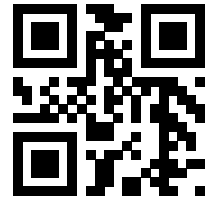




Technical Specification

883445_3.0



Flygt 3045, 50Hz

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1 C-pump

1.1 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
Gray iron	3045.181	3045.091	HT – High head	F, H, P, S

The pump can be used in the following installations:

- F Free standing semipermanent, wet well arrangement where the pump is placed on a firm surface.
- H Semipermanent, wet well quick connection suspended arrangement, incorporating integral non-return valve.
- P Semipermanent, wet well arrangement with the pump installed on two guide bars. The connection to the discharge is automatic.
- S Portable semipermanent, wet well arrangement with hose coupling or flange for connection to the discharge pipeline.

Application limits

Feature	Description
Liquid temperature	Maximum 40°C (104°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

Feature	Description
Starting method	• Direct on-line • Star-delta • Soft starter
Number of starts per hour	Maximum 15
Code compliance	IEC 60034-1
Voltage variation	• Continuously running: Maximum $\pm 5\%$ • Intermittent running: Maximum $\pm 10\%$
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
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 (CSb)/ Aluminum oxide (Al ₂ O ₃)	Silicon carbide (RSiC)/ Silicon carbide (RSiC)

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

1.2 Motor rating and performance curves

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

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

HT

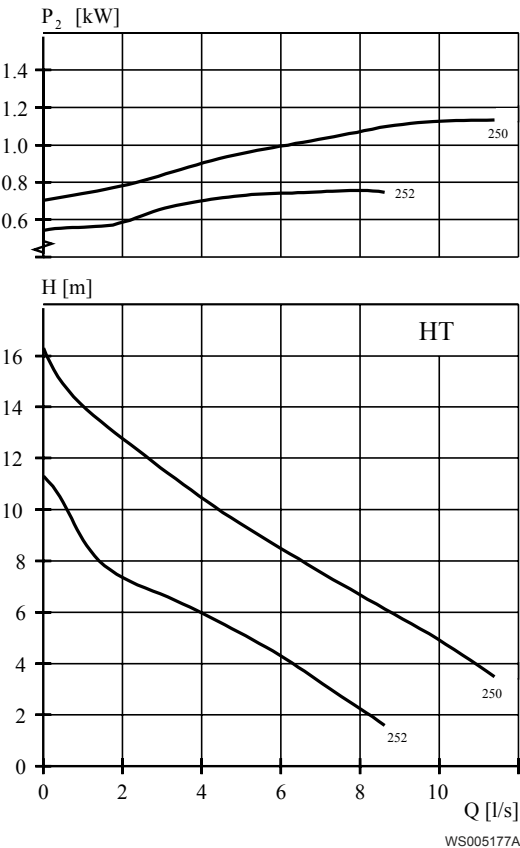


Table 3: 400 V, 50 Hz, 3-phase

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

2 D-pump

2.1 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
Gray iron	3045.181	3045.091	MT – Medium head	F, P, S

The pump can be used in the following installations:

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

Application limits

Feature	Description
Liquid temperature	Maximum 40°C (104°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	• Direct on-line • Star-delta • Soft starter

Feature	Description
Number of starts per hour	Maximum 15
Code compliance	IEC 60034-1
Voltage variation	- Continuously running: Maximum $\pm 5\%$ - Intermittent running: Maximum $\pm 10\%$
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
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 (CSb)/ Aluminum oxide (Al ₂ O ₃)	Silicon carbide (RSiC)/ Silicon carbide (RSiC)

