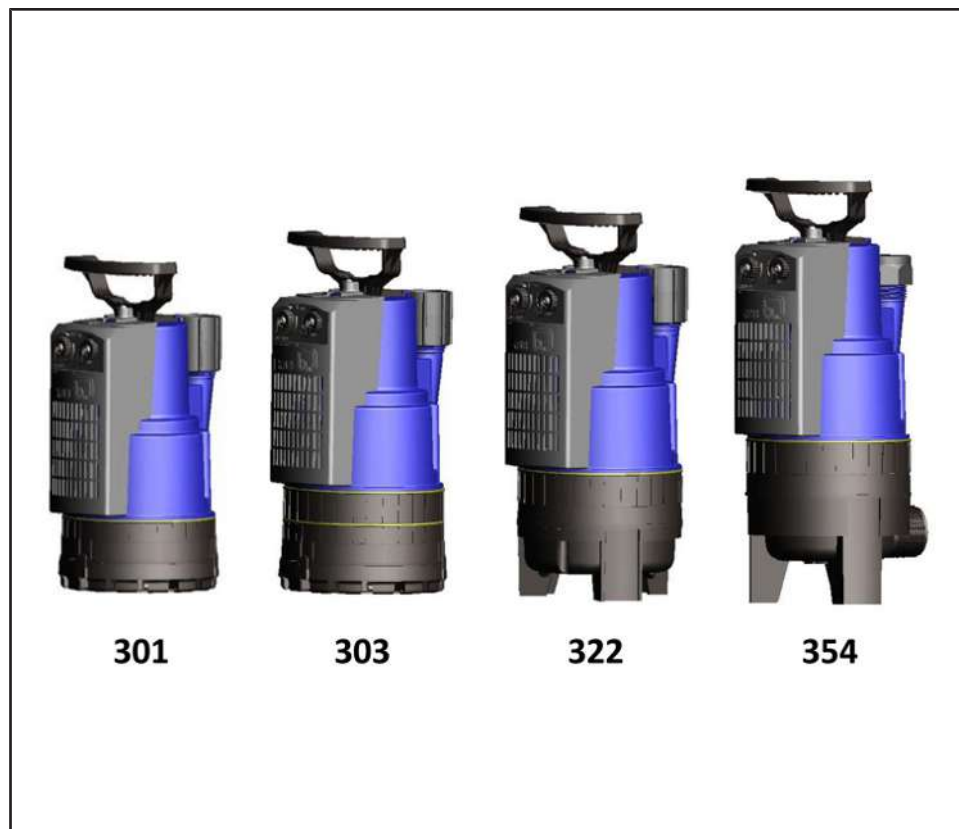


Submersible Waste Water Pump

## AmaDrainer 3

50 Hz

### Type Series Booklet



## **Legal information/Copyright**

Type Series Booklet AmaDrainer 3

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## Building Services: Drainage

### Drainage Pumps / Waste Water Pumps

# AmaDrainer 3



301

303

322

354

#### Main applications

- Drainage
- Disposal
- Drainage systems
- Lowering groundwater levels
- Maintaining groundwater levels
- Draining of pits, shafts, etc.

#### Fluids handled

- Sizes 301, 303:
  - Solid particles with a particle size of up to 10 mm
- Size 322:
  - Solid particles with a particle size of up to 18 mm
- Size 354:
  - Solid particles with a particle size of up to 35 mm

#### Material variant A (standard variant)

- Slightly contaminated waste water (up to 70 °C max.)
- Wash water (up to 90 °C max. for short periods  $t \leq 3$  minutes)
- Waste water without faeces
- Seepage water
- River water, lake water and groundwater

#### Material variant C (for aggressive fluids)

- Seawater (up to 20 °C max.)
- Brackish water
- Water containing salt (up to 20 °C max.)

#### Further information on fluids handled

Overview of fluids handled (⇒ Page 6)

#### Operating data

##### Operating properties

Characteristic		Value
Flow rate	Q [m <sup>3</sup> /h]	≤ 13,5
	Q [l/s]	≤ 3,75
Head	H [m]	≤ 11,3
Fluid temperature	T [°C]	≤ +70 (continuous duty)
		≤ +90 (short-time duty)

#### Design details

##### Design

- Fully floodable submersible motor pump
- Close-coupled design
- Single-stage
- Wetted parts made of materials coated with anti-corrosive
- Maximum immersion depth: 2 m
- Sizes 301, 303, 322:
  - Integrated swing check valve
- Size 322:
  - Integrated pump sump cleaning option

##### Installation

- Vertical installation
- Wet-installed transportable model

##### Drive

- Jacket-cooled single-phase AC motor
- 230 V, 50 Hz
- Frequency of starts ≤ 30 starts/hour
- Integrated temperature switch
- Enclosure IP68 (permanently submerged) to EN 60529 / IEC 529
- Power cable incl. shockproof plug

##### Shaft seal

- Drive end, 1 shaft seal ring
- Pump-end, 1 shaft seal ring
- Grease reservoir between the seals for lubrication
- Grease-packed for life
- Maintenance-free

##### Bearings

- Rolling element bearings
- Grease-packed for life
- Maintenance-free

##### Automation

- Pump controlled via integrated float switch
- Pump controlled by external control unit

## Designation

### Example: AmaDrainer 301 C

Designation key

Code	Description	
AmaDrainer 3	Type series	
0	Free passage [mm]	
	0	10 mm
	2	18 mm
	5	35 mm
1	Characteristic curve	
	1	Characteristic curve 301
	2	Characteristic curve 322
	3	Characteristic curve 303
	4	Characteristic curve 354
C	Material variant	
	C	Variant for aggressive fluids
	- <sup>1)</sup>	Standard variant

## Materials

Overview of available materials

Part No. (⇒ Page 23)	Description	Material variant A		Material variant C	
		301, 303	322, 354	301, 303	322, 354
101	Pump casing	Polypropylene, 30 % glass fibre reinforced			
107	Discharge casing	Polypropylene, 30 % glass fibre reinforced			
161	Casing cover	Polypropylene with 20 % talc (PP-TS 20)			
210	Shaft	AISI 431		Drive end: AISI 431 Pump end: AISI 316L	
230	Impeller	Noryl GNF2	Polyamide	Noryl GNF2	Polyamide
79-1	Automatic switchgear	Polypropylene			
811	Motor housing	AISI 304		AISI 316L	

### Product benefits

- Space-saving design with the smallest possible dimensions
- Ready-to-connect, easy installation and commissioning
- Flexible use with and without external control unit by simply locking the float switch in continuously ON position.
- Maintenance-free with grease-packed bearings sealed for life
- Low-weight, corrosion-resistant, impact-resistant, abrasion-resistant, noise-dampening high-quality plastic housing with robust handle
- All sizes available in material variant for aggressive fluids
- Sizes 301, 303:
  - Integrated low water level intake option for residual water level as low as 2 mm
- Sizes 301, 303, 322:
  - Integrated swing check valve
- Size 322:
  - Integrated pump sump cleaning option

### Product information

#### Product information as per Regulation No. 1907/2006 (REACH)

For information as per chemicals Regulation (EC) No 1907/2006 (REACH), see [https://www.ksb.com/ksb-de/konzern/Unternehmerische\\_Verantwortung/reach/](https://www.ksb.com/ksb-de/konzern/Unternehmerische_Verantwortung/reach/)

<sup>1</sup> Blank

**Overview of product features / selection tables**
**Overview of fluids handled**
**KSB EasySelect, selection software for all applications**


KSB EasySelect is a comprehensive selection tool for all applications. It guides users to an optimal solution for their projects by offering a fast, easy and user-friendly way to select and configure pumps and valves. All that is required are some project-specific criteria and a few minutes' time. The tool systematically guides the user through KSB's wide range of products to the right product for the application at hand.

