

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 etc.

Surface water or rain water pumping 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

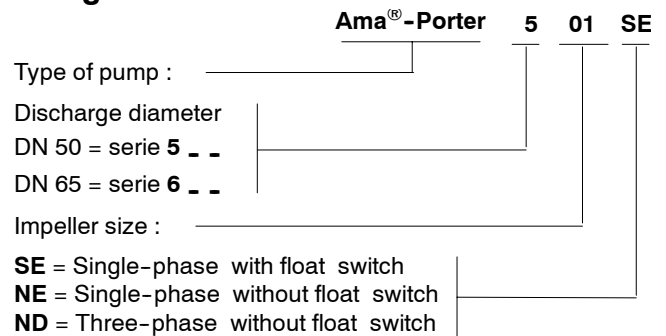
Shaft seal : (Pump side) Mechanical seal
Silicium Carbide/Alumin Oxide

Nuts & bolts : Stainless steel

Elastomers : Nitrile rubber

Float switch : Polypropylene

Designation



Pump type

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

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.

Bearings

Sealed for life radial ball bearings.

CE - EN 12 050

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 (∅ 60 to 80) Nuts and bolts for feet and elbow	3 feet in stainless steel Discharge elbow (2") Hosetail (2" ¹ / ₂) Hose clip (∅ 80 to 100) Nuts and bolts for feet and elbow
Stationary Guide rope or rail or hoop (vertical discharge connection)	Duckfoot bend 50/50 mm Claw Bracket Guiding rope or hoop Rail not included Anchor bolts Chain	Duckfoot bend 65/65 mm Claw Bracket Guiding rope or hoop Rail not included Anchor bolts Chain
Stationary Guide rope or 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

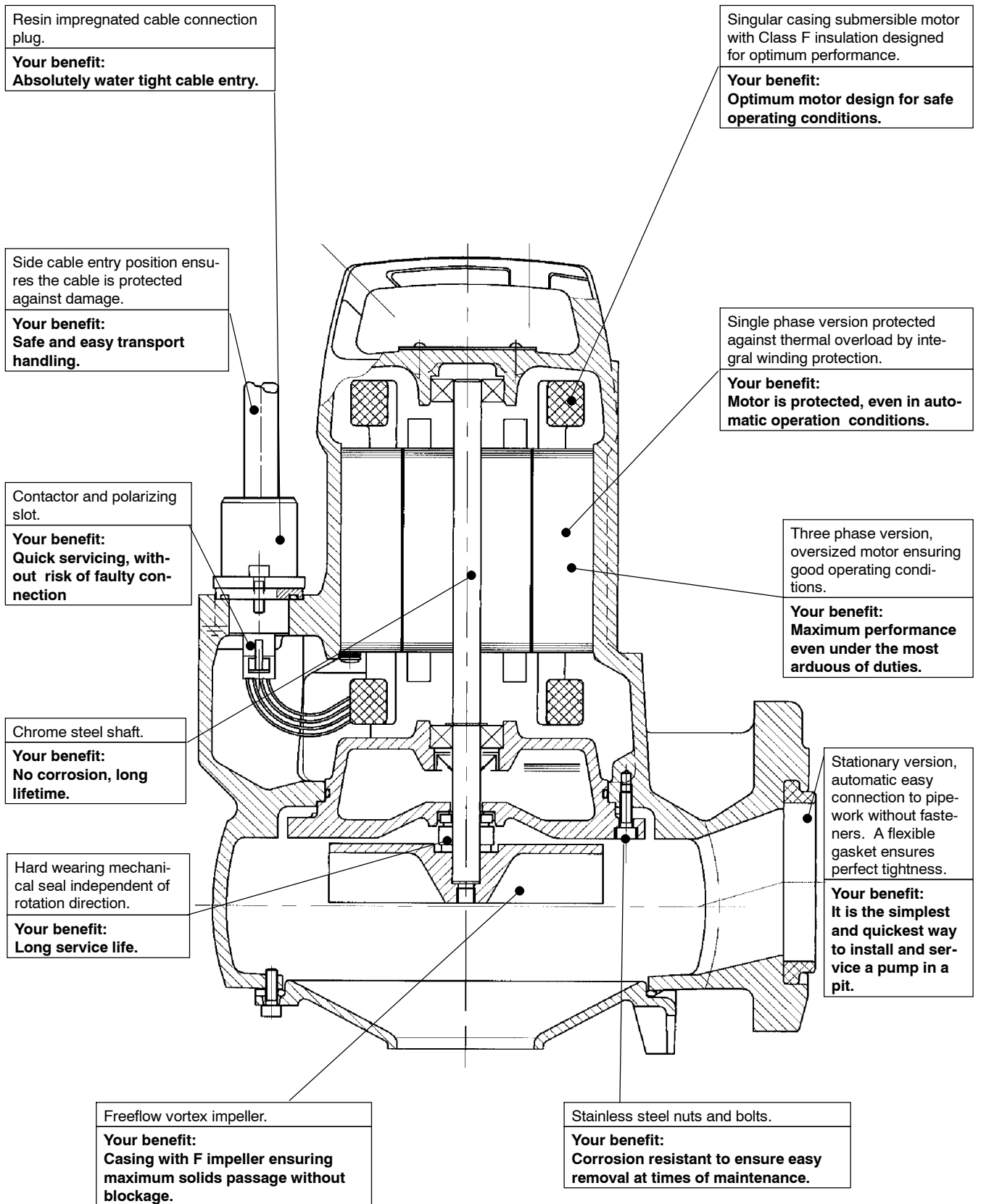
Single phase version

Integral thermal overload protection within motor windings.

Three phase version

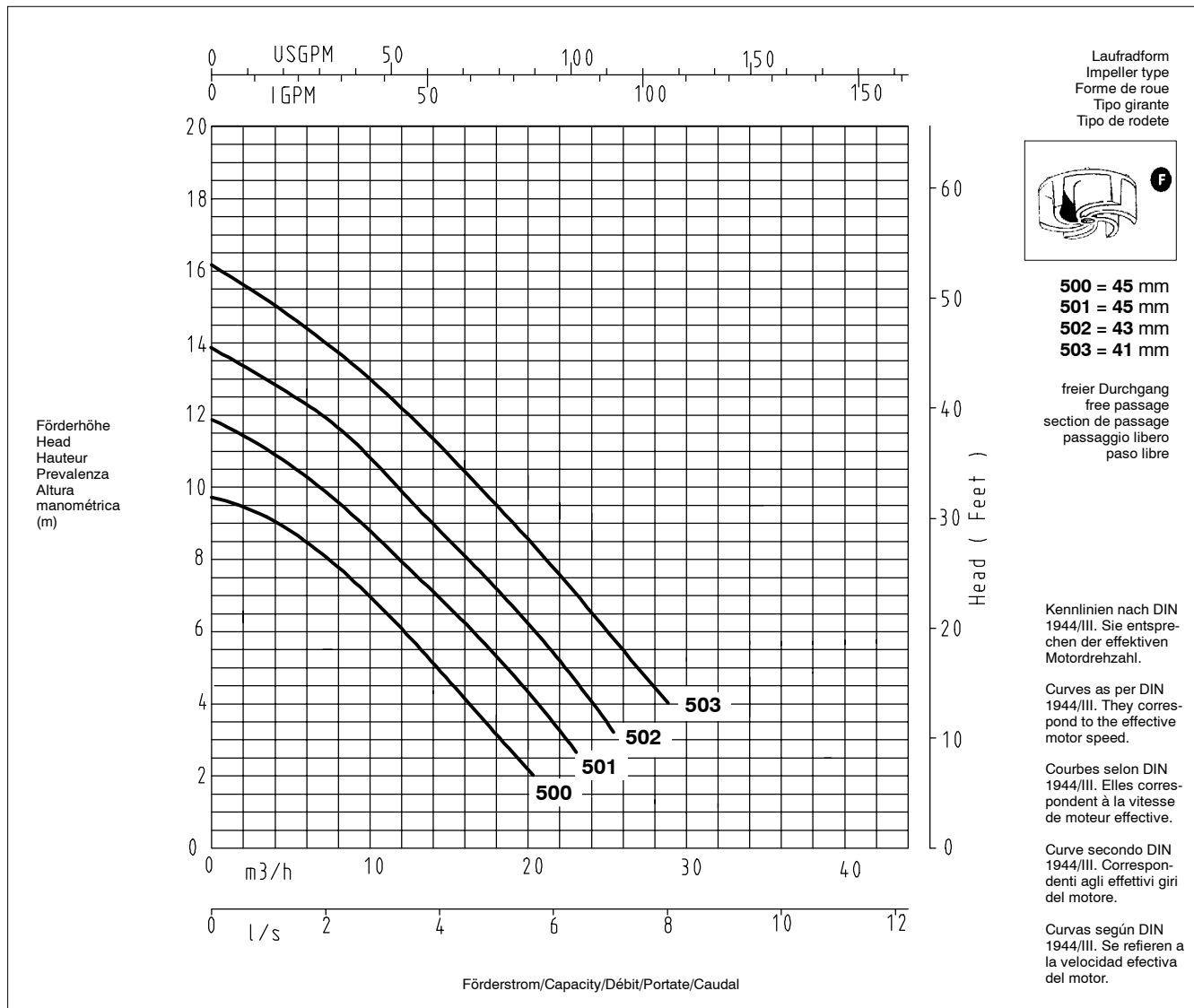
No thermal protection of the windings, current supply should be protected via a thermal overload relay installed inside the control panel and set to the current value indicated on the rating plate +15%

