

Automatic Waste Water Lifting Unit

## **Ama-Drainer-Box Mini**

### **Type Series Booklet**



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Type Series Booklet Ama-Drainer-Box Mini

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## Building Services: Drainage

### Lifting Units

# Ama-Drainer-Box Mini



#### Main applications

Single-pump units, Above-floor box Mini

- Automatic disposal of waste water from washbasins, showers, washing machines, dishwashers, etc.

#### Fluids handled

##### Standard design

- Chemically neutral waste water
- Slightly contaminated waste water (up to 50 °C max.)
- Wash water (up to 90 °C max. for short periods  $t \leq 3$  minutes)

##### Variant C for aggressive fluids

In addition to standard design:

- Swimming pool water
- Brackish water
- Seawater
- Water containing salt
- Aggressive fluids
- Condensate from heat recovery applications



Ama-Drainer-Box Mini is not suitable for sewage from urinals and toilets. Use a mini-Compacta sewage lifting unit for this purpose.

#### Operating data

Operating properties

Characteristic		Value
Flow rate	Q [m <sup>3</sup> /h]	≤ 10
	Q [l/s]	≤ 2,8
Head	H [m]	≤ 6,5
Fluid temperature	T [°C]	≤ +50 <sup>1)</sup>

#### Design details

##### Design

- Tank made of impact-resistant plastic
- Odour-proof cover with activated carbon filter and integrated overflow protection
- Submersible motor pump which starts and stops automatically, with float switch
- Integrated swing check valve
- To EN 12050-2

##### Installation

- Stationary above-floor installation
- Stationary wall mounting

##### Drive

- AC motor
- Integrated temperature switch
- Cable and shockproof plug

##### Impeller type

- Open multi-vane impeller
- Free passage= 10 mm

##### Connections

- Inlet DN 32 / DN 40 / DN 50
- Discharge-side connection DN 40
- Shower connection DN 50
- Venting via DN 40 spigot and socket connection

1) Up to a maximum of 3 minutes for waste water from the hot water cycle of washing machines and dishwashers for non-industrial use

## Designation

### Example: Ama-Drainer-Box Mini C

Designation key

Code	Description
Ama-Drainer-Box	Type series
Mini	Small waste water lifting unit
C	C variant for aggressive fluids

## Materials

Overview of available materials

Component	Ama-Drainer-Box Mini
Collecting tank	ABS
Pump	See description for Ama-Drainer N 301 (C)

## Product benefits

- Impact-resistant plastic collecting tank
- Ready-to-connect, easy installation and commissioning
- Integrated swing check valve
- Shower connection as standard