KSB EasySelect



Other fluids upon request.

**Symbols key**

Symbol	Description
X	Standard
-	Version not available / not feasible

The table of fluids handled is a selection aid for different applications. It serves as guidance and is based on long-standing experience. The data are reference values and are not to be considered generally binding recommendations. They shall not be the basis for warranty claims. Please contact your nearest sales branch for in-depth advice.

**Table of fluids handled**

Fluids handled	Material variant A	Material variant C
Antifrogen-water mixture	X	-
Cider	X	-
Beer	X	-
Spirits	X	-
Buttermilk	X	-
Calcium acetate	X	-
Calcium hydroxide	X	-
Deionised water	X	-
Peanut oil	X	-
Vinegar	-	X
Ethylene glycol	X	-
Liquid fertiliser	X	-
Antifreeze	X	-
Glycerine	X	-
Grisiron	X	-
Uric acid	X	-
Potassium hydroxide	X	-
Calcium carbonate	X	-
Coconut oil	X	-
Evaporated milk	X	-
Lemonades	X	-
Corn oil	X	-
Milk	X	-
Whey	X	-
Sodium carbonate	X	-
Sodium chloride up to 3 % concentration	-	X
Sodium hydrogen phosphate	X	-
Sodium nitrate	X	-
Sodium perborate	X	-
Sodium sulphate	X	-
Polyglycols	X	-
Rapeseed oil	X	-
Castor oil	X	-
Silicone oil	X	-
Silo leachate	-	X
Soybean oil	X	-
Edible vinegar	-	X

Fluids handled	Material variant A	Material variant C
Edible oil	X	-
Trisodium phosphate	X	-
Vaseline	X	-
Washing machine lye	X	-
<b>Water</b>		
Drainage water	X	-
Fire-fighting water	X	-
Heating water	X	-
Lime water	-	X
Boiler water	X	-
Condensate	-	X
Cooling water	X	-
Seawater	-	X <sup>2)</sup>
Raw water	X	-
Swimming pool water (DIN 19643)	-	X
Salt water	-	X <sup>2)</sup>
Partly desalinated water	X	-
Fully desalinated water	-	X

## Technical data

### AmaDrainer 3

Technical data – 230 V, 50 Hz

Size	Discharge-side connection	Free passage [mm]	P <sub>1</sub> [kW]	P <sub>N</sub> [kW]	I <sub>N</sub> 1~230 V [A]	Power cable H05RN8-F		Mat. No.	[kg]
						[m]	[mm <sup>2</sup> ]		
<b>Material variant A (standard variant)</b>									
301 <sup>3)</sup>	Rp 1 1/4	10	0,43	0,25	1,90	10	3 × 0,75	48267549	4,2
303	Rp 1 1/4	10	0,90	0,60	4,00	10	3 × 0,75	48267550	5,4
322	Rp 1 1/4	18	0,70	0,40	3,50	10	3 × 0,75	48267551	5,4
354 <sup>4)</sup>	Rp 1 1/2	35	0,90	0,60	4,00	10	3 × 0,75	48267552	5,6
<b>Material variant C (for aggressive fluids)</b>									
301 C <sup>3)</sup>	Rp 1 1/4	10	0,43	0,25	1,90	10	3 × 0,75	48267553	4,2
303 C	Rp 1 1/4	10	0,90	0,60	4,00	10	3 × 0,75	48267554	5,4
322 C	Rp 1 1/4	18	0,70	0,40	3,50	10	3 × 0,75	48267555	5,4
354 C <sup>4)</sup>	Rp 1 1/2	35	0,90	0,60	4,00	10	3 × 0,75	48267556	5,6

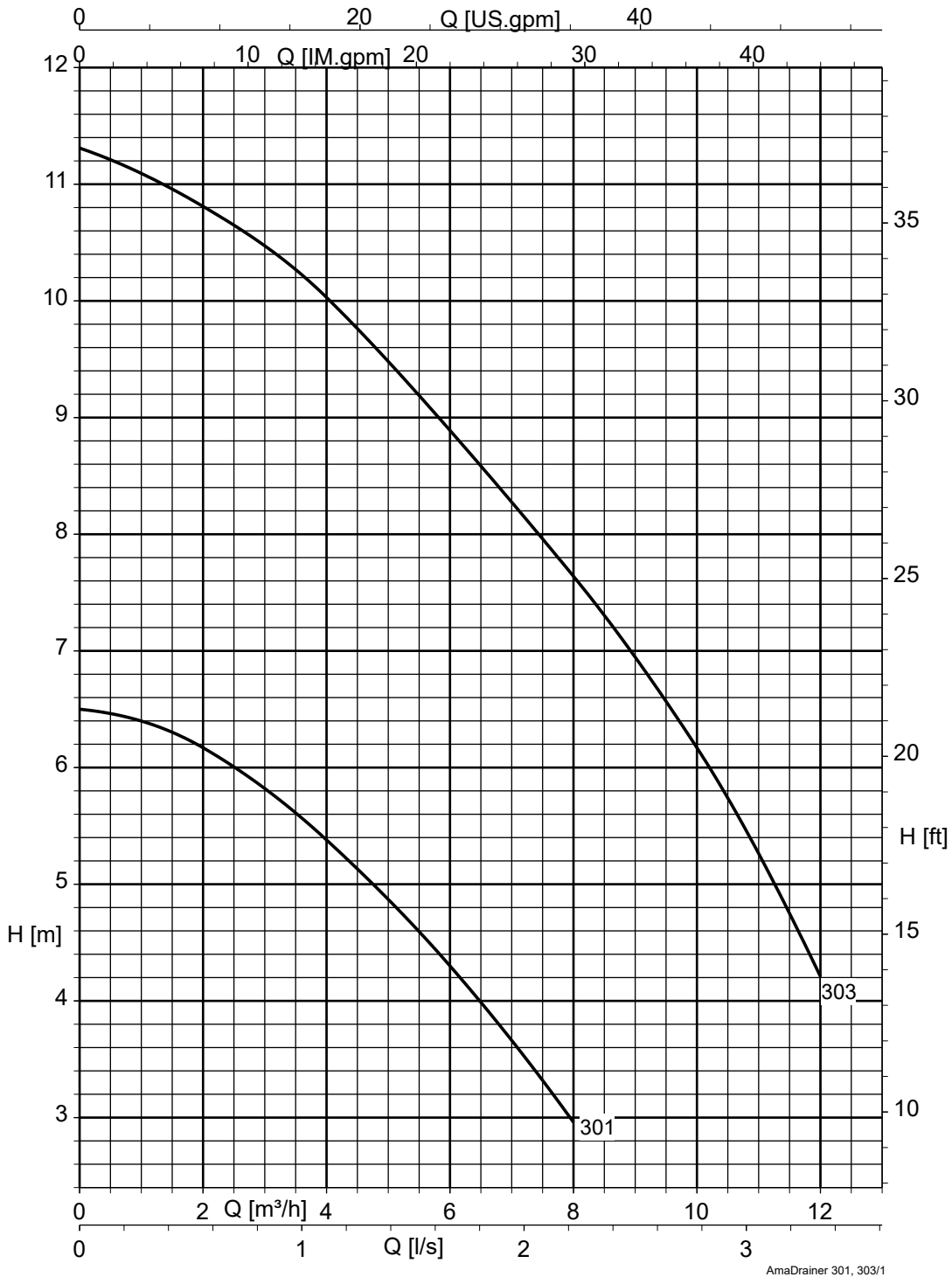
<sup>2</sup> Fluid temperature ≤ 20 °C

<sup>3</sup> Discharge-side adapter, graded (Rp 1 1/4 to Rp 3/4 connection, DN 25 or DN 32), included in the scope of supply

