

E-PURE



PM synchronous
recirculation pump
for domestic hot water

Electronic, Efficient,
Advanced

Maximum energy efficiency
Easy to install
With electronic control



SAVINGS
Up to 80% less than
traditional pumps



TECHNOLOGY
Best available
technology - PM Motor



ENVIRONMENT
protection



Askoll
Il futuro dell'innovazione

Askoll E-Pure

Electronic, Efficient, Advanced

Askoll E-Pure is a recirculation pump for domestic hot water. It is driven by a permanent magnet synchronous motor controlled by an embedded on board inverter.

Its benefits are extraordinary:

1. MAXIMUM ENERGY EFFICIENCY

2. A SINGLE MODEL FOR "INFINITE" INSTALLATIONS

3. EASY INSTALLATION

**INVERTER
technology**



The hydraulic group of Askoll E-Pure pumps is validated by the following European organizations and institutes:

TIFQ (IT)
KTW (DE)
DVGW W270 (DE)
ACS (FR)
WRAS (GB)

The products meet the requirements of the DM 174 of 06/04/2004, laying down rules concerning technical equipment for the treatment of domestic hot water. Installation, maintenance or repair of the circulation pumps must be performed by authorized persons and is not allowed the use of accessories and spare parts that are not original. Inappropriate and/or different uses from those indicated in the instructions manual are not allowed, if not previously agreed in writing by Askoll.

1. MAXIMUM ENERGY EFFICIENCY: more savings for families

The **Askoll E-Pure** technology is the most advanced manufacturing solution available on the market. The majority of the pumps currently on the market are of traditional asynchronous type and, often, with single speed.

Askoll E-Pure works with a permanent magnet synchronous motor with adjustable work speeds according to the actual needs of each installation.

It consumes up to 70% less electricity than traditional pumps with equivalent performance.

Should every family have Askoll components be installed in their (recirculation, heating) systems and also in the washing machine and dishwasher, **it would be possible to reduce energy user's costs by 20%**, thus saving economic and environmental resources and, at the same time, attaining **ideal comfort levels in their living spaces.**

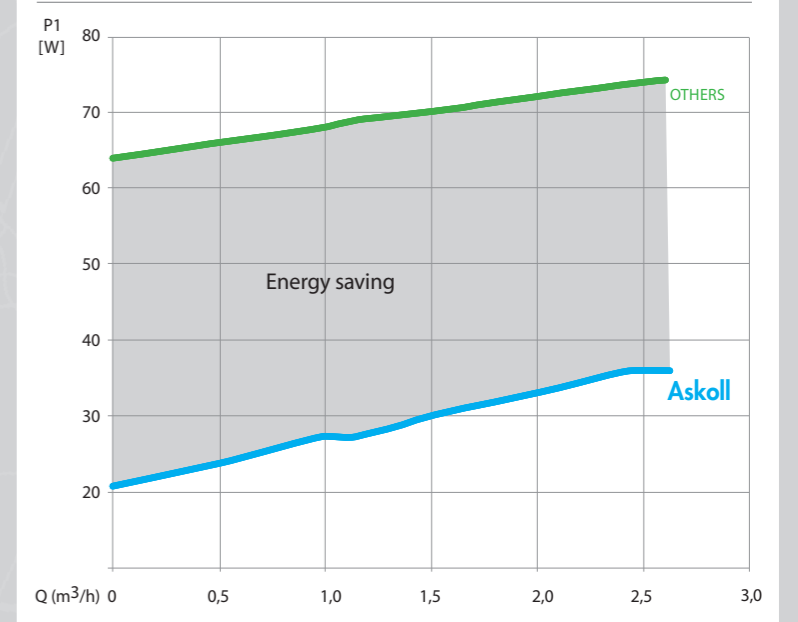
ON THE ENVIRONMENT'S SIDE: Askoll is committed to designing an innovative, top rate and environmentally friendly product.

Despite recirculation pumps for domestic hot water are excluded from the voluntary agreement concerning energy labelling, Askoll has been committed to achieving the highest energy efficiency standards, thus contributing to safeguarding the planet's resources.

ON THE FAMILIES' SIDE:

The use of **Askoll E-Pure** allows cutting significantly the electricity bill costs. Motor technology offering very high efficiency allows saving the power equivalent to the consumption of almost two months of use: **an economic benefit that can be actually perceived!**

Comparison between consumption of a traditional pump and **E-Pure**



2. A SINGLE MODEL FOR "INFINITE" INSTALLATIONS:

with the same terrific efficiency it meets the requirements of different systems

Askoll E-Pure is "universal": a single model replaces up to 5 models offered by other manufacturers.

It covers over 80% of installations for the recirculation of domestic hot water and it can be used in any domestic environment, from the apartment to the single and two-family house.

