

Submersible motor pumps 50 Hz



Fields of Application

Pumping of waste water containing solid matter or domestic sewage such as waste from toilets, washing machines, dishwashers, in intermittent operation, etc.
Surface water or rain water pumping in intermittent operation, such as car park drainage.
Drainage of sumps liable to flooding.

Operating characteristics

Q : up to 40 m³/h, (11 l/s).

H : up to 16 m.

Motor Power ;

1.5 kW maximum for three phase motor

1.1 kW maximum for single phase motor

Operating temperature up to 40°C

Intermittently 70°C (3 to 5 min.).

Materials

Casing	: EN.GJL-200 / JL 1030 / FGL 200 / GG 20.
Impeller	: EN.GJL-200 / JL 1030 / FGL 200 / GG 20.
Shaft	: Chrome steel 1.4021 / X20 Cr13 / Z20 C13.
Shaft seal	: (Motor side) Lip seal
Shaft seal	: (Pump side) Mechanical seal Silicium Carbide/Alumin Oxide
Nuts & bolts	: Stainless steel
Elastomers	: Nitrile rubber
Float switch	: Polypropylene

Design

Vertical single casing submersible motor pump.

Shaft seal

Twin shaft seal with intermediate oil chamber.

Motor side : Single lip seal

Pump side : Single mechanical seal independent
of direction of rotation

Designation

	Ama-Porter	5	01	SE
Type of pump :				
Discharge diameter				
DN 50 = serie 5 - -				
DN 65 = serie 6 - -				
Impeller size :				
SE = Single-phase with float switch				
NE = Single-phase without float switch				
ND = Three-phase without float switch				

Motor

Single phase : 230 V - 50 Hz with built in thermal overload protection

Three phase : 400 V - 50 Hz direct on-line starting

Motor protection : IP68, Class F insulation in accordance with EN 60529 / IEC 529.

Please note :

Variable-speed operation of this pump is not allowed.

Operating mode S1 - submerged (max. 5 m)

Operating mode S3 - not submerged
(see dimension table)

Bearings

Sealed for life radial ball bearings.

☑ Suitable for installation in accordance with standard EN 12050-1

The pump must not be used in countries where pumps handling sewage with faeces are subject to explosion protection regulations.

Scope of Supply

Pump complete ready for installation with either stationary or transportable mounting kits.
The **SE** versions are fitted with an integral float switch.

Details

- Manufactured in cast iron construction
EN.GJL-200 / JL 1030 / FGL 200 / GG 20.
- Non-flameproof motor.
- Unique resin imbedded, plug connection.
- Single phase version are supplied with a 10 m electrical cable and plug.
- Three phase version supplied with a 10 m electrical cable.
- Integral cast handle for easy hanging or lifting.
- Paint coating:
Surface treatment: SA 2¹/₂, Sis 055900
Primer : Ferritic Oxide 35 to 40 µm
Top coat : environmentally-friendly KSB-standard coating, approx.40 µm, RAL 5002 (ultramarine blue).

Description of installation kits

Series	5 — — SE/NE/ND	6 — — SE/NE/ND
Version		
Transportable	3 feet in stainless steel Discharge elbow (2") Hosetail (2") Hose clip (Ø 60 to 80) Nuts and bolts for feet and elbow	3 feet in stainless steel Discharge elbow (2") Hosetail (2"1/2) Hose clip (Ø 80 to 100) Nuts and bolts for feet and elbow
Stationary Guide rope or rail (1 or 2) or hoop (vertical discharge connection)	Duckfoot bend 50/50 mm Claw Bracket Guiding rope or hoop 1 or 2 Rail(s) not included Anchor bolts Chain	Duckfoot bend 65/65 mm Claw Bracket Guiding rope or hoop 1 or 2 Rail(s) not included Anchor bolts Chain
Stationary Guide rope or 1 rail or hoop (horizontal discharge connection)	Duckfoot bend 50/2" Claw Bracket Guiding rope or hoop Rail not included Anchor bolts Chain	Pump pedestal 65/2"1/2 Claw Bracket Guiding rope or hoop Rail not included Anchor bolts Chain

Thermal overload protection

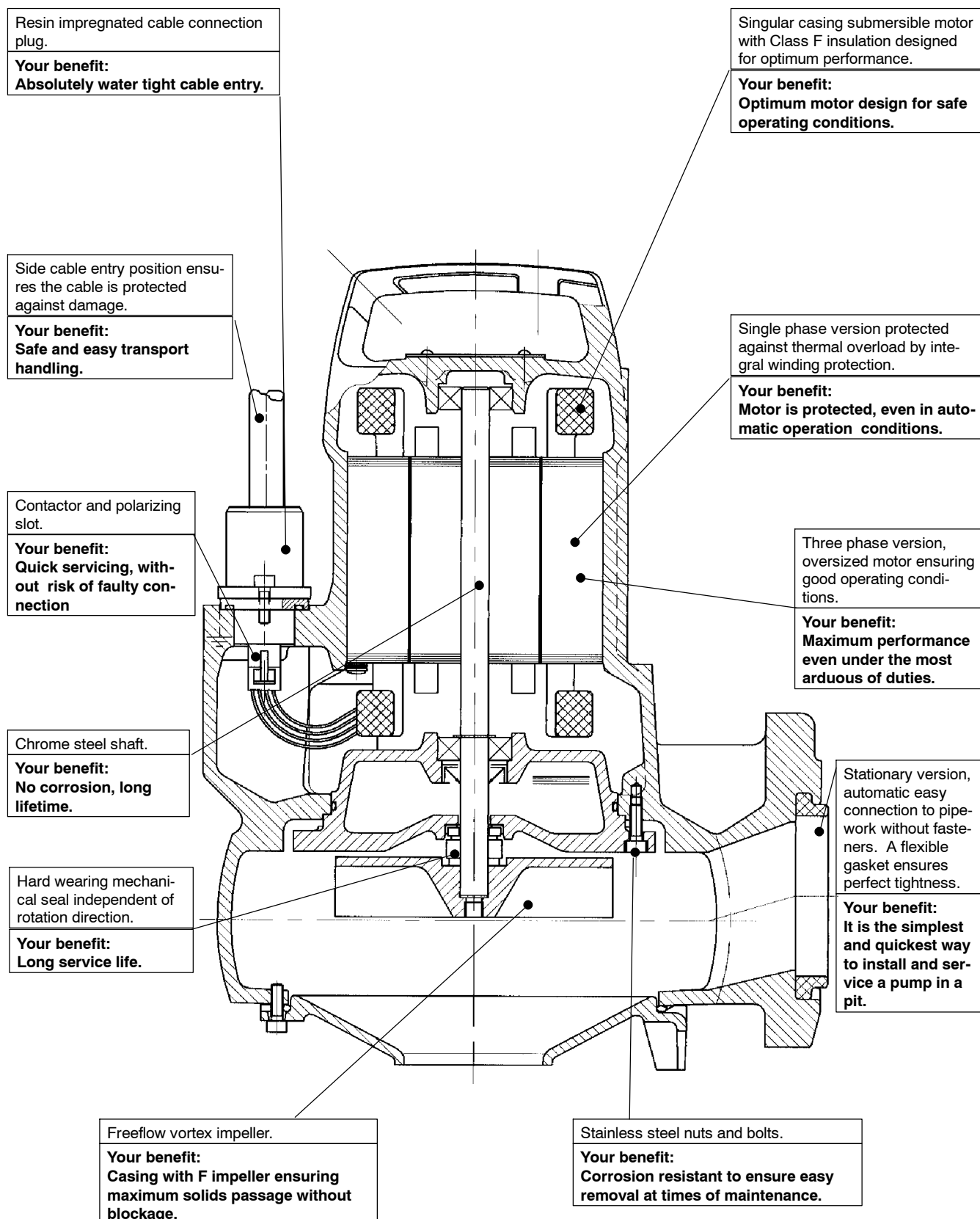
Single phase version

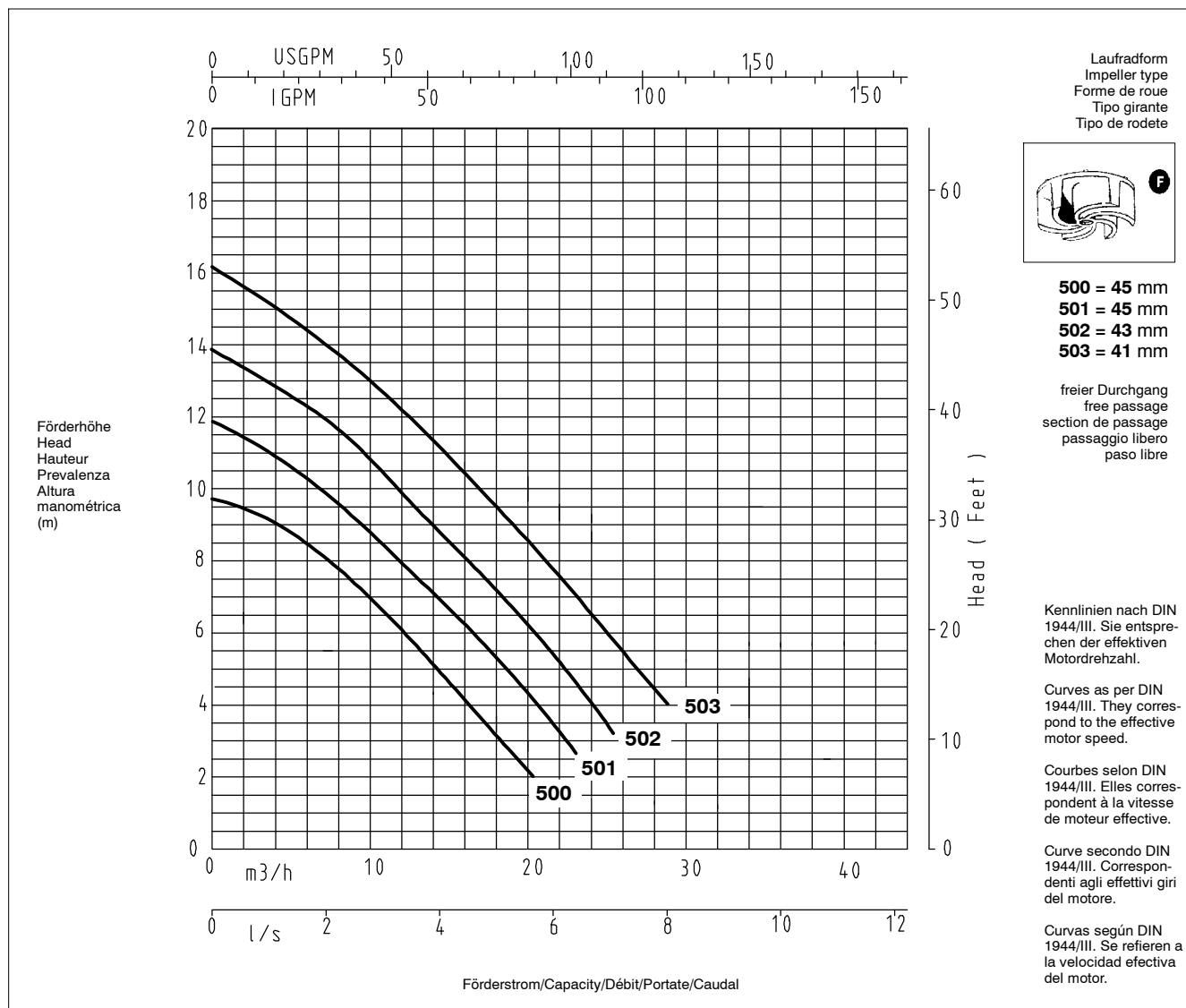
Integral thermal overload protection within motor windings.

