# **EVOSTA**

### **ELECTRONIC CIRCULATORS FOR HEATING SYSTEMS**



### **TECHNICAL DATA**

**Operating range:** from 0.4 to 3.3 m3/h with head up to 6.9 meters.

Liquid temperature range: from +2 °C to +95 °C.

Working pressure: 10 bar (1000 kPa)

**Protection rating:** IP 44 **Insulation class:** F

**Installation:** with horizontal motor shaft.

Standard power supply: single-phase 1x230 V ~ 50/60 Hz

**Pumped liquid:** clean, free from solids and mineral oils, not viscous, chemically neutral, close to the properties of water (max. glycol contents 30%).



in line with the European Directive 2009/125/EC Erp (formerly EuP) and is ready to meet the 2015 Erp requirements (EEI  $\leq$  0.23).

#### **APPLICATIONS**

Low power consumption pump for circulation of hot water, suitable for all types of domestic heating systems.

#### **BENEFITS**

Thanks to the advanced technology employed, **the permanent magnet synchronous motor,** and the **frequency converter,** the new range of **EVOSTA** circulators ensures high efficiency in all applications, bringing appreciable benefits in terms of energy saving. For this reason, the new, **EVOSTA** circulator, is in line with the European Directive 2009/125/EC Erp (formerly EuP) and is ready to meet the 2015 Erp requirements (**EEI**  $\leq$  **0.23**). The circulator features an electronic device that detects the changes demanded by the system and automatically adapts the circulator performance accordingly, always ensuring optimal efficiency and minimum energy consumption.

The **EVOSTA** circulator is also ideal to replace the old three-speed circulators, as it has the same dimensions of the VA series and it can cover with a single model pumps with head of 4.5 and 6 meters. In addition, it is a product that can simplify the user's work, thanks to a single sequential setting button and a breather plug used to degas the system and unlock the motor shaft.

The EVOSTA series circulator can operate in 2 different modes:

• Constant curve



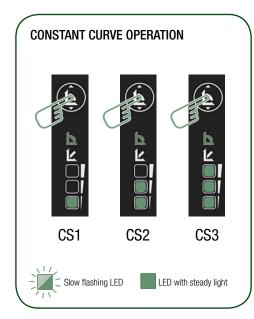
3 curves

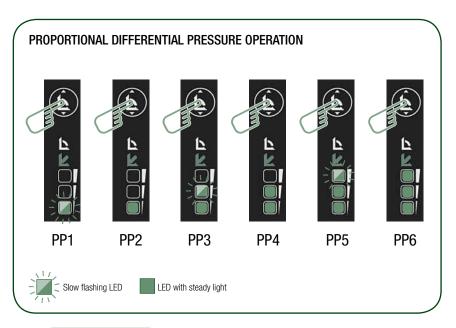
Proportional differential pressure



6 curves

#### **OPERATING MODES**







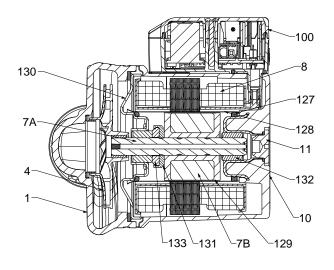
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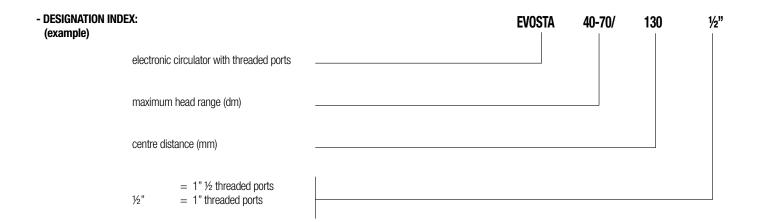
#### **CONSTRUCTION CHARACTERISTICS**

Cast iron pump body and wet rotor motor. Motor casing in die-cast aluminium. Technopolymer impeller. Ceramic motor shaft mounted on graphite bushings lubricated by the pumped liquid. Stainless steel rotor jacket, stator jacket and closing flange. Ceramic thrust ring. EPDM seal rings and brass breather plug. Thanks to the internal protection of the motor, the pump does not require any form of overload protection.