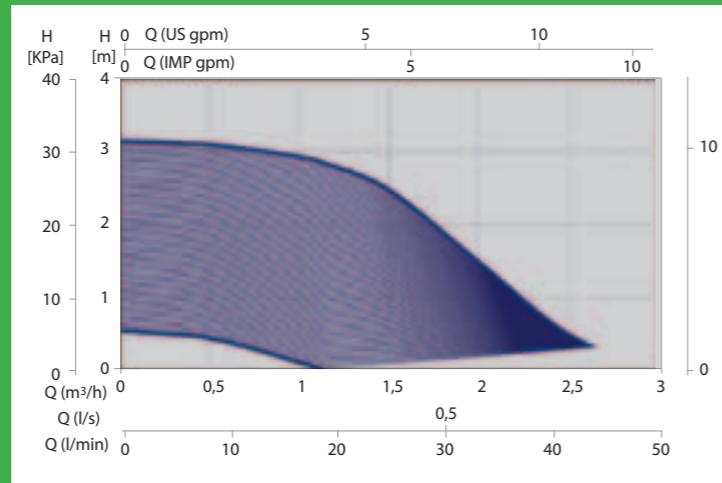
It shows maximum performance equivalent to 4 m head and flow rates up to 3 m³/h.

ON THE INSTALLER'S SIDE:

Choosing the right model to install becomes extremely easy.

ON THE DISTRIBUTOR'S SIDE:

Stock management becomes easy, convenient and inexpensive.



3. EASY INSTALLATION AND SETTING: rapid and perfect interventions

The special fairlead with which Askoll has equipped this pump ensures maximum intervention speed. Just connect the two conductors to the terminal board and then connect this latter to the connector on the motor: very fast!

ON THE INSTALLER'S SIDE:

The setting of **Askoll E-Pure** is simple and intuitive. Simply turn the controller to select the desired operating curve and achieve ideal performance.

Single speed pumps often do not allow to operate in the best conditions for the system. The smart electronics of **Askoll E-Pure** allows to vary the speed gradually and to adapt pump performance to the features of each individual system. Each installation is a success: easy!

REAL TIME DIAGNOSTICS

Simple and immediate control at all times. The operation indicator (LED) provides information about the status of the pump.

GREEN LIGHT: indicates a proper operation of the pump

Flashing GREEN LIGHT: as a result of a setting change, the operation indicator flashes briefly. The LED indicates that the pump is modulating its performance.

RED LIGHT: the pump is blocked

The regulation of the pump is very simple and intuitive as well: the desired operating curve is selected by turning the regulator with a screw driver.



The pump attains minimum performance level. The pump produces a maximum head of 0.55 m indoors and a head of about 0.2 m with a flow rate of 1,000 l/h.



Pump performance is equivalent to a pump with a maximum head of 2 m. The pump produces a head of about 1.7 m with a flow rate of 1,000 l/h.



Pump performance is equivalent to a pump with a maximum head of 1 m. The pump produces a head of about 0.6 m with a flow rate of 1,000 l/h.



The pump attains maximum performance. The pump produces a head of about 3 m with a flow rate of 1,000 l/h.

APPLICATIONS

Askoll E-Pure circulation pumps are innovative synchronous technology pumps designed and manufactured specifically for the circulation of domestic hot water, the recirculation of drinkable water or liquids in the food industry.

MANUFACTURING FEATURES

Askoll E-Pure pumps are wet rotor type, driven by a permanent magnet synchronous motor controlled by an on board INVERTER.

MOTOR TECHNICAL DATA

PERMANENT MAGNET SYNCHRONOUS MOTOR CONTROLLED BY INVERTER

Power supply 1 X 230 V (-10%; +6%) - 50 Hz

Protection class IP 44

Device class II

Overload protection Automatic, with rotor electronic release function; Protection by means of thermal protector

Not any external protection of the motor is required.

PUMP TECHNICAL DATA

Liquid temperature +2°C to +95°C

Ambient temperature +2°C to +40°C

Maximum operating pressure 1.0 MPa - 10 bar

Storage conditions -20°C to +70°C with RU of 95% at 40°C

Sound pressure level < 43 dB(A)

