

Domestic Water Supply System

## Multi Eco-Top

### Type Series Booklet



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Type Series Booklet Multi Eco-Top

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## Building Services: Water Supply

### Domestic Water Supply System

## Multi Eco-Top



### Fluids handled

Pump for handling clean to turbid water not containing aggressive, abrasive or solid substances.

- River, lake and groundwater

### Main applications

- Irrigation systems
- Domestic water supply
- Washing plants

### Operating data

Overview of operating data

Characteristic		Value
Flow rate	Q	Up to 8 m³/h (2.22 l/s)
Head	H	Up to 54 m
Temperature of the fluid pumped	t	Up to 50 °C in continuous operation, 70 °C for 10 minutes
Operating pressure	p <sub>d</sub>	Up to 6 and/or 10 bar depending on pump size (see table)
Suction lift	H <sub>s</sub>	Up to 8 m

### Designation

Example: Multi Eco-Top 35 E / 50

Key to the designation

Code	Description
Multi Eco-Top	Type series
35	Size
E	Single-phase AC
50	Tank volume in litres

### Design details

#### Design

##### Pump

- Centrifugal pump
- Multistage
- Self-priming
- Membrane-type accumulator, pressurised at the factory
- Pressure switch for automatic operation, factory-set
- The max. pressure p<sub>d</sub> must not be exceeded

#### Drive

- Single-phase AC motor
- 220 - 240 V / 50 Hz with thermal overload protection
- Three-phase motor
- 380 - 415 V / 50 Hz
- Motor IP 44
- Insulation class F

#### Bearings

- Deep-groove ball bearings
- Grease-lubricated for life

### Materials

Overview of available materials

Component	Material
Pump casing	Cast iron coated with anti-corrosive
Discharge cover	Cast iron coated with anti-corrosive
Impellers/stage casing	Noryl
Jacket	Stainless steel
Shaft	Chrome steel
Motor housing	Aluminium

Accumulator made of steel with replaceable membrane, approved for drinking water

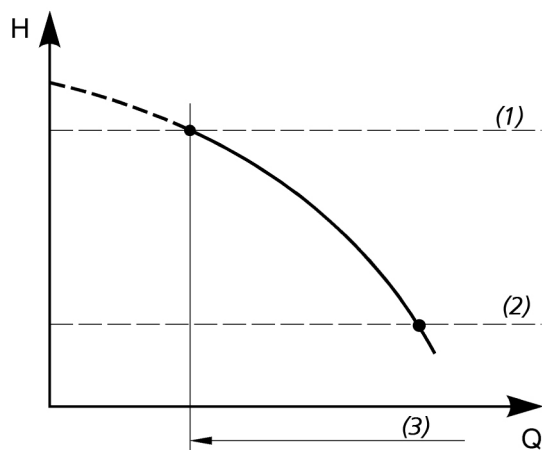
### Product benefits

- Reliable, sturdy pump installation thanks to corrosion-protected pump casing with stainless steel jacket
- Automatic and quick priming once the pump casing has been filled. Suction lift up to 8 m thanks to self-priming design (KSB patent).
- Energy-efficient, low-noise operation thanks to wear-resistant multistage hydraulic system with good efficiency

### Certification

Conformity mark	Effective for:	Comment
CE	Europe EN 12 050-2	
ACS	France	French drinking water regulations

## Function



- The start-up and stop pressure can be set as a function of demand.
- Maximum stop pressure  $p_d$ .
- The start-up pressure must exceed the maximum inlet pressure by at least 0.5 bar.

(1)	Stop point pump = available tank pressure
(2)	Start-up pressure pump
(3)	Operating range of the pump