Three phase version

No thermal protection of the windings, current supply should be protected via a thermal overload relay installed inside the control panel and set to the current value indicated on the rating plate +15%

Advantages offered by the Ama[®]-Porter pump.



Ama-Porter size 5 – SE/NE/ND
2 900 1/min

50 Hz - 1 ~ 230 V

Type	Impeller diameter mm	P ₁ kW	P ₂ kW	I _N (A)	I _D (A)	Temp. t°C	Electric cable	Outer diameter mm	Weight kg	Ident. Nr
500 SE	100	1,0	0,55	5,0	18,2	40	3 x 1 mm ²	9,0	22	39 017 187
501 SE	110	1,25	0,75	6,0	18,2	40	3 x 1 mm ²	9,0	22	39 017 100
502 SE	120	1,8	1,1	8,2	18,2	40	3 x 1 mm ²	9,0	22	39 017 101
503 SE	130	1,8	1,1	8,2	18,2	40	3 x 1 mm ²	9,0	22	39 017 102
500 NE	100	1,0	0,55	5,0	18,2	40	3 x 1 mm ²	9,0	22	39 017 195
501 NE	110	1,25	0,75	6,0	18,2	40	3 x 1 mm ²	9,0	22	39 017 188
502 NE	120	1,8	1,1	8,2	18,2	40	3 x 1 mm ²	9,0	22	39 017 189
503 NE	130	1,8	1,1	8,2	18,2	40	3 x 1 mm ²	9,0	22	39 017 190

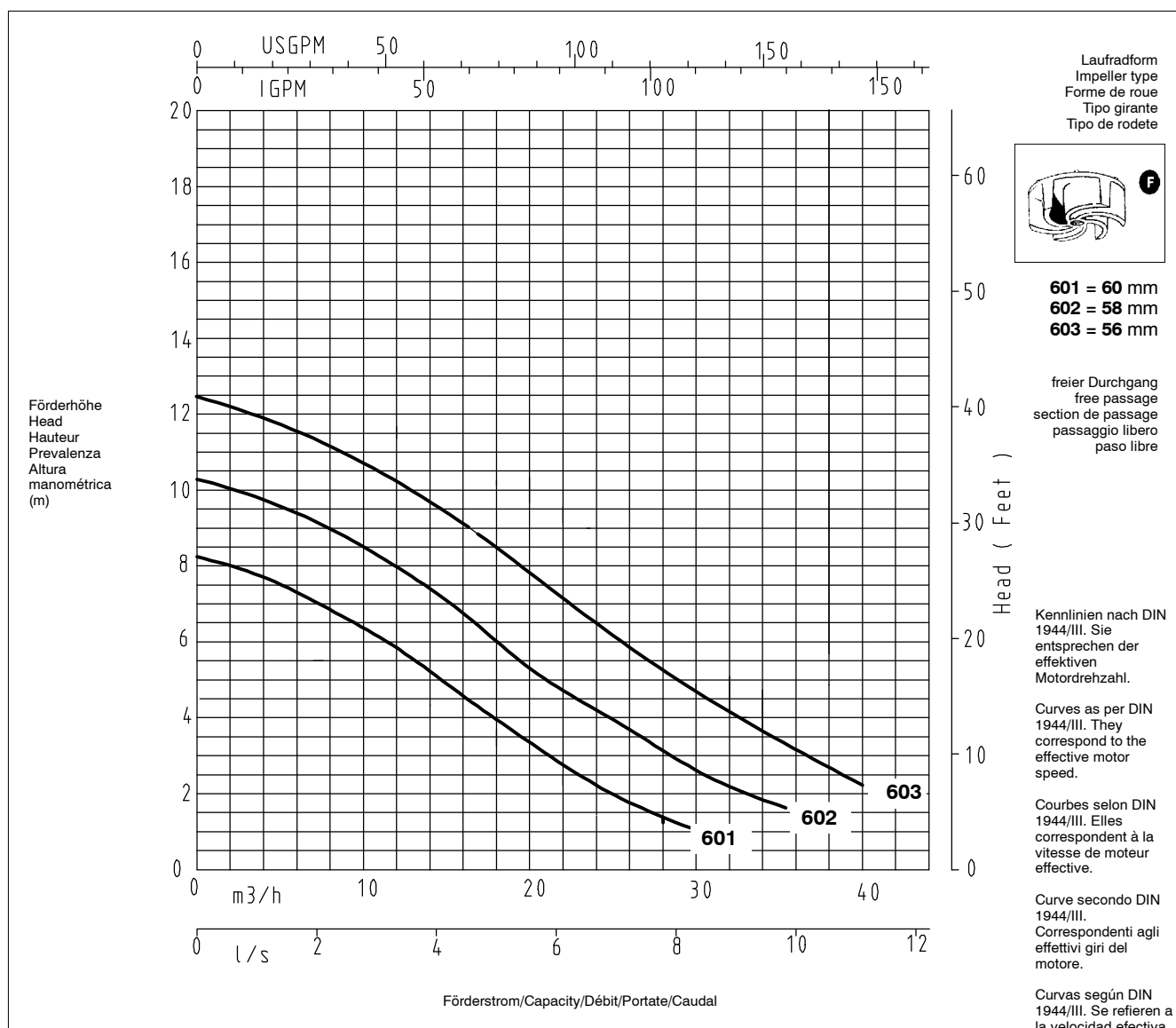
50 Hz - 3 ~ 400 V

500 ND	100	0,9	0,55	2,3	18,3	40	4 x 1 mm ²	10	22	39 017 191
501 ND	110	1,1	0,75	2,8	18,3	40	4 x 1 mm ²	10	22	39 017 103
502 ND	120	1,5	1,1	3,0	18,3	40	4 x 1 mm ²	10	22	39 017 104
503 ND	130	2,05	1,5	3,5	18,3	40	4 x 1 mm ²	10	22	39 017 105

The diagrams refer to the effective speed of the motor.
Density=1, viscosity=1 cSt.

Ama-Porter size 6 – – SE/NE/ND

2 900 1/min



50 Hz - 1 ~ 230 V

Type	Impeller diameter mm	P ₁ kW	P ₂ kW	I _N (A)	I _D (A)	Temp. t°C	Electric cable	Outer diameter mm	Weight kg	Ident. Nr
601 SE	110	1,25	0,75	6,0	18,2	40	3 x 1 mm ²	9,0	25	39 017 106
602 SE	120	1,8	1,1	8,2	18,2	40	3 x 1 mm ²	9,0	25	39 017 107
603 SE	130	1,8	1,1	8,2	18,2	40	3 x 1 mm ²	9,0	25	39 017 108
601 NE	110	1,25	0,75	6,0	18,2	40	3 x 1 mm ²	9,0	25	39 017 192
602 NE	120	1,8	1,1	8,2	18,2	40	3 x 1 mm ²	9,0	25	39 017 193
603 NE	130	1,8	1,1	8,2	18,2	40	3 x 1 mm ²	9,0	25	39 017 194

50 Hz - 3 ~ 400 V

601 ND	110	1,1	0,75	2,8	18,3	40	4 x 1 mm ²	10	25	39 017 109
602 ND	120	1,5	1,1	3,0	18,3	40	4 x 1 mm ²	10	25	39 017 110
603 ND	130	2,05	1,5	3,5	18,3	40	4 x 1 mm ²	10	25	39 017 111

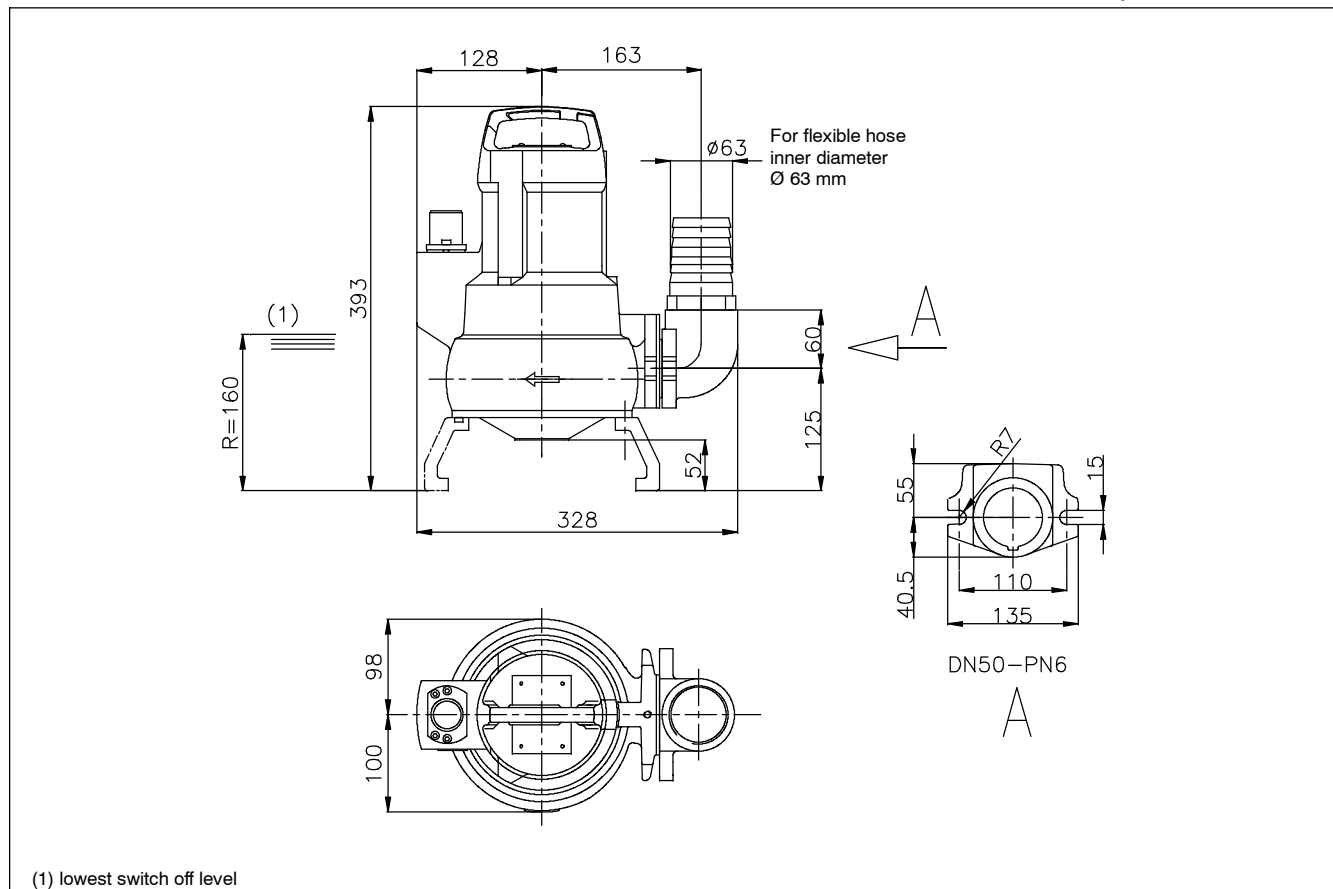
The diagrams refer to the effective speed of the motor.