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



Ama[®]-Porter sizes 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

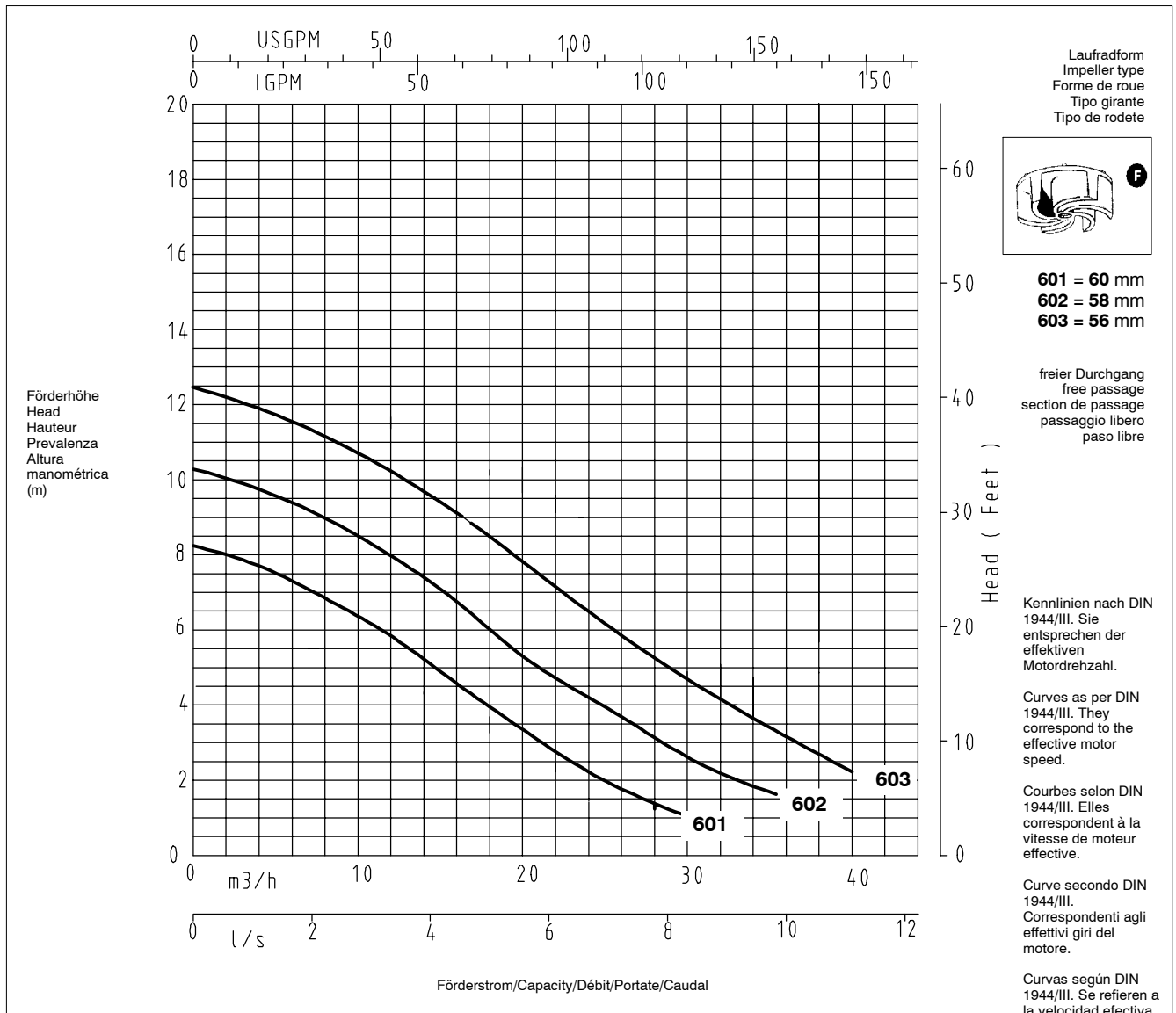
50 Hz - 3 ~ 400 V

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 kg/dm³, viscosity=1 cSt.

Ama®-Porter sizes 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

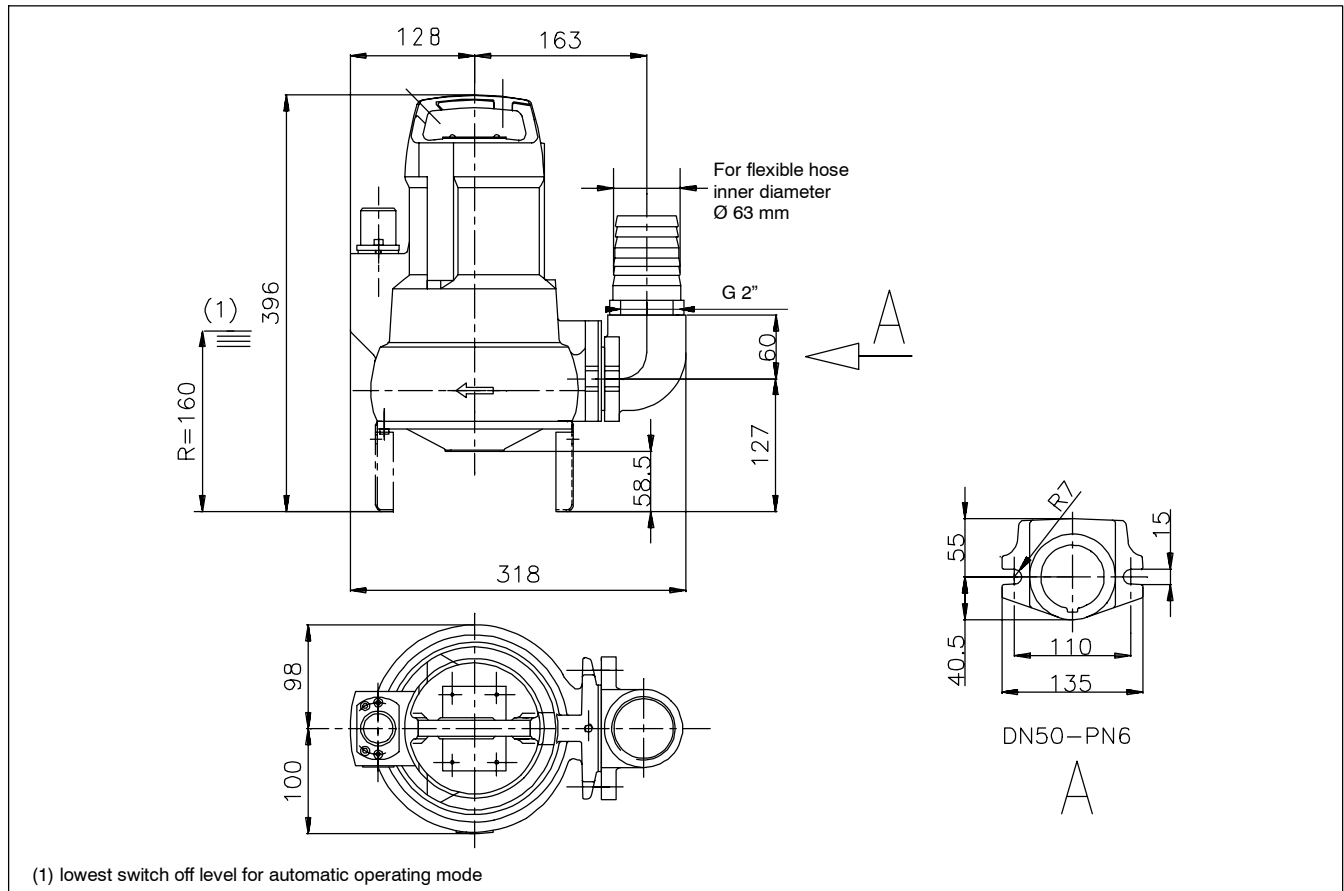
601 ND	110	1,1	0,75	2,8	18,3	40	4 x 1 mm ²	10	25	39 017 109
602 ND	120	1,5	1,1	3,0	18,3	40	4 x 1 mm ²	10	25	39 017 110
603 ND	130	2,05	1,5	3,5	18,3	40	4 x 1 mm ²	10	25	39 017 111