## Certification

Overview

Label	Effective in:	Comment
	All countries	-
	Europe	-

## Technical data

SE = single-phase AC motor with float switch

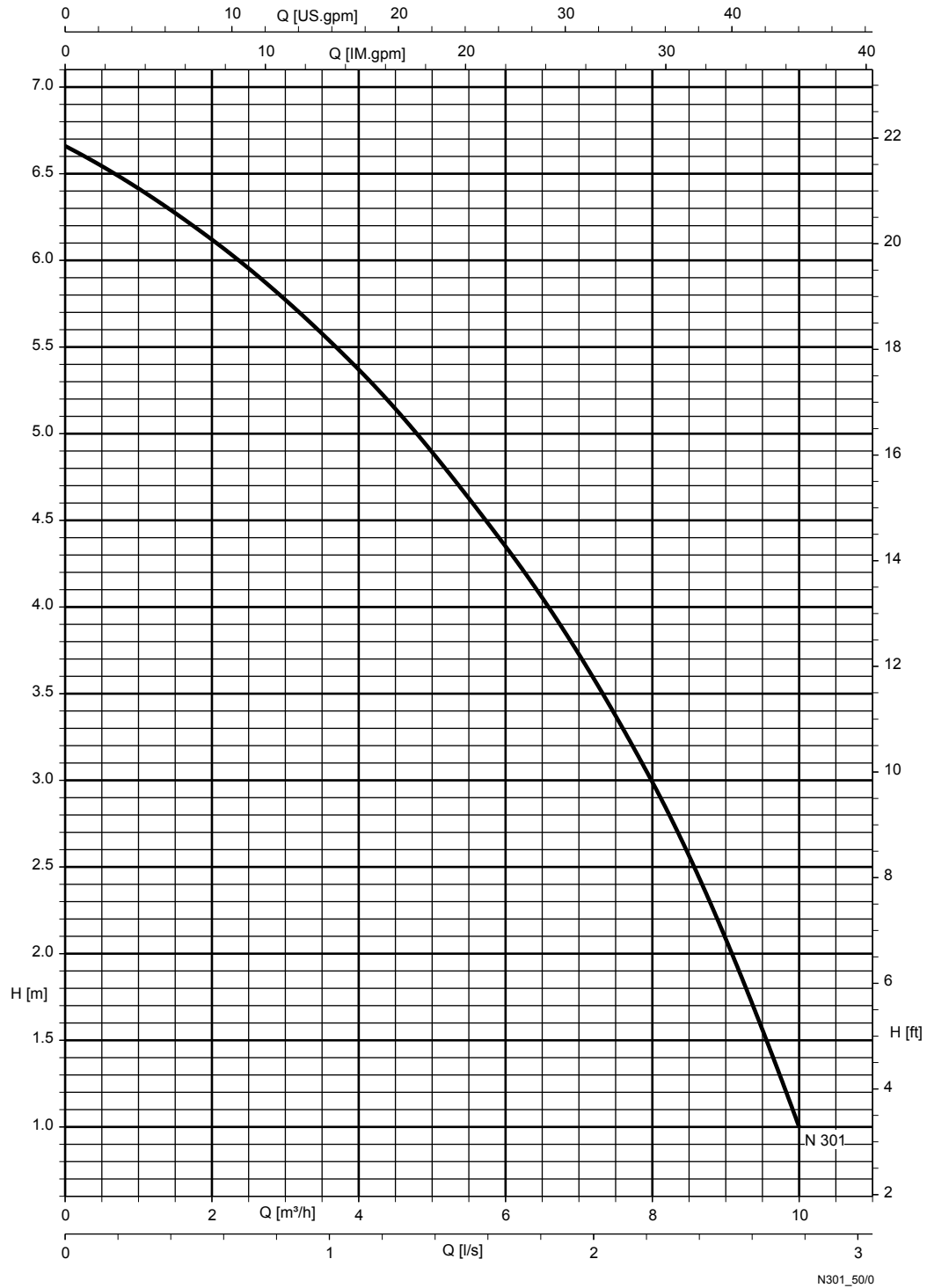
Selection table

Design	Free passage	P <sub>1</sub>	P <sub>2</sub>	I <sub>N</sub>	Power cable		Mat. No.	[kg]
				1~230 V	H05RN-FG			
	[mm]	[kW]	[kW]	[A]	[m]	[mm <sup>2</sup> ]		
Ama-Drainer-Box Mini with Ama-Drainer N 301 SE <sup>2)</sup>	10	0.43	0.18	1.9	3	3 × 0,75	29131770	9
Ama-Drainer-Box Mini C with Ama-Drainer N 301 SE/C <sup>2)</sup>	10	0.43	0.18	1.9	3	3 × 0,75	29131771	9

2) Supplied fully assembled ex works

Characteristic curve

Ama-Drainer-Box Mini; n = 2800 rpm



Dimensions and connections

Connections



Fig. 1: Connections

Overview of connections

Item	Connection	Description
1+2	Inlet / discharge outlet	Socket DN 50, horizontal either for inlet line with fitting DN 32 / DN 40 / DN 50 or for discharge outlet with fitting DN 40
3	Inlet	Socket DN 50, vertical either for inlet line with fitting DN 32 / DN 40 / DN 50 or for connecting a washing machine (via Y-drain)
<b>Auxiliary connections</b>		
4	Cable entry	Cable grommet (Ø 48 mm)
5+6	Connection to a shower	Fitting (outside diameter 50 mm), either on the right or on the left
7	Vent	Carbon filter insert with overflow protection

