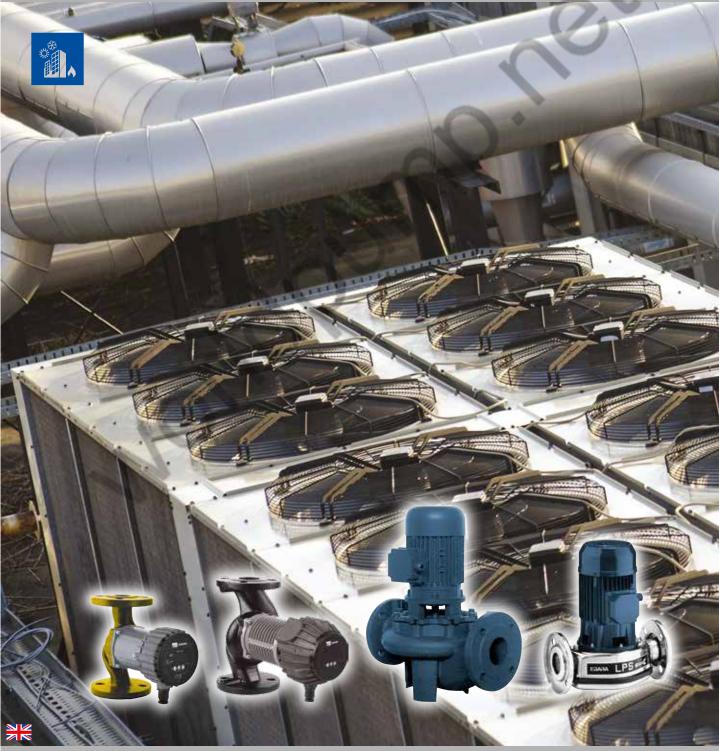


## Japanese Technology since 1912

## In-line and circulator electric pump

Product Catalogue



Morildipulning



## Japanese Technology since 1912

www.ebaraeurope.com



## Cutting-edge technology at your service

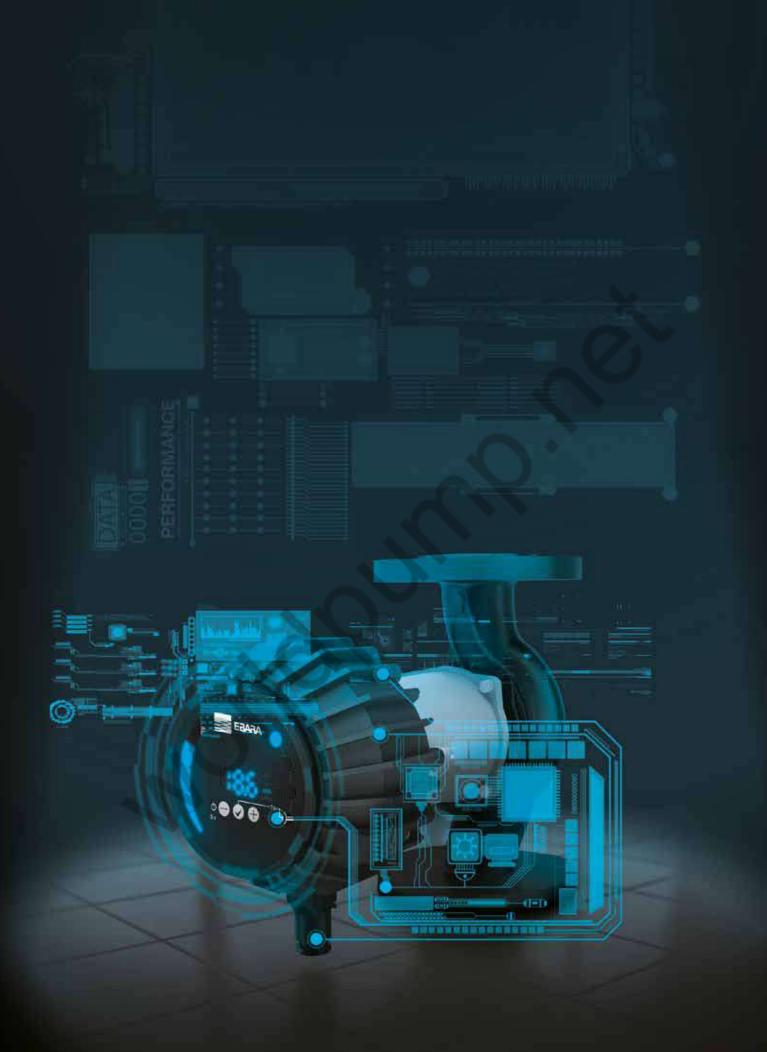
Our range of in-line and circulator electric pumps offers a **wide range** of products suitable for the most disparate uses in HVAC, i.e. circulation systems for heating, ventilation and air conditioning.