Minimum suction pressure 0.5 bar at +95°C

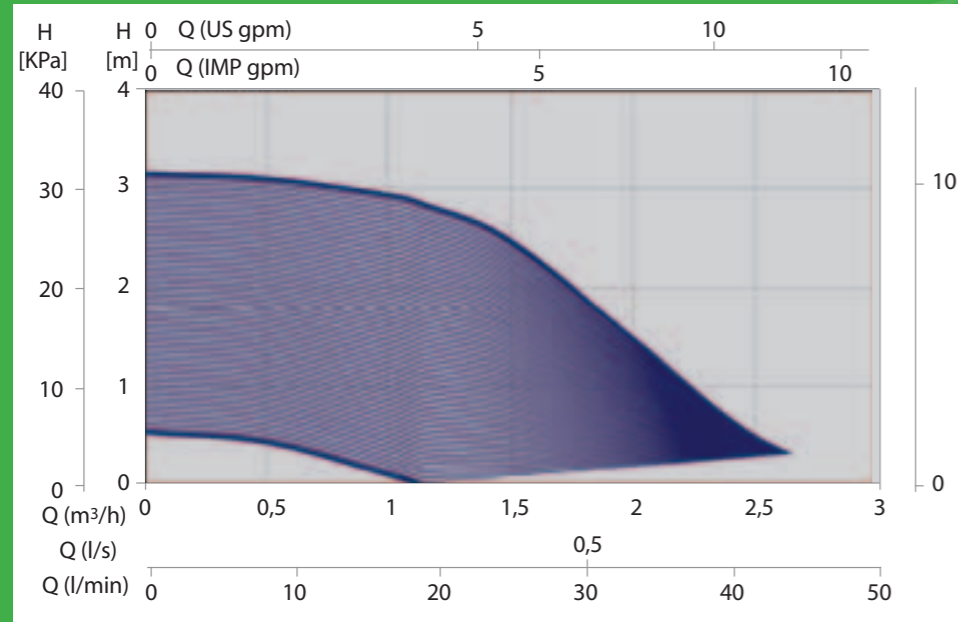
Maximum percentage of glycol 40%

Construction complies with EMC directives EN 61000 - 3 - 2 / EN 61000 - 3 - 3 / EN 55014 - 1 / EN 55014 - 2

PUMPED LIQUIDS

Askoll E-Pure circulation pumps are designed for pumping clean liquids, non-aggressive for the constituent materials and free of solid particles that may affect the constituent parts. They shall not be used for pumping flammable and/or explosive liquids.

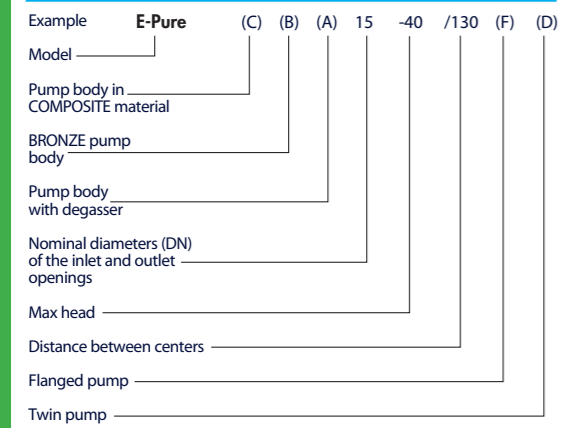
> Models Askoll E-Pure C 10-40 / C 15-40



The curves refer to a temperature of 80 °C and a water density of $\rho = 1,000 \text{ kg/m}^3$

V	TYPE	230V A	P _{ass} W	m³/h l/min	0	0,5	1,0	1,5	2,0	2,5
					max	E-Pure C 10-40	0,41	8	3,2	3,1
min	E-Pure C 15-40	0,08	36	0,6	0,5	0,1	---	---	---	