The diagrams refer to the effective speed of the motor.
Density=1 kg/dm³, viscosity=1 cSt.

Dimensions

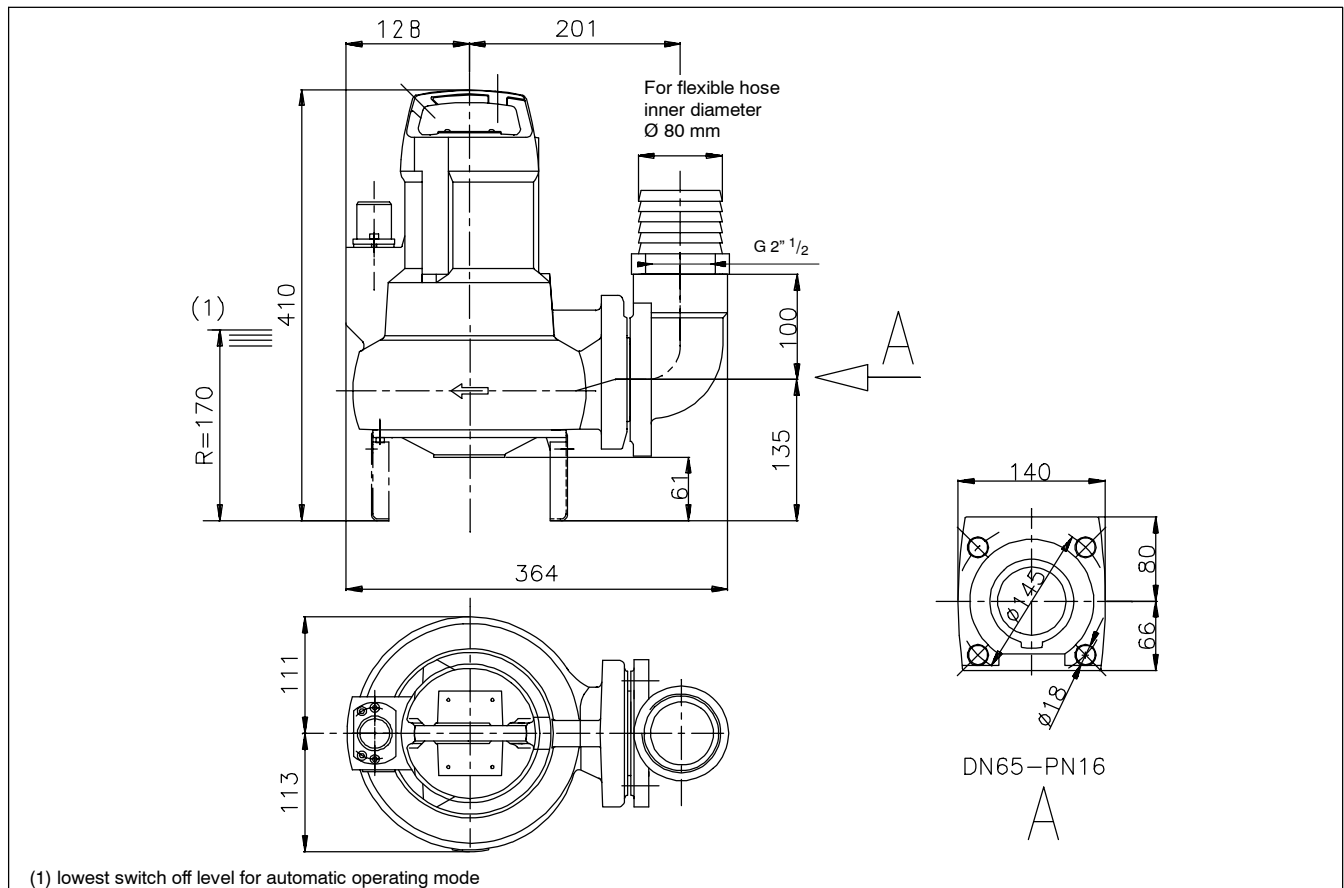
