ | Impeller thoughtlet, mm | Installation |
|----------------|----------------|--------------------|------------------------------|------------------|---------------------|-----------------------------|-------------------------|--------------|
| 1.5 | 2 | 264 | 2695 | 9.4 | 27 | 1 | 48 | F,P,S |
| 1.5 | 2 | 268 | 2695 | 9.4 | 27 | 1 | 48 | F,P,S |

D-pump

Product description

Usage

Submersible pump for pumping waste water and sludge. It can also be used for pumping ground water and other liquids containing solids. A special version, ARV (Abrasion Resistant Version), is available for pumping media containing light or medium concentrations of abrasive solids.

Denomination

| Type | Non explosion proof version | Explosion proof version | Pressure class | Installation types |
|----------|-----------------------------|-------------------------|------------------|--------------------|
| Standard | 3057.181 | 3057.091 | MT – Medium 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 ³ |

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"> • Direct on-line • Star-delta |
| Number of starts per hour | Maximum 15 |
| Code compliance | IEC 60034-1 |
| Rated output variation | ±10% |
| Voltage variation | <ul style="list-style-type: none"> • Continuously running: Maximum ±5% • Intermittent running: Maximum ±10% |

| 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 | 4G2.5 mm ² 4G2.5+2×1.5 mm ² |
| Y/D start | SUBCAB® heavy-duty submersible cable | 7G2.5 mm ² 7G2.5+2×1.5 mm ² |

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, nodular | | GJS-700-2 |
| Impeller, alternative 1 | Cast iron, gray | 30B | GJL-200 |
| Impeller, alternative 2 | Cast iron, nodular | | GJS-700-2 |
| Suction cover | Stainless steel | AISI 304 | 1,4301 |
| 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 | Fluorinated rubber (FPM) 70° IRH | | |
| Oil, part no 901752 | Medical white oil of paraffin type. Fulfills FDA 172.878 (a) | | |

Table 4: 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 |

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)
- 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.