Model description

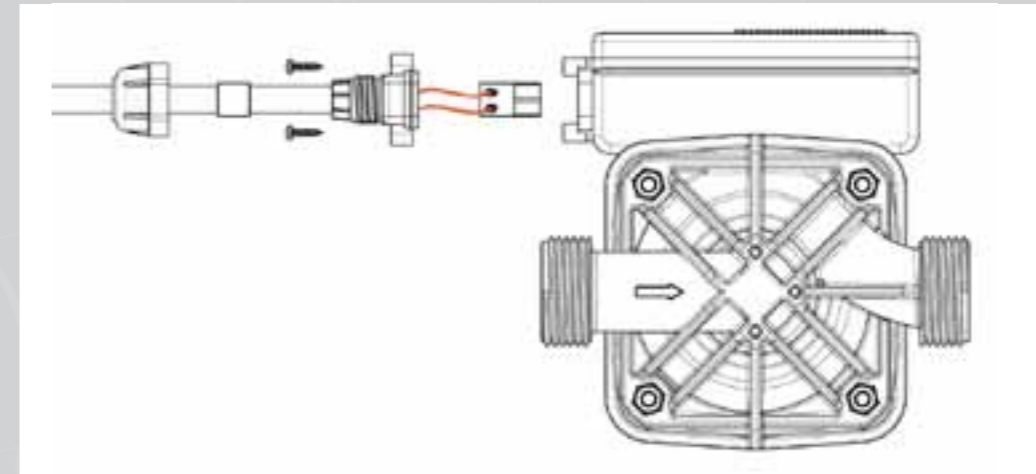


> Installation

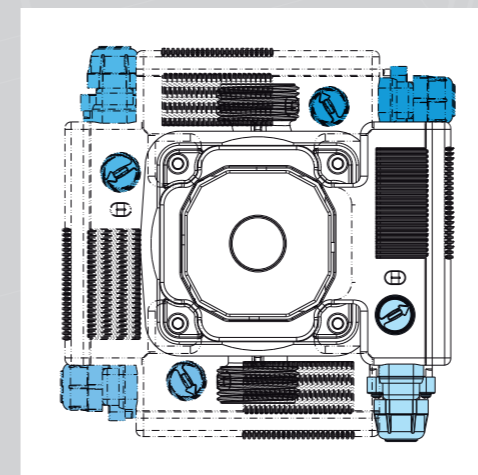
Askoll E-Pure pumps are always to be installed with the motor shaft in **horizontal position**.



Ensure that the pressure at the inlet of the pump is at least equal to the minimum value required. It is advisable not to start the pump before having filled and drained the hydraulic circuit.

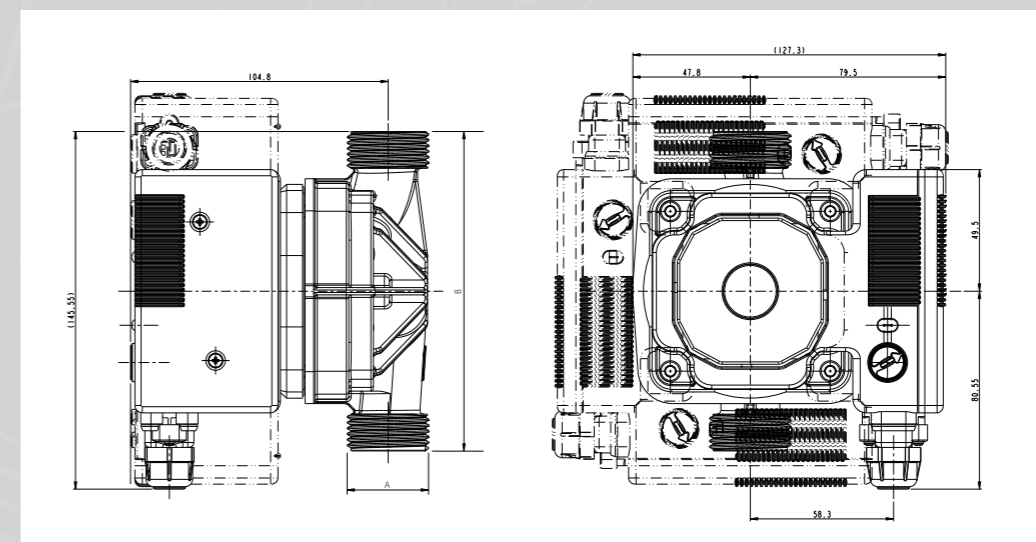


The special fairlead allows a rapid electrical connection: Connect the two conductors (orange) to the terminal board and connect this latter into the suitable compartment of the connection box.



Possible positions of the connection box.

> Overall dimensions



TYPE	A [DN]	B [mm]	Net Weight [kg]
E-Pure C 10-40 / 130	G 3/4	130 mm	1,55 kg
E-Pure C 15-40 / 130	G 1	130 mm	1,55 kg

Askoll

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Askoll, founded in 1978 with its headquarters in Dueville (Vicenza), is a leading manufacturer of pumps and synchronous electric motors. Synchronous technology is the common thread that unites the three core businesses of Askoll: it was initially applied in the field of aquariology in the production of pumps; this business has gradually expanded and now includes the design and development of aquariums, filters and accessories for aquariums and ponds.

The applications of such technology were then transferred to the field of household appliances, mainly washing machines and dishwashers, and to that of heating. This technology allows the industry to ensure a significant reduction in costs, simplifying installation and maintenance activities and it provides significant energy savings, which can exceed 50% compared to conventional electric motors. For the same power of the motor it also allows to produce smaller engines and thus save on raw materials such as iron and copper.

Nowadays in the world, 98% of washing machines and dishwashers use synchronous technology pumps.

A winning intuition was then transformed into the key to the success of this Veneto Region company that has experience on synchronous pumps, its technologies, a know-how unique in the world, and an annual production of 50 million pumps and motors sold throughout the world.

Today Askoll is an international group of 11 business units with facilities in Italy, Brazil, Mexico, Slovakia, Romania and China, with trade representatives in the United States and South Korea. Its Center for Research & Development, within the company, boasts a portfolio of over 500 patents and collaborates with leading European universities.

Askoll develops a turnover of over 400 million Euro, to which contribute more than 2,800 employees, and it delivers its products in over 20 countries.

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