Ama[®]-Porter sizes 5 --

Transportable version

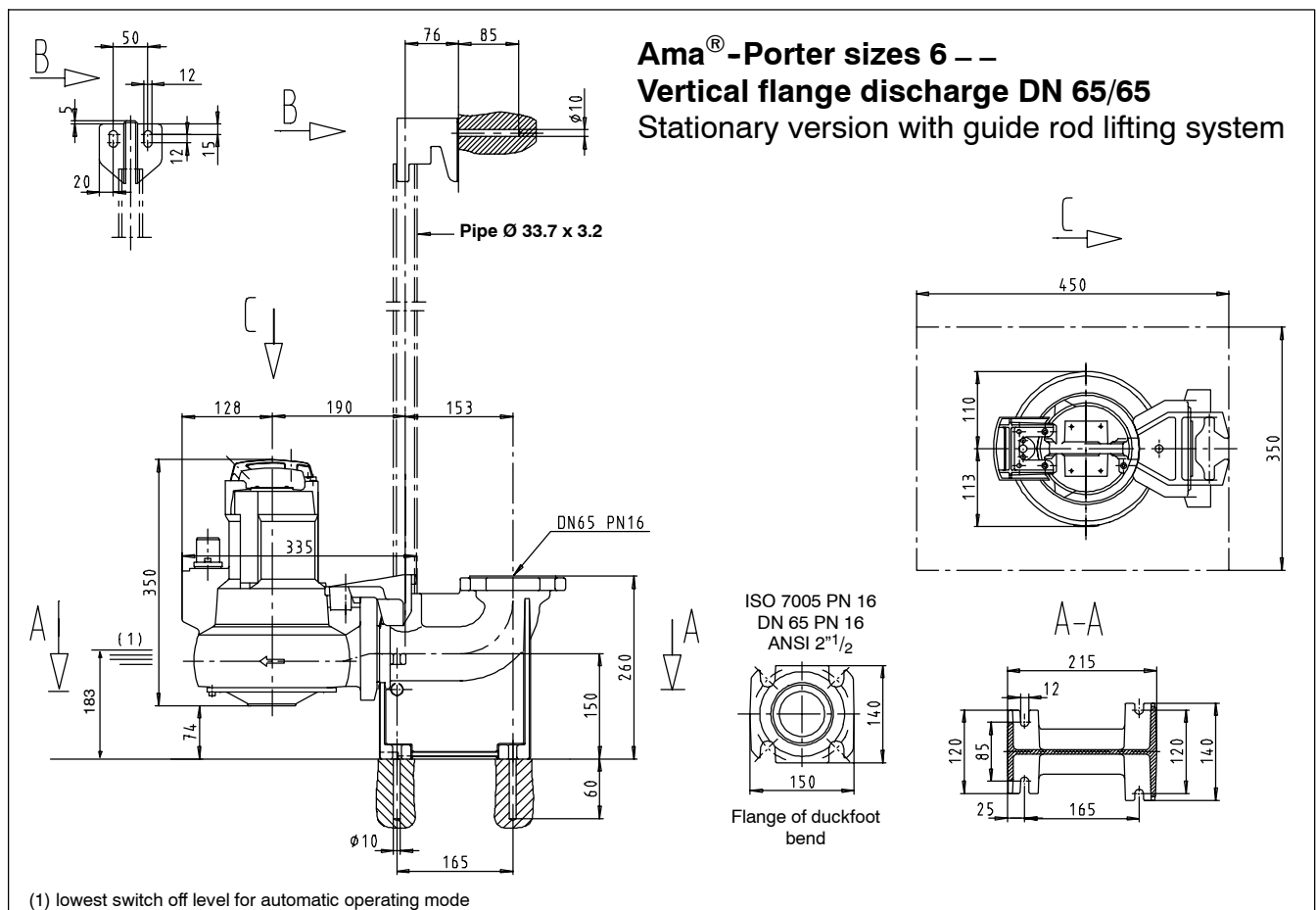
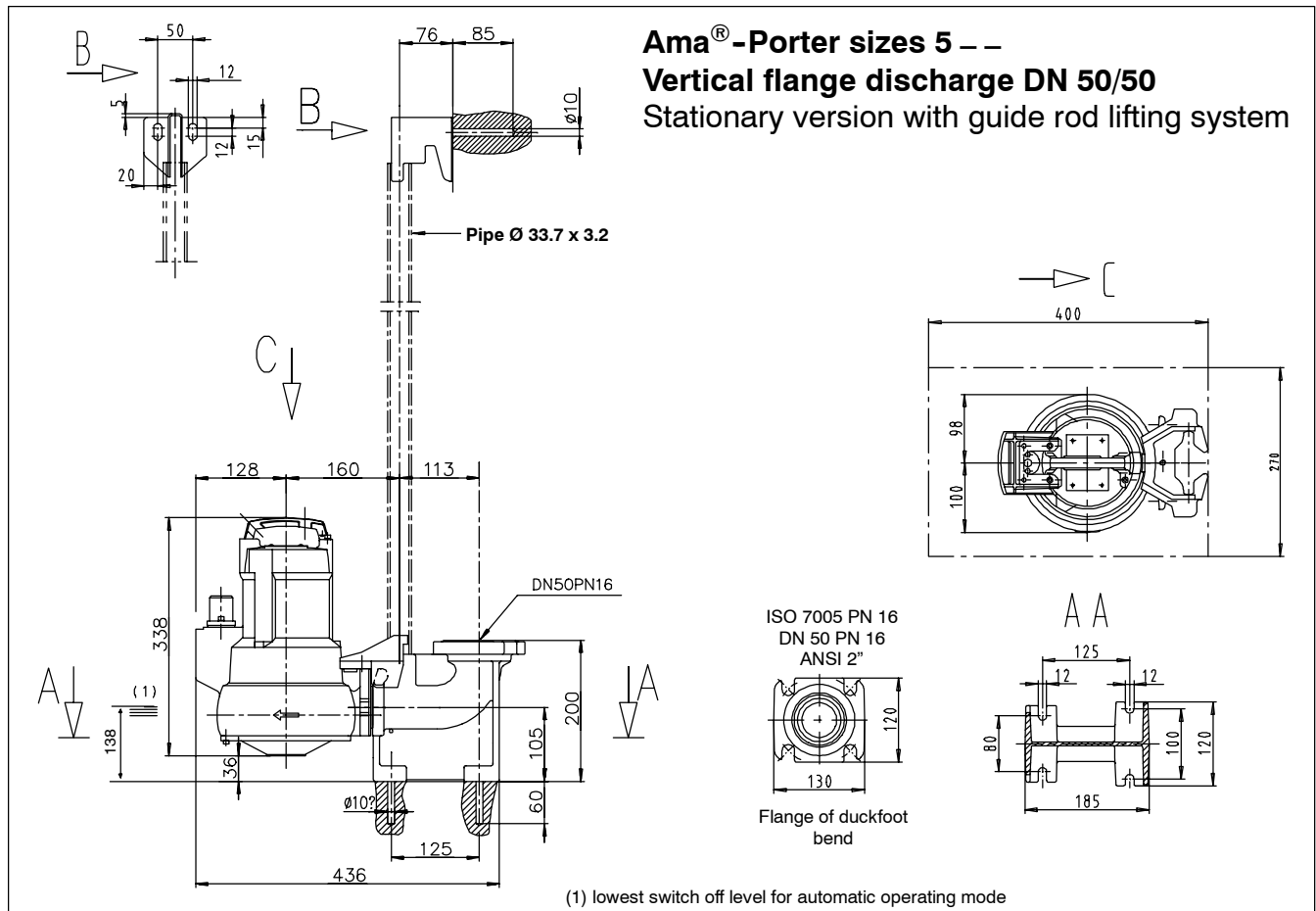