MT

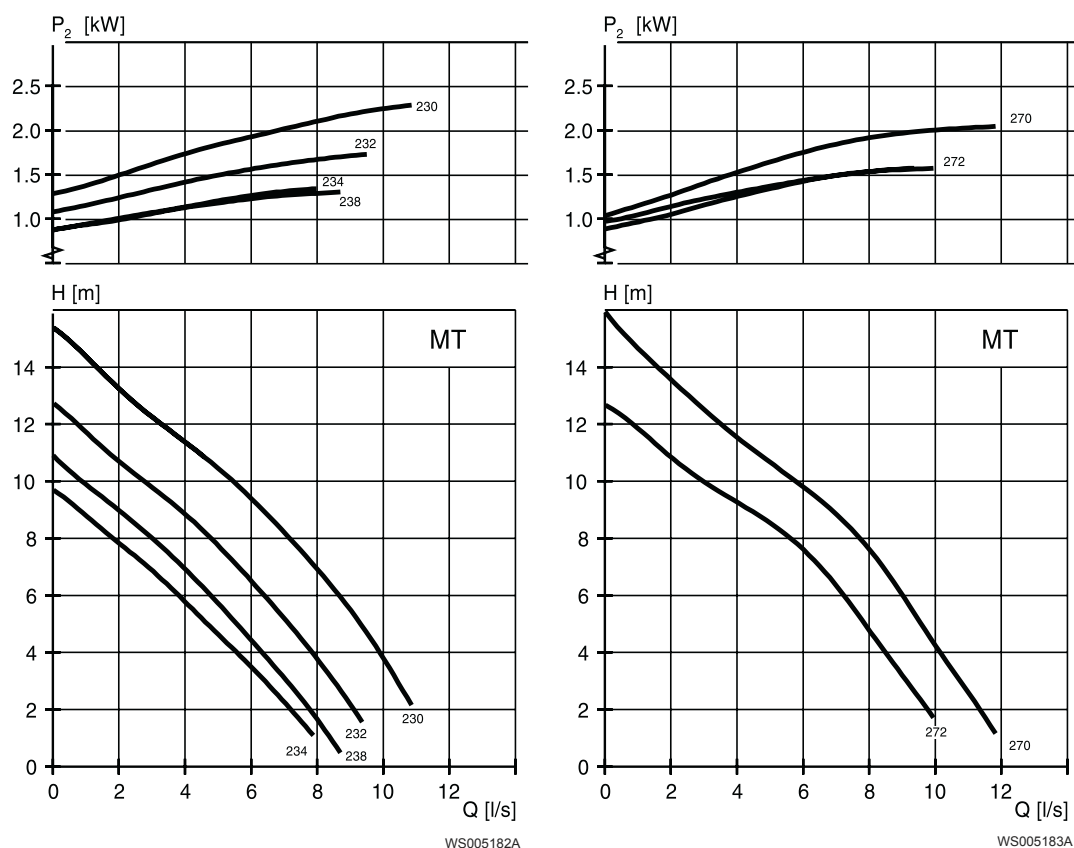


Figure 1: Abrasion Resistant Version

Table 5: 400 V, 50 Hz, 3-phase

| Rated power kW | Rated power hp | Curve/ Impeller No | Revolution s per minute, rpm | Rated current, A | Starting current, A | Power factor, $\cos \varphi$ | Impeller thoughtlet, mm | Installation |
|----------------|----------------|--------------------|------------------------------|------------------|---------------------|------------------------------|-------------------------|--------------|
| 1.7 | 2.3 | 232 | 2695 | 3.8 | 17 | .87 | 48 | F,P,S |
| 1.7 | 2.3 | 234 | 2695 | 3.8 | 17 | .87 | 48 | F,P,S |
| 2.4 | 3.2 | 230 | 2775 | 5.1 | 27 | .86 | 48 | F,P,S |
| 2.4 | 3.2 | 232 | 2775 | 5.1 | 27 | .86 | 48 | F,P,S |
| 2.4 | 3.2 | 234 | 2775 | 5.1 | 27 | .86 | 48 | F,P,S |
| 2.4 | 3.2 | 270 | 2775 | 5.1 | 27 | .86 | 24 | F,S |
| 2.4 | 3.2 | 272 | 2775 | 5.1 | 27 | .86 | 24 | F,S |

Dimensions and Weight

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.