Density=1, viscosity=1 cSt.

Dimensions

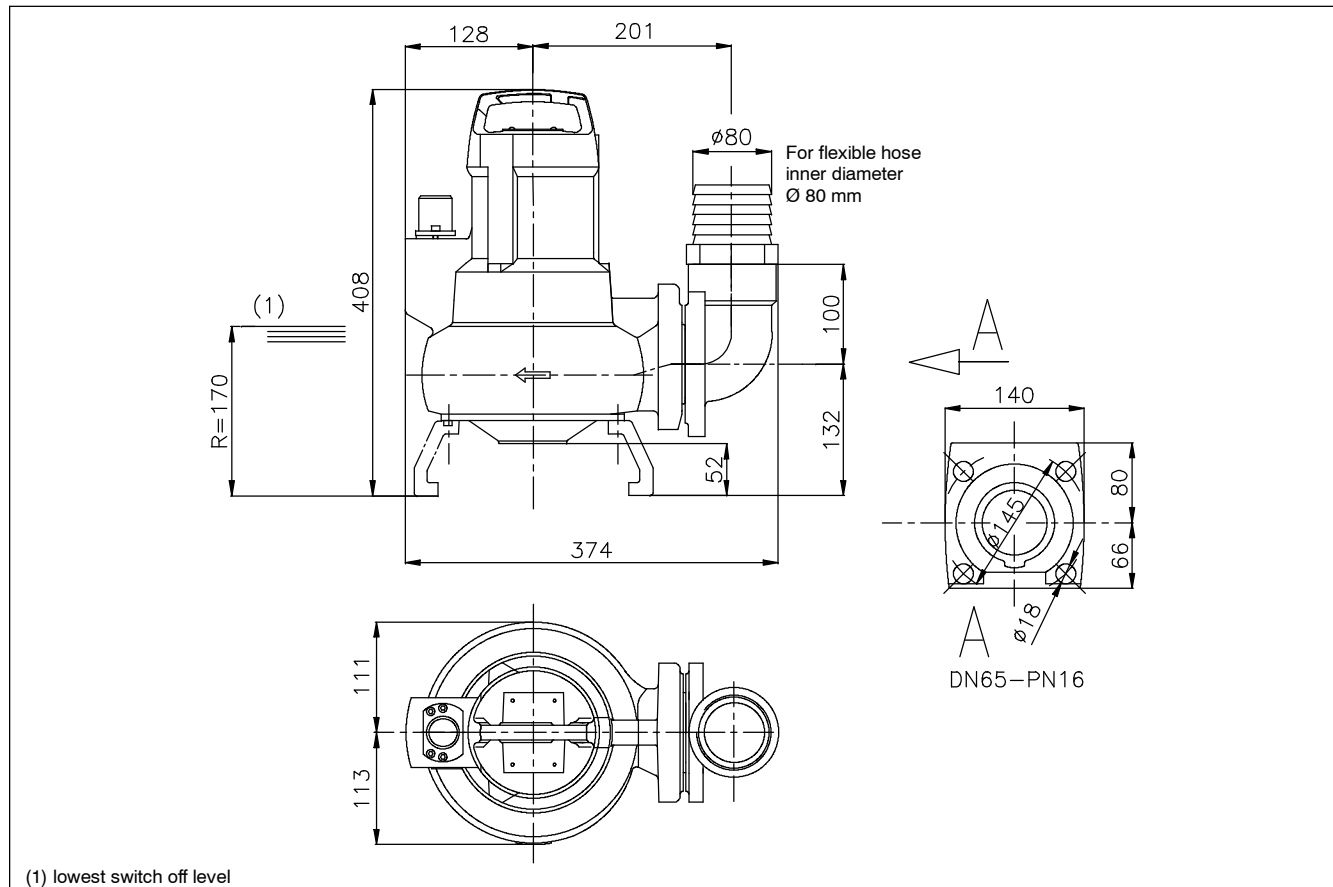
Ama-Porter size 5 --

Transportable version

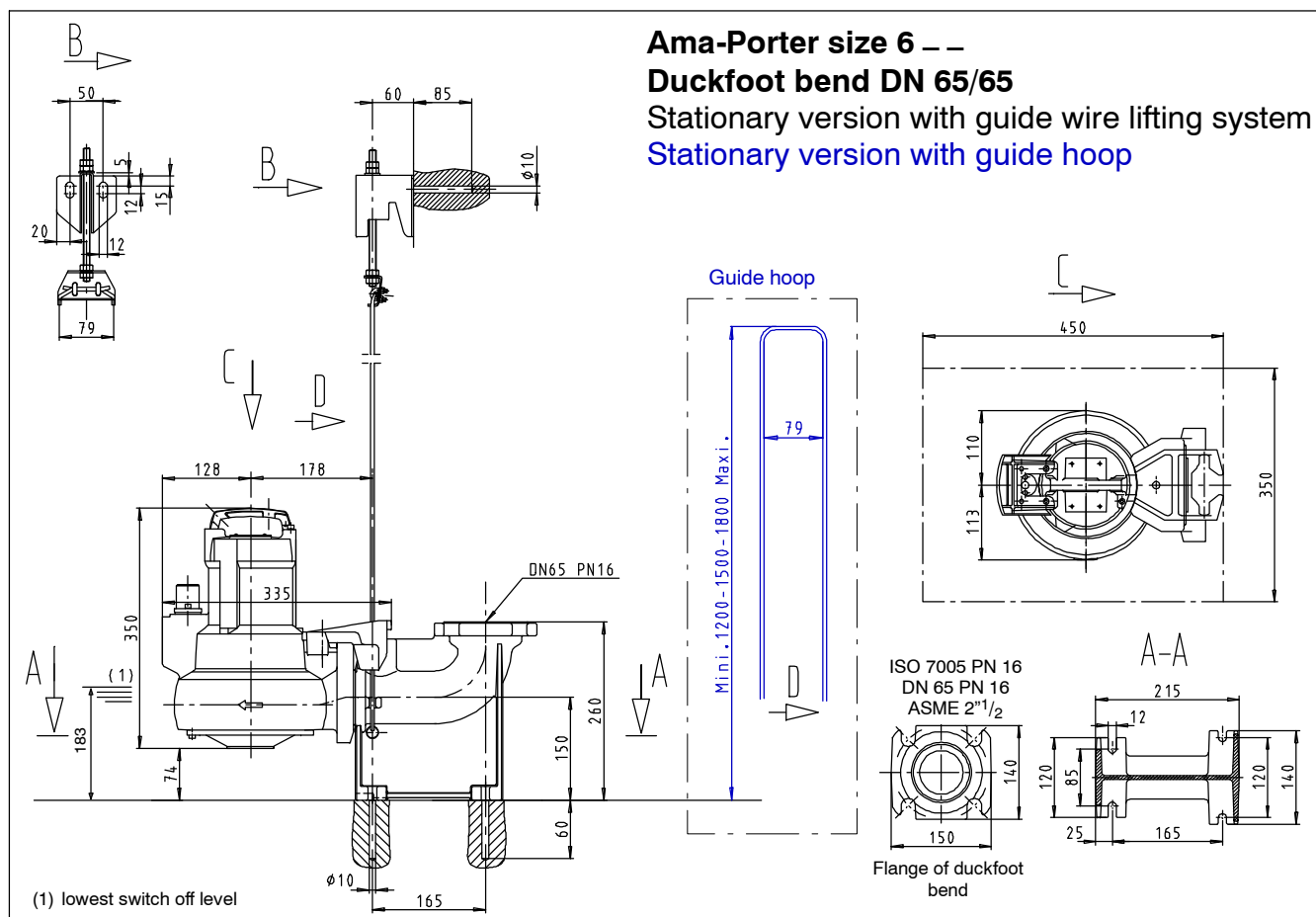
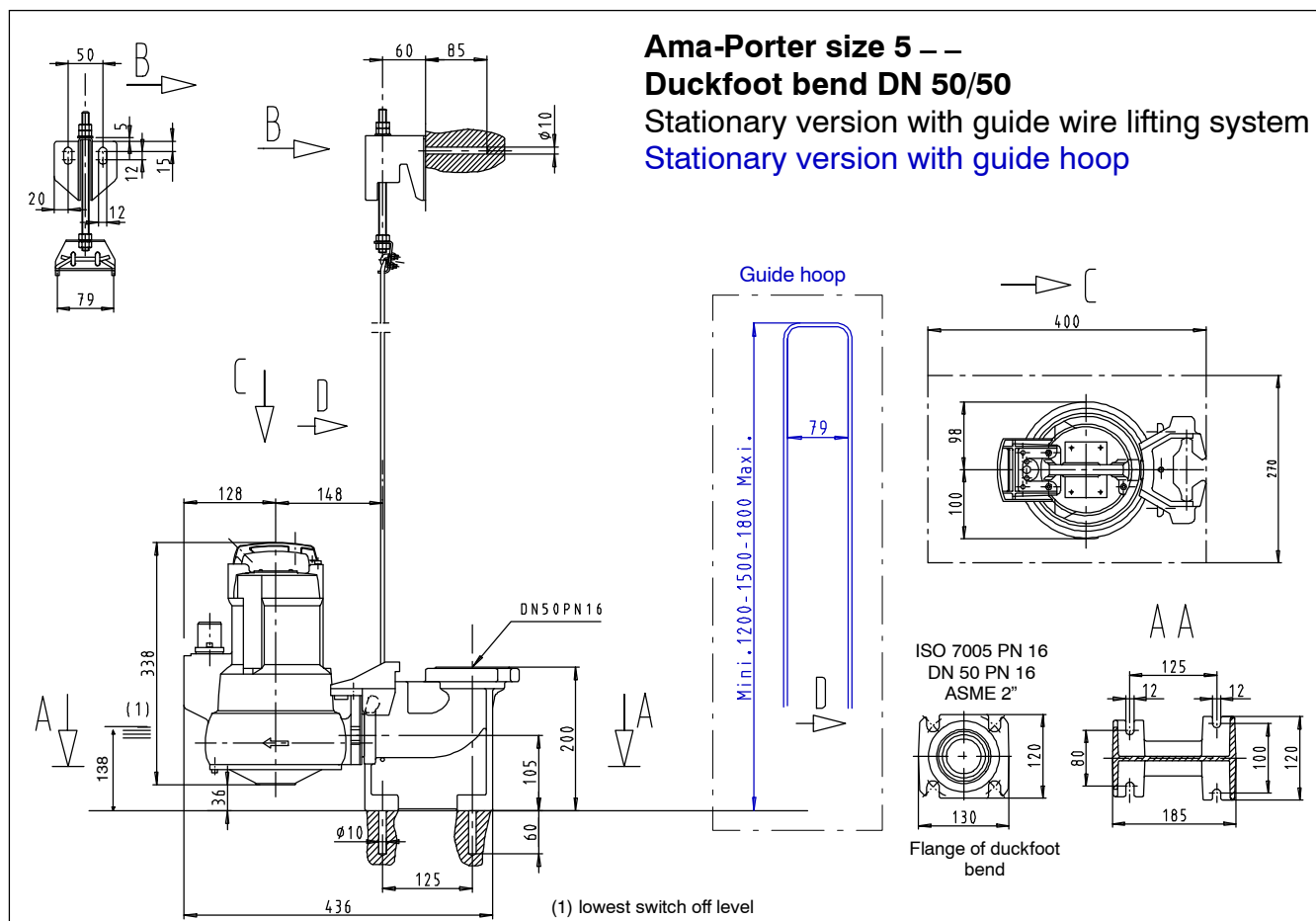