Ama[®]-Porter sizes 6 --

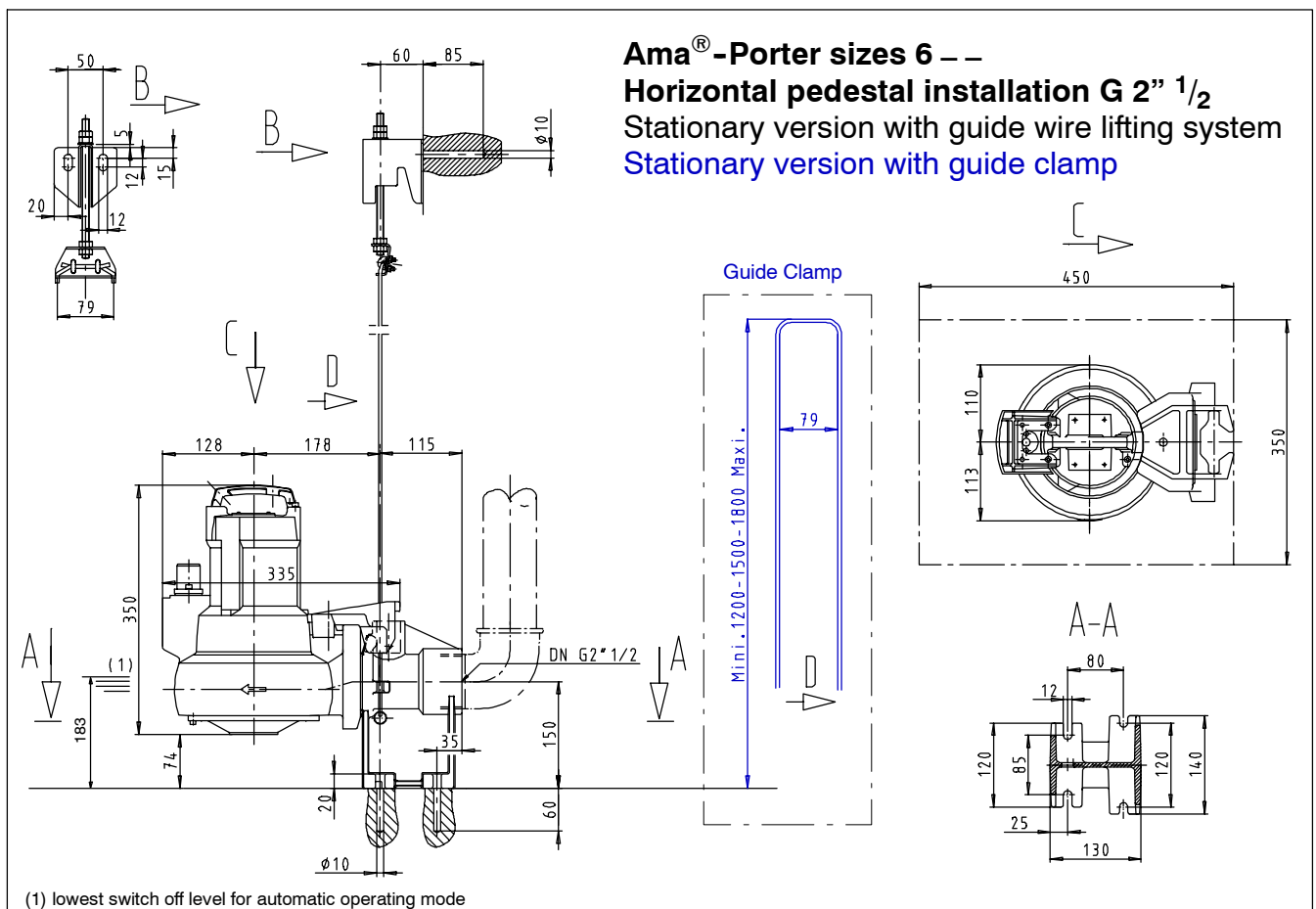
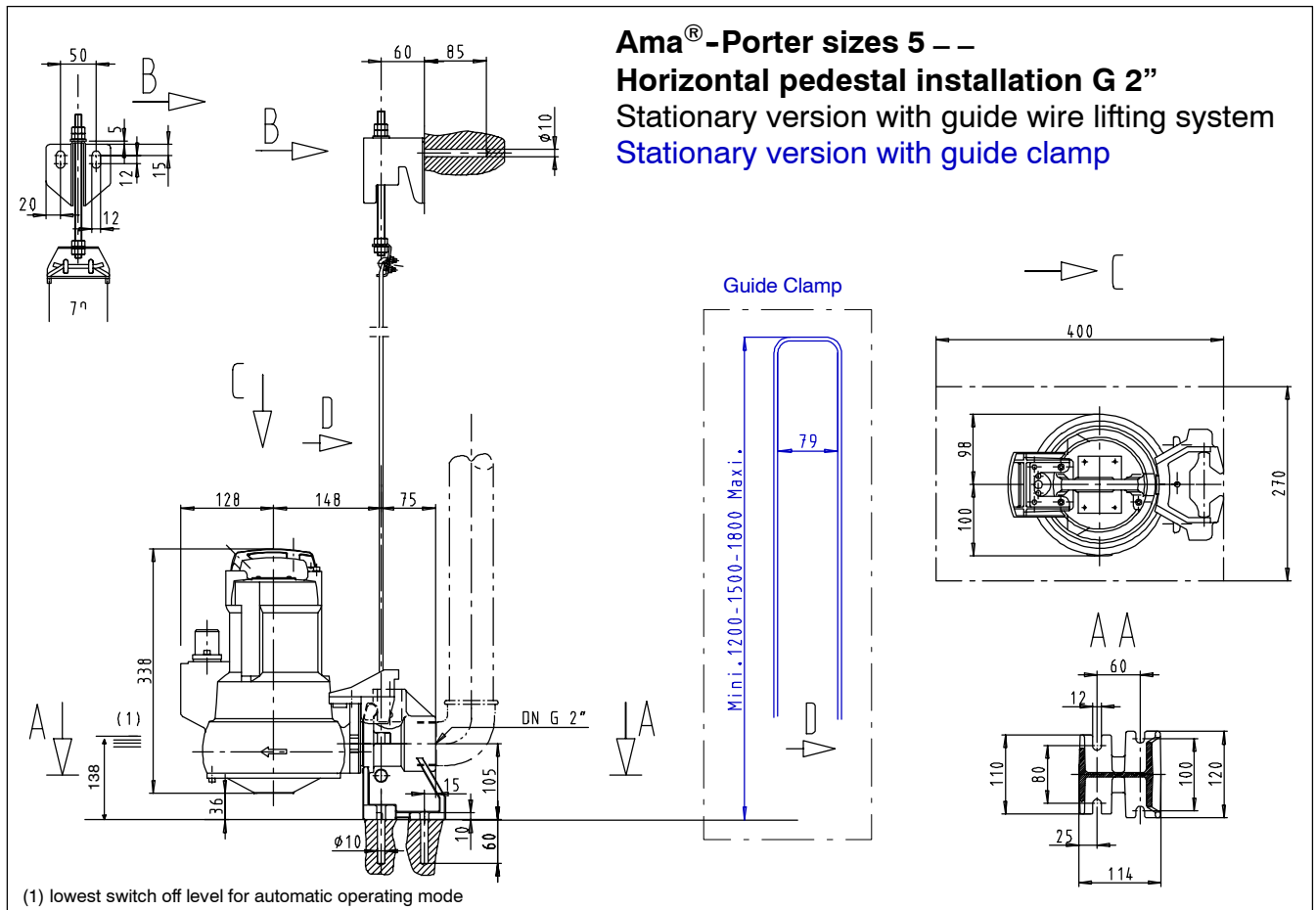
Transportable version