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

2.2 Motor rating and performance curves

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

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

MT

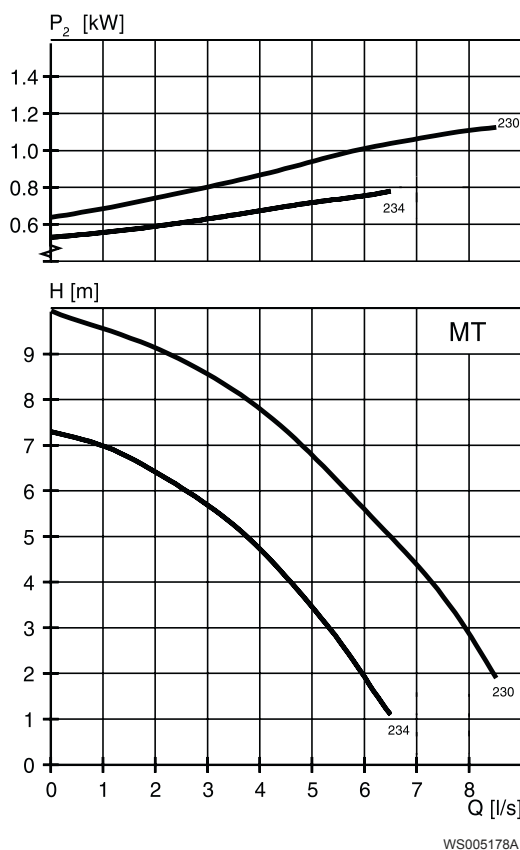


Table 7: 400 V, 50 Hz, 3-phase

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

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	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

