



Flygt 3068, 50Hz

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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 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%
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 4G1.5+2×1.5 mm ²
Y/D start	SUBCAB® heavy-duty submersible cable	7G2.5 mm ²

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

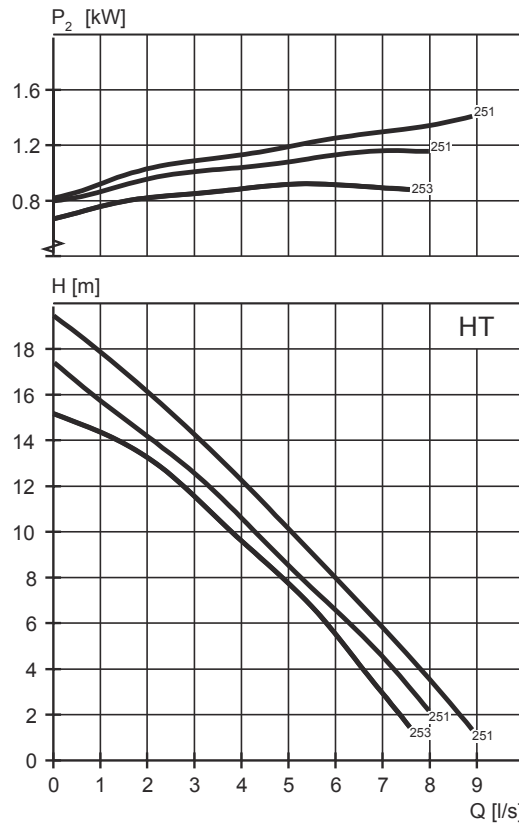
Accessories

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



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Table 2: 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
1.7	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 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 4G1.5+2×1.5 mm ² 4G2.5+2×1.5 mm ²
Y/D start	SUBCAB® heavy-duty submersible cable	7G2.5 mm ²
	Screened SUBCAB® heavy-duty submersible cable	S3×2.5+3×2.5/3+4×1.5 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	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

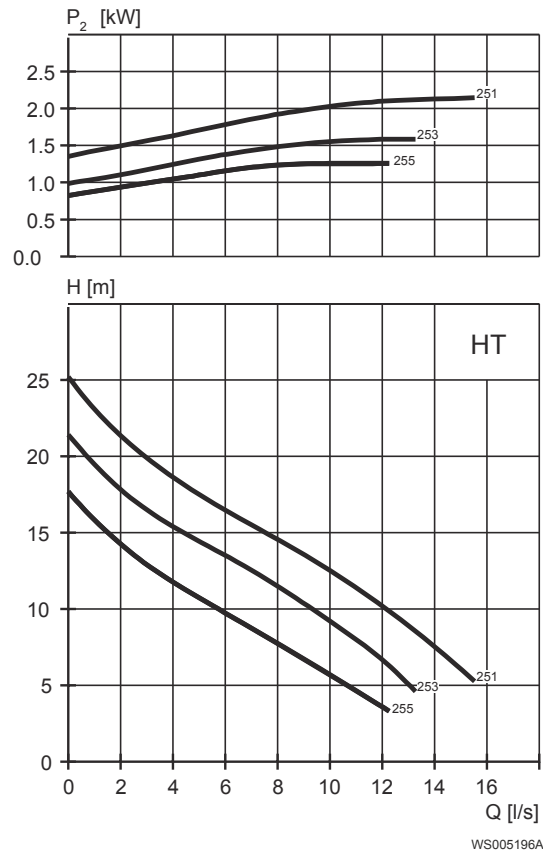


Table 4: 400 V, 50 Hz, 3-phase

Rated power kW	Rated power hp	Curve/ Impeller No	Revolutions per minute, rpm	Rated current, A	Starting current, A	Power factor, $\cos \varphi$	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 kW	Rated power hp	Curve/ Impeller No	Revolutions per minute, rpm	Rated current, A	Starting current, A	Power factor, $\cos \varphi$	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"> • MT – Medium head • HT – High head 	F, P, S
	3068.250	3068.590	<ul style="list-style-type: none"> • LT – Low head 	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

Feature	Description
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%
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
	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

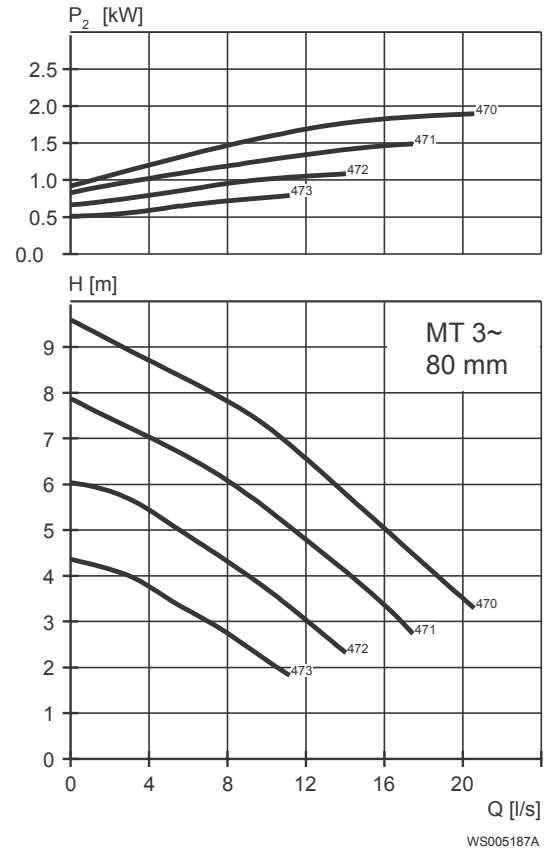
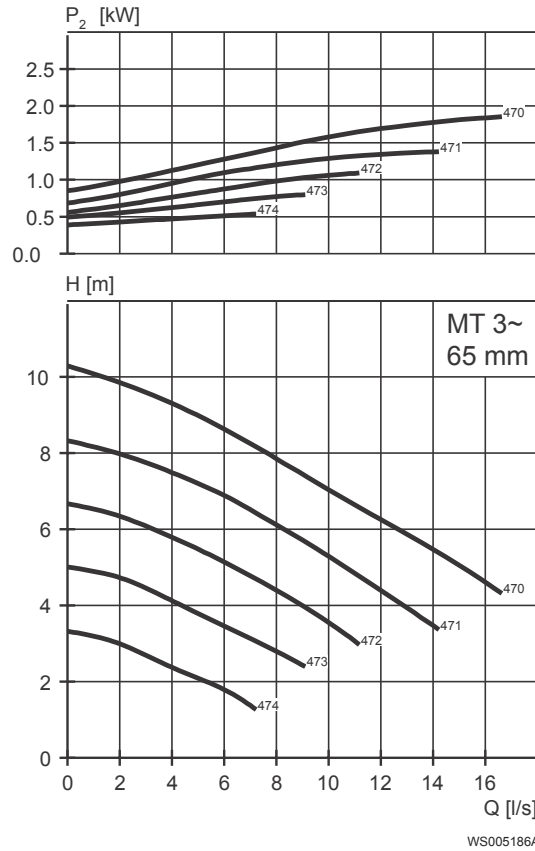
Accessories