Ama-Porter size 6 --

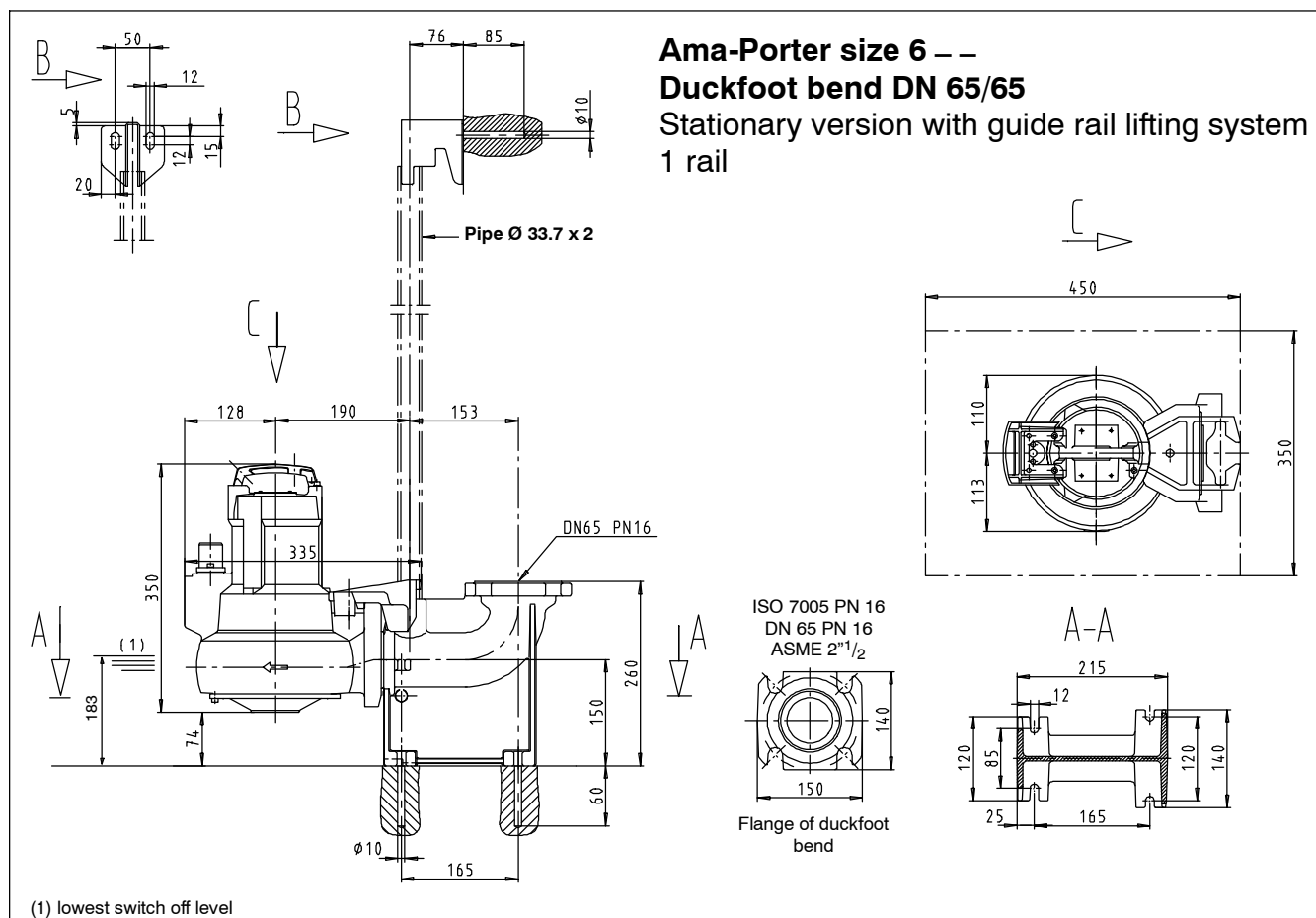
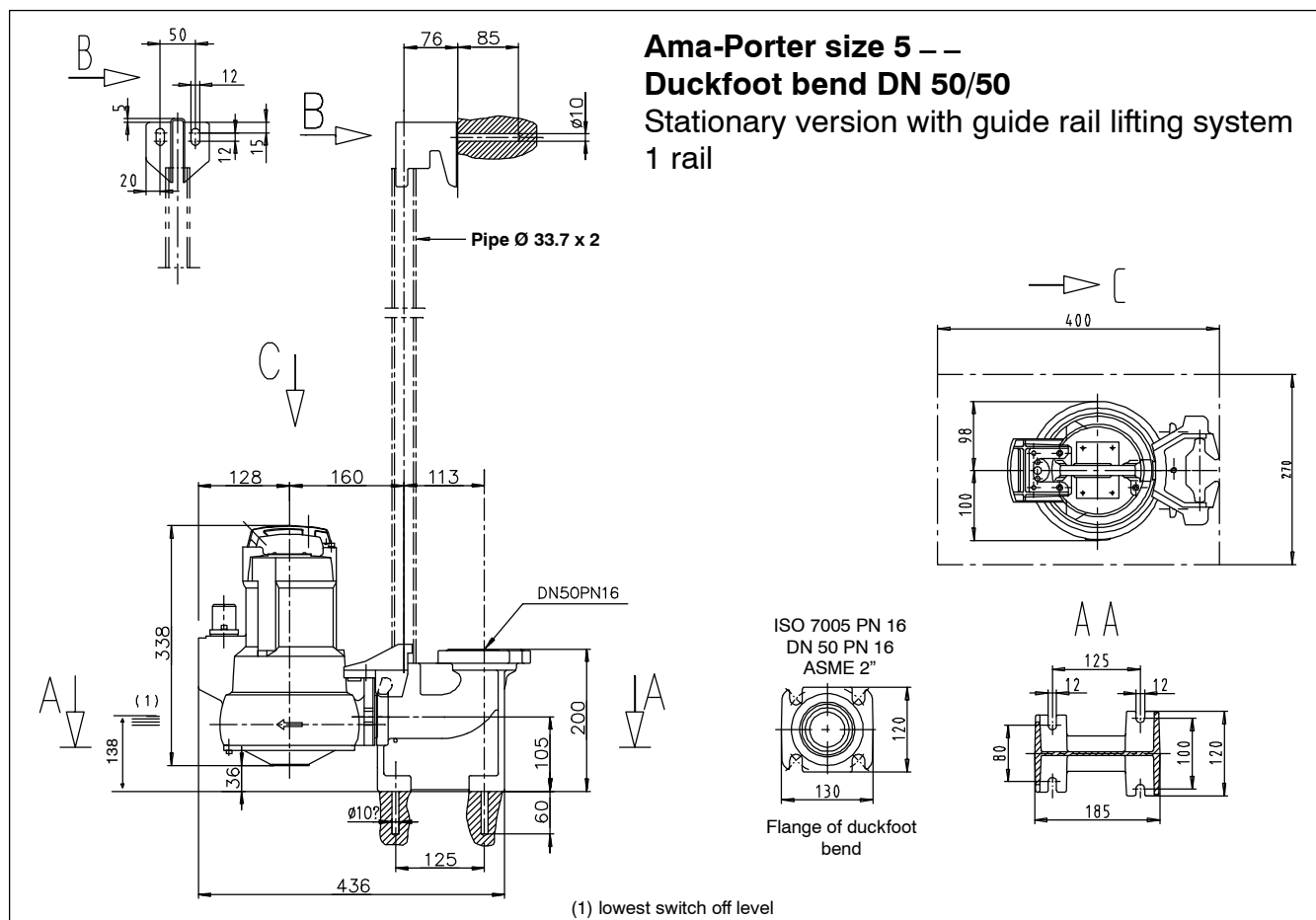
Transportable version