3 Dimensions and Weight, C-pump

3.1 Drawings

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

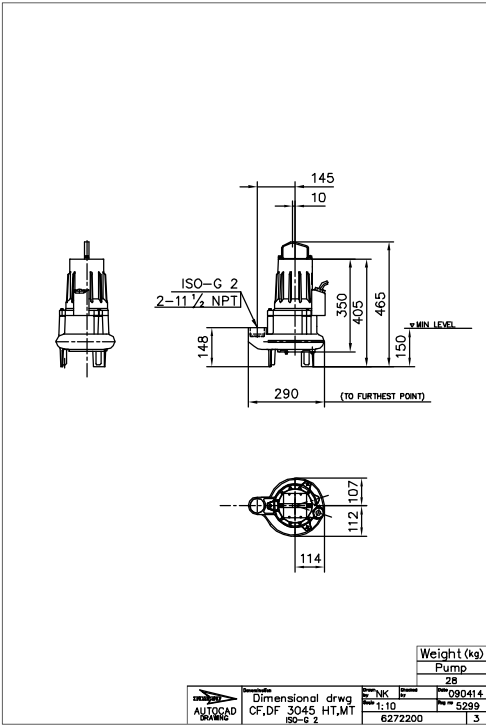


Figure 1: MT/HT, F-installation

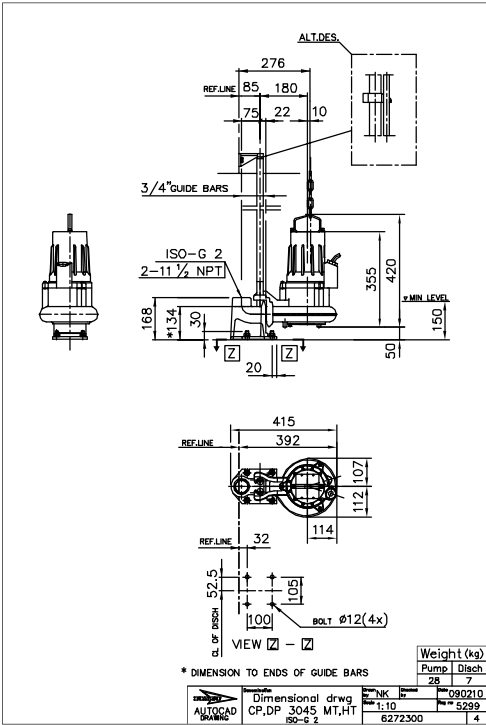


Figure 2: MT/HT, P-installation

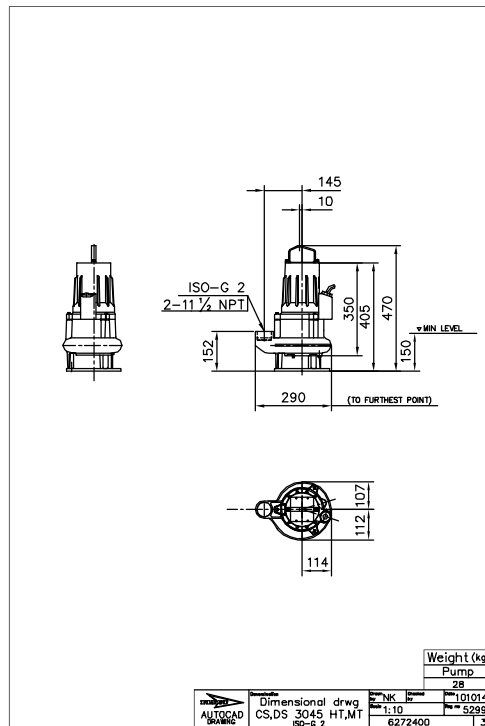


Figure 3: MT/HT, S-installation

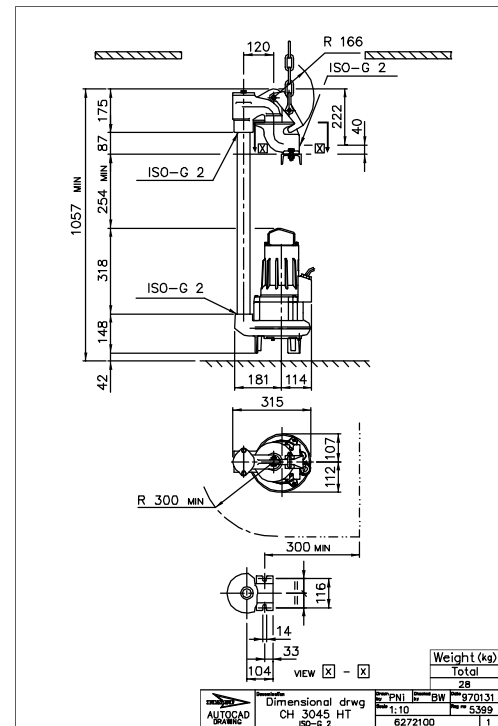


Figure 4: HT, H-installation

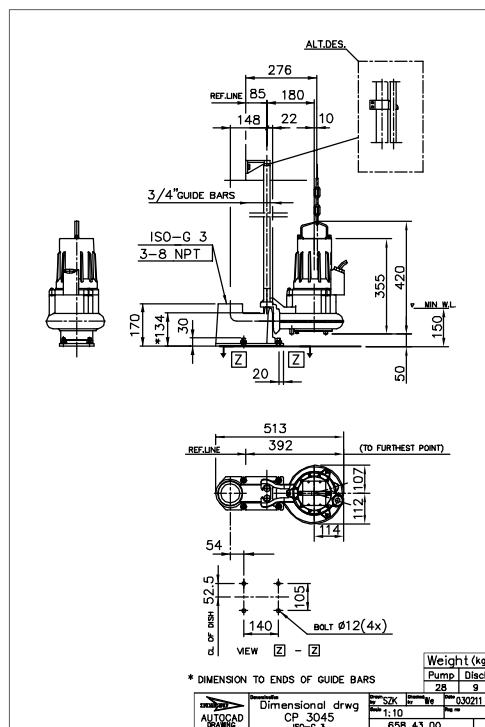


Figure 5: HT, P-installation

4 Dimensions and Weight, D-pump

4.1 Drawings

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

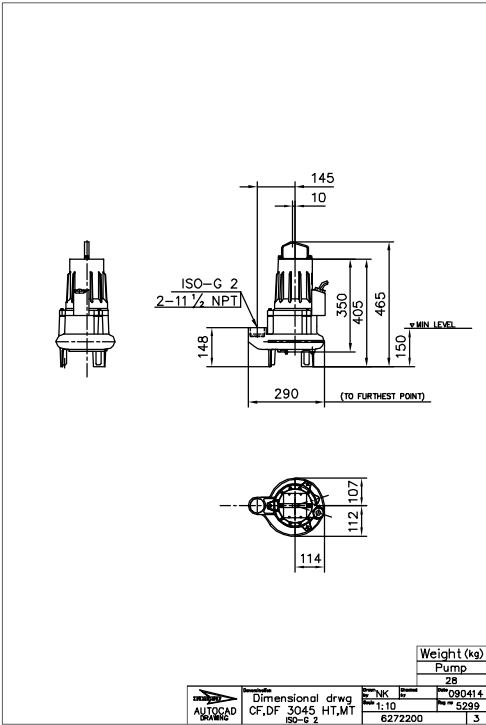


Figure 6: MT/HT, F-installation

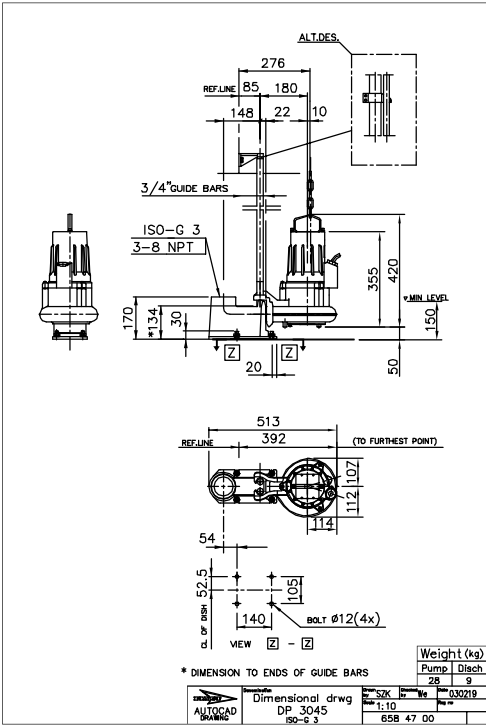


Figure 7: MT, P-installation

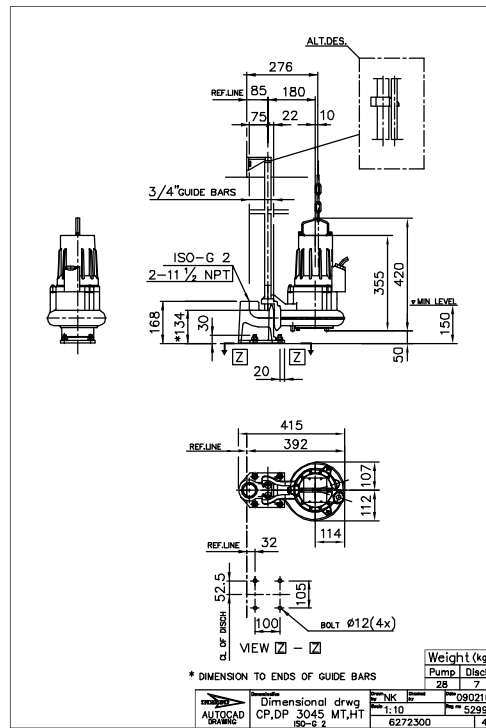


Figure 8: MT/HT, P-installation

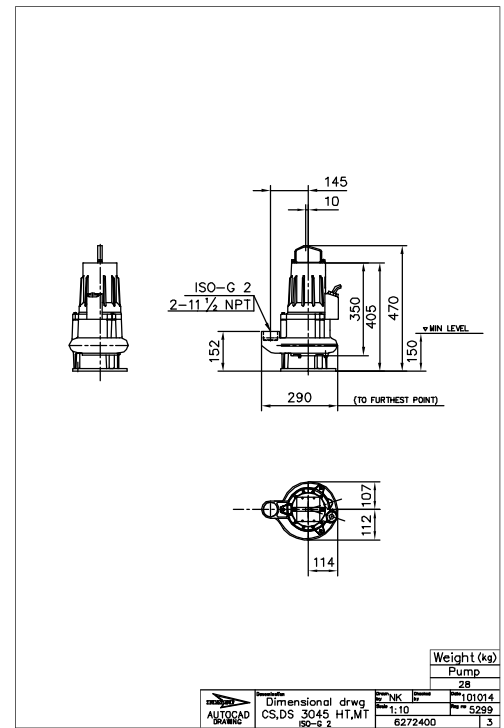


Figure 9: MT/HT, S-installation

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- 2) a leading global water technology company.

We're a global team unified in a common purpose: creating advanced technology solutions to the world's water challenges. Developing new technologies that will improve the way water is used, conserved, and re-used in the future is central to our work. Our products and services move, treat, analyze, monitor and return water to the environment, in public utility, industrial, residential and commercial building services settings. Xylem also provides a leading portfolio of smart metering, network technologies and advanced analytics solutions for water, electric and gas utilities. 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 with a strong focus on developing comprehensive, sustainable solutions.

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