



Flygt 3045, 50Hz

LENNTECH

info@lennotech.com Tel. +31-152-610-900
www.lennotech.com Fax. +31-152-616-289

FLYGT
a xylem brand

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, C-pump | 10 |
| Drawings..... | 10 |
| Dimensions and Weight, D-pump | 12 |
| Drawings..... | 12 |

C-pump

Product description



Usage

A submersible pump for clean water, surface water, or light wastewater containing solids or fibrous material.

Denomination

| Type | Non explosion proof version | Explosion proof version | Pressure class | Installation types |
|-----------|-----------------------------|-------------------------|----------------|--------------------|
| Cast iron | 3045.181 | 3045.091 | HT – High head | F, H, 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.
- H** Semi permanent, wet well quick connection suspended arrangement, incorporating integral non-return valve.
- 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 • Soft starter |
| 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% |
| Voltage imbalance between phases | Maximum 2% |
| Stator insulation class | F (+155°C) |

Cables

| Application | Type |
|---|--|
| Direct-on-line start or Y/D start with two cables | Flygt SUBCAB® - a heavy duty 4 cores motor power cable with two twisted pair screened control cores. Conductor insulation rating of 90°C, which allows for increased current. Superior mechanical strength and high abrasion and tear resistant. Chemical resistant within pH 3-10 and ozone, oil, and flame resistant. Used up to 70°C water temperature. Cables < 10 mm ² with unscreened control cores. |
| Y/D start | Flygt SUBCAB® - a heavy duty 7 cores motor power cable with two twisted pair screened control cores. Conductor insulation rating of 90°C, which allows for increased current. Superior mechanical strength and high abrasion and tear resistant. Chemical resistant within pH 3-10 and ozone, oil, and flame resistant. Used up to 70°C water temperature. Cables < 7G6 mm ² with unscreened control cores. |

Monitoring equipment

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

Materials

Table 1: Major parts except mechanical seals

| Denomination | Material | ASTM | EN |
|----------------|--------------------------|----------|---------|
| Major castings | Cast iron, gray | 35B | GJL-250 |
| Pump housing | Cast iron, gray | 30B | GJL-200 |
| Impeller | Plastics, polyamide PA66 | - | - |
| Suction cover | Stainless steel | AISI 304 | 1,4301 |
| Lifting handle | Stainless steel | AISI 304 | 1,4301 |

| Denomination | Material | ASTM | EN |
|---------------------|--|----------|--------------------------------|
| Shaft | Stainless steel | - | 1,4021 |
| 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 2: Mechanical seals

| Alternative | Inner seal | Outer seal |
|-------------|------------------------|----------------------------------|
| 1 | 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)
- Zinc anodes
- Other cables

Accessories

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

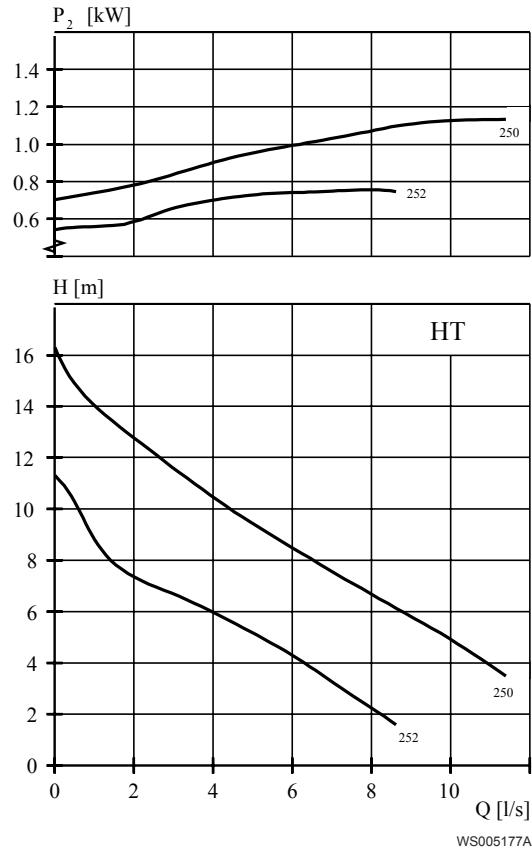
Electrical accessories such as pump controller, control panels, starters, monitoring relays, cables.

Motor rating and performance curves

These are examples of motor rating and curves, for more information contact your local sales and service representative.