<sup>4</sup> 90° bend (cross-section 1 1/2 inches) for vertical discharge included in the scope of supply

Characteristic curves

AmaDrainer 301, 303, n = 2800 rpm



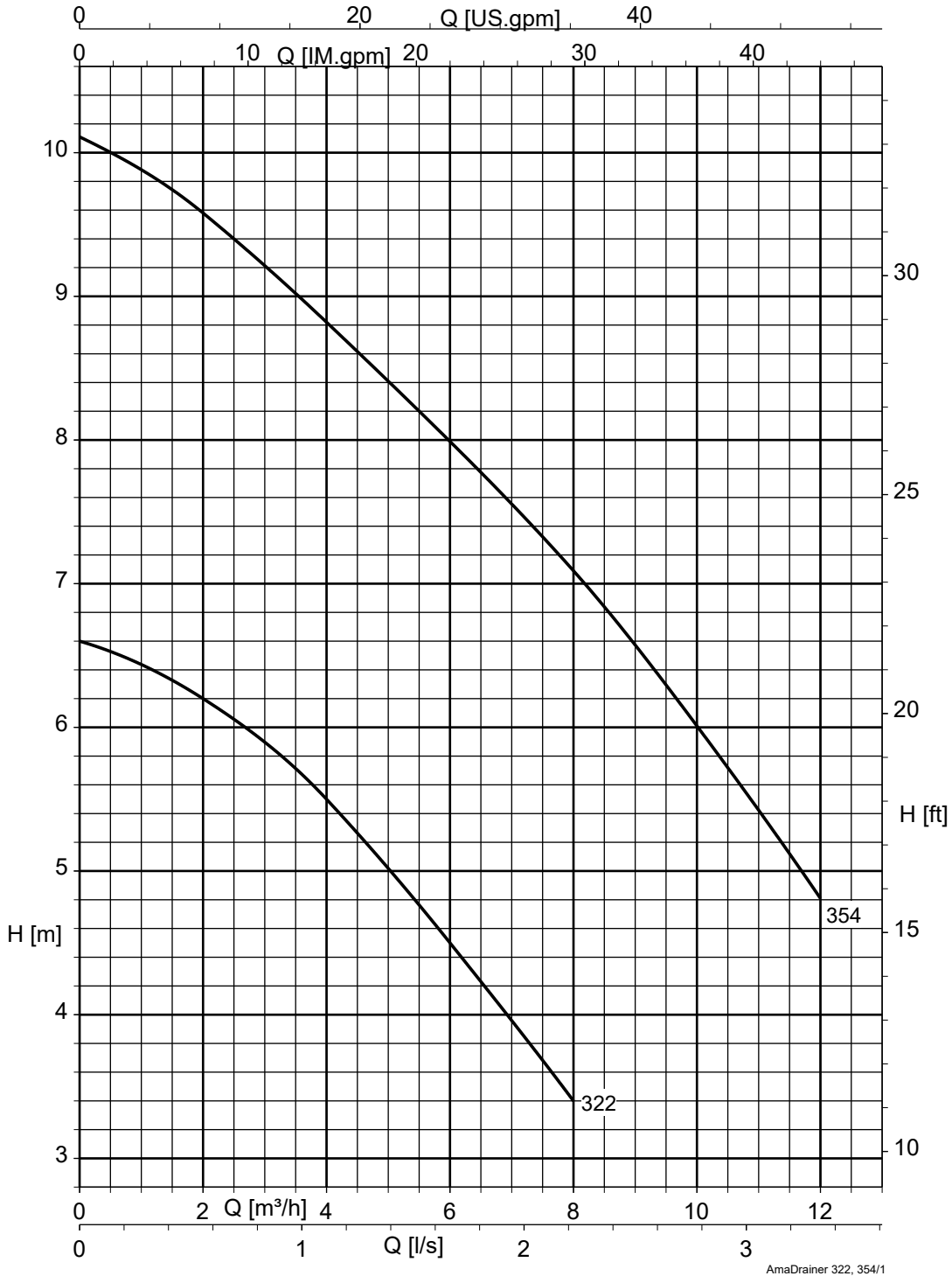
Sizes 301, 303: free passage = 10 mm

Performance tolerance to ISO 9906, Annex A (water under standard conditions)

The characteristic curves shown are those of the respective pumps. Hydraulic losses caused by the discharge-side piping, both inside and outside of the Ama-Drainer-Box lifting unit, must be taken into account during product selection.



AmaDrainer 322, 354, n = 2800 rpm



Size 322: free passage = 18 mm  
Size 354: free passage = 35 mm

Performance tolerance to ISO 9906, Annex A (water under standard conditions)

**i** The characteristic curves shown are those of the respective pumps. Hydraulic losses caused by the discharge-side piping, both inside and outside of the Ama-Drainer-Box lifting unit, must be taken into account during product selection.

Dimensions and connections

AmaDrainer 3

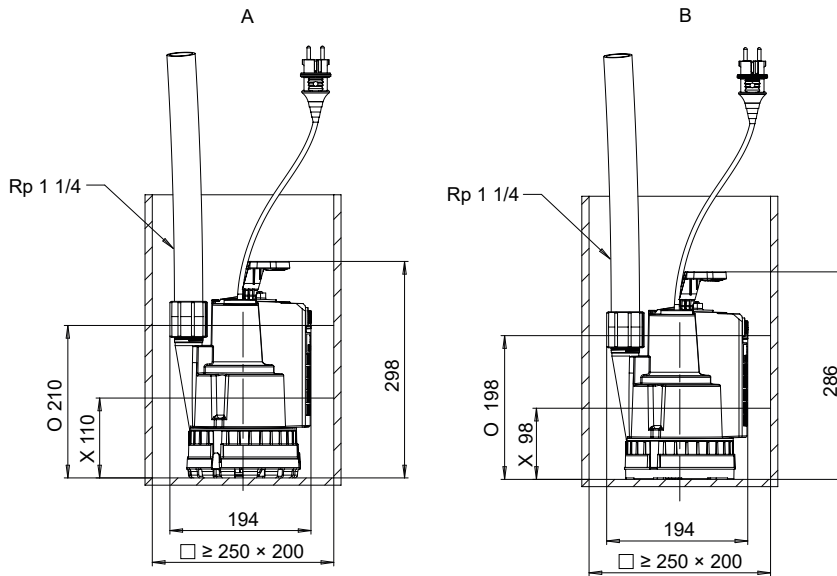


Fig. 1: Dimensions of AmaDrainer 301 [mm]