These pumps can be used by a small floor heating system and by a large installation for hospitals or high-rise buildings, both in the primary circuits and in the secondary rings for hot or cold water distribution. This means that our range offers a **wide range of solutions**, suitable for different applications, in terms of materials, technical characteristics and performance.

The EBARA range offers **different product variants** : with ventilated motor or wet rotor motor, cast iron, bronze or stainless steel, with the possibility of installing the inverter to guarantee maximum efficiency levels.



PERFORMANCE







## The response to your every requirement

Multiple applications in heating, conditioning, cooling or air treatment systems. Applications where it is necessary to circulate a fluid to allow heat exchange; EBARA pumps **meet these needs to the fullest.** 

Whether it is clean water or mixed with glycol, whether it is cold water at -10°C or over 110°C, for every application there is a product that can satisfy the most challenging of requirements.

This is possible thanks to the different products of the wide range, composed of two large "families": the **circulators** and the **in-line pumps**.

Circulators are pumps with permanent magnet motors and with a wet rotor that is suitable, as the name implies, to circulate fluid. They are fitted with integrated inverter to improve their **efficiency** and **versatility**, and are available in bronze versions to be used in domestic water applications. The in-line pumps, which, as the name suggests, have suction and delivery on the same axis, are equipped with high efficiency ventilated motors, for large flow rates and large systems, also available in the AISI 304 version for domestic applications.

On primary circuits that have the task of placing water into circulation throughout the building, or on secondary ones that allow for zoned distribution, in any situation there is an EBARA circulation pump that fully performs its task, with **efficiency**, **reliability** and **versatility**.

A complete range, containing every essential.

# High speed for saving

Efficiency. Energy savings.

Over the past few years these are the goals that everyone is focussing on. And it is precisely in this perspective of energy efficiency that, more and more frequently, in applications with circulators and in-line pumps, frequency variators and remote control systems are being used to optimise the operation of electric pumps. Not only that, also to increase the comfort of the system.

In fact, through the electronic control and the use of inverters, the reliability and efficiency of the pump reach maximum levels and, at the same time, the operation and protection of the system are optimised, reducing, for example, noise and vibrations related to the abrupt opening of thermostatic valves.

EBARA offers a range of specific products for this range, such as E series inverters or systems that can communicate via Modbus, digital/analog inputs and digital outputs.

This ensures remote control and communication with the most advanced home automation systems.

And efficiency and energy savings are a reality.





# Sectors and Areas of Application

Small-scale systems, serving one or two apartments, but also central heating and centralised plants of medium or large size, serving condominiums, skyscrapers or hospitals. EBARA offers a range of products that covers small as well as large requirements.