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

HT

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

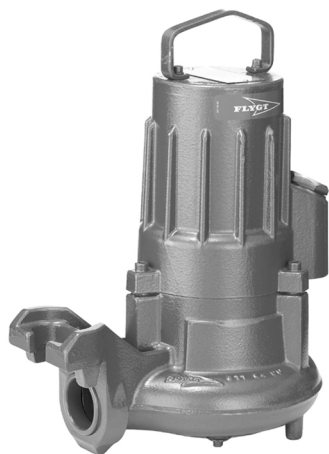
| Rated power, kW | Rated power, hp | Curve/ Impeller No | Revolutions per minute, rpm | Rated current, A | Starting current, A | Power factor, $\cos \varphi$ | Installation |
|-----------------|-----------------|--------------------|-----------------------------|------------------|---------------------|------------------------------|--------------|
| 1.2 | 1.6 | 250 | 2785 | 2.8 | 17 | .79 | F,P,S |
| 1.2 | 1.6 | 252 | 2785 | 2.8 | 17 | .79 | F,P,S |

Table 4: 230 V, 50 Hz, 1-phase

| Rated power, kW | Rated power, hp | Curve/ Impeller No | Revolutions per minute, rpm | Rated current, A | Starting current, A | Power factor, $\cos \varphi$ | Installation |
|-----------------|-----------------|--------------------|-----------------------------|------------------|---------------------|------------------------------|--------------|
| .75 | 1 | 252 | 2825 | 4.2 | 19 | 1 | F,P,S |

D-pump

Product description



Usage

A submersible pump, with vortex hydraulic, for liquids containing solids and abrasive media, or light wastewater.

Denomination

| Type | Non explosion proof version | Explosion proof version | Pressure class | Installation types |
|-----------|-----------------------------|-------------------------|------------------|--------------------|
| Cast iron | 3045.181 | 3045.091 | 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 |

| Feature | Description |
|----------------------------------|---|
| Frequency | 50 Hz |
| Power supply | 1-phase or 3-phase |
| Starting method | <ul style="list-style-type: none"> • Direct on-line • Star-delta • Soft starter |
| 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% |
| Voltage imbalance between phases | Maximum 2% |
| Stator insulation class | F (+155°C) |

Cables

| Application | Type |
|---|--|
| Direct-on-line start or Y/D start with two cables | Flygt SUBCAB® - a heavy duty 4 cores motor power cable with two twisted pair screened control cores. Conductor insulation rating of 90°C, which allows for increased current. Superior mechanical strength and high abrasion and tear resistant. Chemical resistant within pH 3-10 and ozone, oil, and flame resistant. Used up to 70°C water temperature. Cables < 10 mm ² with unscreened control cores. |
| Y/D start | Flygt SUBCAB® - a heavy duty 7 cores motor power cable with two twisted pair screened control cores. Conductor insulation rating of 90°C, which allows for increased current. Superior mechanical strength and high abrasion and tear resistant. Chemical resistant within pH 3-10 and ozone, oil, and flame resistant. Used up to 70°C water temperature. Cables < 7G6 mm ² with unscreened control cores. |

Materials

Table 5: Major parts except mechanical seals

| Denomination | Material | ASTM | EN |
|-----------------|--------------------------|----------|--------------------------------|
| Major castings | Cast iron, gray | 35B | GJL-250 |
| Pump housing | Cast iron, gray | 30B | GJL-200 |
| Impeller | Plastics, polyamide PA66 | - | - |
| Suction cover | Stainless steel | AISI 304 | 1,4301 |
| Lifting handle | Stainless steel | AISI 304 | 1,4301 |
| Shaft | Stainless steel | | 1,4021 |
| Screws and nuts | Stainless steel, A2 | AISI 304 | 1.4301, 1.4306, 1.4307, 1.4311 |

| Denomination | Material | ASTM | EN |
|---------------------|--|------|----|
| O-rings | Fluorinated rubber (FPM) 70° IRH | - | - |
| Oil, part no 901752 | Medical white oil of paraffin type. Fulfills FDA 172.878 (a) | - | - |

Table 6: Mechanical seals

| Alternative | Inner seal | Outer seal |
|-------------|------------------------|----------------------------------|
| 1 | 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)
- Zinc anodes
- Other cables