### **MATERIALS**

N°     PART     MATERIALS       1     PUMP BODY     CAST IRON       4     IMPELLER     TECHNOPOLYMER       7A     MOTOR SHAFT     CERAMIC       7B     ROTOR     MAGNET       8     STATOR     -       10     MOTOR CASING     DIE CAST ALUMINIUM       11     BREATHER PLUG     BRASS       100     ELECTRONIC BOX     TECHNOPOLYMER       127     SEAL RING     EPDM       128     STATOR JACKET     STAINLESS STEEL       129     ROTOR JACKET     STAINLESS STEEL       130     CLOSING FLANGE     STAINLESS STEEL       131     THRUST RING SUPPORT     EPDM       132     BUSHINGS     GRAPHITE       133     THRUST RING     CERAMIC									
4 IMPELLER TECHNOPOLYMER  7A MOTOR SHAFT CERAMIC  7B ROTOR MAGNET  8 STATOR -  10 MOTOR CASING DIE CAST ALUMINIUM  11 BREATHER PLUG BRASS  100 ELECTRONIC BOX TECHNOPOLYMER  127 SEAL RING EPDM  128 STATOR JACKET STAINLESS STEEL  129 ROTOR JACKET STAINLESS STEEL  130 CLOSING FLANGE STAINLESS STEEL  131 THRUST RING SUPPORT EPDM  132 BUSHINGS GRAPHITE	N°	PART	MATERIALS						
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7B ROTOR MAGNET  8 STATOR  - 10 MOTOR CASING DIE CAST ALUMINIUM  11 BREATHER PLUG BRASS  100 ELECTRONIC BOX TECHNOPOLYMER  127 SEAL RING EPDM  128 STATOR JACKET STAINLESS STEEL  129 ROTOR JACKET STAINLESS STEEL  130 CLOSING FLANGE STAINLESS STEEL  131 THRUST RING SUPPORT EPDM  132 BUSHINGS GRAPHITE	4	IMPELLER	TECHNOPOLYMER						
8 STATOR -  10 MOTOR CASING DIE CAST ALUMINIUM  11 BREATHER PLUG BRASS  100 ELECTRONIC BOX TECHNOPOLYMER  127 SEAL RING EPDM  128 STATOR JACKET STAINLESS STEEL  129 ROTOR JACKET STAINLESS STEEL  130 CLOSING FLANGE STAINLESS STEEL  131 THRUST RING SUPPORT EPDM  132 BUSHINGS GRAPHITE	7A	MOTOR SHAFT	CERAMIC						
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11 BREATHER PLUG BRASS  100 ELECTRONIC BOX TECHNOPOLYMER  127 SEAL RING EPDM  128 STATOR JACKET STAINLESS STEEL  129 ROTOR JACKET STAINLESS STEEL  130 CLOSING FLANGE STAINLESS STEEL  131 THRUST RING SUPPORT EPDM  132 BUSHINGS GRAPHITE	8	STATOR	-						
100 ELECTRONIC BOX TECHNOPOLYMER  127 SEAL RING EPDM  128 STATOR JACKET STAINLESS STEEL  129 ROTOR JACKET STAINLESS STEEL  130 CLOSING FLANGE STAINLESS STEEL  131 THRUST RING SUPPORT EPDM  132 BUSHINGS GRAPHITE	10	MOTOR CASING	DIE CAST ALUMINIUM						
127 SEAL RING EPDM  128 STATOR JACKET STAINLESS STEEL  129 ROTOR JACKET STAINLESS STEEL  130 CLOSING FLANGE STAINLESS STEEL  131 THRUST RING SUPPORT EPDM  132 BUSHINGS GRAPHITE	11	BREATHER PLUG	BRASS						
128 STATOR JACKET STAINLESS STEEL  129 ROTOR JACKET STAINLESS STEEL  130 CLOSING FLANGE STAINLESS STEEL  131 THRUST RING SUPPORT EPDM  132 BUSHINGS GRAPHITE	100	ELECTRONIC BOX	TECHNOPOLYMER						
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130 CLOSING FLANGE STAINLESS STEEL  131 THRUST RING SUPPORT EPDM  132 BUSHINGS GRAPHITE	128	STATOR JACKET	STAINLESS STEEL						
131 THRUST RING SUPPORT EPDM  132 BUSHINGS GRAPHITE	129	ROTOR JACKET	STAINLESS STEEL						
132 BUSHINGS GRAPHITE	130	CLOSING FLANGE	STAINLESS STEEL						
	131	THRUST RING SUPPORT	EPDM						
133 THRUST RING CERAMIC	132	BUSHINGS	GRAPHITE						
	133	THRUST RING	CERAMIC						