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

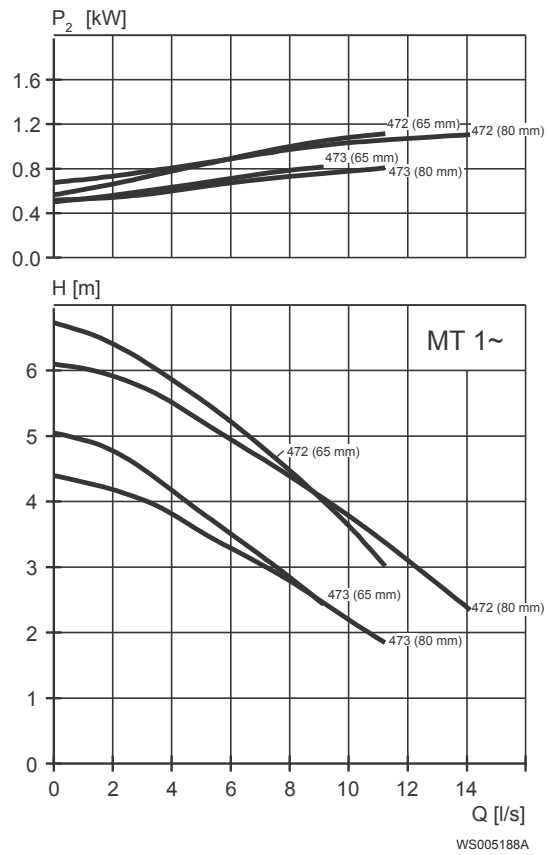


Table 8: 230 V, 50 Hz, 1-phase

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

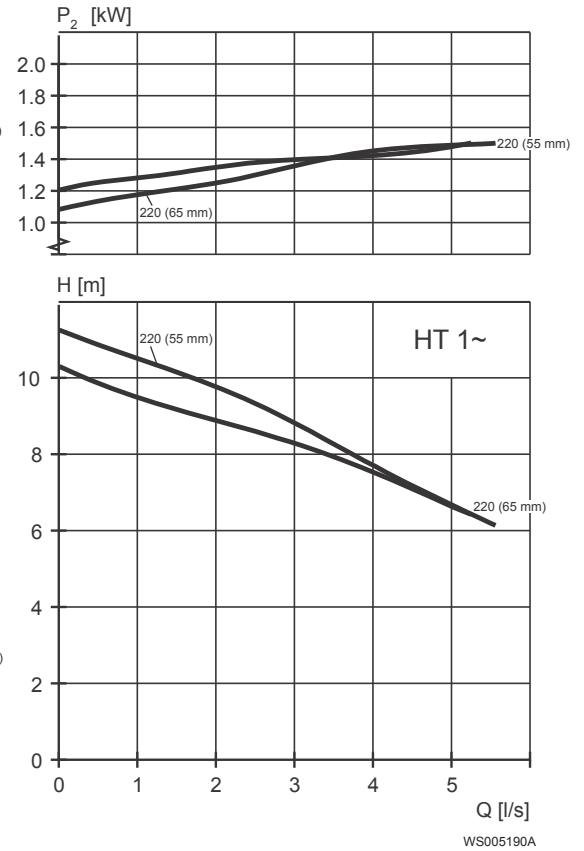
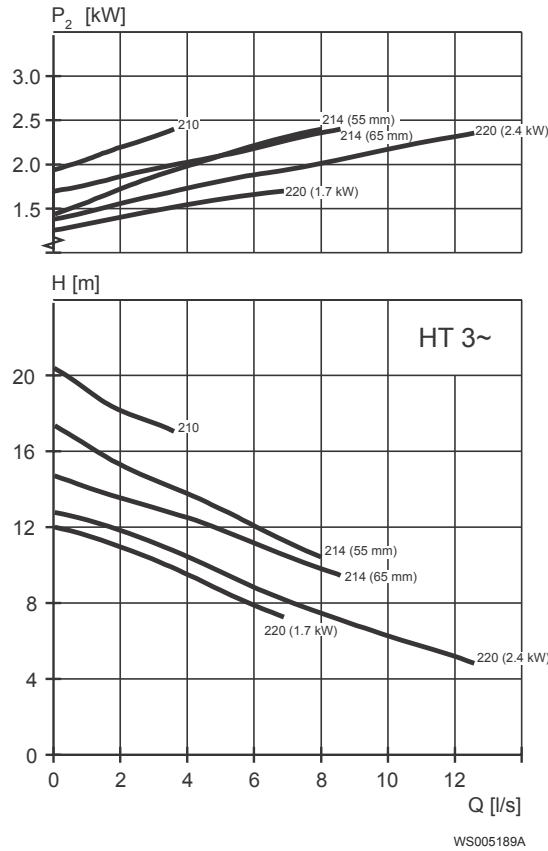


Table 9: 400 V, 50 Hz, 3-phase

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

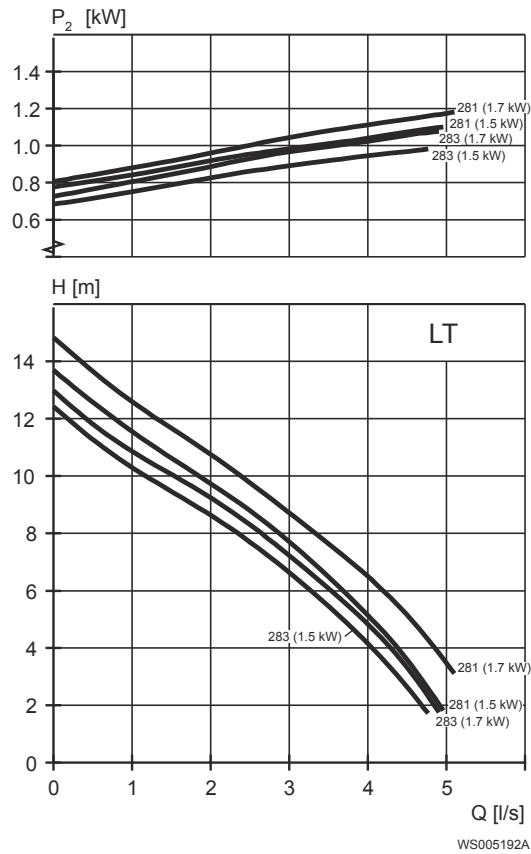


Table 11: 400 V, 50 Hz, 3-phase

Rated power kW	Rated power hp	Curve/ Impeller No	Revolutions per minute, rpm	Rated current, A	Starting current, A	Power factor, cos φ	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 kW	Rated power hp	Curve/ Impeller No	Revolutions per minute, rpm	Rated current, A	Starting current, A	Power factor, cos φ	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 ³

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"> • 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%
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
	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.