- Small heating systems
- Floor heating systems
- Centralised and collective systems
- Thermal power stations serving buildings
- Chillers, hydronic groups or air conditioning systems
- Air treatment units
- Recirculation systems both on primary and secondary circuits, also in the presence of thermostatic valves
- Water circulation and distribution systems
- Solar systems
- Domestic hot water systems



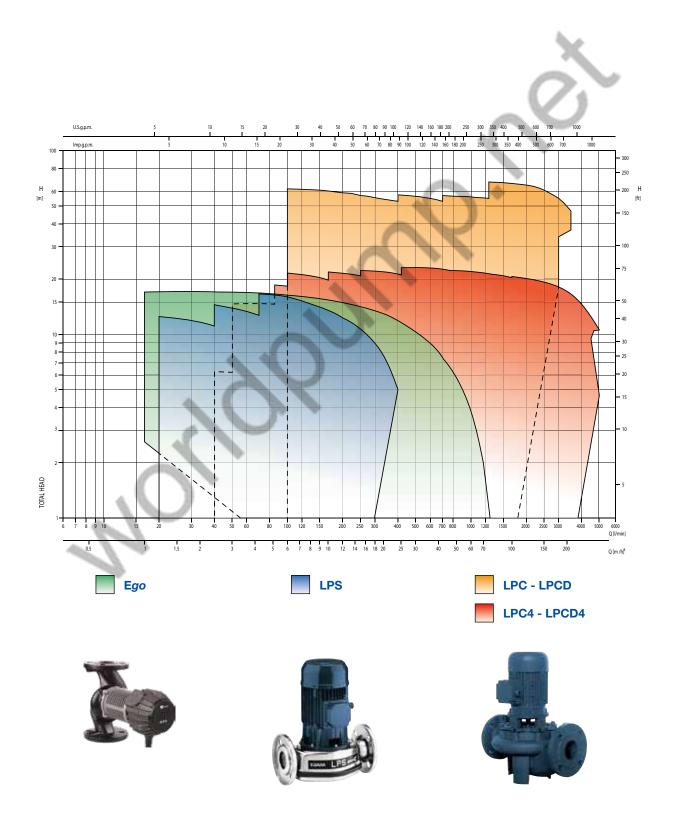








# **Field of application**



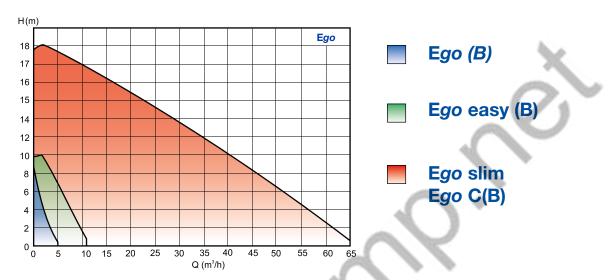


# High efficiency circulators

	Туре	Technical data
Ego	Cast iron with threaded connections, impeller in Noryl, ideal for small systems. Also available in twin version.	<ul> <li>Total head from 1.2 to 8 m</li> <li>Capacity from 0.8 to 4 m<sup>3</sup>/h</li> <li>Liquid temperature: from +5°C to +95°C</li> <li>Ambient temperature from 0 to +40°C</li> <li>Maximum pressure: 10 bar</li> <li>Maximum percentage of glycol: 20%</li> </ul>
Ego easy	In cast iron with threaded or flanged connections, impeller in Noryl, ideal for medium-sized centralised and collective systems. Also available in twin version.	<ul> <li>Total head from 1.5 to 11 m</li> <li>Capacity from 2.0 to 9.5 m<sup>3</sup>/h</li> <li>Liquid temperature: from +2°C to +110°C</li> <li>Ambient temperature from 0 to +40°C</li> <li>Maximum pressure: 10 bar</li> <li>Maximum percentage of glycol: 20%</li> </ul>
Ego slim	In cast iron with flanged connections, impeller in AISI 304, ideal for thermal plants, for large centralised and collective systems, characterised by a low weight and a more compact design. Also available in twin version.	<ul> <li>Capacity from 5.0 to 45.0 m<sup>3</sup>/h</li> <li>Liquid temperature: from -10°C to +110°C</li> <li>Ambient temperature from 0 to +40°C</li> <li>Maximum pressure: 10 bar</li> </ul>
Ego C	In cast iron with flanged connections, steel impeller, ideal for thermal plants and for large centralised and collective systems. Also available in twin version.	<ul> <li>Total head from 2.0 to 16.5 m</li> <li>Capacity from 7.0 to 60.0 m<sup>3</sup>/h</li> <li>Liquid temperature: from -10°C to +110°C</li> <li>Ambient temperature from 0 to +40°C</li> <li>Maximum pressure: 10 bar</li> <li>Maximum percentage of glycol: 20%</li> </ul>