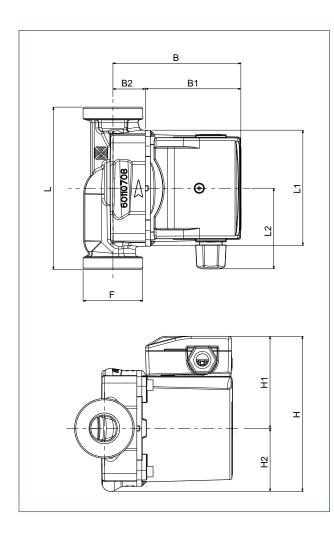
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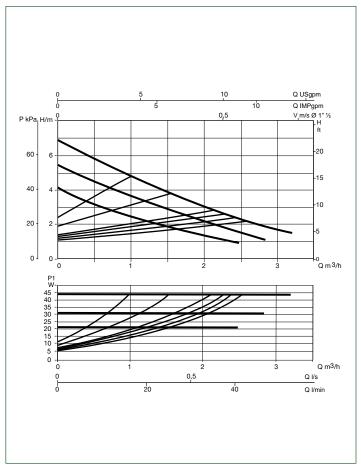
## **EVOSTA 40-70** Single with unions

Liquid temperature range: from  $+2^{\circ}\text{C}$  to  $+95^{\circ}\text{C}$ . Maximum working pressure: 10 bar (1000 kPa)

		CENTRE	UNIONS ON	N REQUEST	Е	LECTRICAL DAT	MINIMUM SUCTION PRESSURE			
MODEL	VOLTAGE 50 Hz	DISTANCE	STANDARDIZED	CDECIAL		Р	ln .	INITIALINION SOCIACION PRESSURE		
				SPECIAL		W	A	t°	m.c.a.	
EVOSTA 40-70/130	1x230 V ~	130	1"F	¾" F - 1¼" M	MIN MAX	6 44	0,08 0,38	90°	10	
EVOSTA 40-70/130 1/2"	1x230 V ~	130	½" F	-	MIN MAX	6 44	0,08 0,39	90°	10	
EVOSTA 40-70/180	1x230 V ~	180	1"F	¾" F - 1¼" M	MIN MAX	6 44	0,08 0,38	90°	10	

MODEL	L	L1	L2	В	B1	B2	Н	H1	H2	F	PACK DIMENSIONS			VOLUME	WEIGHT	Q.TY X
MODEL											L	В	Н	m³	Kg	PALLET
EVOSTA 40-70/130	130	93	59	102,5	76,5	26	124	73,5	50,5	1"1/2	135	135	150	0.0027	2,4	240
EVOSTA 40-70/130 1/2"	130	93	59	102,5	76,5	26	124	73,5	50,5	1"	135	135	150	0.0027	2,4	240
EVOSTA 40-70/180	180	93	59	102,5	76,5	26	124	73,5	50,5	1"1/2	130	190	150	0.0037	2,8	180





The performance curves are based on kinematic viscosity values = 1 mm $^2$ /s and density equivalent to 1000 kg/m $^3$ . Tolerance of curves to ISO9906.