A	Standard installation
B	Installation for low water level intake, residual water level: 2 mm
O	Switching point ON
X	Switching point OFF
□	Minimum floor area required for installation in a tank or sump <sup>5)</sup>

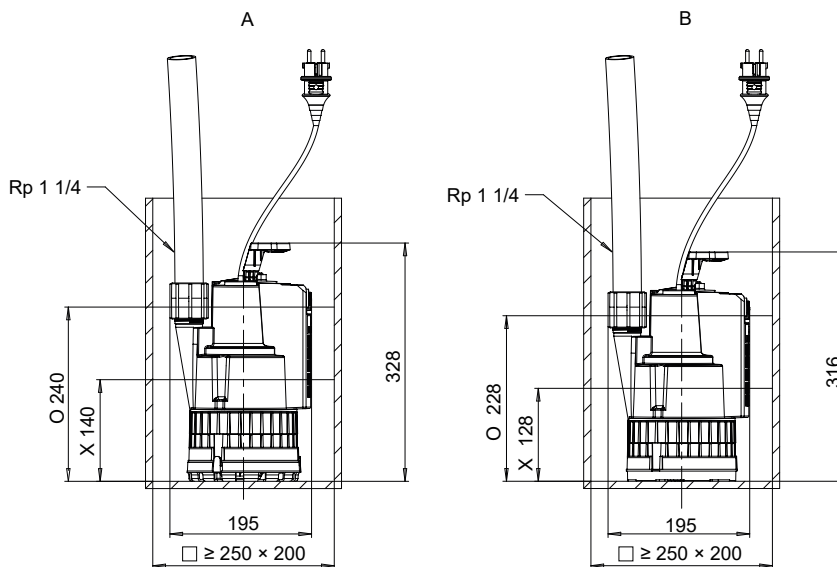


Fig. 2: Dimensions of AmaDrainer 303 [mm]

A	Standard installation
B	Installation for low water level intake, residual water level: 2 mm
O	Switching point ON
X	Switching point OFF
□	Minimum floor area required for installation in a tank or sump <sup>5)</sup>

<sup>5)</sup> When selecting the tank or sump take into account the pump set's maximum frequency of starts. If the frequency of starts would be too high, use a larger tank or sump if necessary.

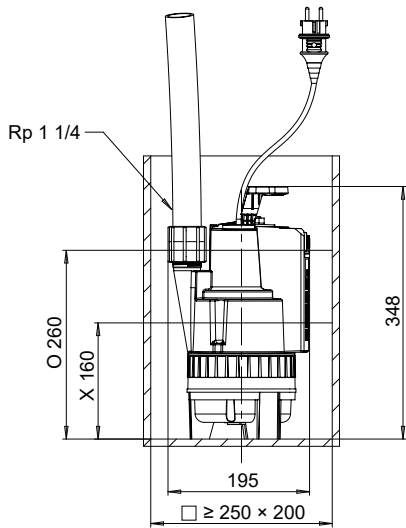


Fig. 3: Dimensions of AmaDrainer 322 [mm]

O	Switching point ON
X	Switching point OFF
□	Minimum floor area required for installation in a tank or sump <sup>5)</sup>

**i** AmaDrainer 322: The pump foot is provided with cleaning openings for cleaning the pump sump. The pump is delivered with the cleaning openings closed. They can be drilled open if required (diameter: 4 mm).

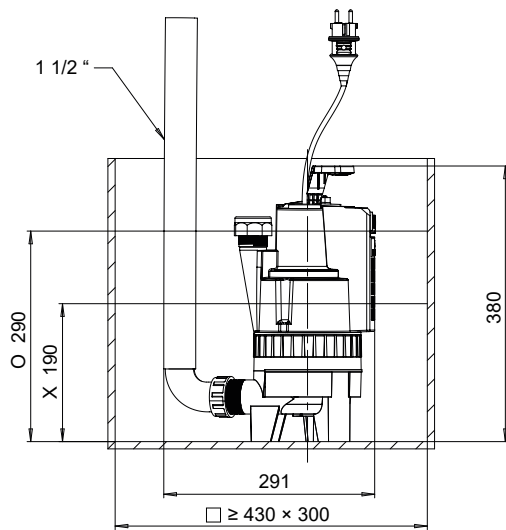


Fig. 4: Dimensions of AmaDrainer 354 [mm]

O	Switching point ON
X	Switching point OFF
□	Minimum floor area required for installation in a tank or sump <sup>5)</sup>