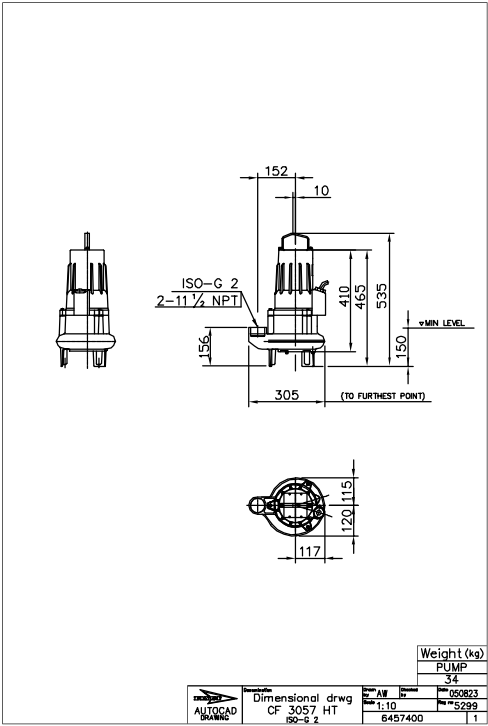


Figure 2: HT, F-installation

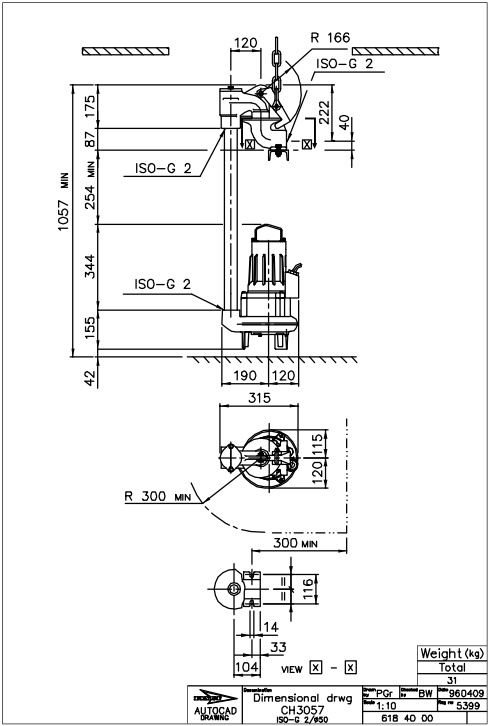


Figure 3: HT, H-installation

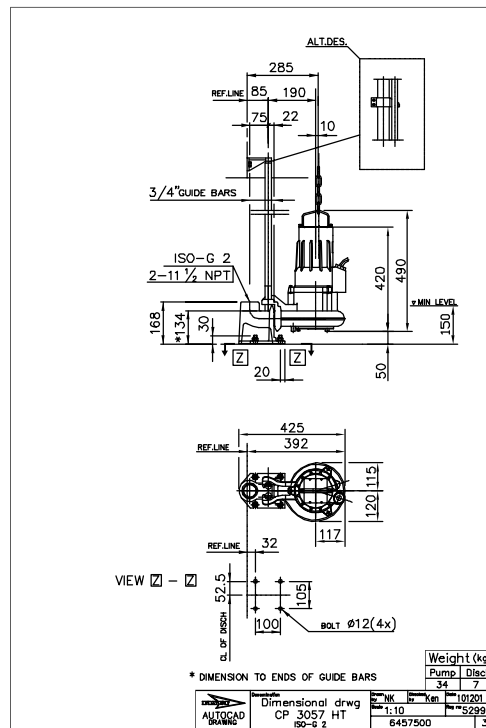


Figure 4: HT, P-installation

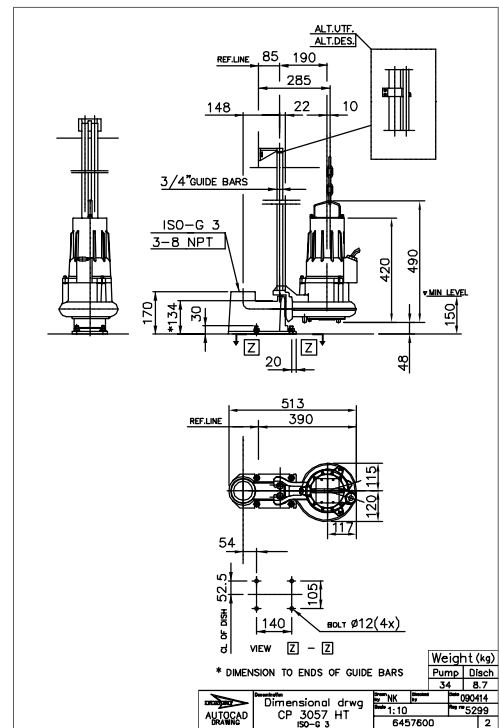


Figure 5: HT, P-installation

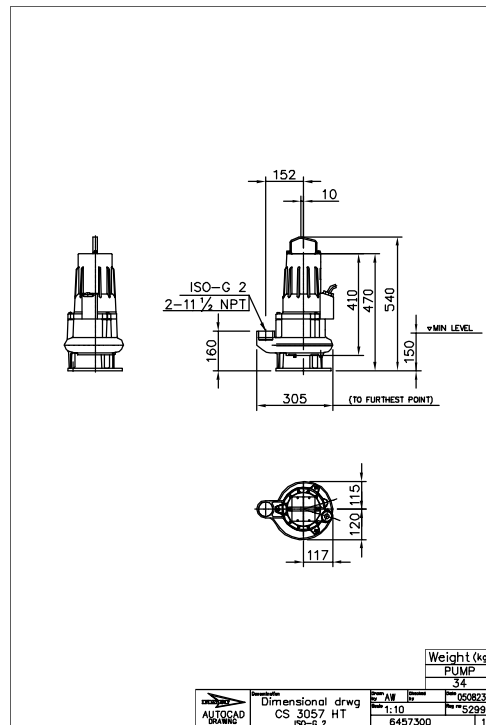


Figure 6: HT, S-installation

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.

