



Flygt 3045, 50Hz

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C-pump

Product description



Usage

A submersible pump for clean water, surface water, or light wastewater containing solids or fibred 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

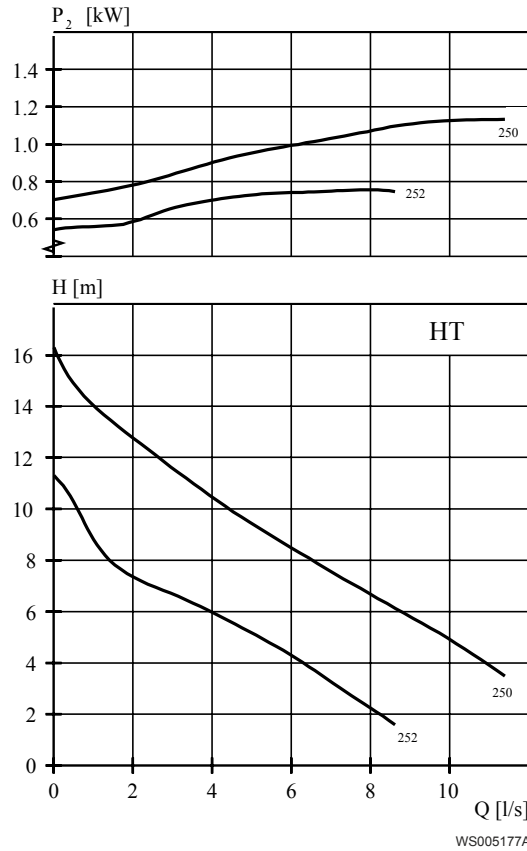


Table 3: 400 V, 50 Hz, 3-phase

Rated power, kW	Rated power, hp	Curve/ Impeller No	Revolutions per minute, rpm	Rated current, A	Starting current, A	Power factor, cos φ	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 φ	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

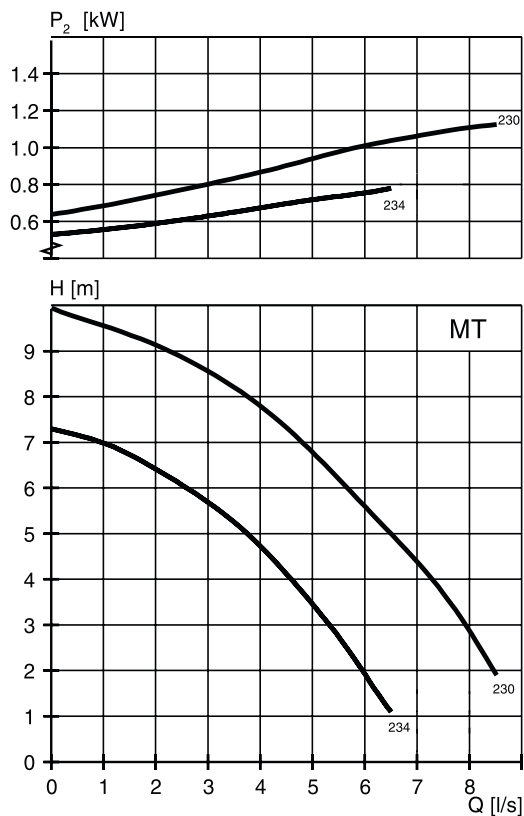
Discharge connections, adapters, hose connections, and other mechanical accessories.
Electrical accessories such as pump controller, control panels, starters, monitoring relays, cables.

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



WS005178A

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 φ	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 φ	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.