Ego B	Bronze body with flanged or threaded, impeller in Noryl or stainless steel, ideal for domestic hot water purposes. Also available in twin version.	<ul> <li>Total head from 1.0 to 13.5 m</li> <li>Capacity from 0.5 to 43.0 m<sup>3</sup>/h</li> <li>Liquid temperature: from +5°C to +65°C</li> <li>Ambient temperature from 0 to +40°C</li> <li>Maximum pressure: 10 bar</li> </ul>
MR B	Wet rotor circulation pumps, not driven by inverter, bronze body with threaded or flanged connections, steel impeller, used for domestic hot water installations	<ul> <li>Total head from 11.5 to 1.2 m</li> <li>Capacity from 0.8 to 10.2 m<sup>3</sup>/h</li> <li>Liquid temperature: from +5°C to +65°C</li> <li>Ambient temperature from 0 to +40°C</li> <li>Maximum pressure: 10 bar</li> </ul>



Choosing the right product is essential: it means responding effectively to the demands of the system. A wide operating range ensures being able to find the right product. The various models of EBARA circulators and their operating range fully meet this requirement:



## Sleeve

one extruded piece, without welding points, to ensure its reliability and constructive strength

## **Remote control**

through the communication module C (standard in the twin versions) there is the possibility of control via Modbus, digital/analog inputs and digital outputs. They ensure remote control and communication with the most advanced home automation systems

## Display

clear, intuitive and standardised with the other models in the range to make it a product that is easily recognisable and easy to use

- Four operating modes are available, including the auto-adaptive one
- Operation in night mode, to further minimise consumption

## Motor

with permanent magnets to ensure high efficiency as well as the start-up ignition

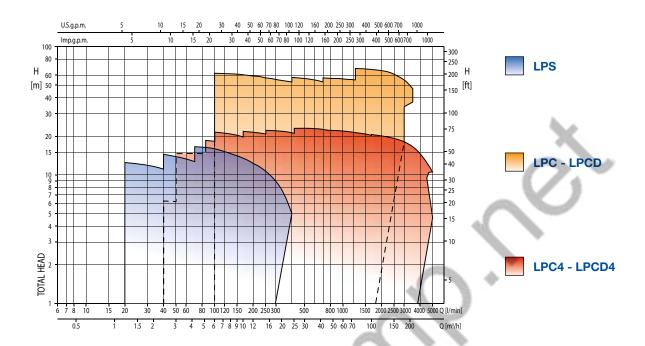
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# **In-line electric pumps**

