

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 water, lake and groundwater

#### Main applications

- General irrigation systems
- Domestic water supply
- Washing plants

#### Operating data

Operating properties

Characteristic	Value	
Flow rate	Q [m <sup>3</sup> /h]	≤ 8
	Q [l/s]	≤ 2.2
Head	H [m]	≤ 54
Fluid temperature	T [°C]	≤ 50 for continuous operation
		≤ 70 for 10 minutes
Operating pressure	p <sub>d</sub> [bar]	≤ 6 or 10 depending on the pump size
Suction lift	H <sub>s</sub> [m]	≤ 8

#### Designation

**Example: Multi Eco-Top 35 E / 50**

Designation key

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
- IP44 enclosure
- Thermal class F

##### Bearings

- Deep groove ball bearings
- Grease-lubricated for life

##### Materials

Overview of available materials

Component	Material
Pump casing	Grey cast iron with anti-corrosive coating
Discharge cover	Grey cast iron with anti-corrosive coating
Impeller/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
- Self-priming design for automatic, fast priming of the pump once the pump casing has been filled, suction lift of up to 8 m.
- Energy-efficient, low-noise operation thanks to wear-resistant multistage hydraulic system with good efficiency

##### Product information

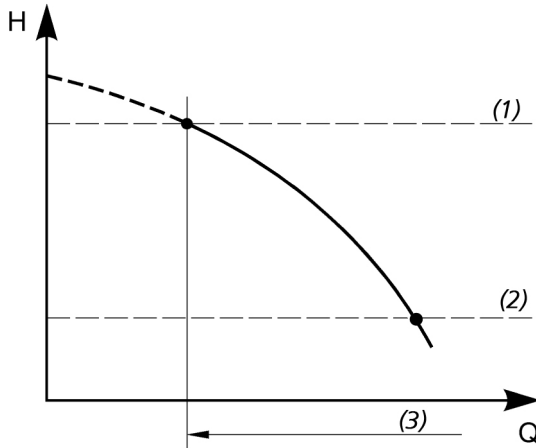
**Product information as per Regulation No. 1907/2006 (REACH)**

For information as per chemicals Regulation (EC) No. 1907/2006 (REACH), see <http://www.ksb.com/reach>.

**Certifications**

## Overview

Label	Effective in:	Comment
	France	French drinking water approval

**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

**Multi Eco-Top**

## Selection table

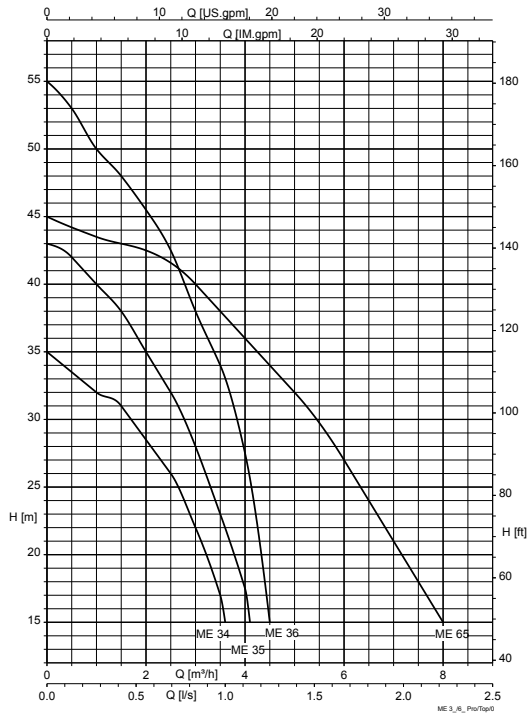
Size	Ø		Total volume [l]	Effective [l]	Factory setting		$P_1$ [kW]	2800 rpm			Cable H07RN-F		Mat. No.	[kg]
	Suction side	Discharge side			In [bar]	Out [bar]		1~230 V	3~230 V	3~400 V	[m]	[mm <sup>2</sup> ]		
			I [A]	I [A]				[A]						
Multi Eco 34 E / 20	Rp 1	G 1	20,0	6,5	1,5	2,5	0,66	3,1	-	-	1,5	3 × 1	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	3 × 1	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	3 × 1	40982856	23
Multi Eco 36 E / 50	Rp 1	G 1	50,0	17,0	1,5	3,0	1,10	5,5	-	-	1,5	3 × 1	40982857	27
Multi Eco 36 D / 50	Rp 1	G 1	50,0	17,0	1,5	3,4	1,10	-	3,4	2,1	-	-	40982858	27
Multi Eco 65 E / 50	Rp 1 1/4	G 1	50,0	17,0	1,5	3,0	1,30	6,1	-	-	1,5	3 × 1	40982859	27
Multi Eco 65 D / 50	Rp 1 1/4	G 1	50,0	17,0	1,5	3,0	1,30	-	4,0	2,3	-	-	40982860	26