Dimensions



Dimensions

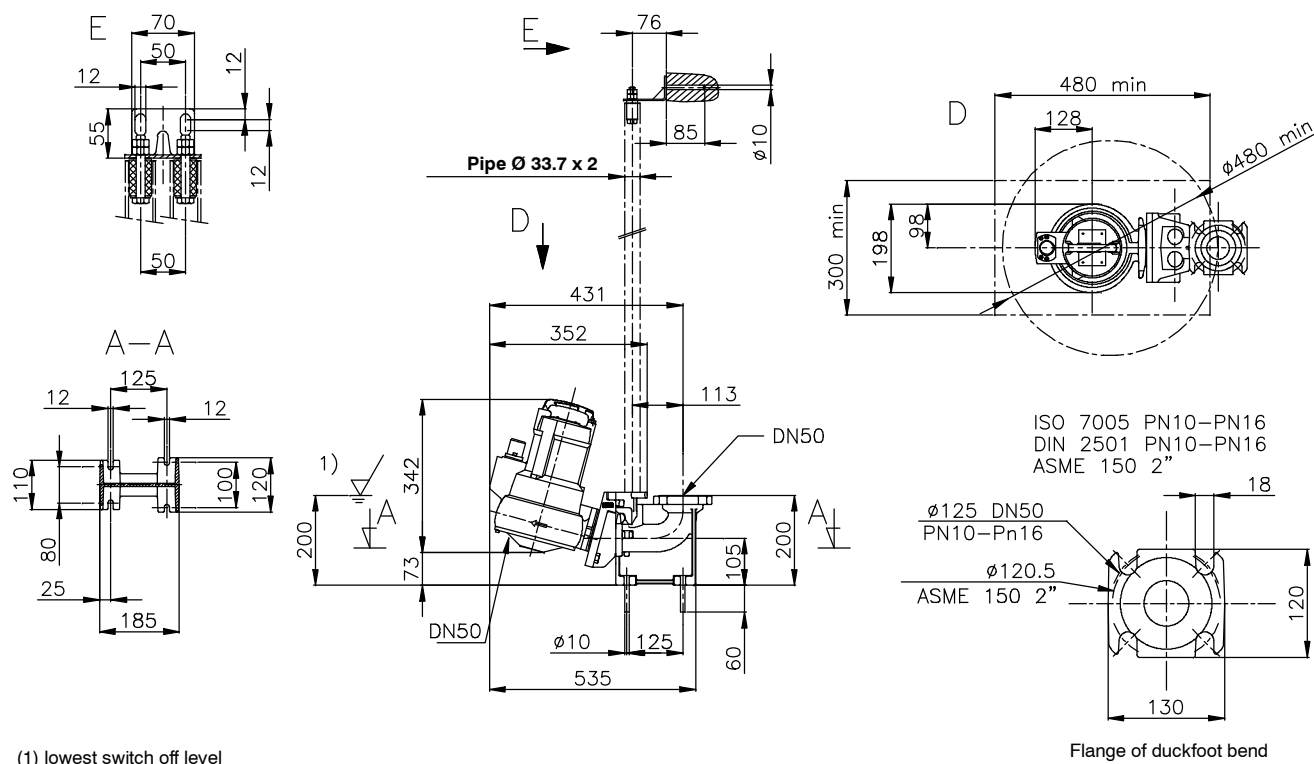


Dimensions

Ama-Porter size 5 – –

Duckfoot bend DN 50/50

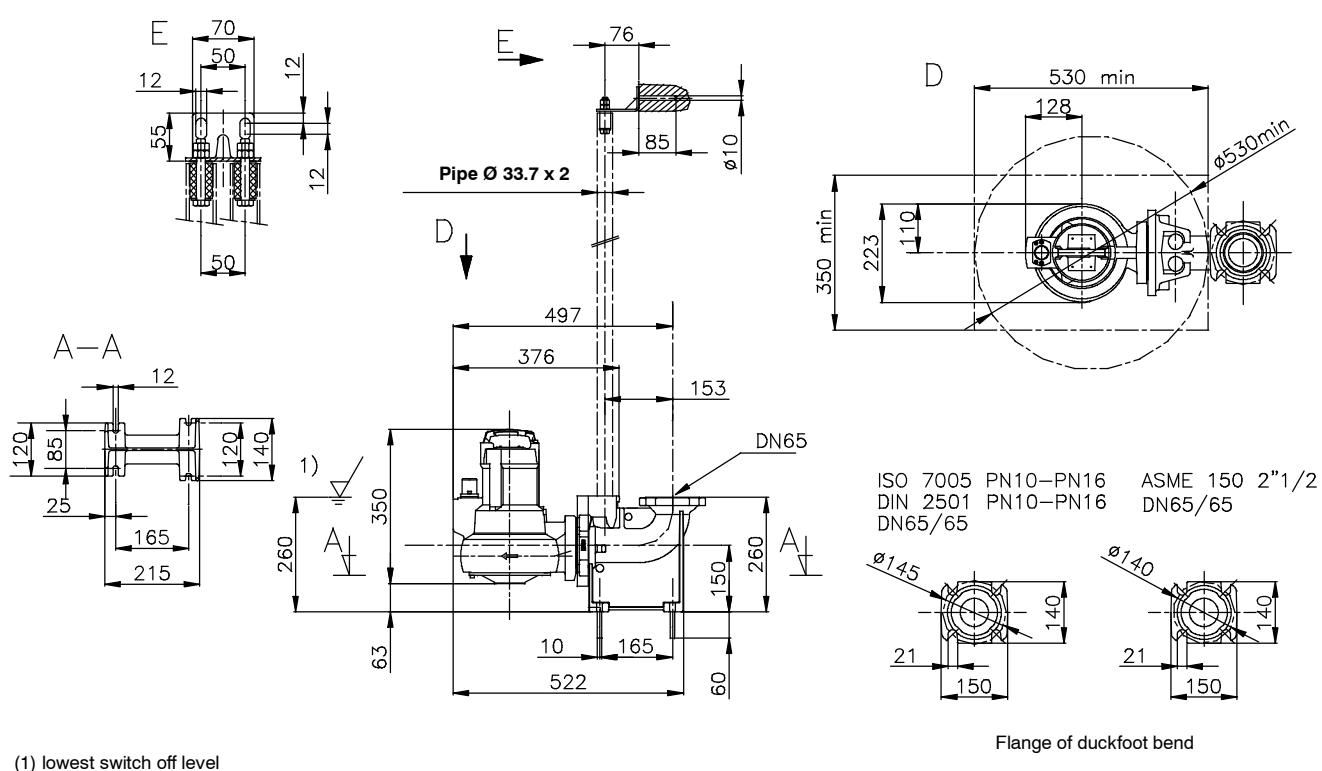
Stationary version with guide rail lifting system – 2 rails



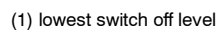
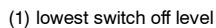
Ama®-Porter size 6 – –

Duckfoot bend DN 65/65

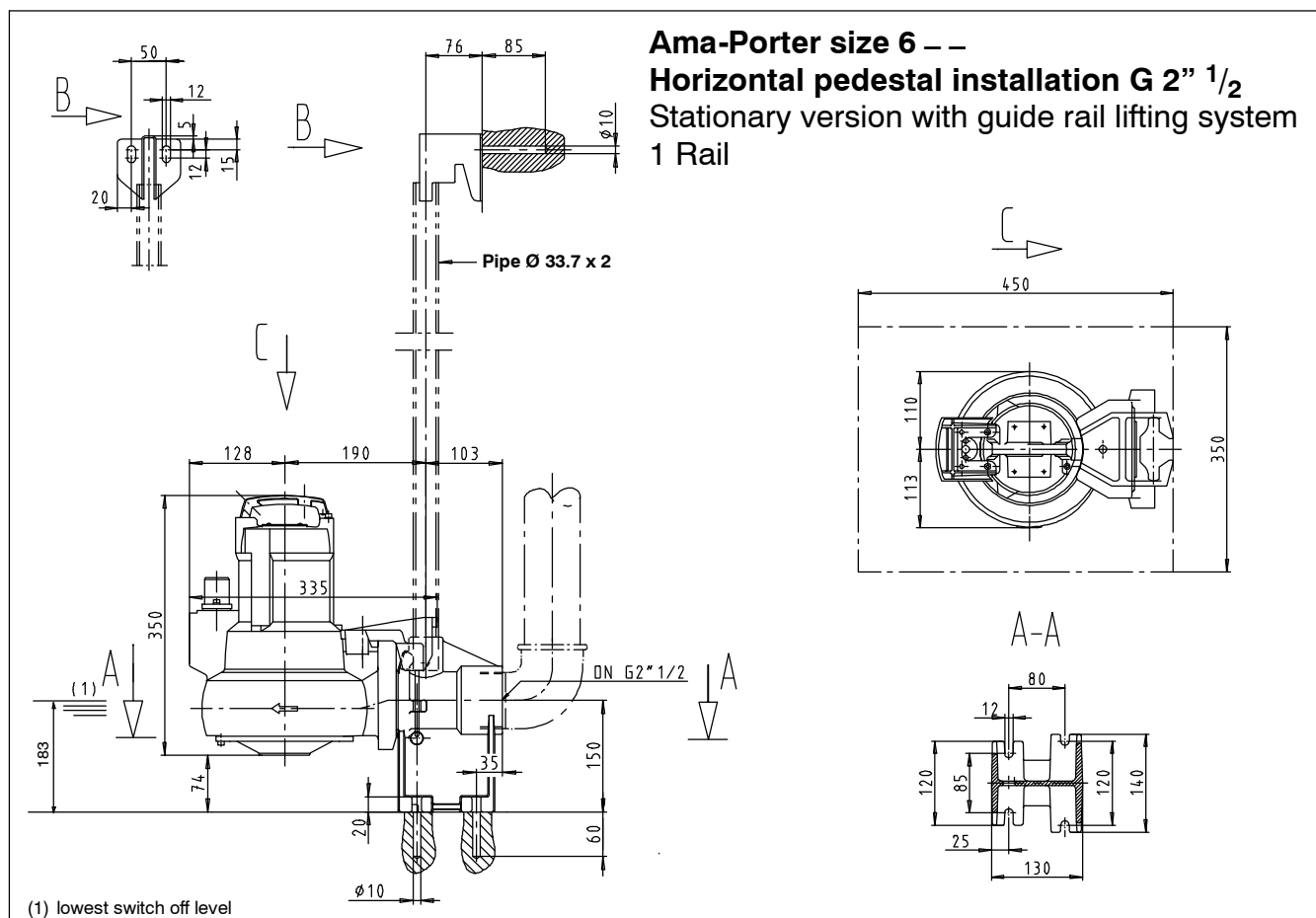
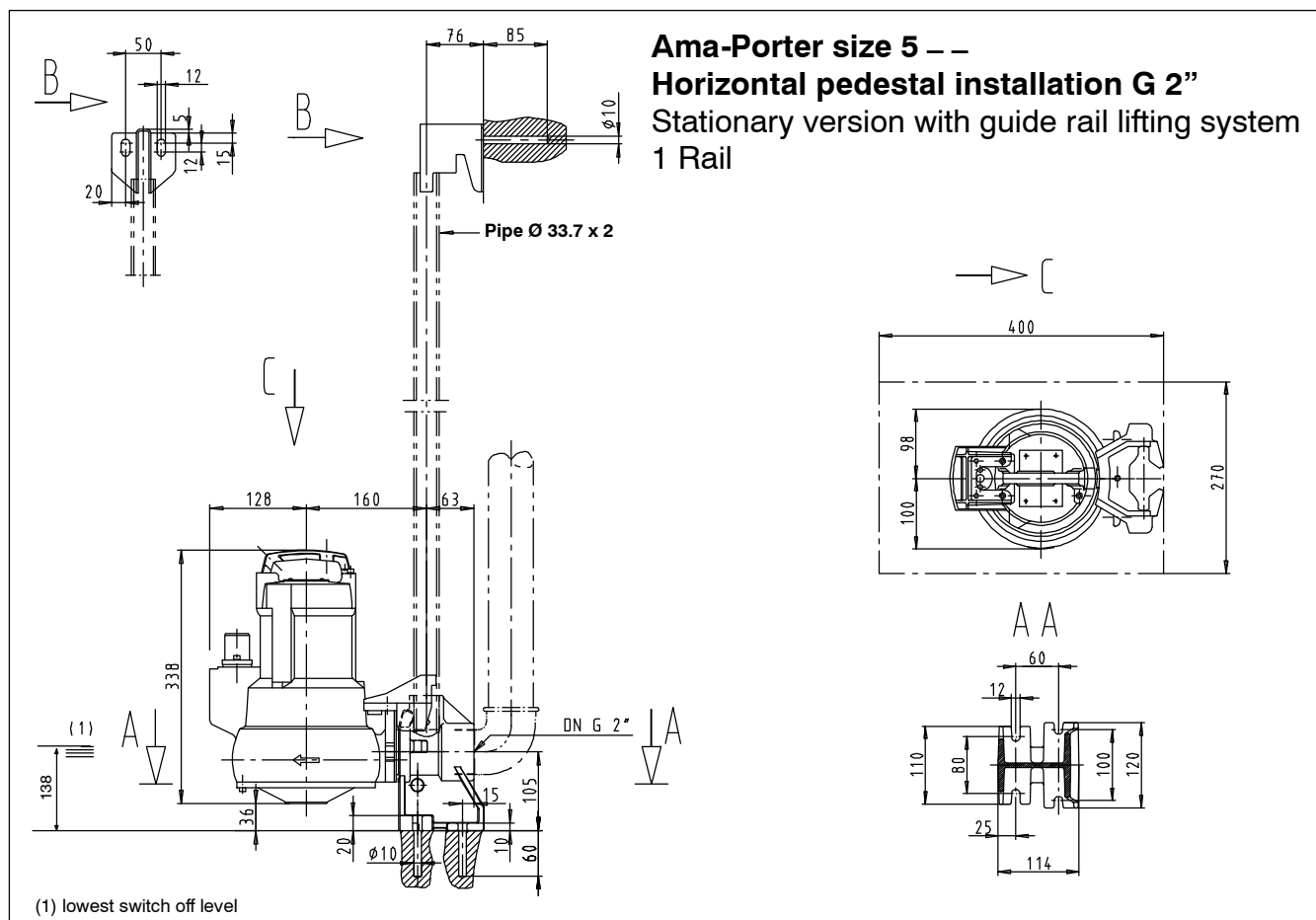
Stationary version with guide rail lifting system – 2 rails