Dimensions

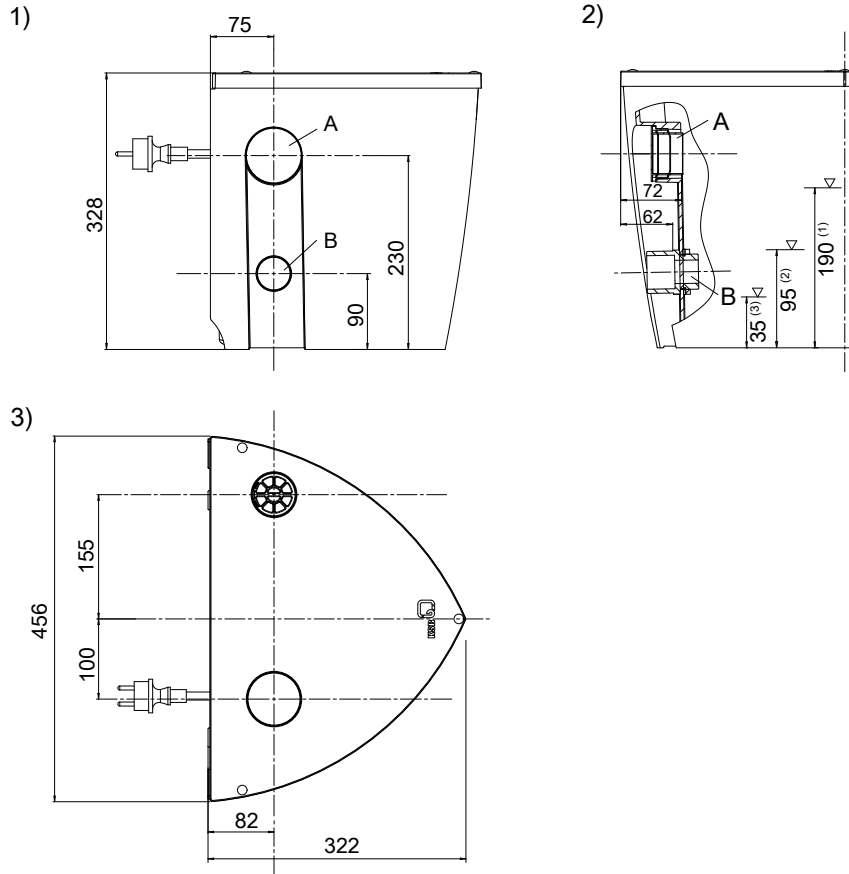


Fig. 2: Dimensions [mm]

1)	Cut-in level (standard design)
2)	Cut-in level (shower connection)
3)	Cut-out level (standard design and shower connection)
A	Inlet / discharge outlet
B	Connection to a shower



Installation example

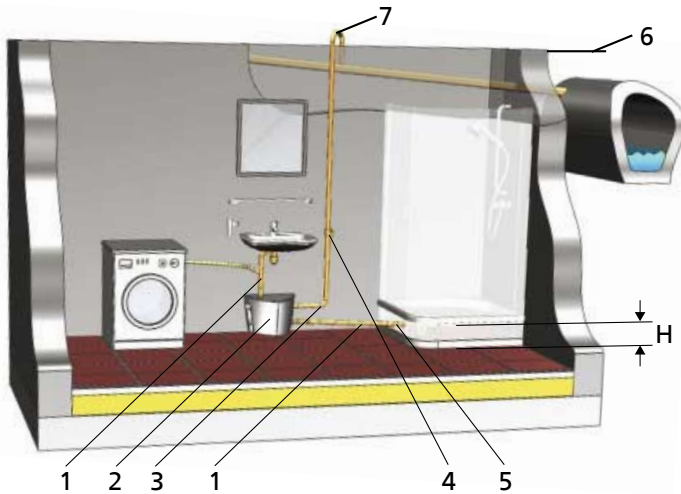


Fig. 3: Installation example

1	Inlet line	2	Waste water lifting unit
3	Discharge line	4	Socket gate valve
5	Valve preventing backflow into the shower basin	6	Flood level
7	Backflow loop	H	Height of backflow loop <sup>3)</sup>