Accessories

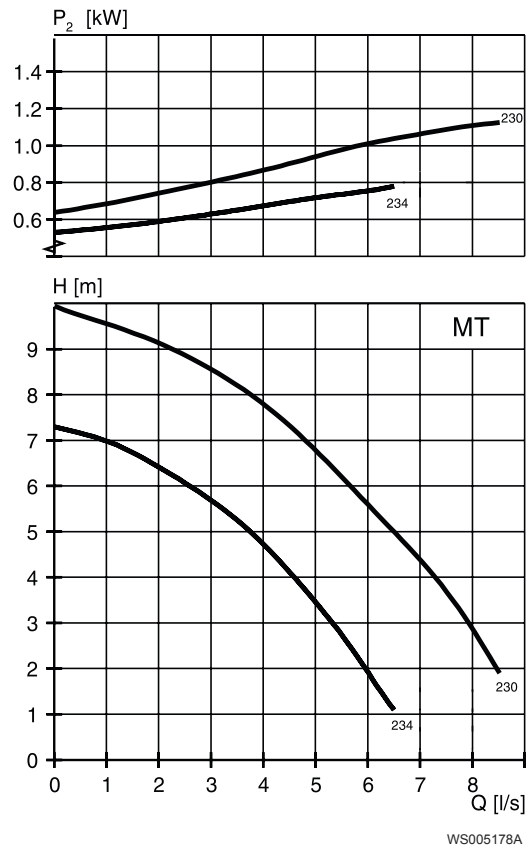
Discharge connections, adapters, hose connections, and other mechanical accessories.
Electrical accessories such as pump controller, control panels, starters, monitoring relays, cables.

Motor rating and performance curves

These are examples of motor rating and curves, for more information contact your local sales and service representative.

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

MT

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

| Rated power, kW | Rated power, hp | Curve/ Impeller No | Revolutions per minute, rpm | Rated current, A | Starting current, A | Power factor, $\cos \varphi$ | Installation |
|-----------------|-----------------|--------------------|-----------------------------|------------------|---------------------|------------------------------|--------------|
| 1.2 | 1.6 | 230 | 2785 | 2.8 | 17 | .79 | F,P,S |
| 1.2 | 1.6 | 234 | 2785 | 2.8 | 17 | .79 | F,S |

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

| Rated power, kW | Rated power, hp | Curve/ Impeller No | Revolutions per minute, rpm | Rated current, A | Starting current, A | Power factor, $\cos \varphi$ | Installation |
|-----------------|-----------------|--------------------|-----------------------------|------------------|---------------------|------------------------------|--------------|
| .75 | 1 | 234 | 2825 | 4.2 | 19 | 1 | F,P,S |

