ErP ready
easy
air
autounlock

The adjustment is simple and intuitive: simply turn the regulator to select the desired program

Pull-out resistant cable gland with integrated sealing lip

Flat surfaces on the pump housing provide a secure hold when tightening

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. LED user interface.

APPLICATION

Hot-water heating systems of all kinds, in domestic and commercial buildings.

PRODUCT FEATURES AND BENEFITS

- Very high degrees of efficiency due to Askoll permanent magnets motor
- Compact design: the smallest available on the market
- A LED provides information about the operation status of the circulator
- Electronic controls allow to set advanced features and load adjustment capacity Δp-c (constant differential pressure) and Δp-v (proportional differential pressure)
- Min-Max mode: allows to set the exact working point across the range
- The pump housing is cataphoresis treated (KTL) and resistant to corrosion

MOTOR TECHNICAL DATA

Power supply	1x230 V (-10%; + 6%); Frequency: 50 Hz
Electrical connection	Pull resistant cable clamp PG11
Energy Efficiency Index (EEI)*	≤ 0,20 – Part 2
Input power (P_1)	Min 3W, Max 42W
Input current (I_1)	Min 0.03A, Max 0.33A
Insulation class	H
Protection class	IP44
Appliance class	II

PUMP TECHNICAL DATA

Ambient temperature	from +2°C to +40°C
Allowed liquid temperature**	from +2°C to +95°C
Temperature range at max. ambient temperature	of 30°C = +30°C to +95°C of 35°C = +35°C to +90°C of 40°C = +40°C to +70°C
Maximum operating pressure	Max 0.6 MPa - 6 bar
Minimum pressure on the intake opening	0.03 MPa (0.3 bar) at 50°C 0.10 MPa (1.0 bar) at 95°C
Maximum relative humidity	≤ 95%
Sound pressure level	< 43 dB(A)
Low Voltage directive (2006/95/CE)	Standard used: EN 62233, EN 60335-1 and EN 60335-2-51
EMC Directive (2004/108/CE)	Standard used: EN 61000-3-2 and EN 61000-3-3, EN 55014-1 and EN 55014-2
Ecodesign directive (2009/125/CE)	Standard used: EN 16297-1 and EN 16297-2
Approved fluids	Water for heating according to VDI 2035. Mixtures of water and glycol with glycol percentages not greater than 30%.