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

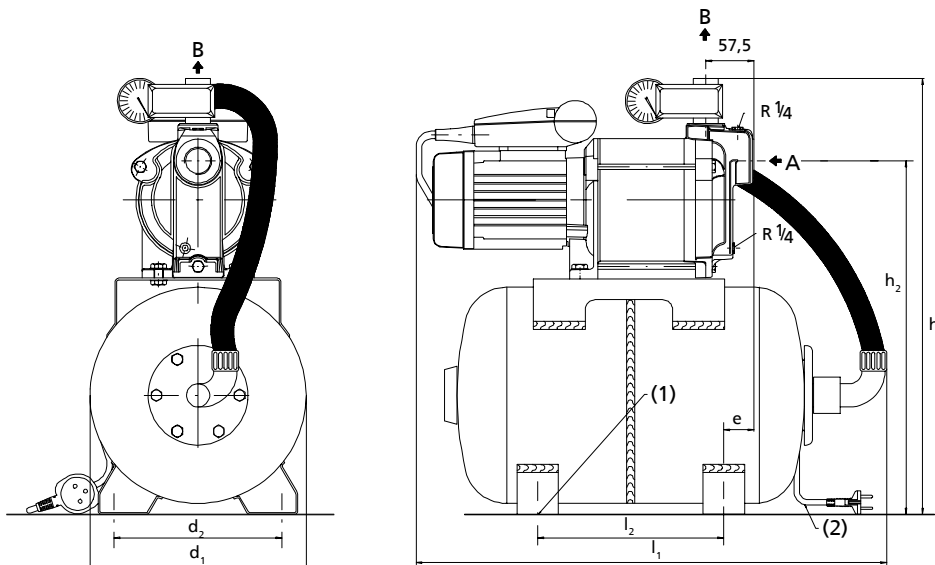
Multi Eco-Top	F	GB, DK, I, IRL	A, B, CH, CZ, D, E, NL, P, PL, S
34	3,9	6	6
35	3,9	6	7
36	3,9	6	7
65	3,9	6	7

**Multi Eco-Top 34/35/36/65; n = 2800 rpm**

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**



**Fig. 1: Dimensions of Multi Eco-Top [mm]**

A	Suction nozzle	(1)	4 holes Ø 8
B	Discharge nozzle	(2)	Length 1.5 m

Dimensions [mm]

Multi Eco-Top	Ø A suction nozzle	Ø B discharge nozzle	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	219	570	155	526	435	28
35 / 20	Rp 1	G 1	260	219	570	155	526	435	57
35 / 50	Rp 1	G 1	360	219	650	235	627	532	17
36 / 50	Rp 1	G 1	360	219	650	235	627	532	46
65 / 50	Rp 1 1/4	G 1	360	219	650	235	627	532	46

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Installation drawing

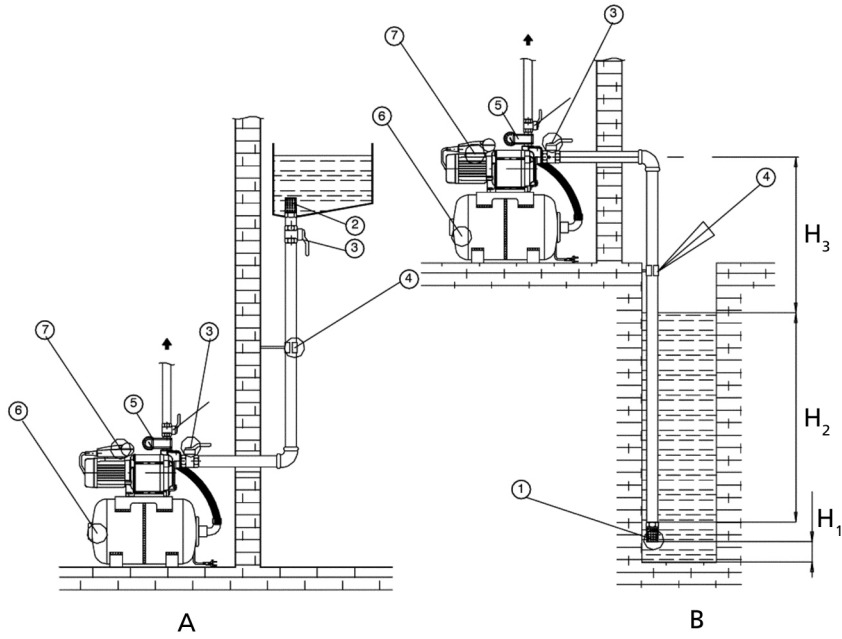








Fig. 2: Installation drawing of Multi Eco-Top

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**
**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 lift check valve, 7 m	G 1	40980203	1,5
	E62.1	Float switch housing: polypropylene	11037759	0,6
		Float switch housing: polypropylene	11037760	0,9
	Weight for float switch not suitable for drinking water applications		01076688	0,3
	Anti-vibration pump bracket fits all Multi Eco/Multi Eco-Pro		18040802	1,6

**Control unit / switchgear accessories**

	Description	Mat. No.	[kg]
	Safety switch STECKMAT (1~230 V) Trips in approx. 0.03 seconds, from approx. 0.03 A	00534217	0,5











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