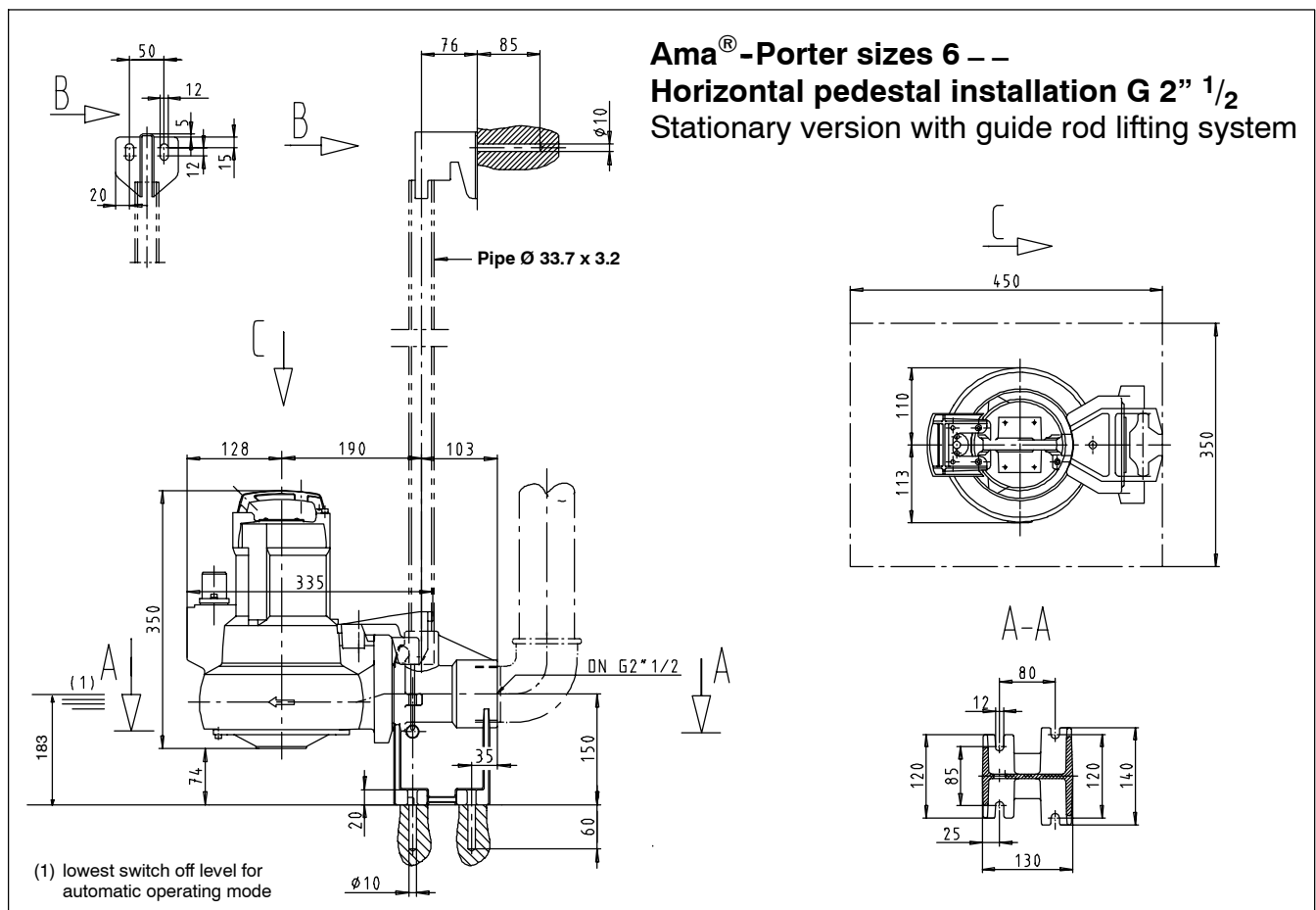
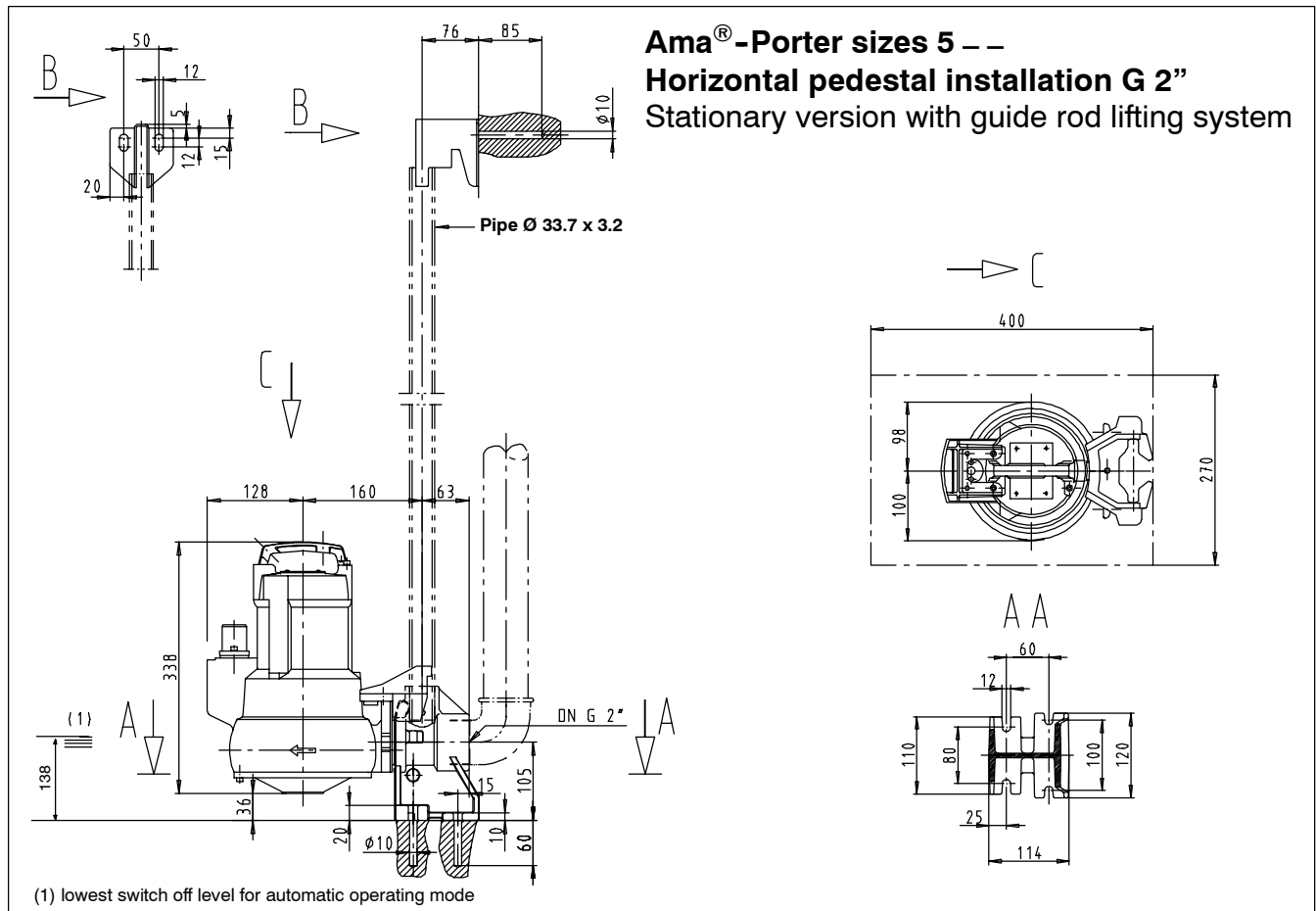
Dimensions



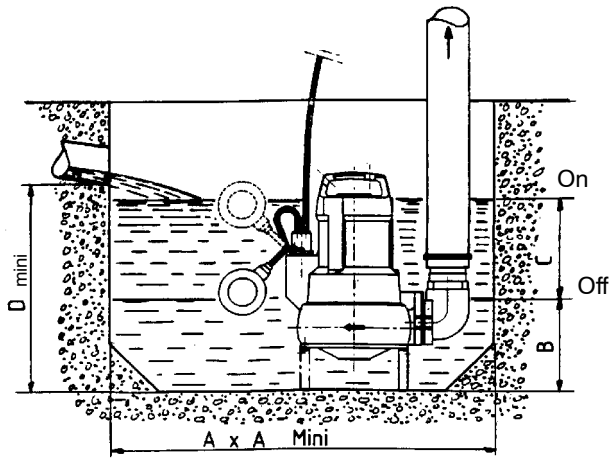
Dimensions



Dimensions



Installation in a sump



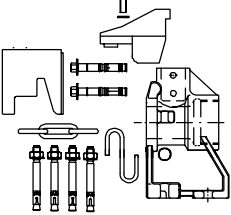
Dimensions in mm

	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..			
<p>P2+P5+P7 (guide hoop arrangement)</p>	Installation parts for stationary wet installation consisting of: duckfoot bend DN 50 guide hoop, bolts, anchor bolts, clamps with stainless steel bolts, 2 m chain (galvanized steel) and shackle 1.4401	Installation depth : 1.5 m 1.8 m 2.1 m	●		39 020 769	11.0
			●		39 020 770	12.0
			●		39 020 771	13.0
<p>P2+P5+P7 (guide hoop arrangement)</p>	Installation parts for stationary wet installation consisting of: duckfoot bend DN 65 guide hoop, bolts, anchor bolts, clamps with stainless steel bolts, 2 m chain (galvanized steel) and shackle 1.4401	Installation depth : 1.5 m 1.8 m 2.1 m		●	39 020 827	14.5
				●	39 020 828	15.5
				●	39 020 829	17.0
<p>P2+P5+P7 (guide hoop arrangement)</p>	Installation parts for stationary wet installation consisting of: duckfoot bend DN 50 / 2" guide hoop, bolts, anchor bolts, clamps with stainless steel bolts, 2 m chain (galvanized steel) and shackle 1.4401	Installation depth : 1.5 m 1.8 m 2.1 m	●		39 020 795	7.8
			●		39 020 796	8.8
			●		39 020 797	10.8
<p>P2+P5+P7 (guide hoop arrangement)</p>	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, 2 m chain (galvanized steel) and shackle 1.4401	Installation depth : 1.5 m 1.8 m 2.1 m		●	39 020 813	11.2
				●	39 020 814	12.2
				●	39 020 815	13.7
<p>P4 + P5 + P7 (guide wire arrangement)</p>	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, 5 m chain (galvanized steel) and shackle 1.4401	DN 50 DN 65	●		39 021 023	14.5
				●	39 021 025	17.6
<p>P4 + P5 + P7 (guide wire arrangement)</p>	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, 5 m chain (galvanized steel) and shackle 1.4401	DN 50 / 2" DN 65 / 2" 1/2	●		39 020 779	11.5
				●	39 020 806	14.7
<p>P4 + P5 + P7 (guide rail arrangement)</p>	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, 5 m chain (galvanized steel) and shackle 1.4401	DN 50 DN 65	●		39 021 212	14.0
				●	39 021 213	17.2