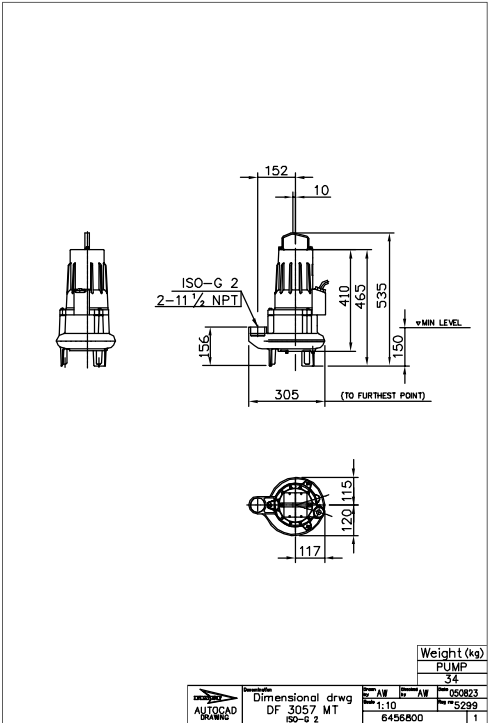


Figure 7: MT, F-installation

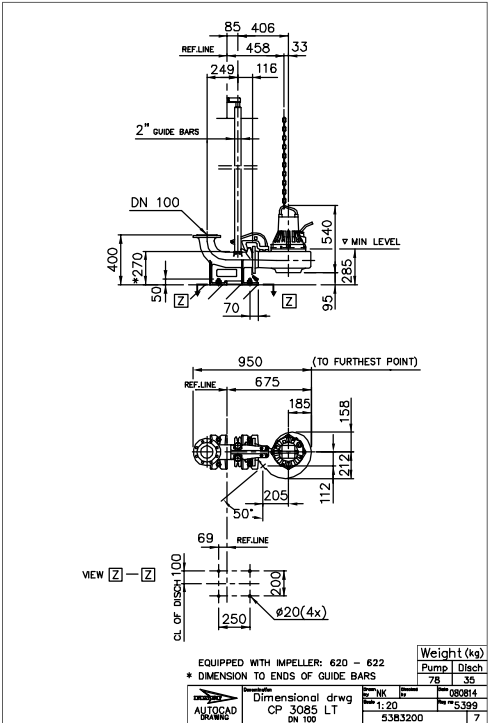


Figure 8: MT, F-installation

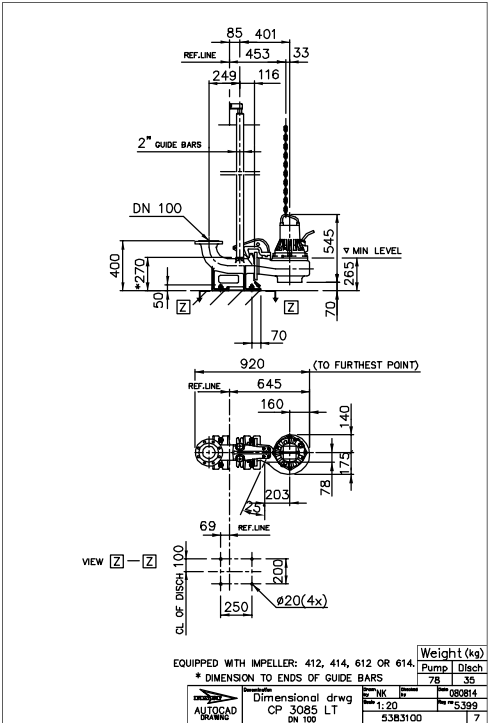


Figure 9: MT, F-installation

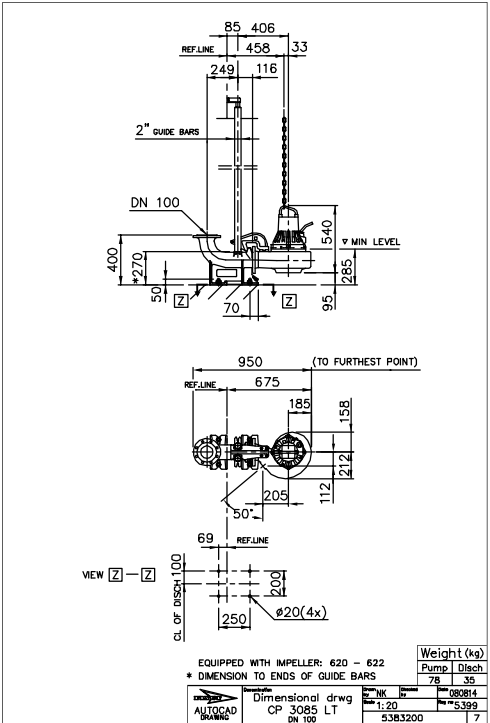


Figure 10: MT, H-installation

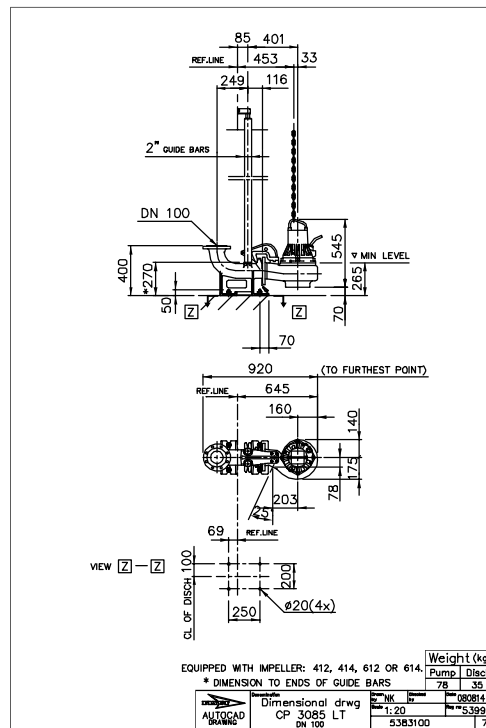


Figure 11: MT, P-installation