Scope of supply







The following items are included in the scope of supply:


- Tank made of impact-resistant plastic
- Integrated swing check valve
- Submersible motor pump which starts and stops automatically, with float switch
- Inlet DN 32 / DN 40 / DN 50
- Discharge-side connection DN 40
- Shower connection DN 50
- Odour-proof cover with activated carbon filter and integrated overflow protection

3) Minimum 150 mm




**Accessories**
**Alarm switchgears for pumps without ATEX**

AS 0/AS 1/AS 2/AS 4/AS 5/AS W4/AS W8

	Item	Description	Mat. No.	[kg]
	E50	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.	29128401	0,5
	E51	Alarm switchgear AS 2 With circuit breaker, acoustic signal transmitter 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.	29128422	0,5
	E52	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.	29128442	0,5
	E53	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, horn-off pushbutton, volt-free contact for hook-up to a control station, ready for connection with 1.8 m connection 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.	00530561	1,7
	E55	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-metre connection cable, max. 60 °C, not suitable for steam and condensate. 1. High water alert by suspending the sensor in a (pump) sump above the pump start-up point. 2. Water alarm signal at a water level of only 1 mm (!), by placing the sensor on the floor in areas with a leakage risk, e.g. the cellar or next to the washing machine in the kitchen or bathroom.	00533740	0,9
	E330	KSB washing machine interrupter Alarm triggered, with automatic interruption of power supply to the washing machine if the water level in the collecting tank is too high 230 V AC, 50/60 Hz, max. 16 A ohm resistive load Comprising: <ul style="list-style-type: none"> <li>▪ Housing with socket and plug</li> <li>▪ buzzer</li> <li>▪ automatic reset and start-up</li> <li>▪ M 1 K contactor with 5-metre connection cable</li> </ul>	01318215	0,279

	Item	Description	Mat. No.	[kg]
	E331	<p>AS W4 / W8 alarm switchgear Alarm triggered, with automatic interruption of power supply of up to 4 or 8 washing machines if the water level in the collecting tank is too high 230 V AC, 50/60 Hz, max. 16 A resistive load per intermediate connector</p> <p>Comprising:</p> <ul style="list-style-type: none"> <li>▪ Control unit</li> <li>▪ Buzzer</li> <li>▪ Automatic re-start</li> <li>▪ M 1 K contactor with 5 m connection cable</li> <li>▪ 4 or 8 intermediate connectors</li> </ul>		
		KSB AS W4 - Washing machine interrupter for up to 4 washing machines	19075394	4
		KSB AS W8 - Washing machine interrupter for up to 8 washing machines	19075395	4
-	E332	<p>AS1-M alarm switchgear in ISO plug housing IP30, mains-independent, with self-charging power supply unit for 5 hours' operation in the event of a power failure, acoustic signal 70 dB(A), circuit breaker, sensor connection bush and integrated monitoring for broken wires in the sensor cable Max. ambient temperature: 60° C Complete with M1 plug-type sensor and installation accessories for installation in Ama-Drainer-Box for high-water alert 230 V~/9 V = 1,5 VA</p>	19074516	0,5

**Control unit/switchgear accessories**

	Item	Description	Mat. No.	[kg]
		<p>M 1 alarm contactor Magnetic float switch as contactor for alarm switchgear AS 0, AS 2, AS 4 and AS 5 or LevelControl, with 5 m connection cable</p>	18040562	0,8
	E64	<p>F1 leakage sensor Contactor for alarm switchgears AS 0, AS 2, AS 4 or as alarm transmitter for LevelControl Alarm 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 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)</p>	19072366	0,2
	E70	<p>Horn, 12 V DC, 105 dB, 150 mA, IP54 Suitable for indoor installation and outdoor installation. Protect against moisture.</p>	01086547	0,1



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