LT

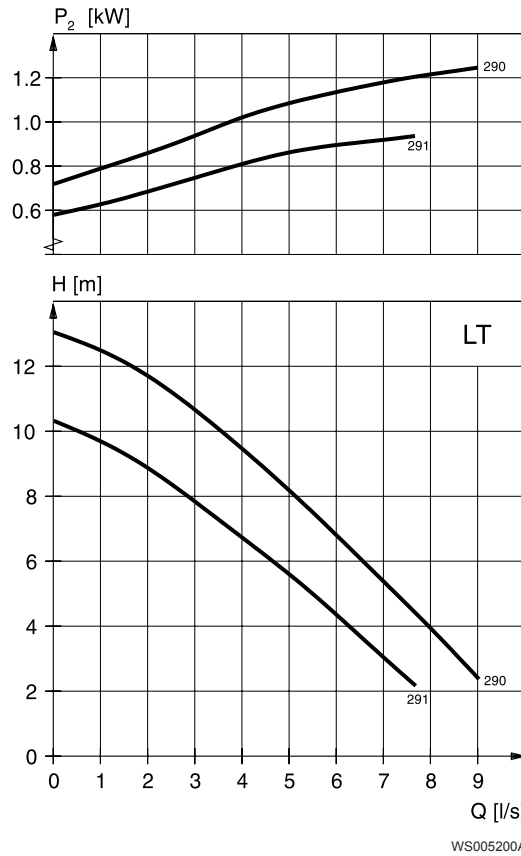


Table 14: 400 V, 50 Hz, 3-phase

Rated power kW	Rated power hp	Curve/ Impeller No	Revolutions per minute, rpm	Rated current, A	Starting current, A	Power factor, $\cos \varphi$	Installation
1.7	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 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%
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 4G1.5+2×1.5 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

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 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%

Feature	Description
Voltage variation	<ul style="list-style-type: none"> Continuously running: Maximum $\pm 5\%$ Intermittent running: Maximum $\pm 10\%$
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 4G1.5+2×1.5 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

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

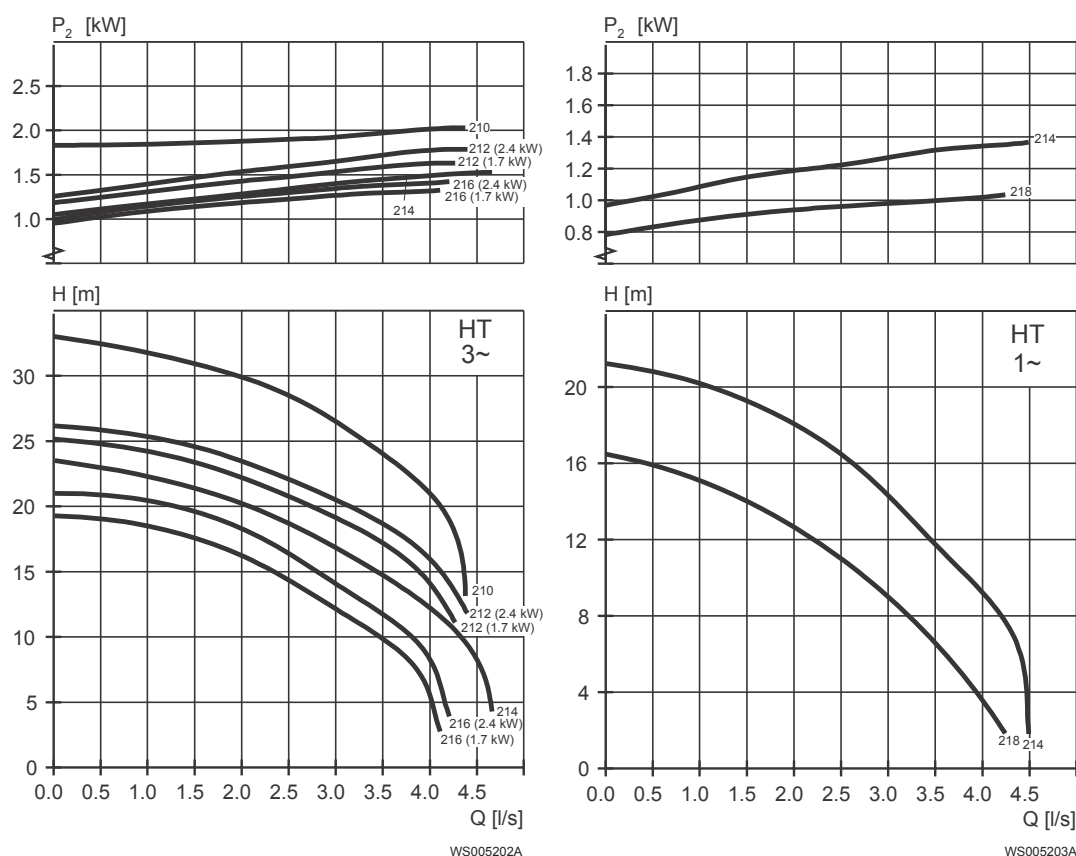


Table 17: 400 V, 50 Hz, 3-phase

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

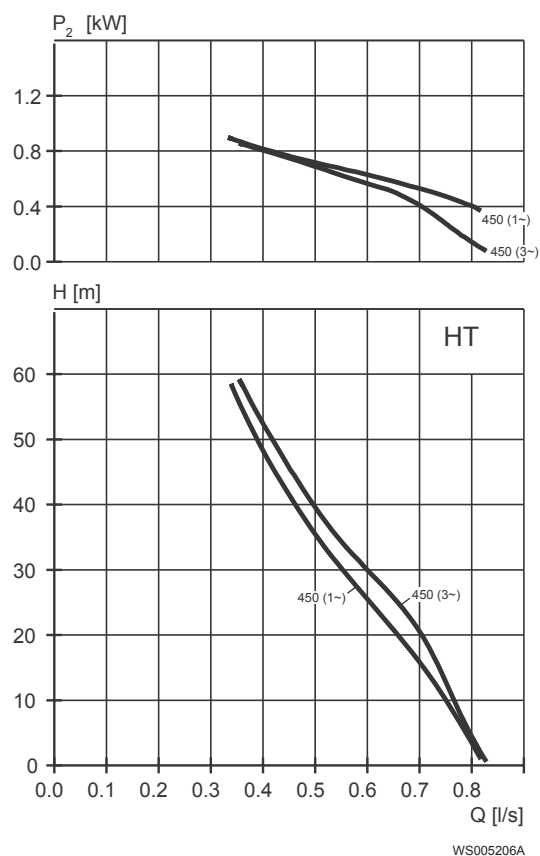
Table 18: 230 V, 50 Hz, 1-phase

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

Table 20: 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
.9	1.2	450	1435	6.1	26	1	F,H

Dimensions and Weight

Drawings, B-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.

