



Display alternates pump power consumption and flow data information



Simple to set with Press&Turn dial. The operating mode symbol lights up when in use



All the necessary inputs for the remote monitoring and control of the pump are included

## DESIGN

Askoll ENERGY SAVING is a wet rotor high efficiency circulator, driven by a permanent magnets synchronous motor (PM motor) controlled by an on board inverter. The motor is protected against overload thanks to a thermal protection and an automatic electronic release function of the rotor. No external protection is required. Operated by selector technology. Integrated display and symbols user interface.

## APPLICATION

Hot-water heating systems of all kinds, closed cooling circuits, circulation in solar thermal and geothermal systems, for domestic and industrial circulation systems.

## PRODUCT FEATURES AND BENEFITS

- Maximum savings on operating costs thanks to high-efficiency technology combined with speed control
- Your investments on the future thanks to its maximum energy efficiency, exceeding future energy efficiency regulations such as ErP
- "All-in" concept saves investment and commissioning costs
- Multiple pump operation
- Easy performance regulation in  $\Delta p-c$  (constant differential pressure) and  $\Delta p-v$  (proportional differential pressure)
- Min-Max mode with manual setting up to 10 fixed speed curves
- ECO-Mode with dynamic differential pressure set point adjustment
- Quick, easy and secure installation
- Thermal insulation shell included

## MOTOR TECHNICAL DATA

<b>Power supply</b>	1x230 V ( ±10%), PE; Frequency: 50/60 Hz
<b>Energy Efficiency Index (EEI)*</b>	≤ 0,23 – Part 2
<b>Input power (P<sub>i</sub>)</b>	Min 8W, Max 140W
<b>Input current (I<sub>i</sub>)</b>	Min 0.10A, Max 1.15A
<b>Insulation class</b>	F
<b>Protection class</b>	IP44
<b>Temperature class</b>	TF 110

## PUMP TECHNICAL DATA

<b>Ambient temperature</b>	from +0°C to +40°C
<b>Allowed liquid temperature</b>	from -10°C to +110°C
<b>Temperature range at max. ambient temperature</b>	of 30°C = +30°C to +90°C of 40°C = +40°C to +110°C
<b>Maximum operating pressure</b>	Max 1.0 MPa - 10 bar
<b>Minimum pressure on the intake opening</b>	0.05 MPa (0.5 bar) at 80°C 0.15 MPa (1.5 bar) at 95°C
<b>Maximum relative humidity</b>	≤ 80%
<b>Sound pressure level</b>	< 45 dB(A)
<b>Low Voltage directive (2006/95/CE)</b>	Standard used: EN 60335-1, EN 60335-2-51
<b>EMC Directive (2004/108/CE)</b>	Standard used: EN 61000-6-2, EN 61000-6-3
<b>Ecodesign directive (2009/125/CE)</b>	Standard used: EN 16297-1 e EN 16297-2

**Approved fluids** Heating water to VDI 2035. Highly viscous fluids (e.g. 30 % glycol content and above) on request. Pure, thin-bodied, non-aggressive and non-explosive fluids not containing any mineral oil, solids or long fibres. Fluids with a viscosity of 10 mm<sup>2</sup>/s max.