### Installation example of a dual-pump station

**i** The inlet is positioned above the highest float switch.

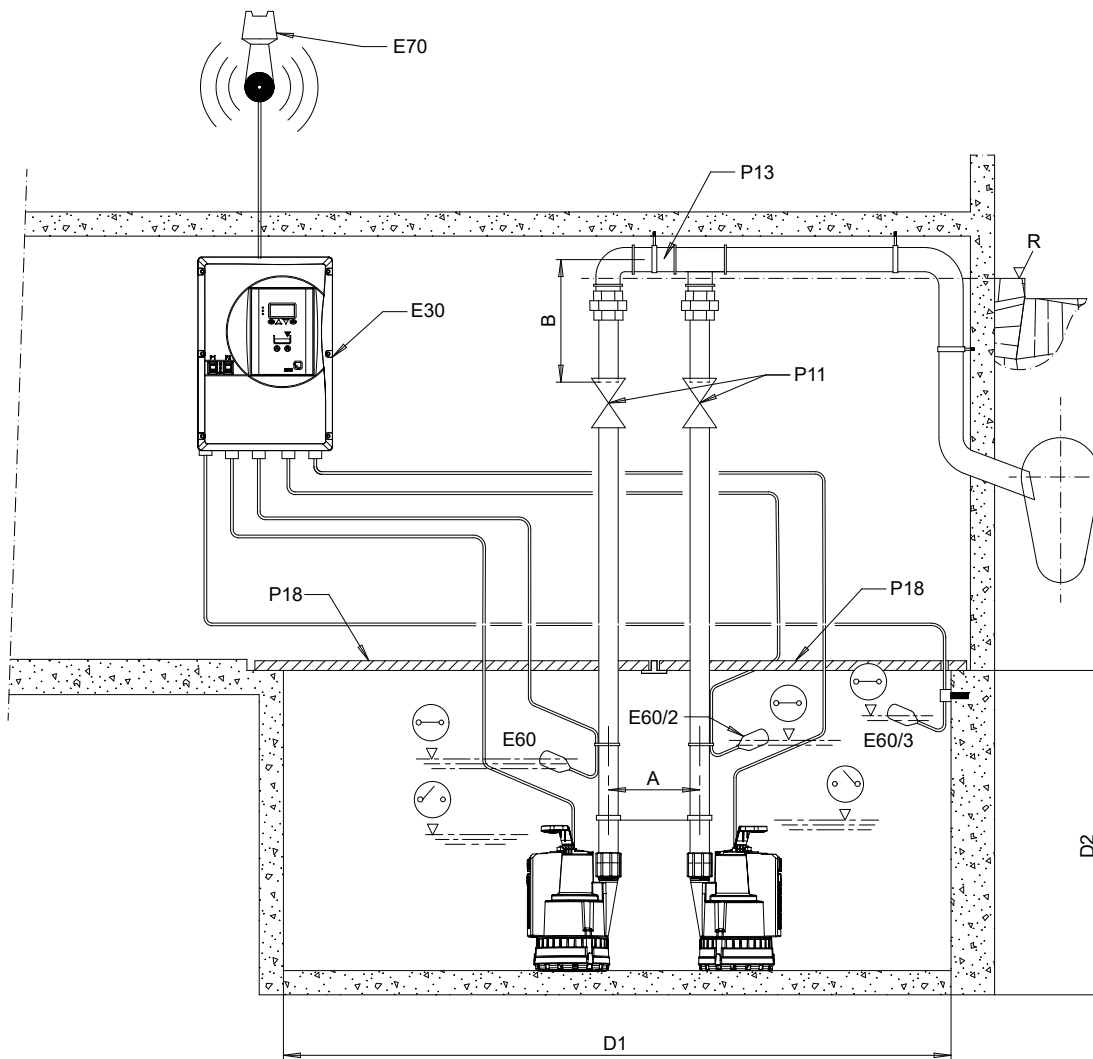


Fig. 5: Installation example of an AmaDrainer 301, 303, 322 dual-pump station

E30	Control unit
E60	Float switch, base load
E60/2	Float switch, peak load
E60/3	Float switch, high water alert
E70	Horn
P11	Shut-off valve
P13	Y-pipe
P18	Cover plate
R	Flood level

#### Dimensions of an AmaDrainer 301, 303, 322 dual-pump station

Size	A	B	D1	D2
	[mm]	[mm]	[mm]	[mm]
301	275	320	1060 × 500	420
303	275	320	1060 × 500	450
322	275	320	1060 × 500	470

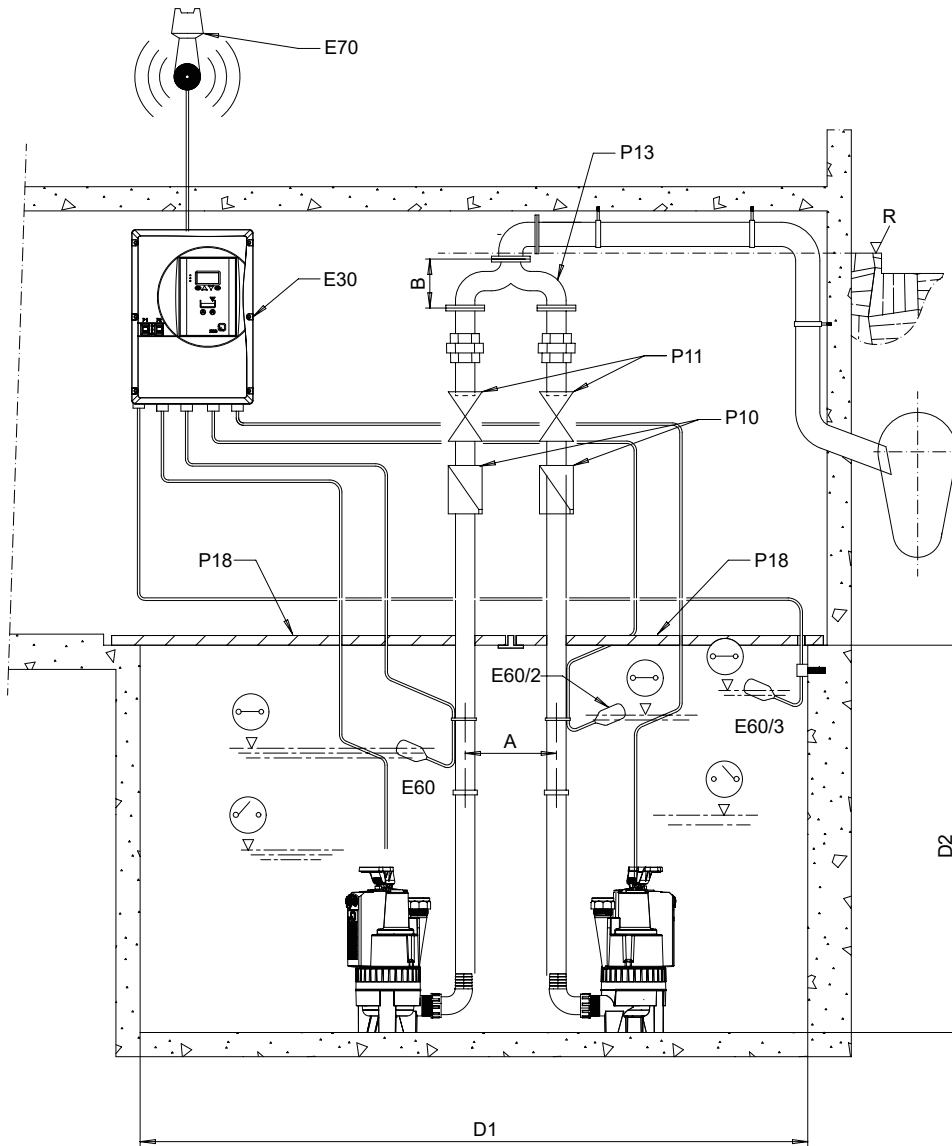


Fig. 6: Installation example of an AmaDrainer 354 dual-pump station




E30	Control unit
E60	Float switch, base load
E60/2	Float switch, peak load
E60/3	Float switch, high water alert
E70	Horn
P10	Lift check valve
P11	Shut-off valve
P13	Y-pipe
P18	Cover plate
R	Flood level

Dimensions of an AmaDrainer 354 dual-pump station

Size	A	B	D1	D2
	[mm]	[mm]	[mm]	[mm]
354	275	180	1060 x 500	500

## Spare parts

Overview of spare parts

Part No.	Description	AmaDrainer				Mat. No.	[kg]
		301	303	322	354		
79-1 	Repair set for automatic switchgear	X	X	X	X	01833946	0,16
576 	Handle	X	X	X	X	01834007	0,05
748 	Suction strainer	X	X	-	-	01834008	0,08

## Scope of supply

Depending on the model, the following items are included in the scope of supply:

- Pump set
- Installation/operating manual
- Size 301:
  - Discharge-side adapter, graded (connection Rp 1 1/4 to Rp 3/4, DN 25 or DN 32)
- Sizes 301, 303:
  - Removable suction strainer enabling low water level intake
- Sizes 301, 303, 322:
  - Integrated swing check valve
  - Connection socket with internal thread
- Size 322:
  - Integrated pump sump cleaning option
- Size 354:
  - 90° bend (cross-section 1 1/2 inches) for vertical discharge