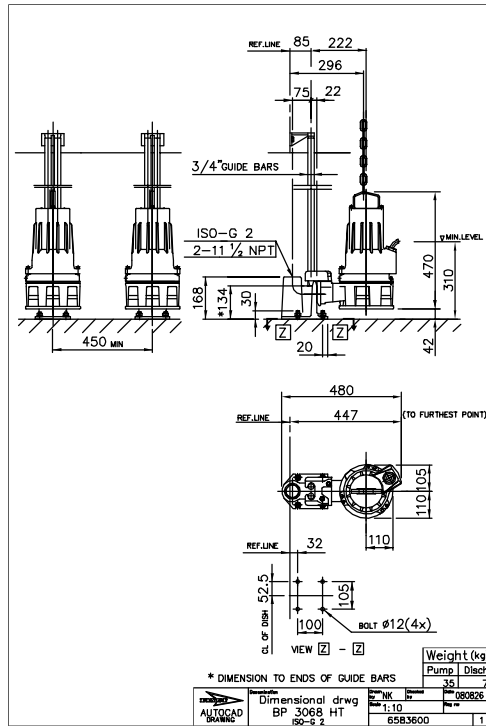


Figure 1: HT, P-installation

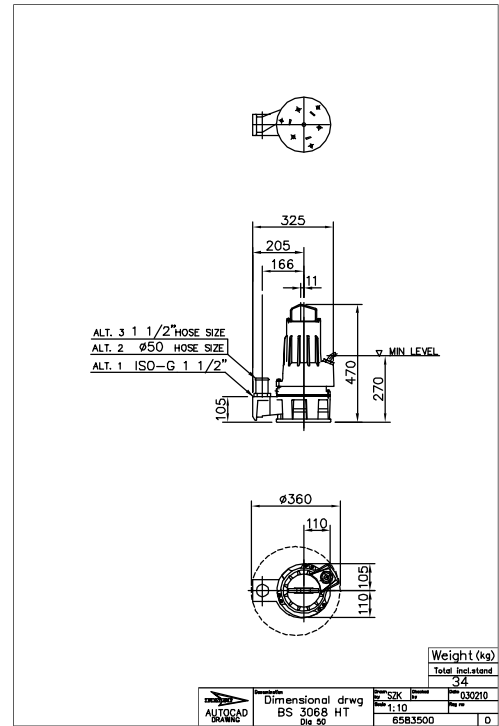


Figure 2: HT, S-installation

Drawings, C-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.