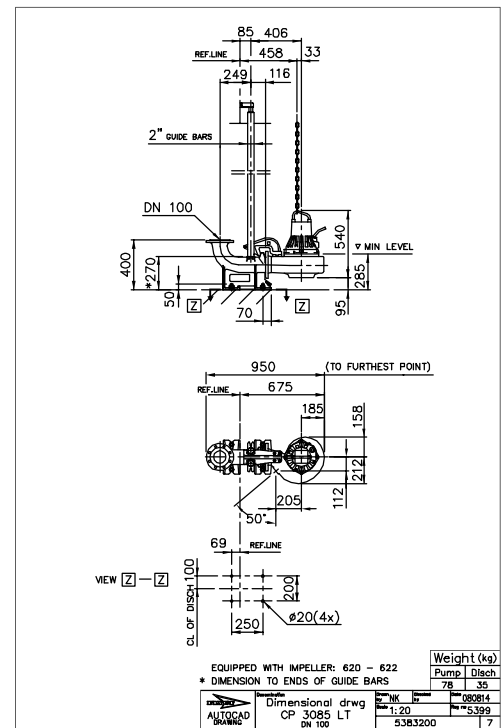


Figure 12: MT, S-installation

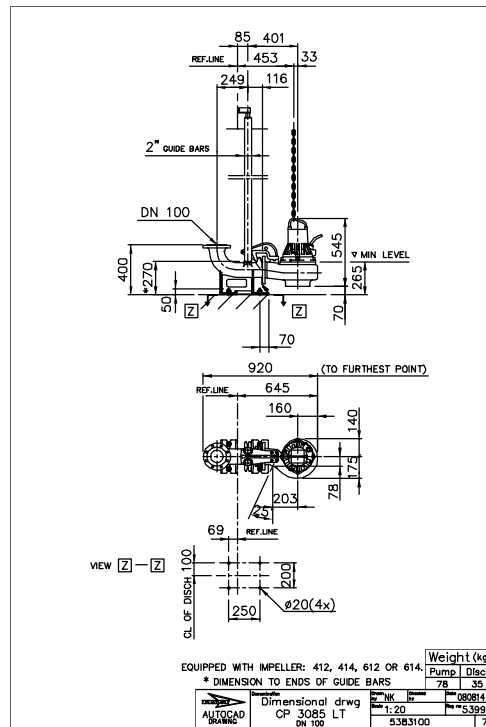


Figure 13: MT, S-installation

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.

For more information on how Xylem can help you, go to xyleminc.com



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

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