**Accessories**
**Pump accessories**

## Pump accessories

Item	Description	Connection	AmaDrainer				Mat. No.	[kg]
			301	303	322	354		
P5 	Discharge-side adapter, graded For connecting various discharge lines (connections Rp 1 1/4 to Rp 3/4, DN 25 or DN 32)	Rp 1 1/4 to Rp 3/4, DN 25 or DN 32	- <sup>6)</sup>	✗	✗	-	05086820	0,156
P10 	RK swing check valve Plastic, EN 12 050-4, with internal thread ISO 7/1, with full port and drain plug	Rp 1 1/4	✗	✗	✗	-	01009771	0,1
		Rp 1 1/2	-	-	-	✗	01009772	0,25
P10 	Lift check valve, stainless steel (1.4401)	Rp 1 1/4	✗	✗	✗	-	01084936	2,1
		Rp 1 1/2	-	-	-	✗	01084935	2,2
P11 	Socket gate valve Material: CuZn, PN 16, with internal thread, with full port	Rp 1 1/4	✗	✗	✗	-	01014219	0,627
		Rp 1 1/2	-	-	-	✗	00411502	0,8
P13 	Y-pipe for dual-pump sets, with external thread, galvanised steel Y-pipe For dual-pump sets, grey cast iron, with hexagon head bolts, nuts and gaskets; flanges drilled to DIN 2501	Rp 1 1/4	✗	✗	✗	-	18040311	4,1
		DN 40	-	-	-	✗	40000688	10,6
P18 	Cover plate Tread-proof, split, with profile seals and angle iron mounting frame (type A 560) for 500 x 500 mm pits (Dual-pump sets with P13 Y-pipe are equipped with 2 cover plates next to each other.)	Rp 1 1/4	✗	✗	✗	✗	18075627	13
P21 	A 25 B drain hose set (see P32) Comprising: rigid coupling with external thread, 6 m plastic hose DN 25, rapid-action hose coupling Rp 1 1/4, (free passage 21 mm)	Rp 1 1/4	✗	✗	✗	-	18079719	3
P21 	Drain hose set Comprising: plastic hose, DN 40 or DN 50 (with integrated C couplings, DIN14811) and Storz rigid coupling (with internal thread to ISO 228/1) Can be selected via P24 and P28	C 42	-	-	-	✗	-	-
P24 	Storz rigid coupling with internal thread to DIN ISO 228/1 Aluminium alloy, for required piping components see P32	C-G 1 1/2	✗	✗	✗	✗	01002463	0,3

2332.51/01-EN

<sup>6</sup> Included in the scope of supply






Item	Description	Connection	AmaDrainer				Mat. No.	[kg]
			301	303	322	354		
P26	 Storz hose coupling Required counterpart see P24	C 52 (DIN 14321)	X	X	X	-	00524551	0,3
P28	 Plastic hose DN 40, with integrated C couplings, DIN 14811	C 42-5 m	X	X	X	X	01062592	1,7
		C 42-10 m	X	X	X	X	01062593	2,8
		C 42-20 m	X	X	X	X	01062594	5
	Plastic hose DN 50, DIN 14811, with integrated C couplings Required piping components see P32	C 52	X	X	X	X	00522262	2,3
		C 52	X	X	X	X	00522263	4,2
		C 52	X	X	X	X	00522264	5,7
P29	 Threaded flange for Y-pipe (P13), internal thread	DN 40 / Rp 1 1/2	-	-	-	X	00260478	1,8
P32	 Pipe extension for Storz rigid coupling C (P24) PVC hard, internal/external thread For use without swing check valve and union nut	Female Rp 1 1/4 / Male R 1 1/2 × 170	X	X	X	-	11035587	0,2



## Control units and switchgear


Not valid for France.

### Control units and switchgear

Item	Description	1~230 V	Type	AmaDrainer				Mat. No.	[kg]
				301	303	322	354		
E 1 	Switchgear MSE for float switch  With integrated motor protection relay, thermal motor protection, manual-0-automatic selector switch, operation and fault indicator lamps  Dimensions (W x H x D) 100 x 170 x 112 mm	X	25.1	X	-	-	-	19070136	1
			40.1	-	X	X	X	19070137	1
E10 	LevelControl Basic 2 control unit for single-pump station, IP54  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, indication of water level, volt-free contact for general fault message, motor temperature warning (thermal circuit breaker) – self-acknowledging; motor leakage/moisture monitoring, optional mains-independent alarm via rechargeable battery (E90)  For float switch or 4 - 20 mA sensor, optionally with master switch, 400 x 281 x 135 mm	X	BC1 230 DFNO 100	X	X	X	X	19073760	4,5
E30 	LevelControl Basic 2 control unit for dual-pump station, IP54  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 contract for general fault message, 230 V variant: with external socket, 400 V variant: with motor protection switch, optional mains-independent alarm via rechargeable battery  For float switch or 4 - 20 mA sensor, optionally with master switch, 400 x 281 x 135 mm	X	BC2 230 DFNO 100	X	X	X	X	19073774	4,7
<b>Optional components for LevelControl<sup>7)</sup></b>									
O1 	Master switch for LevelControl Basic 2 BC, fitted	-	-	X	X	X	X	01143084	0,2
O200 	Signalling module for LevelControl Basic 2 BC	-	-	X	X	X	X	19075182	0,2

<sup>7)</sup> Process optional components via KSB EasySelect, otherwise they might be supplied but not fitted.

**LevelControl Basic 2 control units**

 Not valid for France.

Key to the symbols

Symbol	Description
o	Optional
X	Available
-	Not available






Overview of LevelControl Basic 2 control units

Feature	Single-pump station float switch or 4 - 20 mA sensor	Dual-pump station float switch or 4 - 20 mA sensor
230 V, up to 10.0 A	BC1 230 <sup>DFNO</sup> 100	BC2 230 <sup>DFNO</sup> 100
<b>Functions</b>		
Draining	X	X
Filling using float switch(es)	X	X
Stand-by pump: 1 pump redundant	-	X
Pump changeover after each start	-	X
Pump changeover in event of pump fault	-	X
Peak load operation function	-	X
Runtime limitation	X	X
OFF via after-run time	X	X
OFF via level	X	X
Functional check run after idle period	X	X
Alert history	X	X
<b>Display and operation</b>		
7-segment display	X	X
Indication of water level	Switching points	Switching points
Operation / fault / pump running (displayed for each pump)	Multicolour LED	Multicolour LED
General fault (traffic light)	LED	LED
High water	LED	LED
Mains voltage	X	X
Mains frequency	-	-
Motor current per pump	-	-
Operating hours of each pump	X	X
Operating hours of the system	-	-
Starts per pump	X	X
Effective power per pump	-	-
Phase monitoring	X	X
Change of switching levels via control panel	X	X
<b>Housing H x W x D [mm], IP54</b>		
Plastic 400 x 281 x 135	X	X
Sheet steel 400 x 300 x 155	-	-
Sheet steel 600 x 400 x 200	-	-
<b>Built-in components</b>		
Master switch (lockable)	o	o
Manual-0-automatic selector switch per pump	X	X
DOL starting	X	X
Star-delta starting	-	-
Shockproof socket 230 V	X	X
<b>Motor protection</b>		
Fuse per pump	X	X
Motor protection switch per pump (overcurrent protection and short-circuit protection)	-	-
Motor temperature warning input	X	X
Motor temperature alert input	X	X
<b>Pump</b>		
Thermal circuit breaker (TCB) / bimetal switch per pump	Bimetal switch in the motor	Bimetal switch in the motor
<b>Optional components</b>		