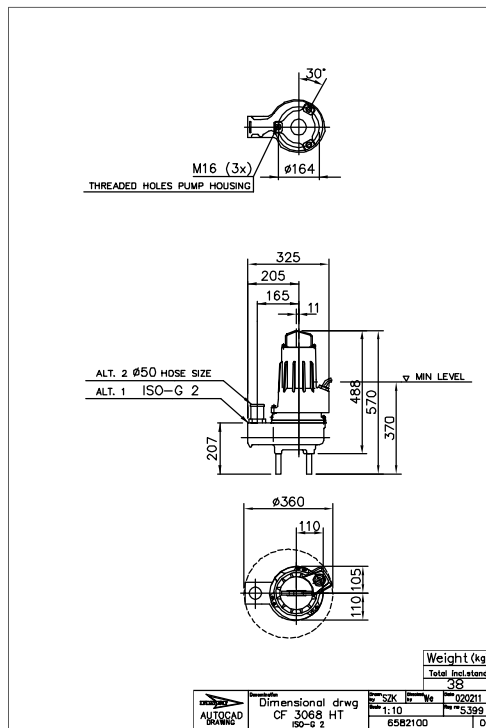


Figure 3: HT, F-installation

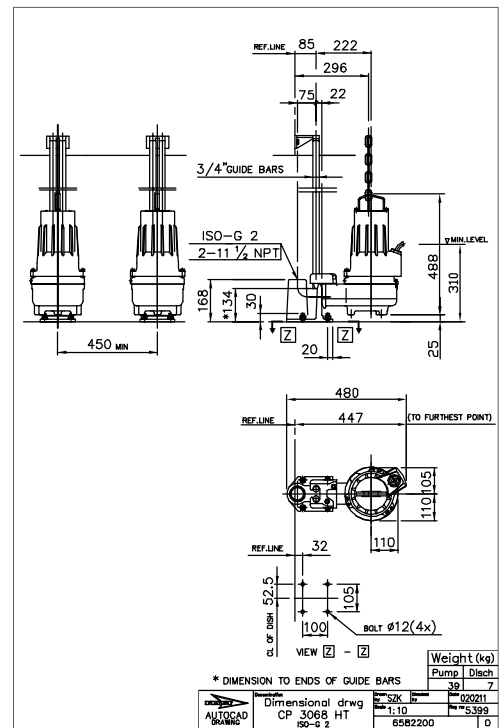


Figure 4: HT, P-installation

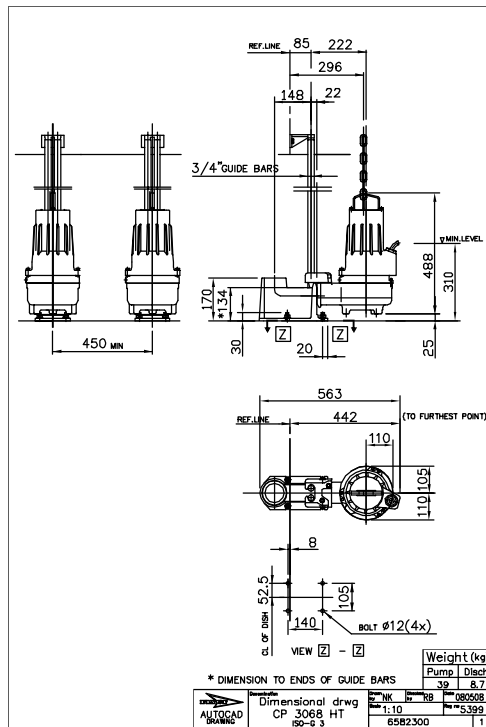


Figure 5: HT, P-installation

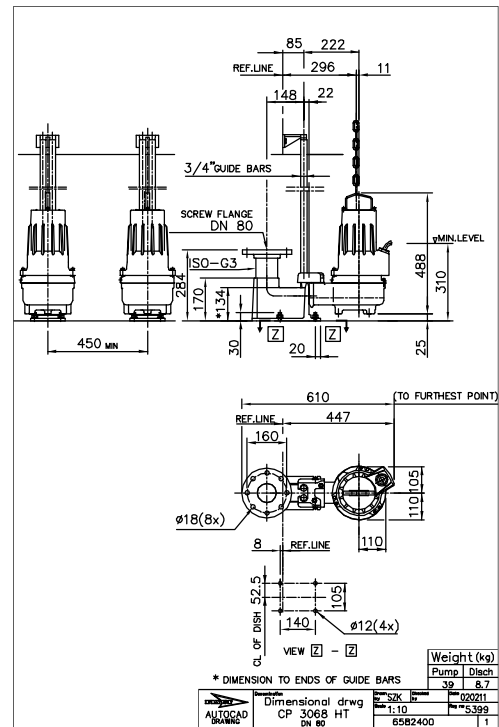


Figure 6: HT, P-installation

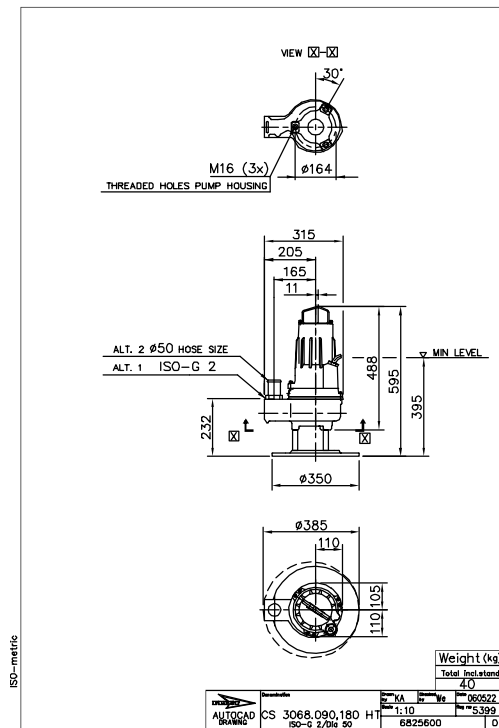


Figure 7: HT, S-installation

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.