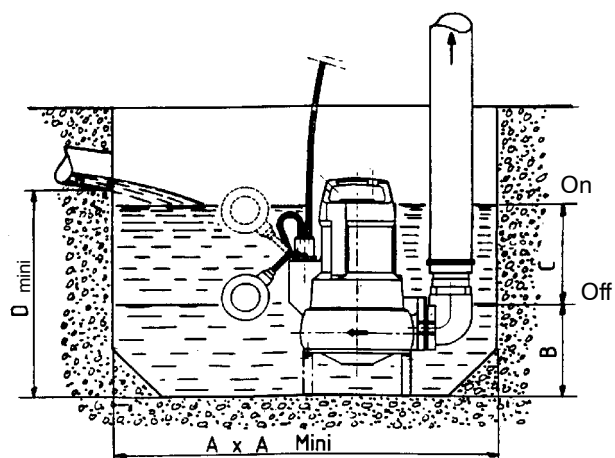
Ama-Porter size 5 – –
Horizontal pedestal installation G 2”
 Stationary version with guide wire lifting system
 Stationary version with guide hoop



Dimensions



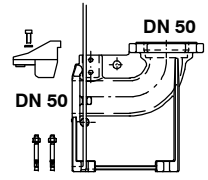
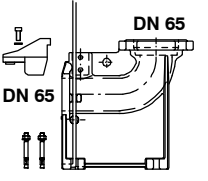
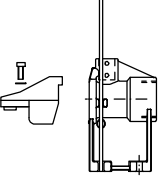
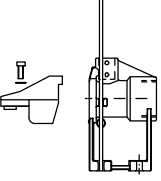
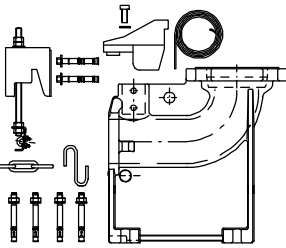
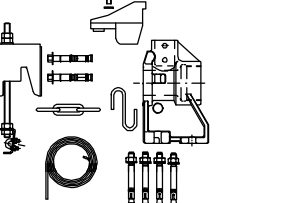
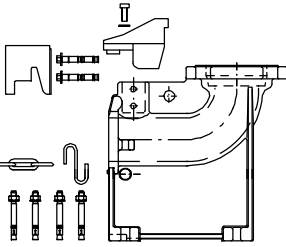
Installation in a sump



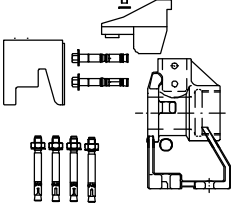
Dimensions in mm

	A	B	C	D
Ama-Porter 5 – –	600 x 600	160	190	450
Ama-Porter 6 – –	600 x 600	170	190	480

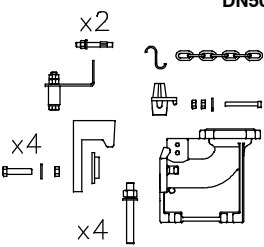
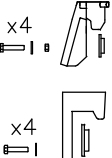
Installation Kits for Stationary Installation

Item Illustration	Description	Ama-Porter		Ident. No.	Weight net approx. kg/unit
		5..	6..		
P2+P5 (guide hoop arrangement) 	Installation parts for stationary wet installation consisting of: duckfoot bend DN 50 guide hoop, bolts, anchor bolts, clamps with stainless steel bolts Now without chain	Installation depth : 1.5 m		39 020 769	11.0
		1.8 m		39 020 770	12.0
		2.1 m		39 020 771	13.0
P2+P5 (guide hoop arrangement) 	Installation parts for stationary wet installation consisting of: duckfoot bend DN 65 guide hoop, bolts, anchor bolts, clamps with stainless steel bolts Now without chain	Installation depth : 1.5 m		39 020 827	14.5
		1.8 m		39 020 828	15.5
		2.1 m		39 020 829	17.0
P2+P5 (guide hoop arrangement) 	Installation parts for stationary wet installation consisting of: duckfoot bend DN 50 / 2" guide hoop, bolts, anchor bolts, clamps with stainless steel bolts Now without chain	Installation depth : 1.5 m		39 020 795	7.8
		1.8 m		39 020 796	8.8
		2.1 m		39 020 797	10.8
P2+P5 (guide hoop arrangement) 	Installation parts for stationary wet installation consisting of: duckfoot bend DN 65/2" 1/2 guide hoop, bolts, anchor bolts, clamps with stainless steel bolts Now without chain	Installation depth : 1.5 m		39 020 813	11.2
		1.8 m		39 020 814	12.2
		2.1 m		39 020 815	13.7
P4 + P5 (guide wire arrangement) 	Installation parts for stationary wet installation for 4.5 m installation depth consisting of: duckfoot bend, suspension bracket, mounting bracket, 10 m guide wire, bolts, anchor bolts clamps with stainless steel bolts Now without chain	Installation depth : 1.5 m		39 020 813	11.2
		1.8 m		39 020 814	12.2
		2.1 m		39 020 815	13.7
P4 + P5 (guide wire arrangement) 	Installation parts for stationary wet installation for 4.5 m installation depth consisting of: duckfoot bend, suspension bracket, mounting bracket, 10 m guide wire, bolts, anchor bolts clamps with stainless steel bolts Now without chain	Installation depth : 1.5 m		39 020 813	11.2
		1.8 m		39 020 814	12.2
		2.1 m		39 020 815	13.7
P4 + P5 (guide rail arrangement) 	Installation parts for stationary wet installation for 3 m installation depth consisting of: duckfoot bend, mounting bracket, bolts and anchor bolts, clamps with stainless steel bolts Now without chain	Installation depth : 1.5 m		39 020 813	11.2
		1.8 m		39 020 814	12.2
		2.1 m		39 020 815	13.7

Installation Kits for Stationary Installation

Item Illustration	Description	Ama-Porter		Ident. No.	Weight net approx. kg/unit
		5..	6..		
P4 + P5 (guide rail arrangement) 	Installation parts for stationary wet-well installation for 3 m installation depth consisting of: duckfoot bend, mounting bracket, bolts and anchor bolts, clamps with stainless steel bolts Now without chain				
		DN 50 / 2" DN 65 / 2"1/2	● ●	39 021 182 39 021 188	10.8 14.0

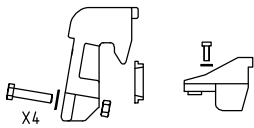
Installation kit for twin guide rail arrangement

Item Illustration	Description	Ama-Porter		Ident. No.	Weight net approx. kg/unit
		5..	6..		
P4 + P5 (twin guide rails) DN50/DN65 	Installation parts for stationary wet-well installation, consisting of: duckfoot bend, mounting bracket, stainless steel bolts, adapter, anchor bolts Now without chain				
		DN 50 Inclined claw DN 65 Right-angled claw	● ●	39 023 002 39 023 006	14.0 21.0
P5 (twin guide rails) Mounting bracket 	Mounting bracket, cpl., consisting of: Mounting bracket, stainless steel bolts, adapter, anchor bolts				
	DN 50 - DN 65	●	●	39 022 984	1,6
P5 (twin guide rails) Claw 	Claw JL1040 with stainless steel bolts				
	DN 50 Inclined claw DN 65 Right-angled claw	● ●		39 022 990 39 022 993	6.5 7.8

Installation Kit for Transportable Versions

Item Illustration	Description	Ama-Porter		Ident. No.	Weight net approx. kg/unit
		5..	6..		
P6 - DN 50 	Kit for transportable models (Plastic hose inside diameter 63 P19) consisting of: adapter for hose connection connection elbow three feet hose clip including bolts	●		39 023 046	2.0
P6 - DN 65 	Kit for transportable models (Plastic hose inside diameter 80 P19) consisting of: adapter for hose connection connection elbow three feet hose clip including bolts		●	39 023 047	4.0

Bracket

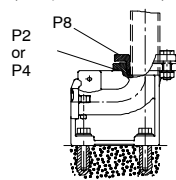
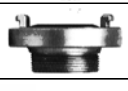
Item Illustration	Description	Ama-Porter		Ident. No.	Weight net approx. kg/unit
		5..	6..		
P5 	Claw , JL 1040 with bolts guide wire, rail, hoop arrangements	●	●	39 021 016 39 021 018	1.0 2.0

Chain for Stationary and Transportable Versions

Item Illustration	Description	Ama-Porter		Ident. No.	Weight net approx. kg/unit
		5..	6..		
P7 Chain 1.4401, short-link type, tested and marked to Directive 2006/42/EC (Machinery Directive), hook (1.4307), shackle (1.4401)	2 m B5 x 35	●	●	19 141 811	1.0
	5 m B5 / 6	●	●	19 141 813	2,2