Dimensions and Weight, C-pump

Drawings

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

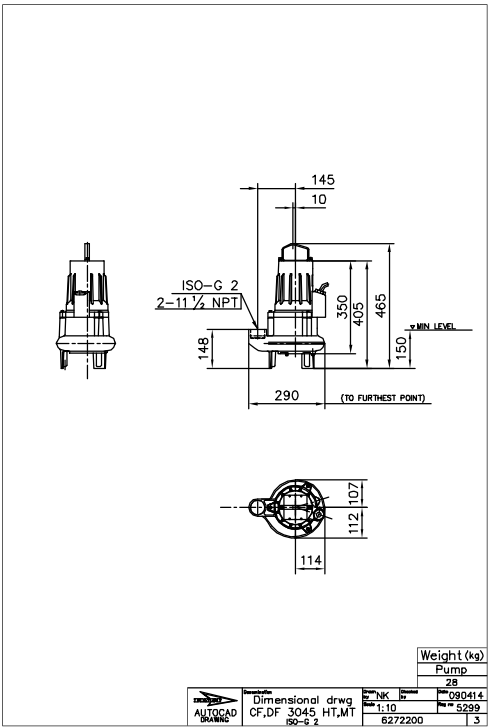


Figure 1: MT/HT, F-installation

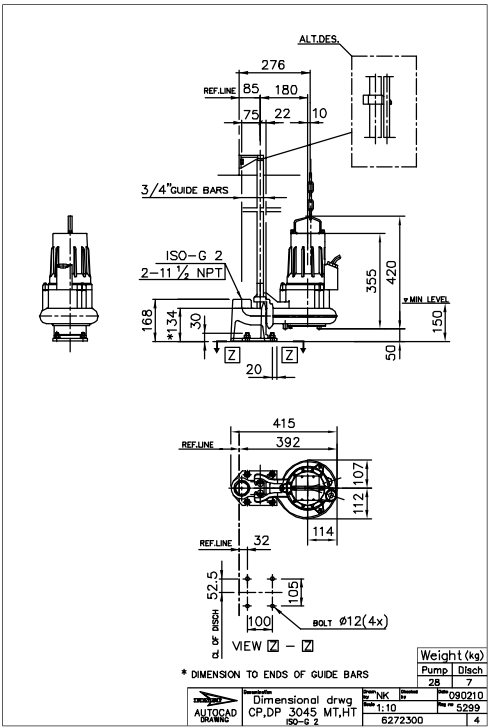


Figure 2: MT/HT, P-installation

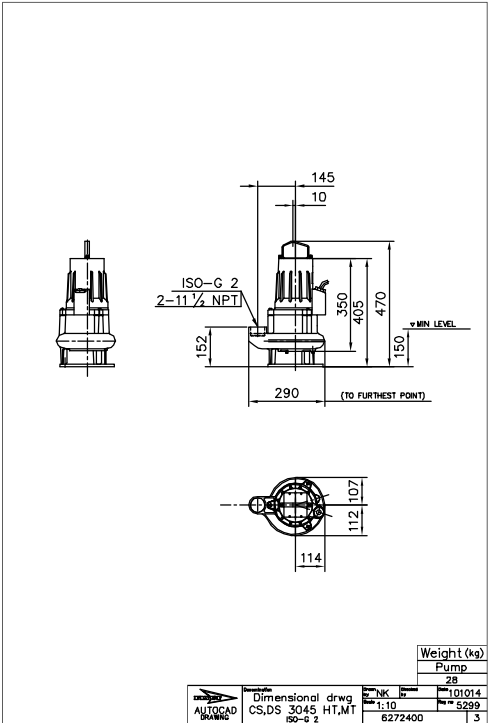


Figure 3: MT/HT, S-installation

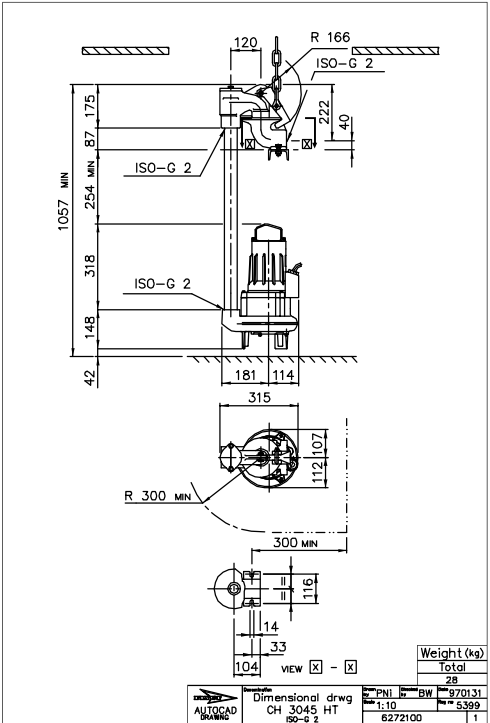


Figure 4: HT, H-installation

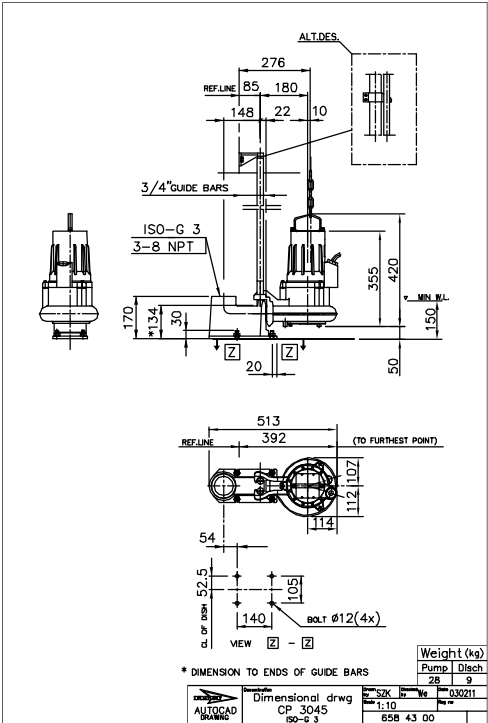


Figure 5: HT, P-installation