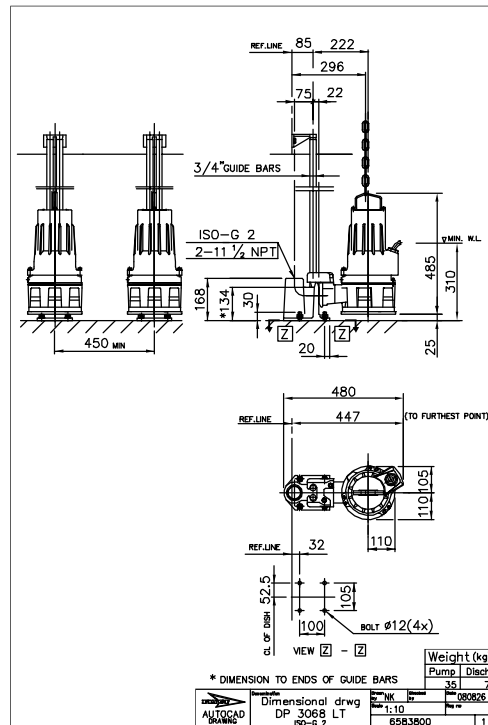


Figure 8: LT, P-installation

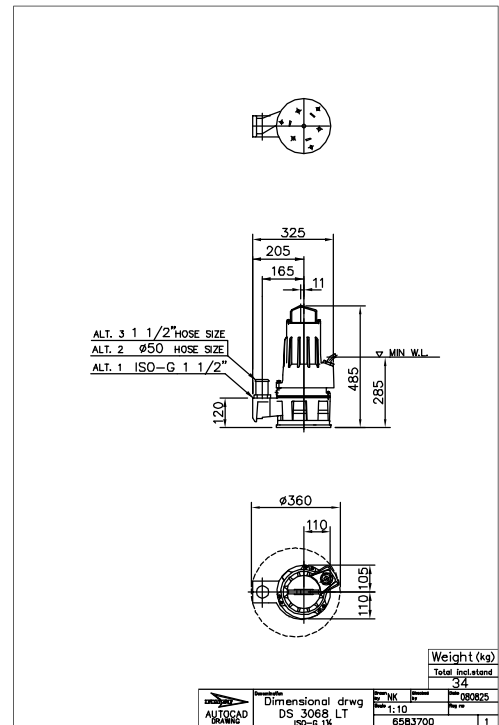


Figure 9: LT, S-installation

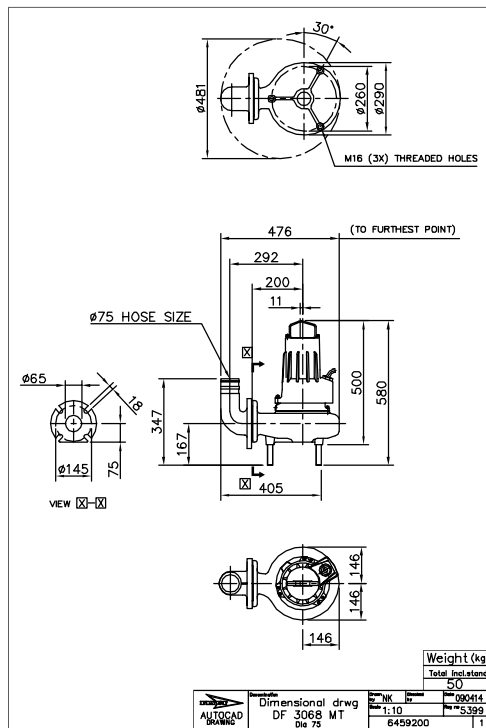


Figure 10: MT, F-installation

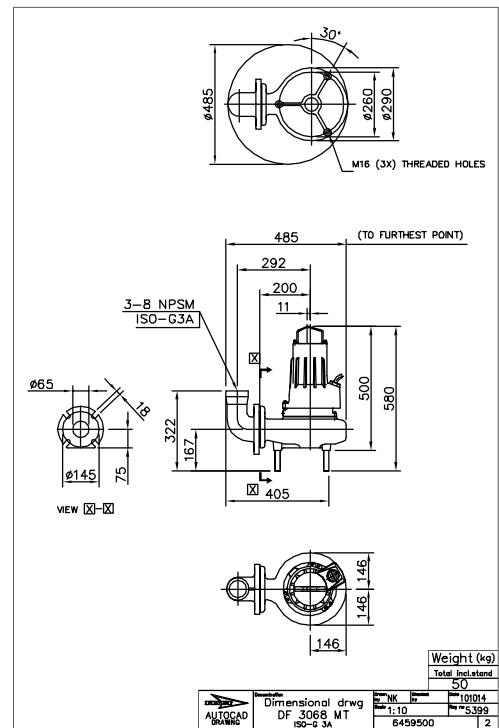


Figure 11: MT, F-installation

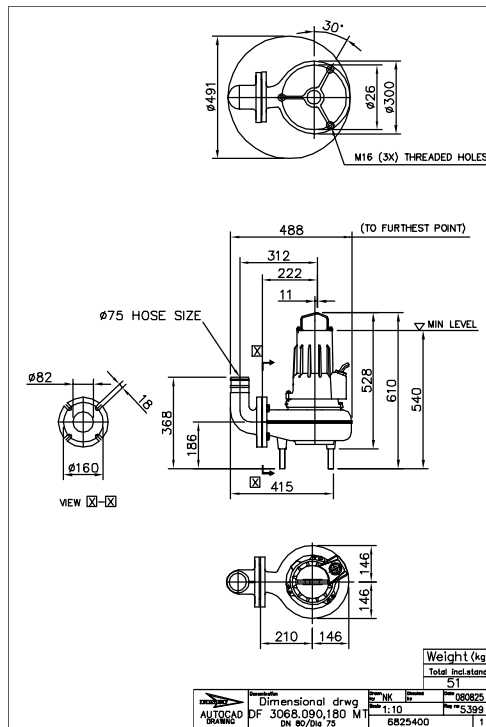


Figure 12: MT, F-installation

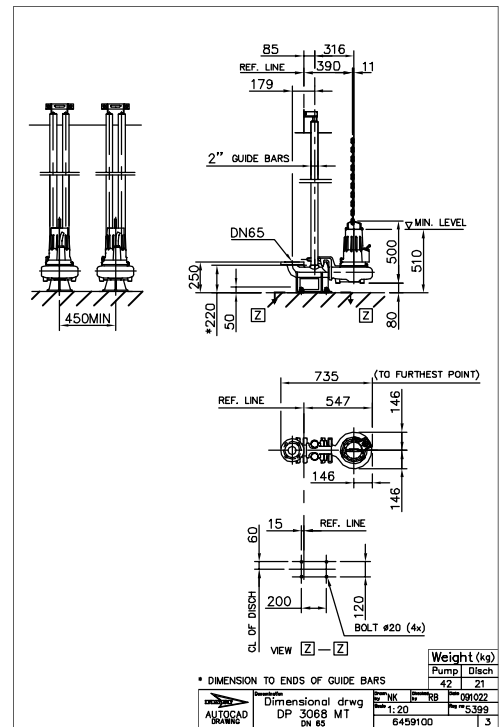


Figure 13: MT, P-installation

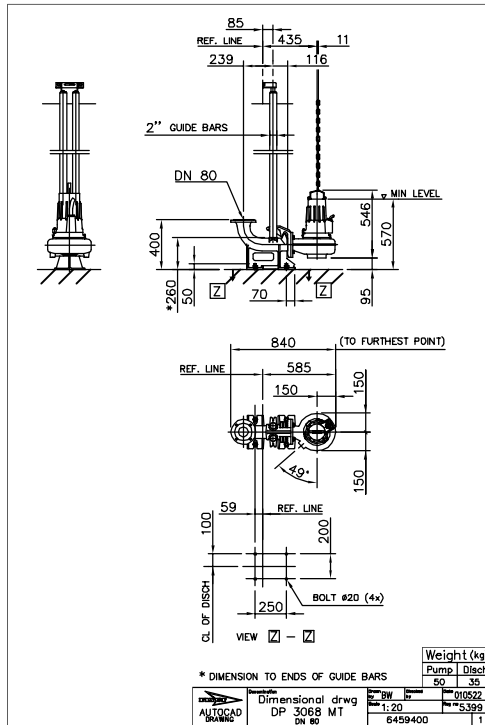


Figure 14: MT, P-installation

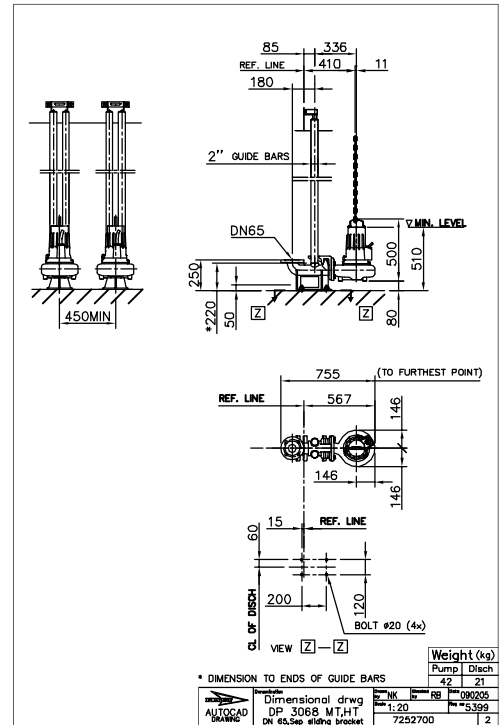


Figure 15: MT/HT, P-installation

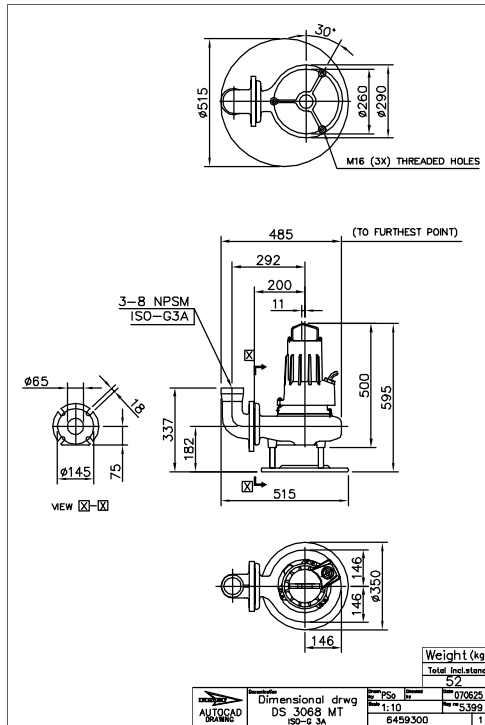