*) for installation depths > 4.5 m ... 9 m

Accessories for Stationary and Transportable Models

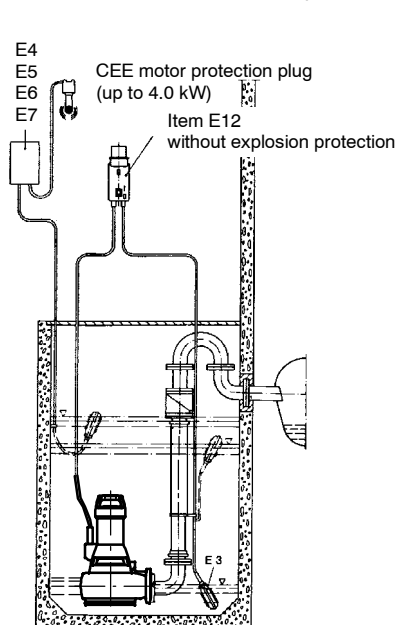
Item Illustration	Description	Connection	Ama-Porter		Ident. No.	Weight net approx. kg/unit
			5..	6..		
P8 (clamped connection) 	Flange for pipe coupling PN 10 at the flange of the duckfoot bend Mating dimensions to PN 16	DN 50 / R 2" pipe DN 65 / R 2" 1/2 pipe	●	●	19 551 111 39 020 184	1.0 1.3
P10 	Screwed flange PN 6 B50 DIN 2558 with bolts for pump discharge nozzle (Seal element is fitted on the pump) GTW TZN	DN 50 / Rp 2	●		19 200 721	1.0
P14 	Bend with internal and external thread, A4	G 2" G 2" 1/2	●	●	00 241 966 00 240 316	0.3 0.4
P15 	Storz rigid coupling with flange drilled to DIN 2501, PN 16, aluminium / steel To be used for flanged connections item 25	DN 65 / B 75		●	18 040 148	2,0
P16 	Storz hose coupling aluminium 2 hose clips item 20 are required for hose mounting. (for plastic hose B 75 P.19)	DIN 14 322 B 75		●	00 520 454	0.7
P17 	Storz rigid coupling AL with external thread	C 52 / G 2 A B 75 / G 2 1/2 A	●	●	00 524 370 00 524 371	0.22 0.4
P18 	Plastic hose DN 50 DIN 14 811 with integrated C couplings	C 52 5 m C 52 10 m C 52 20 m B 75 5 m B 75 10 m B 75 20 m	● ● ●	● ● ●	00 522 262 00 522 263 00 522 264 39 018 686 39 018 687 00 522 265	1.8 3.4 6.6 3.5 5.5 9.5

Accessories for Stationary and Transportable Models

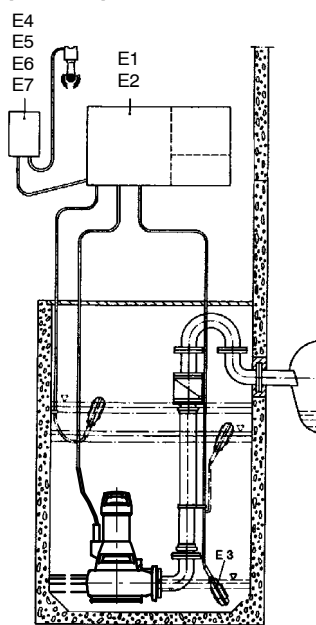
Item Illustration	Description	Connection	Ama-Porter		Ident. No.	Weight net approx. kg/unit
			5..	6..		
P19 	Plastic hose without coupling (max. 30 m) DIN 14 811	Ø 63 5 m 10 m 20 m 30 m	●		39 018 688	1.7
			●		39 018 689	3.4
			●		39 018 690	6.8
			●		39 019 073	10.2
		Ø 80 5 m 10 m 20 m 30 m		●	39 018 691	2.15
				●	39 019 062	4.3
				●	39 019 063	8.6
				●	39 019 072	12.9
		B 75 5 m 10 m 20 m 30 m		●	39 019 064	2.0
				●	39 019 065	4.0
				●	39 019 066	8.0
				●	39 019 071	12.0
P20 	Hose clip DIN 3017 Cr steel	B 50	●		00 460 476	0.1
		B 75		●	00 109 515	0.1
P21	RK swing check valve plastic, ISO 7/1 with full port and drain plug, conformity mark P-I 3751 Not suitable for pumped drainage	Rp 2"	●		01 009 773	2.2
P22 	Socket gate valve PN 10 - 12 DIN 3352 CuZn	Rp 2"	●		00 411 503	0.8
P23 	Check valve to KSB's choice (not illustrated), cast iron, with full port, lifting device, flanges drilled to DIN 2501, PN 16 (not for lifting units)	DN 65		●	48 829 253	16.0
P24 	Gate valve, cast iron (JS1030), PN 16 flanges drilled to SO 7005/DIN 25016	DN 65		●	49 709 579	15.0
P25 	Set of installation accessories for a flange connection, discharge nozzle / item 15, consisting of: 4 hexagon head bolts with nuts and 1 sealing element			●	19 551 115	0.8
P27 	Screwed flange PN 16/2", threaded connection DN 50 / Rp 2" C50 DIN 2566 with bolts, gasket and nuts for flanged elbow		●		19 551 353	2.0
P28 	Suction strainer		●	●	39 023 050	2.0

Suggested electrical installation layouts

Please note: Ama-Porter only available **without explosion protection!**



Suggestion No. 1



Suggestion No. 2

Electrical Accessories

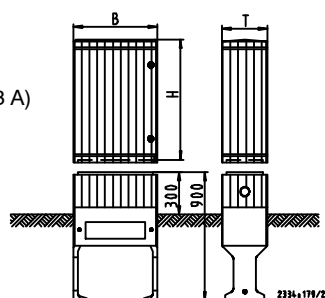
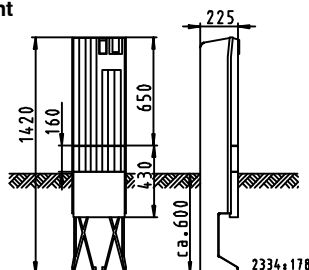
		230 V	400 V	Current A	Ama-Porter							Ident. No.	≈ kg
					500	501	502	503	601	602	603		
E 1	 MSE/MSD motor protection switchgear, IP 54 with integrated motor protection relay, manual-0-automatic selector switch and motor contactor, operation and fault indicator lamps.			Max. back-up fusing									
				16 A MSE 60.1	X							19 070 138	1.0
				20 A MSE 80.1	X	X			X			19 070 139	1.0
				25 A MSE 100.1	X		X	X		X	X	19 070 140	1.0
E 2	 Dimensions (W x H x D) 100 x 170 x 112 mm			10 A MSD 40.1								19 070 116	1.0
				16 A MSD 60.1				X			X	19 070 117	1.0
					X	X	X		X	X			
E 4	 CEE multi-functional plug, type Hyper 3/N/PE 16 A, IP X4 Phase inverter, motor monitoring, contactor up to 4 kW, motor protection relay, manual-0-automatic selector switch, reset key, indicator lamps for direction of rotation, operation and fault, connections for three-phase motor, thermal circuit breaker and float switch			Hyper 37.1								19 071 492	0.9
				Hyper 55.1	X	X	X	X	X	X	X	19 071 493	0.9

Electrical Accessories

			230 V	400 V	Current A	Ama-Porter							Ident. No.	≈ kg
						500	501	502	503	601	602	603		
 Switchgear for single-pump station, IP 54 LevelControl Basic 2 DOL starting With manual-0-automatic selector switch Indicator lamps and control panel High water alert Integrated alarm buzzer 85 dB(A) Operating hours counter/start-stop cycles per pump Voltage measurement, phase monitoring Pneumatic: indication of water level Volt-free contact for general fault indication 230 V variant: with external socket 400 V variant: with motor protection switch Optional mains-independent alarm via rechargeable battery														
E 10		Float switch												
E 11		including 4...20 mA-Input												
		Optional with master switch												
		400 x 278 x 120 mm												
E 13		Pneumatic												
E 14		Optional with master switch												
		400 x 278 x 120 mm												
E 16		Bubbler control												
E 17		with master switch												
		400 x 300 x 155												
		Bubbler control, BC variant												
		Only to be used if a neutral conductor is fitted!												
		Installation option O1 master switch not possible!												
		400 x 281 x 120												
 Switchgear for dual-pump station, IP 54 LevelControl Basic 2 Peak load operation Stand-by pump DOL starting With manual-0-automatic selector switch Indicator lamps and control panel High water alert Integrated alarm buzzer 85 dB(A) Operating hours counter/start-stop cycles per pump Pneumatic: indication of water level Voltage measurement, phase monitoring Volt-free contact for general fault indication 230 V variant: with external socket 400 V variant: with motor protection switch Optional mains-independent alarm via rechargeable battery														
E 30		Float switch												
E 31		including 4...20 mA-Input												
		Optional with master switch												
		361 x 278 x 120 mm												
E 33		Pneumatic												
E 34		Optional with master switch												
		361 x 278 x 120 mm												
E 36		Bubbler control												
E 37		with master switch												
		400 x 300 x 155												
E 38		Bubbler control, BC variant												
E 39		Only to be used if a neutral conductor is fitted!												
		Installation option O1 master switch not possible!												
		400 x 281 x 120												

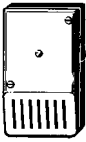
Electrical Accessories

		Ident. No.	≈kg
	LevelControl Basic 2 installation options		
O 1	Master switch installed for BC variant, 3-pole, 20 A, lockable	01 143 084	0.2
O 2	Control cabinet heating with 20 W thermostat, for BS variant	19 074 269	0.3
O 10	Outdoor cabinet type 142 for BC control unit up to 10 A IP 44 Glass fibre reinforced polyester Colour: RAL 7035 Profile half cylinder lock Dimensions (W x H x D) External dimensions 1420 x 320 x 225 mm Internal dimensions 600 x 276 x 165 mm Integrated base Can be buried	19 071 911	15.0
O 11	Outdoor cabinet, type 0/845, for control unit BS1 (up to 23 A) and BS2 (up to 10 A) IP 44 Glass fibre reinforced polyester Colour: RAL 7035, DIN 43 629 Profile half cylinder lock Dimensions W x H x D in mm External dimensions 845 x 585 x 315 Internal dimensions 750 x 500 x 217 Including base for type 0/845 Glass fibre reinforced polyester, height 900 mm, Can be buried Including metal frame for setting in concrete	19 071 440	40.0



The installation options are not EDI compatible.
Installation options must be processed via KSB EasySelect,
otherwise they will be supplied with the unit but not fitted.