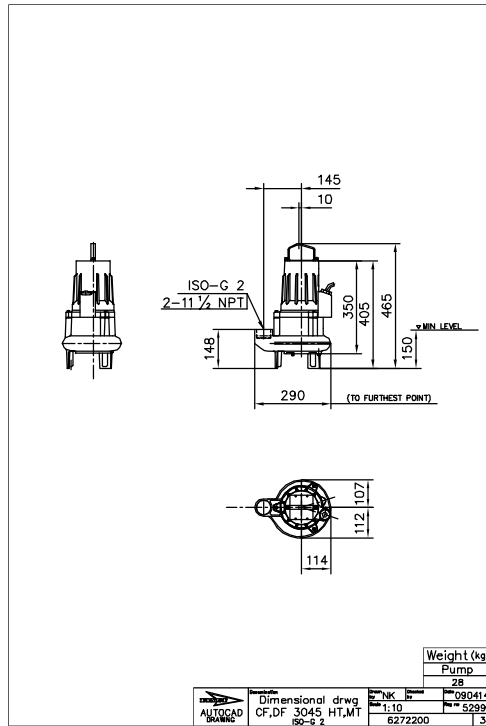


Figure 1: MT/HT, F-installation

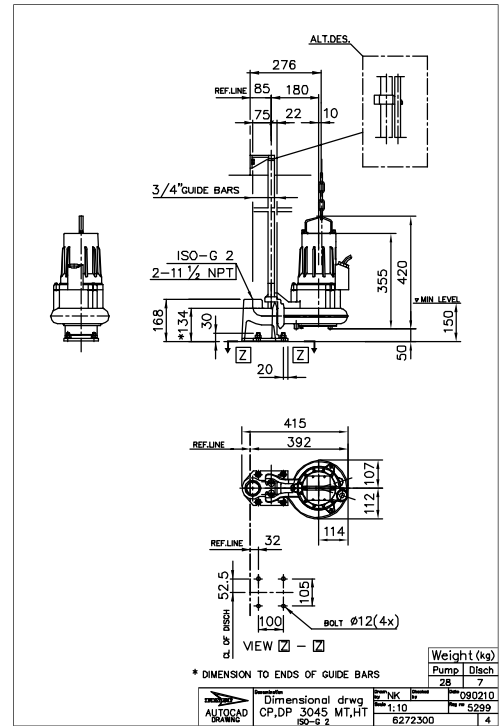


Figure 2: MT/HT, P-installation

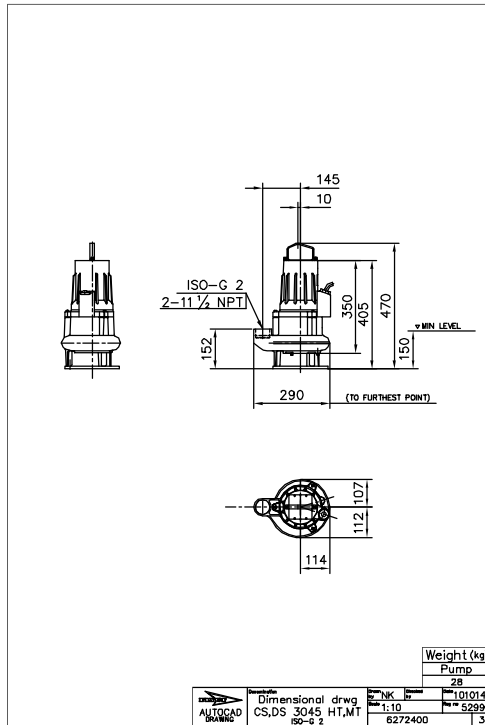


Figure 3: MT/HT, S-installation

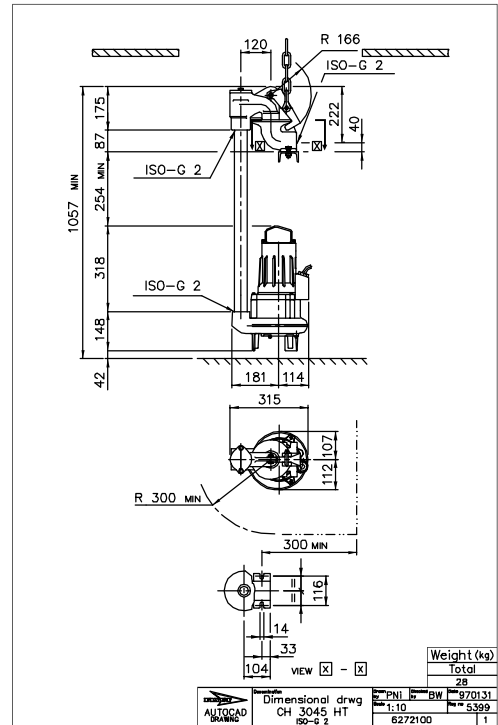


Figure 4: HT, H-installation

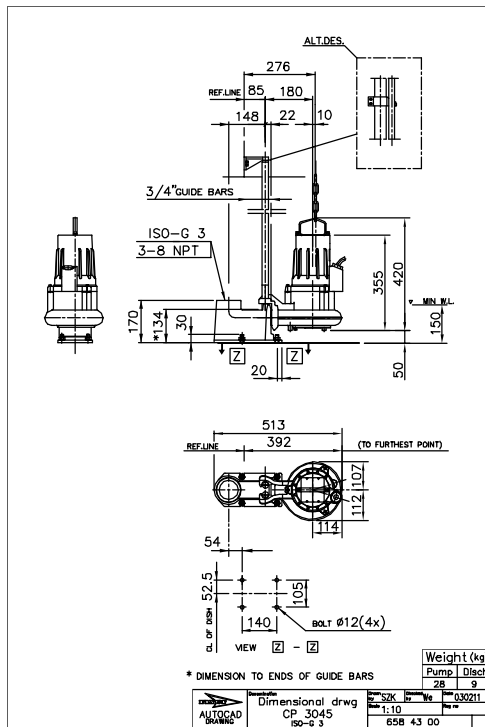


Figure 5: HT, P-installation

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.