	Туре	Technical data
LPC LPCD	In-line centrifugal pumps with cast iron hydraulics and ventilated motor, suitable for circulation systems and available with 2 or 4 pole motor. Used to pump both hot and chilled water depending on the application, in civil and industrial installations. Available in both single (LPC) and twin (LPCD) versions.	<ul> <li>Total head from 10.7 to 67.5 m</li> <li>Capacity from 3 to 220 m<sup>3</sup>/h</li> <li>Hydraulic efficiency index MEI &gt; 0.4</li> <li>IE3 high efficiency motors starting from 0.75 kW</li> <li>Mechanical seal: SiC/Carbon/EPDM</li> <li>Shaft in AISI 420</li> <li>Liquid temperature: from -10°C to +110°C</li> <li>Flange PN6 (for LPC 32-100 and LPC 40-100) or PN10</li> <li>IP55 protection degree</li> </ul>
LPC LPCD with E-drive	In-line centrifugal pumps with cast iron hydraulics and ventilated motor, suitable for circulation systems and available with 2 or 4 pole motor and combined with inverter E- <i>drive</i> . Used to pump both hot water and chilled water depending on the application, in civil and industrial systems. Thanks to the inverter E- <i>drive</i> they can work by controlling different parameters according to requirement. Available in both the single and twin version.	<ul> <li>Capacity from 3 to 190 m/n</li> <li>Hydraulic efficiency index MEI &gt; 0.4</li> <li>IE3 high efficiency motors starting</li> </ul>
LPS	In-line centrifugal pumps with pump body, impeller and seal holder disc in AISI 304 stainless steel, with ventilated 2-pole motor. Suitable for circulation systems, they are used to pump both hot water for domestic hot water and heating systems, and chilled water for air conditioning and cooling, both in civil and industrial systems.	<ul> <li>Total head from 2.4 to 12.5 m</li> <li>Capacity from 1.2 to 12 m<sup>3</sup>/h</li> <li>Hydraulic efficiency index MEI &gt; 0.4</li> <li>IE3 high efficiency motors starting from 0.75 kW</li> <li>Shaft in AISI 303</li> <li>Mechanical seal: Ceramic/Carbon/NBR</li> <li>Liquid temperature: from -10°C to +100°C</li> <li>IP55 protection degree</li> </ul>





The **in-line centrifugal pumps**, both in the steel and cast iron version, for applications related to circulation with **certain advantages**. Their constructive configuration with suction and discharge on the same axis allows **easy** and **simple** installation and optimises their positioning.

In fact, both in cases of new systems and for inclusion within existing plants, an "**in line**" insertion is permitted with the distribution pipes.

In the case of smaller electric pumps, it also allows a **suspended** installation without base or support. In addition, the possibility of choosing twin pumps gives the applications in which they are inserted **greater reliability** (possibility of having a back-up electric pump to the other one) or the possibility of **expanding the flow range** by making both work.



# LPC(4) - LPCD(4)

In-line centrifugal pumps with cast iron hydraulics and ventilated motor, suitable for circulation systems and available with 2 or 4 pole motor. Used to pump both hot water and chilled water depending on the application, in civil and industrial systems. Available in both single (LPC) and twin (LPCD) versions.



## RESISTANCE

hydraulics built from a single piece of cast iron



## STANDARDISED

the motor support is a rigid coupling and offers the possibility of using standard motors



## EFFICIENCY

a product that guarantees high overall efficiency, thanks to the design and construction of the hydraulics (MEI>0.4) and class of combined motor (IE3 of 0.75 kW)



## INVERTER

The coupled version with E-*drive* inverter available as standard to optimise efficiency



## VERSATILE

a versatile product, suitable for pumping hot and refrigerated water, even in the presence of ethylene

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2	The

## REMOTISATION

The E-*drive* ensures operational remote control both using ModBus communication protocol, or via the analogue 0-10V and digital inputs provided as standard. This makes it a product that is compatible with the most modern and cutting-edge systems, in which the interconnection of the various devices is frequently requested



## SOFT START and SOFT STOP

it ensures starting and stopping controlled by the motor, increasing reliability and efficiency



## PROTECTION

It offers a multitude of standard controls, which protect the entire electric pump system: protection against dry running, overcurrent, overvoltage, undervoltage, P<sub>max</sub>protection, P<sub>min</sub>protection, etc.