Figure 16: MT, S-installation

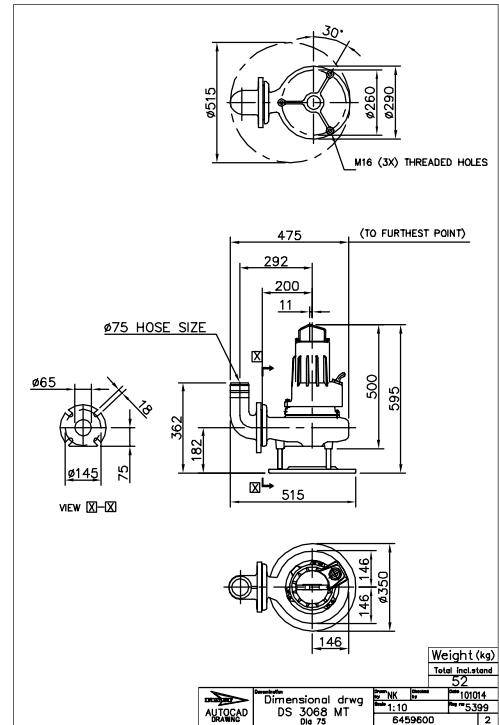


Figure 17: MT, S-installation

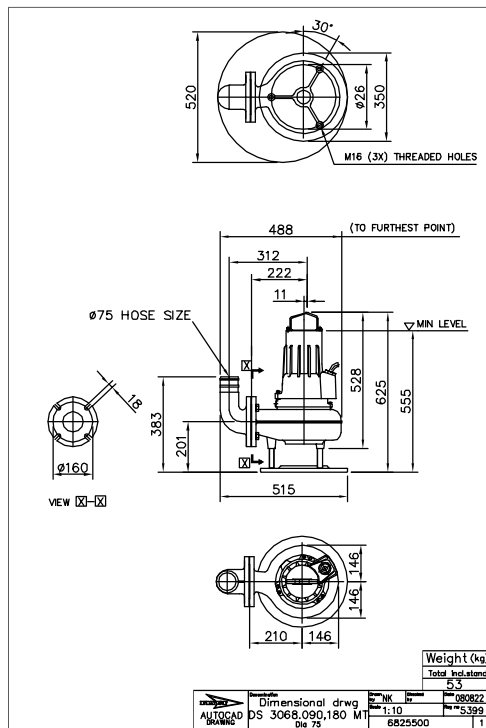


Figure 18: MT, S-installation

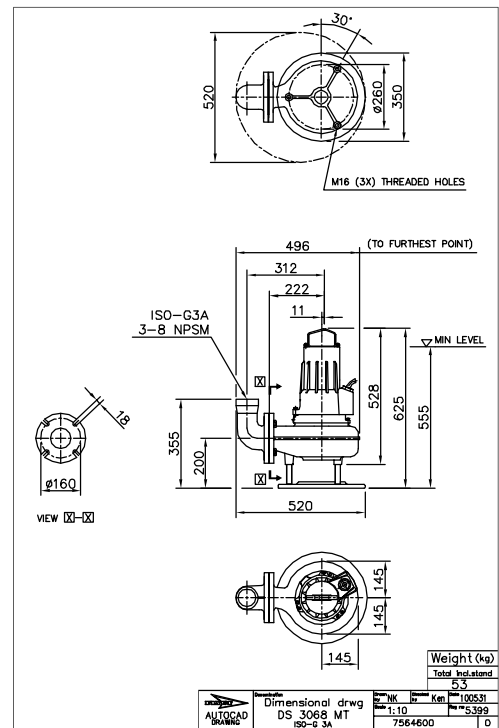


Figure 19: MT, S-installation

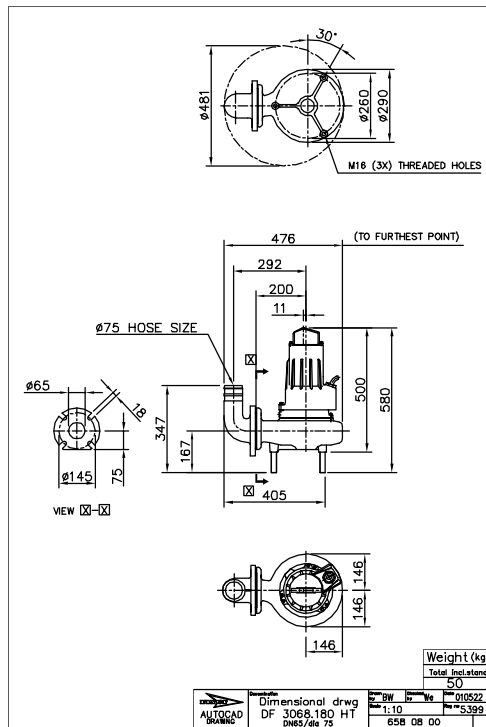


Figure 20: HT, F-installation

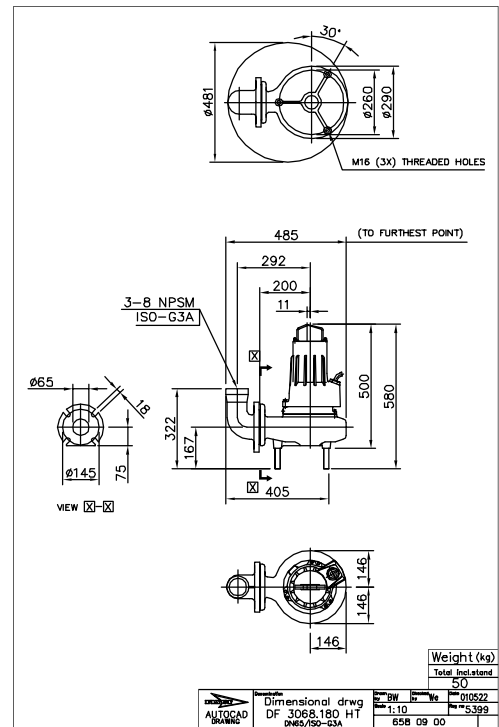


Figure 21: HT, F-installation

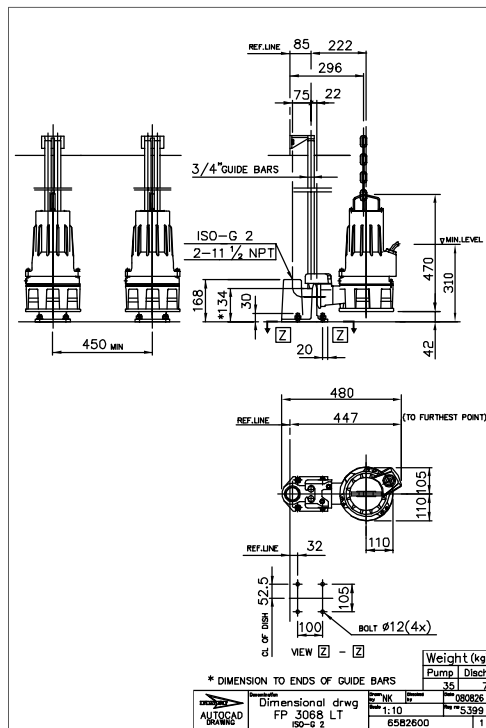


Figure 25: LT, P-installation

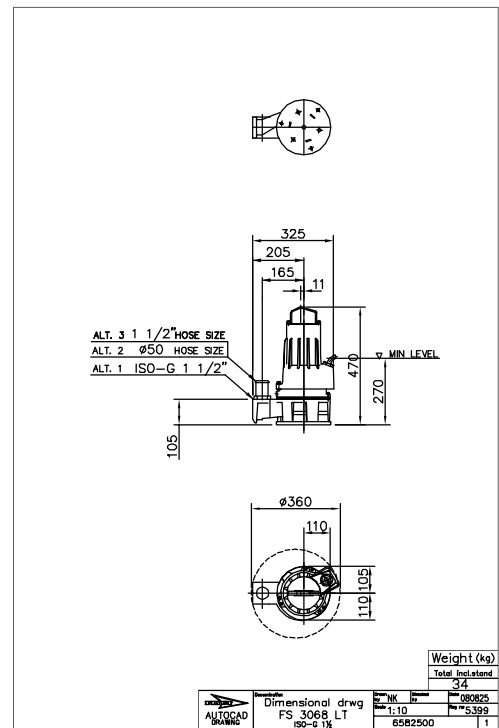


Figure 26: LT, S-installation

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.

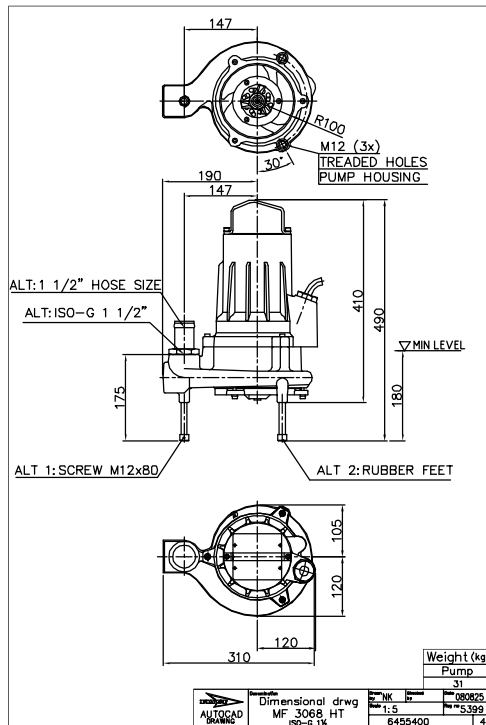