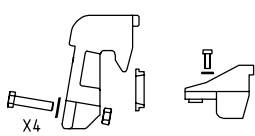
Installation Kits for Stationary Installation

Item Illustration	Description	Ama-Porter		Ident. No.	Weight net approx. kg/unit
		5..	6..		
P4 + P5 + P7 (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, 5 m chain (galvanized steel) and shackle 1.4401				
		DN 50 / 2" DN 65 / 2" 1/2	●	●	39 021 182 39 021 188


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	●		39 017 080	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		●	39 017 090	4.0

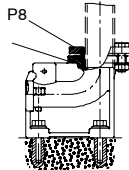











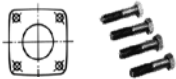

Bracket

Item Illustration	Description	Ama-Porter		Ident. No.	Weight net approx. kg/unit
		5..	6..		
P5  X4	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

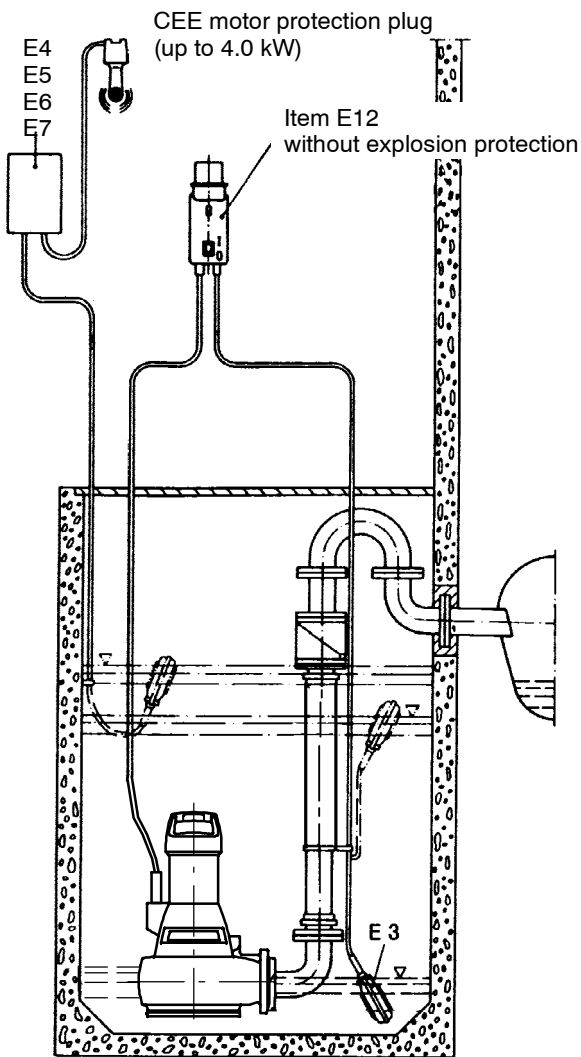
Item Illustration	Description	Ama-Porter		Ident. No.	Weight net approx. kg/unit
		5..	6..		
P7 Chain (galvanized steel) shackle 1.4401 and hook 1.4571 	2 m B5 x 35	●	●	19 141 819	1.0
	5 m B5 / 6	●	●	19 141 820	2,2

Accessories for Stationary and Transportable Models

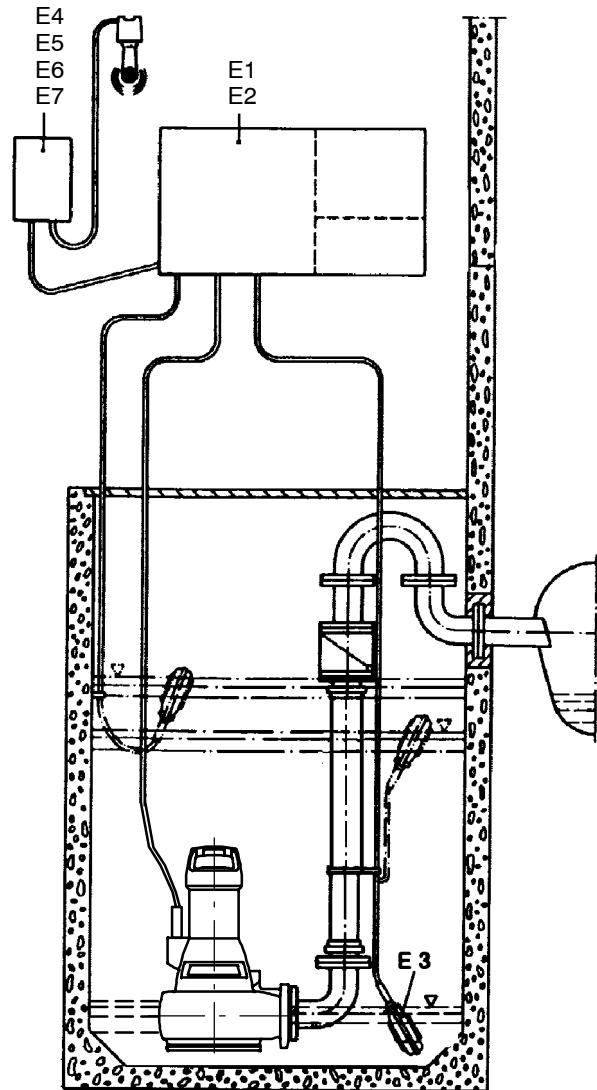
Item Illustration	Description	Connection	Ama-Porter		Ident. No.	Weight net approx. kg/unit
			5..	6..		
P8 (clamped connection) 	Flange for pipe coupling PN 10 at the flange of the duckfoot bend Mating dimensions to PN 16	DN 50 / R 2" pipe	●		19 551 111	1.0
		DN 65 / R 2" 1/2 pipe		●	39 020 184	1.3
P10 	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"	●		00 241 966	0.3
		G 2" 1/2		●	00 240 316	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	●		00 524 370	0.22
		B 75 / G 2 1/2 A		●	00 524 371	0.4
P18 	Plastic hose DN 50 DIN 14 811 with integrated C couplings	C 52 5 m	●		00 522 262	1.8
		C 52 10 m	●		00 522 263	3.4
		C 52 20 m	●		00 522 264	6.6
		B 75 5 m		●	39 018 686	3.5
		B 75 10 m		●	39 018 687	5.5
P19 	Plastic hose without coupling (max. 30 m) DIN 14 811	Ø 63 5 m	●		39 018 688	1.7
		10 m	●		39 018 689	3.4
		20 m	●		39 018 690	6.8
		30 m	●		39 019 073	10.2
		Ø 80 5 m		●	39 018 691	2.15
		10 m		●	39 019 062	4.3
		20 m		●	39 019 063	8.6
		30 m		●	39 019 072	12.9
		B 75 5 m		●	39 019 064	2.0
		10 m		●	39 019 065	4.0
		20 m		●	39 019 066	8.0
30 m		●	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/I 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		●	01 056 711	16.0
P24 	Gate valve to KSB's choice, Flanges drilled to PN 16	DN 65		●	01 056 707	17.0
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