Feature	Single-pump station float switch or 4 - 20 mA sensor	Dual-pump station float switch or 4 - 20 mA sensor
Rechargeable battery for powering the device	o	o
<b>Alarm equipment</b>		
1 free alarm input	x	x
1 digital input for high water alert	x	x
Volt-free contact (changeover contact) for general fault message / "in operation" message	x	x
Piezo buzzer 85 dB(A)	x	x
Horn / alarm combination / alarm strobe light 12 V DC	o	o
<b>Inputs/outputs</b>		
Inputs for float switches	4	4
4 - 20 mA analog input	x	x
Integrated pneumatic pressure sensor up to 3 metres of water (up to 10 metres on request)	-	-
Bubbler control with compressor up to 2 metres of water	-	-
Remote acknowledgement	x	x
12 V DC connection for horn, etc.	x	x
<b>Sensor equipment</b>		
Float switch (NO contact)	o	o
F1 leakage sensor	o	o
<b>Tools</b>		
KSB ServiceTool	o	o










### Alarm switchgears for pumps, non-ATEX-compliant

AS 0/AS 1/AS 2/AS 4/AS 5

Item	Description	Mat. No.	[kg]
E50	 <p>Alarm switchgear AS 0 with circuit breaker, acoustic signal transmitter with 85 dB(A), green equipment-on lamp Plastic housing, IP20, H x W x D = 140 x 80 x 57 [mm]. Use float switch, F1 leakage sensor (item E64), M1 alarm contactor or signal relay of control unit as contactor.</p>	29128401	0,5
E51	 <p>Alarm switchgear AS 2 With circuit breaker, acoustic signalling device with 85 dB(A), green equipment-on lamp, volt-free contact for hook-up to a control station Plastic housing, IP20, H x W x D = 140 x 80 x 57 [mm]. Use float switch, F1 leakage sensor (item E64) or signal relay of control unit as contactor.</p>	29128422	0,5
E52	 <p>Alarm switchgear AS 4 with circuit breaker, acoustic signal transmitter with 85 dB(A), green equipment-on lamp, volt-free contact for hook-up to a control station, self-charging power supply unit for 5 hours of operation in the event of a power failure Plastic housing, IP20, H x W x D = 140 x 80 x 57 [mm]. Use float switch (E60), F1 leakage sensor (item E64) or signal relay of control unit as contactor.</p>	29128442	0,5
E53	 <p>Alarm switchgear AS 5 Mains-independent, with self-charging power supply unit for 10 hours of operation in the event of a power failure, mains pilot LED, fault indicator light, acknowledgement button, volt-free contact for hook-up to a control station, ready for connection with 1.8 m power cable and plug. ISO housing, IP41, H x W x D = 190 x 165 x 75 [mm]. Use float switch (E60) or signal relay of control unit as contactor.</p>	00530561	1,7
E55	 <p>Alarm switchgear AS 1 In IP30 ISO plug housing, mains-independent, with self-charging power supply unit for 5 hours of operation in the event of a power failure, acoustic signal transmitter 70 dB(A) with circuit breaker and integrated signal transmitter with 3-meter power cable, max. 60 °C, not suitable for steam and condensate.</p> <ol style="list-style-type: none"> <li>1. High water alert by suspending the sensor in a (pump) sump above the pump start-up point.</li> <li>2. Water alarm signal at a water level of only 1 mm, by placing the sensor on the floor in areas with a flooding or leakage risk, e.g. the cellar or next to the washing machine in the kitchen or bathroom.</li> </ol>	00533740	0,9




**Control unit / switchgear accessories**

Control unit / switchgear accessories

Item	Description	Length of cable / hose [m]	AmaDrainer				Mat. No.	[kg]
			301	303	322	354		
E60  Float switch with free cable end Function: circuit closed in upper float position (NO contact) Float switch housing: polypropylene Fluid temperature: 70 °C max. Power cable: H07RN-F3G1	3	X	X	X	X	11037742	0,5	
	5	X	X	X	X	11037743	0,8	
	10	X	X	X	X	11037744	1,3	
	15	X	X	X	X	11037745	1,8	
	20	X	X	X	X	11037746	2,4	
	25	X	X	X	X	11037747	2,9	
E60.1  Float switch with shockproof plug Function: circuit closed in upper float position (normally open contact) Float switch housing: polypropylene Fluid temperature: 70 °C max. Power cable: H07RN-F3G1	3	X	X	X	X	11037749	1,1	
	5	X	X	X	X	11037750	1,3	
	10	X	X	X	X	11037751	1,6	
E61  Float switch with free cable end, oil-resistant Function: circuit closed in upper float position (normally open contact) Float switch housing: polypropylene Fluid temperature: 70 °C max. Power cable: PUR 3x1.0 mm <sup>2</sup>	5	X	X	X	X	11037753	0,8	
	10	X	X	X	X	11037754	1,2	
	20	X	X	X	X	11037755	2	
E62  Float switch with free cable end <sup>8)</sup> Function: circuit open in upper float position (NC contact) Float switch housing: polypropylene Fluid temperature: 70 °C max. Power cable: H07RN-F3G1	5	X	X	X	X	11037756	0,8	
	10	X	X	X	X	11037757	1,4	
	20	X	X	X	X	11037758	2,6	
E64  F1 leakage sensor Contactor for alarm switchgears AS 0, AS 2, AS 4 or as alarm transmitter for LevelControl Basic 2 Alarm transmission options: High water alert by suspending the sensor in a (pump) sump above the pump start-up point. Warning at a water level of 1 mm in areas with a flooding or leakage risk (e.g. in the cellar or next to the washing machine in the kitchen or bathroom) Dimensions [mm]: 52 x 21 x 20 (H x W x D)	3 m	X	X	X	X	19072366	0,2	
E70  Horn, 12 V DC, 105 dB, 150 mA, IP54 Suitable for indoor installation and outdoor installation. Protect against moisture.	-	X	X	X	X	01086547	0,1	
E71  Alarm combination, 12 V DC	-	X	X	X	X	01139930	0,1	
E72  Yellow alarm strobe light, 12 V DC, 195 mA, IP65	-	X	X	X	X	01056355	0,3	
O45  Plastic housing, IP65, for easier installation of alarm strobe light, for wall mounting	-	X	X	X	X	01061067	0,2	

2332.51/01-EN

<sup>8</sup> Not suitable for LevelControl Basic 2.