Figure 27: HT, F-installation

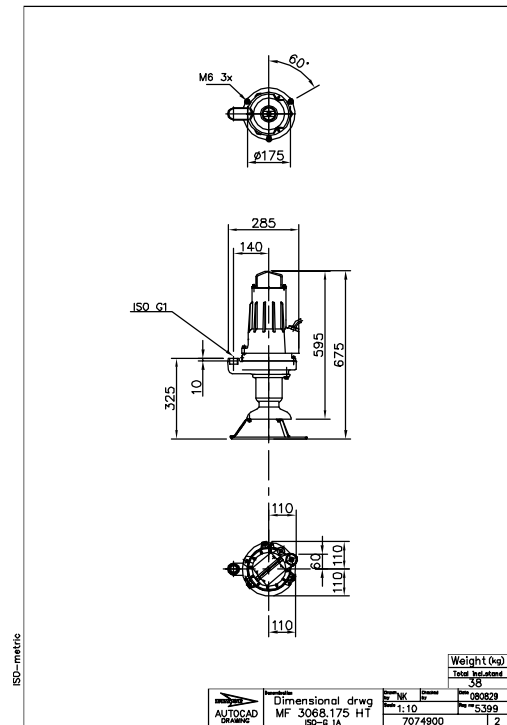


Figure 28: HT, F-installation

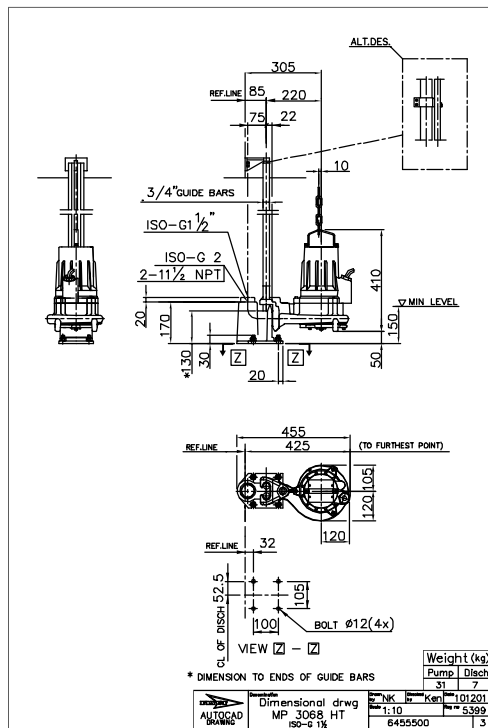


Figure 29: HT, P-installation

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.

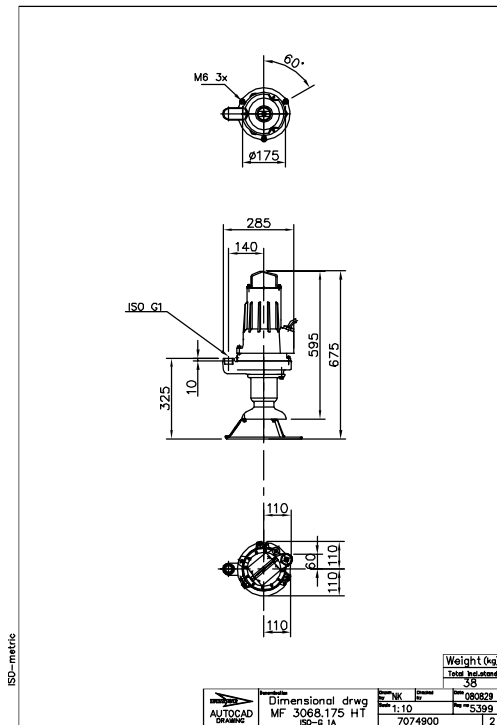


Figure 30: HT, F-installation

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- 2) A leading global water technology company

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Visit our Web site for the latest version of this document and more information

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

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