Dimensions and Weight, D-pump

Drawings

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

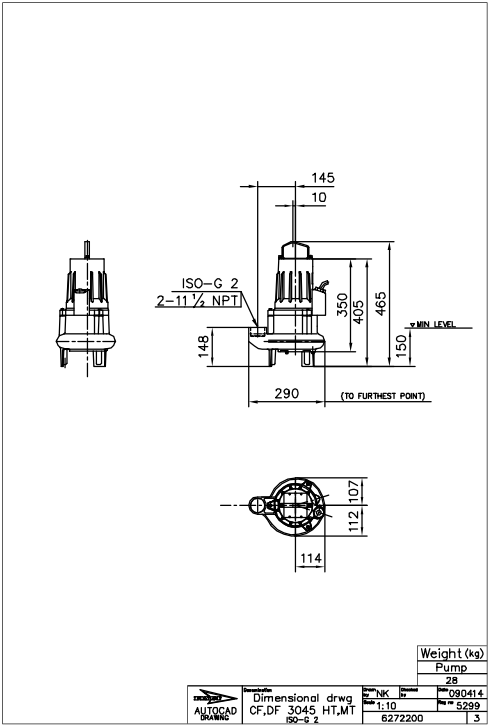


Figure 6: MT/HT, F-installation

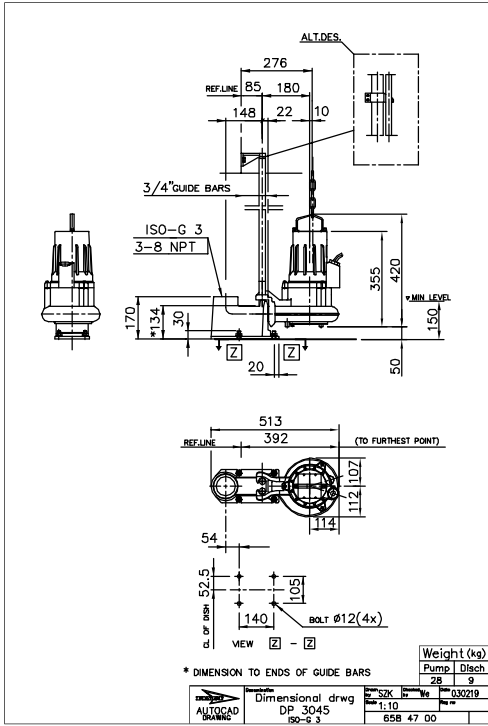


Figure 7: MT, P-installation

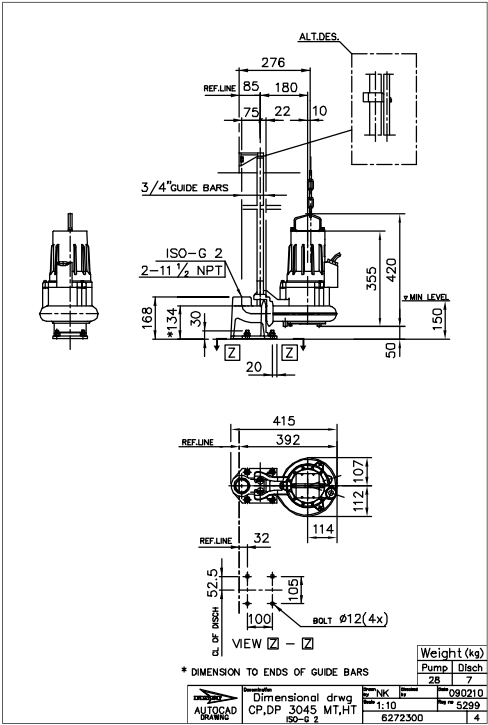


Figure 8: MT/HT, P-installation

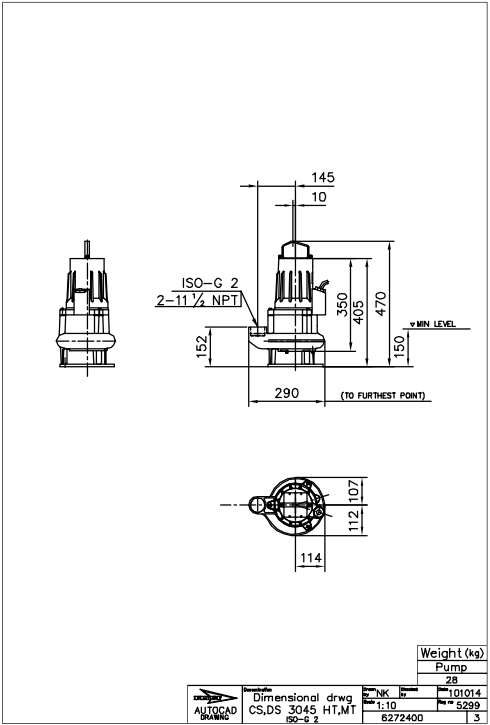


Figure 9: MT/HT, S-installation

LENNTECH
info@lennotech.com Tel. +31-152-610-900
www.lennotech.com Fax. +31-152-616-289