Item	Description	Length of cable / hose [m]	AmaDrainer				Mat. No.	[kg]
			301	303	322	354		
E73 	KSB ServiceTool	-	X	X	X	X	47121210	0,2
E80 	Safety switch STECKMAT Trips in approx. 0.03 seconds, from approx. 0.03 A 230 V / 10 A	-	X	X	X	X	00534217	0,5
E90 	Rechargeable battery retrofit kit for LevelControl Basic 2, type BC Scope of supply: 2 rechargeable batteries (6 V, 1.3 Ah) and charge controller	-	X	X	X	X	19074194	0,8

Exploded view and list of components

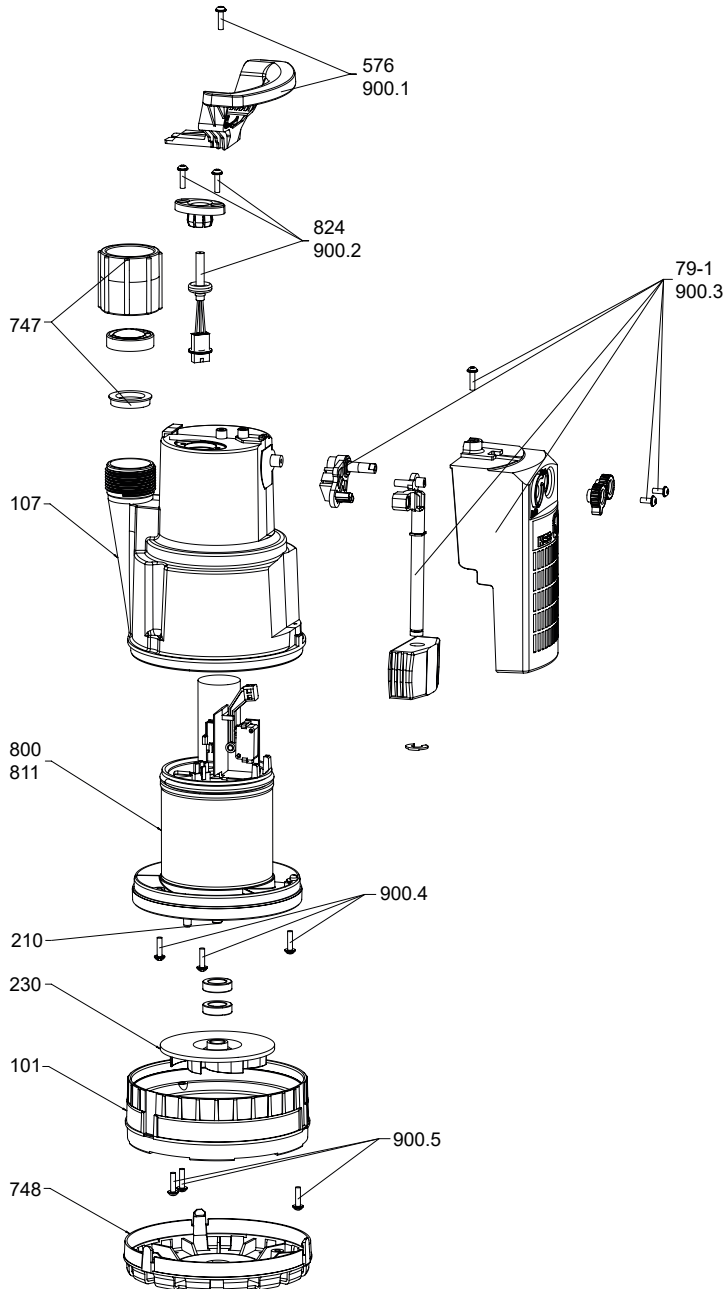


Fig. 7: Exploded view of AmaDrainer 301, 303

List of components of AmaDrainer 301, 303

Part No.	Description	Part No.	Description
101	Pump casing	747	Swing check valve
107	Discharge casing	748	Suction strainer
210	Shaft	800	Motor
230	Impeller	811	Motor housing
576	Handle	824	Power cable
79-1	Automatic switchgear, external	900.1/.2/.3/.4/.5	Screw

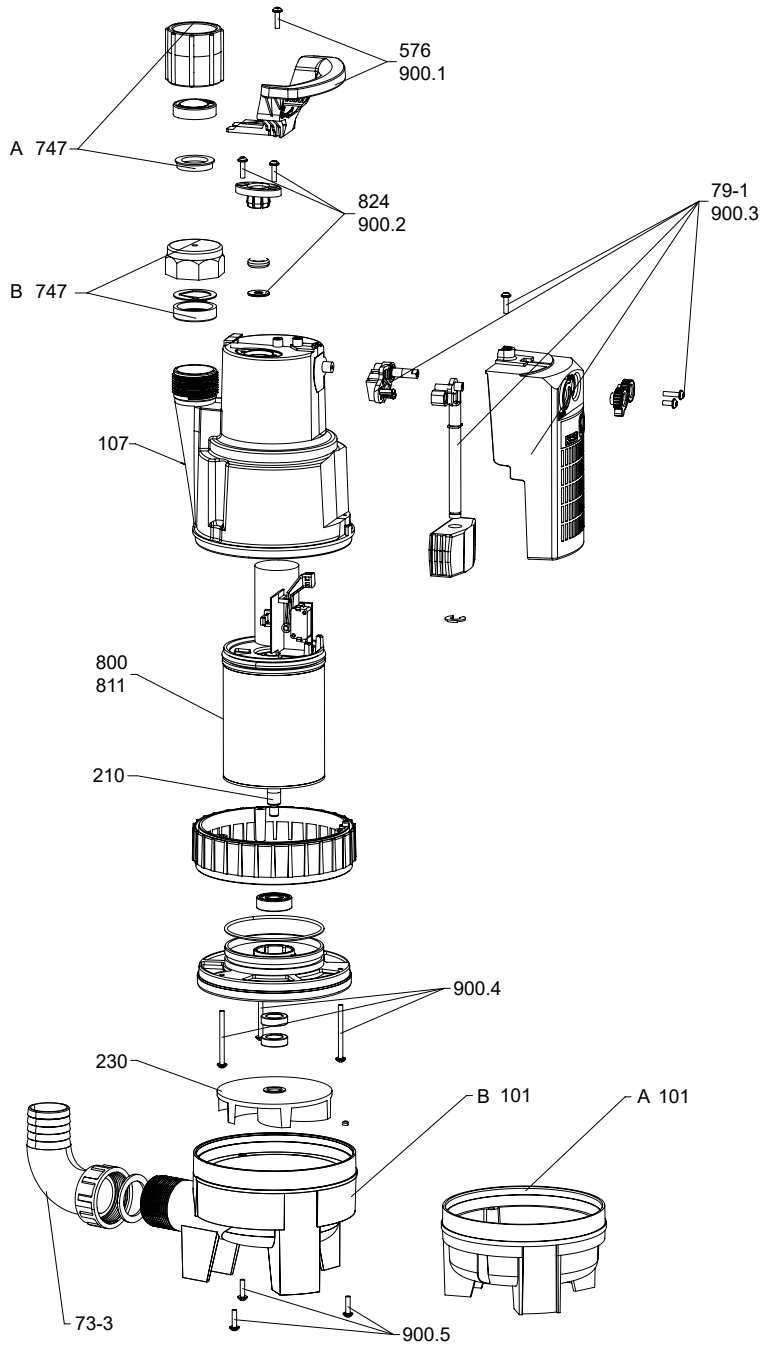


Fig. 8: Exploded view of AmaDrainer 322, 354

A	AmaDrainer 322	B	AmaDrainer 354
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List of components of AmaDrainer 322, 354

Part No.	Description	Part No.	Description
101	Pump casing	79-1	Automatic switchgear, external
107	Discharge casing	747	Swing check valve <sup>9)</sup>
210	Shaft	800	Motor
230	Impeller	811	Motor housing
576	Handle	824	Power cable
73-3	Hose connection (90° bend)	900.1/.2/.3/.4/.5	Screw

<sup>9)</sup> On AmaDrainer 354 the swing check valve is mounted upside down (opening downwards) to enable venting of the pump casing.







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