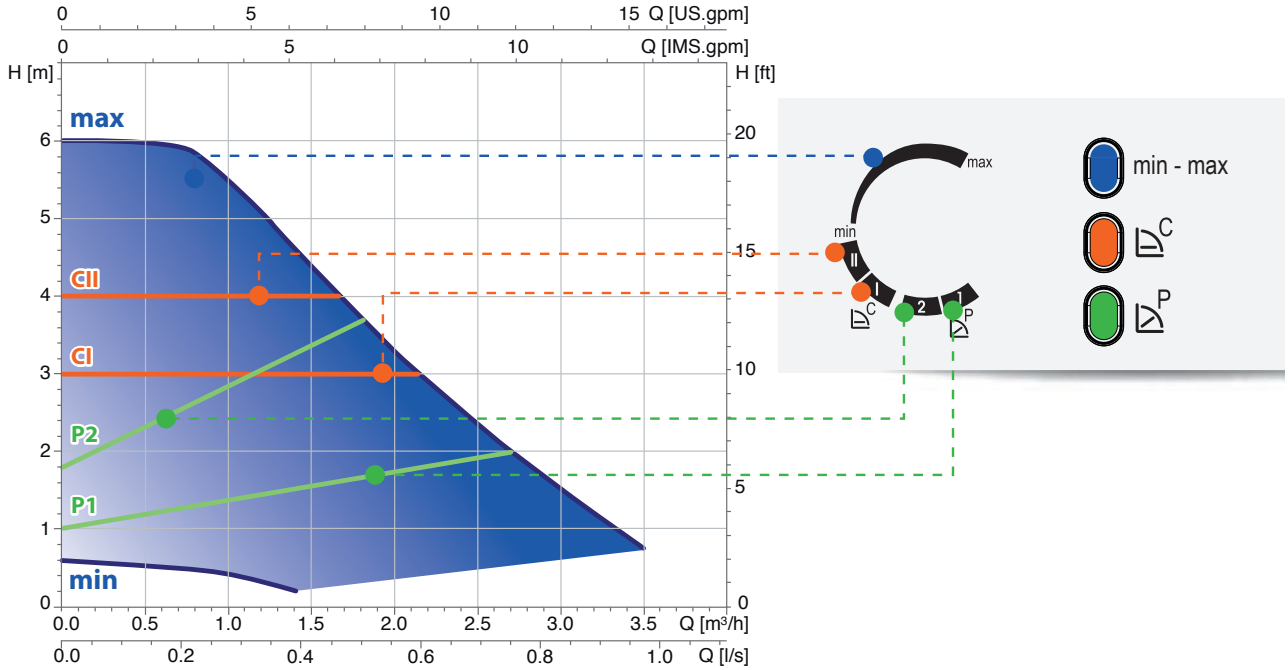
TYPE KEY

Example **ES2** 25 - 60 / 180

- Electronic circulator
- Standard version
  ADAPT: Version with activeADAPT
  SOLAR: Solar thermal version
- Cast-iron pump housing
  C: Composite pump housing
  B: Bronze pump housing
  A: Pump housing with air separator
- 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.
** To avoid condensation in the motor and electronics the temperature of the pumped liquid must always be greater than the ambient temperature.

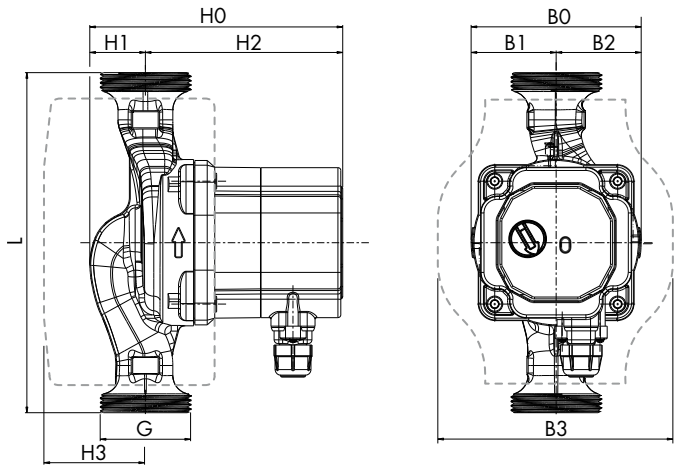
PERFORMANCE CURVES AND PUMP SETTINGS



MATERIALS

Model	Pump housing	Impeller	Shaft	Bearing	Thrust bearing	Rotor can
ES2 60	Cast iron EN-GJL-200 with cataphoretic coating (KTL)	Composite	Ceramic	Carbon	Ceramic	Composite

DIMENSIONS, WEIGHTS



MODEL	THREAD	DIMENSIONS [mm]									WEIGHTS [kg]	
	G	L	B0	B1	B2	B3	H0	H1	H2	H3	Net	Gross
ES2 15 - 60/130	G 1	130	90	45	45	124	133,8	29,4	104,4	49	1,67	1,87
ES2 25 - 60/130	G 1 1/2	130	90	45	45	124	133,8	29,4	104,4	49	1,81	2,01
ES2 25 - 60/180	G 1 1/2	180	90	45	45	124	133,8	29,4	104,4	49	1,96	2,6
ES2 32 - 60/180	G 2	180	90	45	45	124	133,8	29,4	104,4	49	2,10	2,30

Askoll Uno S.r.l. via L. Galvani, 31/33 - 36066 Sandrigo (VI) - ITALY
www.askoll.com