## Technical data

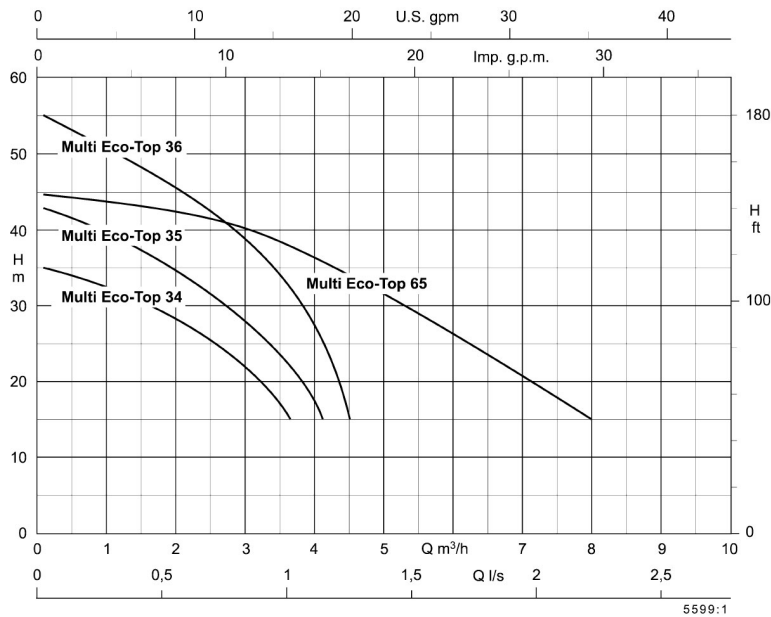
### Selection table

Size	Ø		Total	Effective	Factory setting		P <sub>1</sub>	2800 rpm			Cable H07RN-F		Mat. No.	[kg]
	Suction side	Discharge side	volume		On	Off		1~230 V	3~230 V	3~400 V	[m]	[mm²]		
			[l]	[l]	[bar]	[bar]		[kW]	I [A]	I [A]				
Multi Eco 34 E / 20	Rp 1	G 1	20,0	6,5	1,5	2,5	0,66	3,1	-	-	1,5	3x1	40982854	19
Multi Eco 35 E / 20	Rp 1	G 1	20,0	7,0	1,5	3,0	0,80	3,7	-	-	1,5	3x1	40982855	19
Multi Eco 35 E / 50	Rp 1	G 1	50,0	17,0	1,5	3,0	0,80	3,7	-	-	1,5	3x1	40982856	21
Multi Eco 36 E / 50	Rp 1	G 1	50,0	17,0	1,5	3,0	1,10	5,0	-	-	1,5	3x1	40982857	24
Multi Eco 36 D / 50	Rp 1	G 1	50,0	17,0	1,5	3,0	1,10	-	4,3	2,5	-	-	40982858	24
Multi Eco 65 E / 50	Rp 1 ¼	G 1	50,0	17,0	1,5	3,0	1,30	6,1	-	-	1,5	3x1	40982859	24
Multi Eco 65 D / 50	Rp 1 ¼	G 1	50,0	17,0	1,5	3,0	1,30	-	4,7	2,7	-	-	40982860	24

$p_d$  = max. pump discharge pressure in bar acc. to the following listing of countries

Multi Eco-Top	F	GB, DK, I, IRL	A, B, CH, CZ, D, E, NL, P, PL, S
34	3.9	6	6
35	3.9	6	7
36	3.9	6	7
65	3.9	6	7

### Characteristic curves

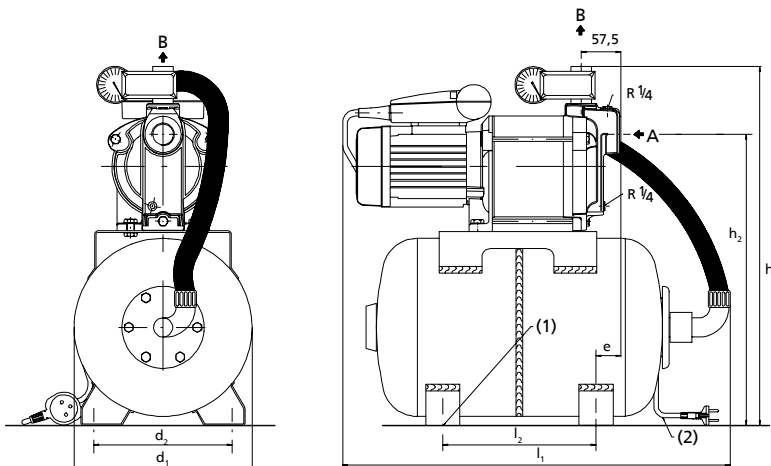


The discharge head is the sum of suction lift + pressure head + friction losses in suction and discharge lines + required tap pressure.