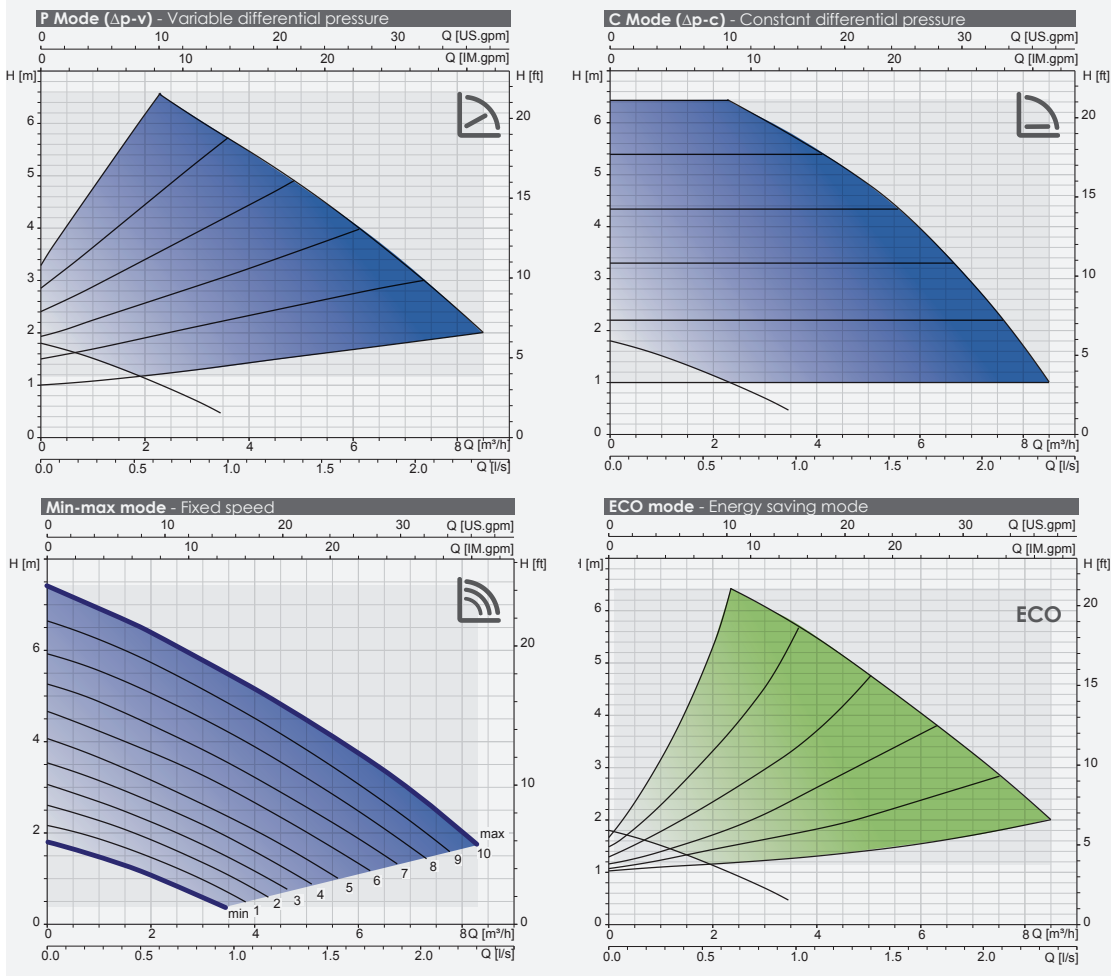
**Inputs** Modbus RTU, 0-10VDC, Start/Stop signal, alarm signal, dual function

## TYPE KEY

Example	ES	MAXI	25 - 80 / 180
Electronic circulator			
Version			
Nominal diameter (DN) of suction and discharge ports (15 = G1, 25 = G1 1/2, 32 = G2)			
Maximum head [dm]			
Port-to-port length [mm]			

\* The benchmark for most efficient circulators is EEI ≤ 0,20.

### PERFORMANCE CURVES AND PUMP SETTINGS



Select program items and confirm parameters by pressing the button

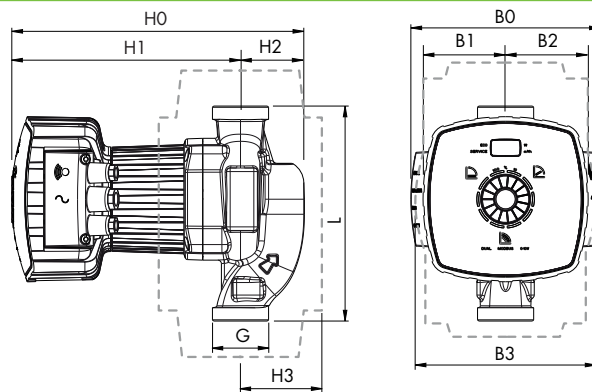


Set the parameters turning the button

### MATERIALS

Model	Pump housing	Impeller	Shaft	Bearing	Rotor can	Thermal insulation shell
ES MAXI 80	Cast iron EN-GJL-200 with cataphoretic coating (KTL)	Stainless steel/composite	Stainless steel 1.4304	Ceramics/carbon (metal impregnated)	Stainless steel 1.4301	EPP

### DIMENSIONS, WEIGHTS



MODEL	THREAD	DIMENSIONS [mm]									WEIGHTS [kg]	
		L	B0	B1	B2	B3	H0	H1	H2	H3	Net	Gross
ES MAXI 25 - 80/180	G 1 1/2	180	160	70	70	165	245	204	41	81	3,85	5,80
ES MAXI 32 - 80/180	G 2	180	160	70	70	165	245	204	41	81	3,85	5,80