Alarm Switchgears

			Ama-Porter							Ident. No.	≈ kg
			500	501	502	503	601	602	603		
	AS 0, S 2, AS 4 Alarm Switchgears with circuit breaker, piezoceramic signal transmitter, 85 dB(A) at a distance of 1 m and 4.1 kHz, green equipment-on lamp Plastic housing IP 20, 140 x 80 x 57 mm Use float switch (E 60) or moisture sensor F 1 (E 64) as contactor.	230 V~/ 12 V = 1.2 VA									
	E 50 mains-dependent AS 0		X	X	X	X	X	X	X	29 128 401	0.5
	E 51 mains-dependent AS 2 with volt-free signalling contact		X	X	X	X	X	X	X	29 128 422	0.5
	E 52 mains-independent AS 4 with volt-free signalling contact, self-charging power supply unit for 5 hours' operation in the event of power failure		X	X	X	X	X	X	X	29 128 442	0.5
	AS 5 Alarm Switchgear, mains-independent, with self-charging power supply unit for 10 hours' operation in the event of power failure, mains pilot LED, fault indicator lamp, horn-off push button, volt-free contact for hook-up to a control station, ready to connect, with 1.8 m cable and plug. ISO housing IP 41, 190 x 165 x 75 mm Use float switch (item E 60) as contactor. Horn see accessories	230 V~/ 12 V = 5 VA	X	X	X	X	X	X	X	00 530 561	1.7
	AS 1 Alarm Switchgear, in ISO plug housing IP 30, mains-independent with self-charging power supply unit for 5 hours' operation in the event of power failure, acoustic signal 70 dB(A) with circuit breaker and integrated signal transmitter with 3-metre connection cable, max. 60 °C, not suitable for steam and condensate. 2 alarm transmission options: 1) High water alert by suspending the moisture sensor in a (pump) sump above the pump start-up level. 2) Water alert signal at a water level of only 1 mm (!) by placing the transmitter on the floor of rooms at risk of flooding, e.g. cellars or next to washing machines in kitchens or bathrooms.	230 V~/ 9 V = 1.5 VA	X	X	X	X	X	X	X	00 533 740	0.9

Accessories

[illegible]

Features	Single-pump station			
	Float	Pneumatic	Bubbler control	BC bubbler control
o Optional x Control unit features				
230 V: 6.0 – 10 A	BC1 230 DFNO 100	BC1 230 DPNO 100	BS1 230 DLNO 100	BC1 230 DLNO 100
400 V: 2.5 – 4.0 A	BC1 400 DFNO 040	BC1 400 DPNO 040	BS1 400 DLNO 040	BC1 400 DLNO 040
400 V: 4.0 – 6.3 A	BC1 400 DFNO 063	BC1 400 DPNO 063	BS1 400 DLNO 063	BC1 400 DLNO 063
Functions				
Draining the tank	X	X	X	X
Tank filling via float switches	X	-	-	-
Peak load operation	-	-	-	-
Stand-by pump: 1 pump redundant	-	-	-	-
Automatic pump changeover after every start	-	-	-	-
Automatic pump changeover in the case of a pump fault	-	-	-	-
Runtime limitation	X	X	X	X
OFF via after-run time	X	X	X	X
OFF via level	X	X	X	X
Operation check run after idle period	X	X	X	X
Alert history	X	X	X	X
Display and operation				
7-segment display	X	X	X	X
Indication of water level	Switching levels	X	X	X
For each pump: operation/fault/pump running	Multicolour LED	Multicolour LED	Multicolour LED	Multicolour LED
General fault (traffic light)	LED	LED	LED	LED
High water	LED	LED	LED	LED
Mains voltage	X	X	X	X
Mains frequency	-	-	-	-
Motor current per pump	-	-	-	-
Operating hours of each pump	X	X	X	X
Operating hours of the system	-	-	-	-
Starts per pump	X	X	X	X
Effective power per pump	-	-	-	-
Rotary field recognition of mains power supply	X	X	X	X
Phase monitoring	X	X	X	X
Change of switching levels via control panel	-	X	X	X
Housing H x W x D, IP 54				
Plastic 361 x 278 x 120	X	X	-	X
Sheet steel 400 x 300 x 155	-	-	X	-
Built-in components				
Master switch (lockable)	O	O	X	X
Manual-O-automatic selector switch for each pump	X	X	X	X
DOL starting	X	X	X	X
Shockproof socket 230 V	at 230 V	at 230 V	at 230 V	at 230 V
Motor protection				
Fuse per pump	at 230 V	at 230 V	at 230 V	at 230 V
Motor protection switch per pump	at 400 V	at 400 V	at 400 V	at 400 V
Motor temperature warning input — self-acknowledging	X	X	X	X
Motor temperature alert input — manual acknowledgement	X	X	X	X
Pump				
Thermal circuit breaker (TCB) / bimetal switch per pump	See comment	See comment	See comment	See comment
Installation options				
Rechargeable battery for powering the electronics, sensors, alarm equipment	O	O	O	O
Control cabinet heating, type BS	-	-	O at 400 V	-
Alarm equipment				
1 free alarm input	X	X	X	X
1 digital high water alert input (e.g. for float switch)	X	X	X	X
Volt-free contact (changeover contact) general fault indication	X	X	X	X
Piezo buzzer 85 dB(A)	X	X	X	X
Horn 105 dB(A)/ combined alarm / flashlight 12 V DC	O	O	O	O

Comment:

Ama-Porter NE 1~230 V: bimetal switch in the motor
Ama-Porter ND 3~400 V: no bimetal switch

Features	Single-pump station			
	Float	Pneumatic	Bubbler control	BC bubbler control
- o Optional - x Control unit features				
230 V: 6.0 – 10 A	BC1 230 DFNO 100	BC1 230 DPNO 100	BS1 230 DLNO 100	BC1 230 DLNO 100
400 V: 2.5 – 4.0 A	BC1 400 DFNO 040	BC1 400 DPNO 040	BS1 400 DLNO 040	BC1 400 DLNO 040
400 V: 4.0 – 6.3 A	BC1 400 DFNO 063	BC1 400 DPNO 063	BS1 400 DLNO 063	BC1 400 DLNO 063
Inputs/Outputs				
Inputs for float switches	4	-	-	-
4...20 mA analog input	X	-	-	-
Installed pneumatic pressure sensor up to 3 metres of water — up to 10 m on request	-	X	-	-
Bubbler system with compressor up to 2 metres of water	-	-	X	X
Remote acknowledgement	X	X	X	X
12 V DC connection for horn, alarm combination, flashlight	X	X	X	X
Sensors				
Float switch (NO contact)	O	-	-	-
Redundant float (NO contact) for high water	-	O	O	O
Pressure bell (open system) for pneumatic and bubbler control system	-	O	O	O
Pressure bell (closed system) for pneumatic system	-	O	-	-
F1 moisture sensor	O	O	O	O
Tools				
KSB ServiceTool for Windows XP	O	O	O	O

Features	Dual-pump station			
	Float	Pneumatic	Bubbler control	BC bubbler control
o Optional x Control unit features				
230 V: 6.0 – 10 A	BC2 230 DFNO 100	BC2 230 DPNO 100	BS2 230 DLNO 100	BC2 230 DLNO 100
400 V: 2.5 – 4.0 A	BC2 400 DFNO 040	BC2 400 DPNO 040	BS2 400 DLNO 040	BC2 400 DLNO 040
400 V: 4.0 – 6.3 A	BC2 400 DFNO 063	BC2 400 DPNO 063	BS2 400 DLNO 063	BC2 400 DLNO 063
Functions				
Draining the tank	X	X	X	X
Tank filling via float switches	X	-	-	-
Peak load operation	X	X	X	X
Stand-by pump: 1 pump redundant	X	X	X	X
Automatic pump changeover after every start	X	X	X	X
Automatic pump changeover in the case of a pump fault	X	X	X	X
Runtime limitation	X	X	X	X
OFF via after-run time	X	X	X	X
OFF via level	X	X	X	X
Operation check run after idle period	X	X	X	X
Alert history	X	X	X	X
Display and operation				
7-segment display	X	X	X	X
Indication of water level	Switching levels	X	X	X
For each pump: operation/fault/pump running	Multicolour LED	Multicolour LED	Multicolour LED	Multicolour LED
General fault (traffic light)	LED	LED	LED	LED
High water	LED	LED	LED	LED
Mains voltage	X	X	X	X
Mains frequency	-	-	-	-
Motor current per pump	-	-	-	-
Operating hours of each pump	X	X	X	X
Operating hours of the system	-	-	-	-
Starts per pump	X	X	X	X
Effective power per pump	-	-	-	-
Rotary field recognition of mains power supply	X	X	X	X
Phase monitoring	X	X	X	X
Change of switching levels via control panel	-	X	X	X
Housing H x W x D, IP 54				
Plastic 361 x 278 x 120	X	X	-	X
Sheet steel 400 x 300 x 155	-	-	X	-
Built-in components				
Master switch (lockable)	O	O	X	-
Manual-0-automatic selector switch for each pump	X	X	X	X
DOL starting	X	X	X	X
Shockproof socket 230 V	at 230 V	at 230 V	at 230 V	at 230 V
Motor protection				
Fuse per pump	at 230 V	at 230 V	at 230 V	at 230 V
Motor protection switch per pump	at 400 V	at 400 V	at 400 V	at 400 V
Motor temperature warning input — self-acknowledging	X	X	X	X
Motor temperature alert input — manual acknowledgement	X	X	X	X
Pump				
Thermal circuit breaker (TCB) / bimetal switch per pump	See comment	See comment	See comment	See comment
Installation options				
Rechargeable battery for powering the electronics, sensors, alarm equipment	O	O	O	O
Control cabinet heating, type BS	-	-	O at 400 V	-
Alarm equipment				
1 free alarm input	X	X	X	X
1 digital high water alert input (e.g. for float switch)	X	X	X	X
Volt-free contact (changeover contact) general fault indication	X	X	X	X
Piezo buzzer 85 dB(A)	X	X	X	X
Horn 105 dB(A)/ combined alarm / flashlight 12 V DC	O	O	O	O

Comment:

Ama-Porter NE 1~230 V: bimetal switch in the motor
Ama-Porter ND 3~400 V: no bimetal switch

Features	Dual-pump station			
	Float	Pneumatic	Bubbler control	BC bubbler control
- o Optional - x Control unit features				
230 V: 6.0 – 10 A	BC2 230 DFNO 100	BC2 230 DPNO 100	BS2 230 DLNO 100	BC2 230 DLNO 100
400 V: 2.5 – 4.0 A	BC2 400 DFNO 040	BC2 400 DPNO 040	BS2 400 DLNO 040	BC2 400 DLNO 040
400 V: 4.0 – 6.3 A	BC2 400 DFNO 063	BC2 400 DPNO 063	BS2 400 DLNO 063	BC2 400 DLNO 063
Inputs/Outputs				
Inputs for float switches	4	-	-	-
4...20 mA analog input	X	-	-	-
Installed pneumatic pressure sensor up to 3 metres of water — up to 10 m on request	-	X	-	-
Bubbler system with compressor up to 2 metres of water	-	-	X	X
Remote acknowledgement	X	X	X	X
12 V DC connection for horn, alarm combination, flashlight	X	X	X	X
Sensors				
Float switch (NO contact)	O	-	-	-
Redundant float (NO contact) for high water	-	O	O	O
Pressure bell (open system) for pneumatic and bubbler control system	-	O	O	O
Pressure bell (closed system) for pneumatic system	-	O	-	-
F1 moisture sensor	O	O	O	O
Tools				
KSB ServiceTool for Windows XP	O	O	O	O



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