The flow rate depends on the relevant discharge head.

Maximum suction lift for all pump sizes: approx. 8 m.

### Dimensions

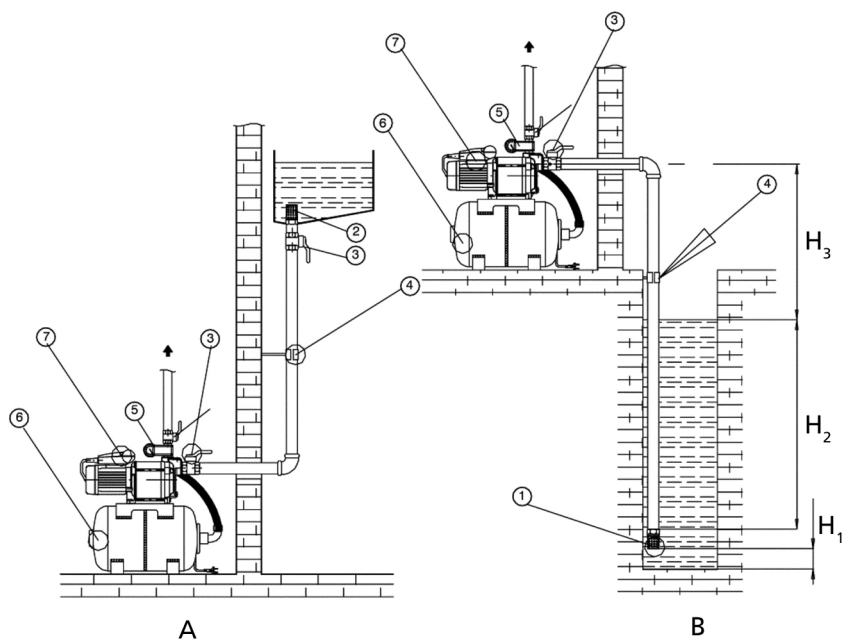


A	Suction nozzle	(1)	Four holes Ø 8
B	Discharge nozzle	(2)	Length 1.5 m

### Dimensions in mm

Multi Eco-Top	Ø A Suction side	Ø B Discharge side	d <sub>1</sub>	d <sub>2</sub>	l <sub>1</sub>	l <sub>2</sub>	h <sub>1</sub>	h <sub>2</sub>	e
34 / 20	Rp 1	G 1	260	202	570	225	525	425	40
35 / 20	Rp 1	G 1	260	202	570	225	525	425	40
35 / 50	Rp 1	G 1	360	280	650	300	620	525	15
36 / 50	Rp 1	G 1	360	280	650	300	620	525	15
65 / 50	Rp 1 1/4	G 1	360	280	650	300	620	525	15

## Installation drawing








## Installation drawing of Multi Eco-Top


A	Suction head operation	B	Suction lift operation
H <sub>1</sub>	Minimum 0.3 m	H <sub>2</sub>	Minimum 0.1 m
H <sub>3</sub>	Maximum 8 m		
1	Suction strainer with foot valve	2	Suction strainer
3	Gate valve	4	Pipe clamp
5	Pressure switch	6	Accumulator
7	Pump set		

## Accessories for Multi Eco-Top

### Pump accessories

	Description	Connection	Mat. No.	[kg]
	Suction strainer with foot valve, PVC (for pipe of DN 25)	G 1	40980710	0.2
	Suction hose kit, complete with suction strainer and spring-loaded non-return valve, 7 m	G 1	40980203	1.5
	Float switch for filling, with shockproof plug (NC contact), circuit open in upper float position, 230 V AC, 50 Hz, max. 8 A (H 07 RN-F3G1)	3 m 5 m	11037759 11037760	0.6 0.9
	Weight for float switch Not suitable for drinking water applications		01076688	0.3
	Anti-vibration pump mount fits all Multi Eco/Multi Eco-Pro		18040802	1.6

**Electrical accessories**

	Description	Mat. No.	[kg]
	<p>Safety switch STECKMAT (1~ 230 V)</p> <p>Tripping in approx. 0.03 s even in the event of minor and harmless leakage currents as low as approx. 0.03 A</p>	00534217	0.5



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