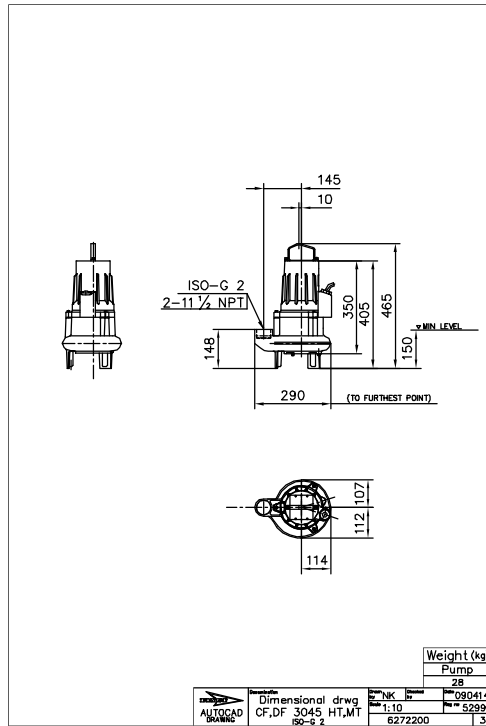


Figure 6: MT/HT, F-installation

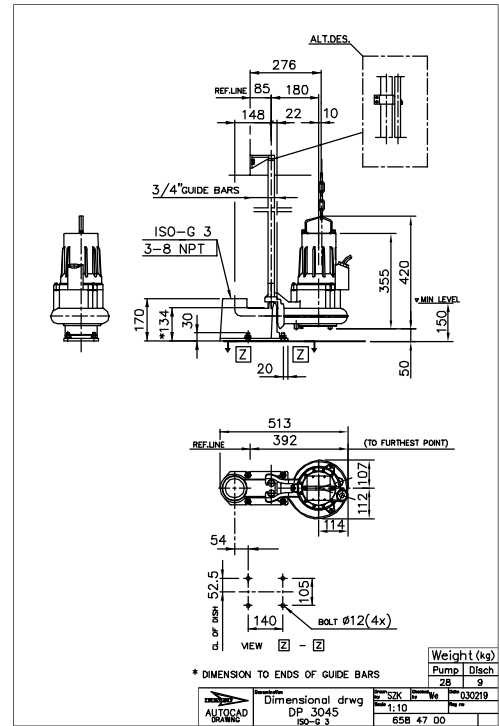


Figure 7: MT, P-installation

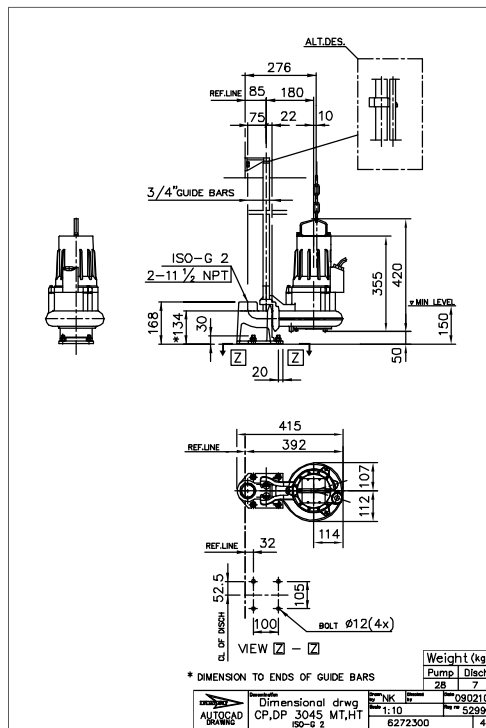


Figure 8: MT/HT, P-installation

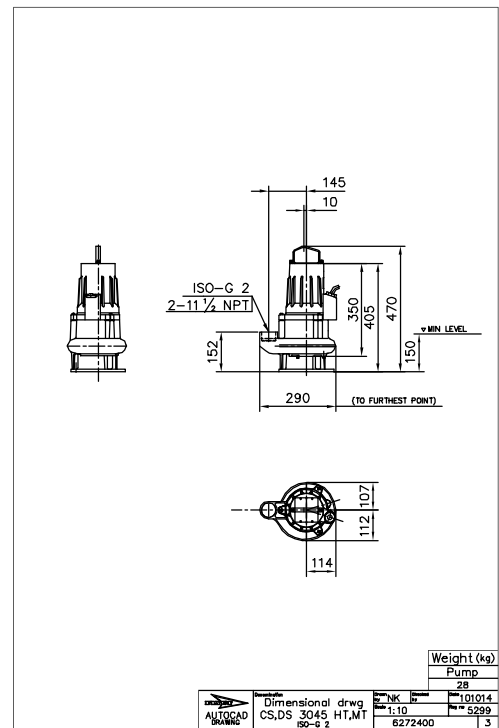


Figure 9: MT/HT, S-installation