- Total head from 10.7 to 67.5 m
- Capacity from 3 to 220 m<sup>3</sup>/h
- Hydraulic efficiency index MEI > 0.4
- IE3 high efficiency motors starting from 0.75 kW
- Mechanical seal: SiC/Carbon/EPDM
- Shaft in AISI 420
- Liquid temperature: from -10°C to +110°C
- Flanges: PN 6 (for LPC 32-100 and LPC 40-100) PN 10 for the rest of the range
- IP55 protection degree





## LPS

In-line centrifugal pumps with pump body, impeller and seal holder disc in AISI 304 with ventilated 2-pole motor. Suitable for circulation systems, they are used to pump both hot water for domestic hot water and heating systems, and chilled water for air conditioning and cooling, both in civil and industrial systems.



## **EFFICIENCY**

a product that guarantees high overall efficiency, thanks to the design and construction of the hydraulics (MEI>0.4)\* and class of combined motor (IE3 of 0.75 kW)



## RESISTANCE

fully AISI 304 hydraulics, for maximum reliability

FRARA



## **VERSATILE SOLUTION**

it can be combined with the E-drive inverter which guarantees a flexible and versatile solution depending on the system.

It is possible to set the inverter with control on the differential pressure, differential temperature and differential flow according to the requirement



## PROTECTION

built-in automatic reset thermal protection for single-phase models



- Total head from 2.4 to 12.5 m
- Capacity from 1.2 to 12.0 m<sup>3</sup>/h
- Hydraulic efficiency index MEI > 0.4\* (LPS 32/40, 40/40, 40/75, 50/40, 50/75 and 50/150 and sold only on the non-EU market)
- IE3 high efficiency motors starting from 0.75 kW
- Shaft in AISI 303
- Mechanical seal: Ceramic/Carbon/NBR
- Liquid temperature: from -10°C to +100°C
- IP55 protection degree



# A driver for your system

Pressure or temperature variations, as well as the variation in the demand for water itself, are situations that commonly occur in water systems, whether this relates to heating systems or in general to distribution and pressurisation, irrigation or industrial uses. Responding promptly to these variations means **improving the efficiency** and **reliability** of the entire system. How does this work? EBARA provides a **system that meets these needs**, increases the **versatility** of the plant and offers certain advantages: **E**-*drive* 



Combined with high efficiency motors and thanks to the design and construction of the pump hydraulics EBARA guarantees **high overall efficiency** 



**Flexible** and **versatile** solution depending on the system. It is possible to set the inverter with control on the differential pressure, differential temperature and differential flow according to the actual requirement



Remote operation control, either using the ModBus communication protocol, or via the analogue 0-10V and digital analog inputs provided as standard. This makes it a **product that is compatible with the most modern and cutting-edge systems**, in which the interconnection of the various devices is frequently requested



SOFT START and SOFT STOP: ensures starting and stopping controlled by the motor, **increasing reliability and efficiency** 



It offers a multitude of standard controls, which **protect the entire electric pump system**: protection against dry running , overcurrent, overvoltage, undervoltage,  $P_{max}$  protection,  $P_{min}$  protection, etc.







finder pumps selector

# EZ-finder, more than just a simple selector

EZ-finder, a way to look for a model of electric pump?? Much more.

It is the ultimate tool to find and select the right product for your needs.

Thanks to the logic of the selector, it is possible to search for a product in **various ways:** according to the duty point, by entering the model name or by selecting the application type. **Simple**, the right product in seconds.

EZ-finder is the **ideal tool** available to the installer, the designer or the engineer.

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Discover it at the link https://ezfinder.ebara.com

FRAD



# Everything that you need just a click away

visit our website www.ebaraeurope.com



## Data book

Complete technical documentation to be consulted to obtain all the data related to the pumps



## Instruction manual

The manual with all the information needed for correct installation of our pumps



## Kensaku a system for the selection of spare parts



## **Ez-finder**

The correct pump selection software for every need https://ezfinder.ebara.com



## Service

A team of professionals at your disposal to advise you in your choice of pump and to offer post sale assistance



## EBARA sales network

## **EUROPE**

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