Suggested Electrical Installation Layouts

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

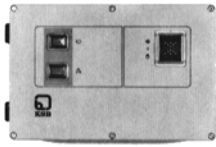
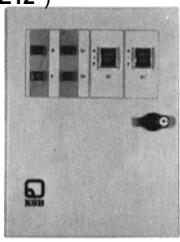


Suggestion No. 1

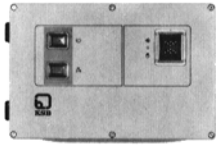
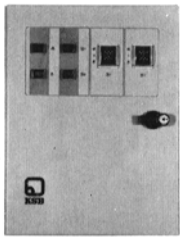


Suggestion No. 2

Electrical Accessories for Pumps Without Explosion Protection 1 ~ 230 V/50 Hz

Item	Illustration	Description	Size	Ident. No.	Ama-Porter							Weight	
					500 NE	501 NE	502 NE	503 NE	601 NE	602 NE	603 NE		
E6		Switchgear for single pump set IP 54	MSE 60.1	19 070 138	●								1.0 kg
			MSE 80.1	19 070 139		●				●			1.0 kg
			MSE 100.1	19 070 140			●	●			●	●	
E11¹⁾		Switchgear for single pump set with manual-0-automatic selector switch and motor contactor, indicator lamps and volt-free contacts for operation and fault indications. External socket with 10 A fuse. Enclosure IP 54, 270 x 220 x 125 mm Please note the instructions below!	EDW 100.1	19 070 187	●	●	●	●	●	●	●		2.0 kg
E12¹⁾		Switchgear for duplex pump set, IP 54 with automatic alternate, stand-by and peak load operation function. Integrated fuse elements, manual-0-automatic selector switch and motor contactor, indicator lamps for operation of pump 1, operation of pump 2, and fault indication. Volt-free contacts for operation and fault indication for each pump. Connections for temperature / float switch on terminal strip with external socket with 10 A fuse. Enclosure IP 54, 300 x 400 x 150 mm	DDW 100.1	19 070 151	●	●	●	●	●	●	●		9.3 kg

3 ~ 400 V/50 Hz

Item	Illustration	Description	Size	Rated motor currents	Ident. No.	Ama-Porter							Weight
						500 ND	501 ND	502 ND	503 ND	601 ND	602 ND	603 ND	
E6¹⁾		Switchgear for 1-phase single pump set Enclosure IP 54, motor contactor with overcurrent relay. Manual-0-automatic selector switch, indicator lamps for operation and fault indication, terminal for float switch. Enclosure IP 54 170 x 100 x 112	MSD 40.1	2.6-3.7 A	19 070 116	●	●	●		●	●		1.0 kg
			MSD 60.1	3.7-5.5 A	19 070 117				●			●	
E10¹⁾		Switchgear for single pump set with motor protection switch, manual-0-automatic selector switch and motor contactor. Indicator lamp and volt-free contacts for operation and fault indication. Terminals for motor temperature switch and float switch. Enclosure IP 54, 240 x 160 x 120	EDP 40.1	2.5-4 A	19 070 092	●	●	●		●	●		2.0 kg
			EDP 60.1	4-6.3 A	19 070 093				●			●	
E13¹⁾		Switchgear for double pumping stations with automatic alternate, stand-by and peak-load operation function, with one motor protection switch each, manual-0-automatic selector switch and motor contactor, indicator lamps for manual operation, operation pump 1, operation pump 2 and fault indication. Volt-free contacts for operation and fault. Connections for temperature / float switch on terminal strip Enclosure IP 54, 300 x 400 x 150	DDP 40.1	2.5-4 A	19 070 148	●	●	●		●	●		9.3 kg
			DDP 60.1	4-6 A	19 070 149				●			●	

¹Selected for 1 ~ 230 V or 3 ~ 400 V. For all other voltages and frequencies please contact KSB.

Electrical Accessories

Item	Illustration	Description	Ama-Porter							Ident-No.	Weight
			500	501	502	503	601	602	603		
E 3 	Float switch with power supply cable for	3 m	●	●	●	●	●	●	●	11 037 742	0.5
		5 m	●	●	●	●	●	●	●	11 037 743	0.8
		10 m	●	●	●	●	●	●	●	11 037 744	1.4
		15 m	●	●	●	●	●	●	●	11 037 745	1.8
		20 m	●	●	●	●	●	●	●	11 037 746	2.6
		25 m	●	●	●	●	●	●	●	11 037 747	2.9
	Float switch for intermediate installation, with power supply cable for	3 m	●	●	●	●	●	●	●	11 037 749	0.6
		5 m	●	●	●	●	●	●	●	11 037 750	0.9
		10 m	●	●	●	●	●	●	●	11 037 751	1.5
	Float switch for intermediate installation, for filling with power supply cable for	3 m	●	●	●	●	●	●	●	11 037 759	0.6
		5 m	●	●	●	●	●	●	●	11 037 760	0.9
		10 m	●	●	●	●	●	●	●	11 037 761	1.5
			20 m	●	●	●	●	●	●	11 037 762	2.7
	E 4		AS 0 alarm switchgear with circuit breaker, mains-dependent, with piezoceramic signal transmitter 85 dBA 140 x 80 x 57 mm at a distance of 1 m and 4.1 kHz. Use float switch (item E 14) or humidity sensor F 1 (item E 8) as contactor.						230V~/ 12V =	29 128 401	0.5 kg
	E 5		AS 2 alarm switchgear, dependent on mains supply, with piezoceramic signal transmitter, 85 dBA at a distance of 1m and 4.1 kHz, circuit breaker, green equipment-on lamp, volt-free contact for hook-up to a control station. Plastic housing IP 20, 140 x 80 x 57 mm Use float switch (item E 14) or humidity sensor F 1 (item E 8) as contactor.						230 V~/ 12V = 1.2 VA	29 128 422	0.5 kg
E 6		AS 4 alarm switchgear mains-independent, with piezoceramic signal transmitter, 85 dBA at a distance of 1 m and .4.1 kHz, with self-charging power supply unit for 5 hours' operation in case of a mains failure, circuit breaker, green equipment-on lamp, volt-free contact for hook-up to a control station. Plastic housing IP 20, 140 x 80 x 57 mm Use float switch (item E 3) or humidity sensor F 1 (item E 8) as contactor.						230V~/12V = 1.2 VA	29 128 442	1.2 kg	
E 7 	AS 5 alarm switchgear mains-independent, with self-charging power supply unit for 10 hours' operation in case of a mains failure, mains pilot LED, warning indicator light, horn-off push button, volt-free contact for hook-up to a control station, ready for connection with 1.8 m cable and plug. ISO housing IP 41, Dimensions: 190 x 165 x 75 mm							230V~/ 12V = 5 VA	00 530 561	1.7 kg	
		Internal horn, enclosure IP 33 Use float switch (item E 3) as contactor.							12V = 92 dB(A), 1.2 W	00 534 211	0.25 kg
E 8		Humidity sensor F 1, as contactor for alarm switchgears AS 0, AS 2 or AS 4, with 3 m connection cable. Possible applications for alarm transmission: High-water alarm by suspending the humidity sensor in a (pump) sump above the pump start-up level. Water alarm signal at a water level of only 1 mm (!), by placing the contactor on the floor of rooms subject to a flooding risk, e.g. the cellar or next to the washing machine in the kitchen or bathroom. 52 x 21 x 20 mm							19 072 366	0.9 kg	

Caution!
For areas without explosion risk only!



KSB S.A.
128, rue Carnot - 59320 Sequedin (Lille)
B.P. 95 - 59482 Haubourdin Cedex - France

- Phone : +33 3 20 22 70 00
- Fax : +33 3 20 22 71 47

• <http://www.ksb.com>