



ITT

Laing Thermotech

ecocirc[®] DC Series basic. vario. strong. solar

An entirely new generation of pumps, with minimum energy consumption, a shaft-less spherical motor and permanent magnet technology



ecocirc® DC Series

basic. vario. strong. solar

Applications

- Ecocirc pumps (basic, vario, strong and solar) can be used in a wide variety of DC applications where a highly efficient circulation pump is required.
- Ecocirc pumps are used in a wide variety of applications such as medical devices, electronics cooling, chillers, laser cooling, RV hot water systems, battery cooling, and fuel cells.

Design

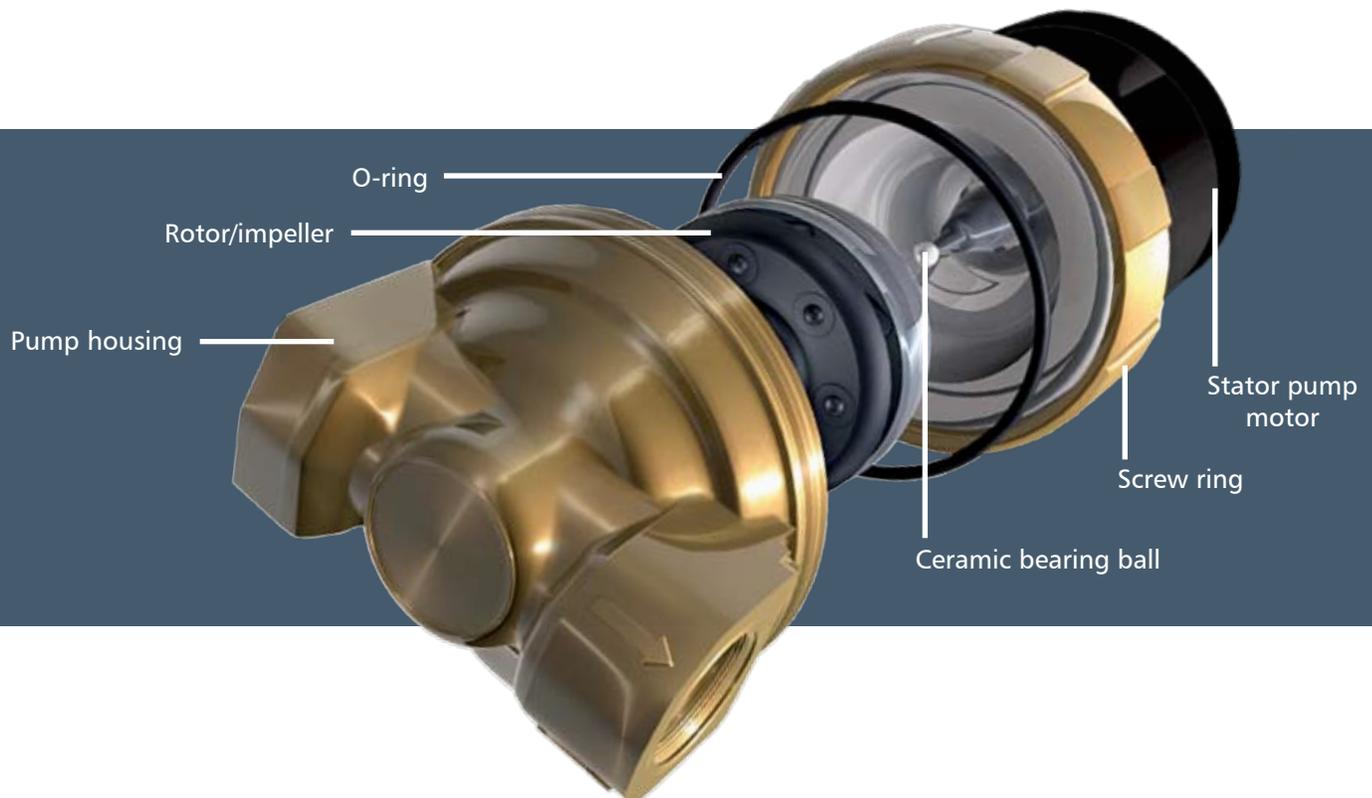
- The single moving part in a spherical motor is a hemispherical rotor/impeller unit. The rotor/impeller rides on an ultra-hard, wear-resistant ceramic sphere.
- There are no conventional shaft bearings or seals. Eliminating the possibility of bearing-play and a potential leak path.
- Provide an exceptionally long service life in excess of 50,000 hours.
- Through microprocessor technology, the Ecocirc pump converts the DC input into 3 phase AC output at the precise frequency and voltage for optimum efficiency.
- Maintenance is not necessary under normal conditions. Even after lengthy shut down periods a reliable start-up is virtually guaranteed.
- Parts exposed to the fluid are completely corrosion resistant even with aggressive fluids.

Speed controller

- Easily adjusts by turning a dial in the pump end. It can be adjusted to vary the hydraulic performance and/or the electrical power consumption.
- Regardless of the setting, the pump always starts with maximum torque. This ensures a reliable start even at the lowest speed.

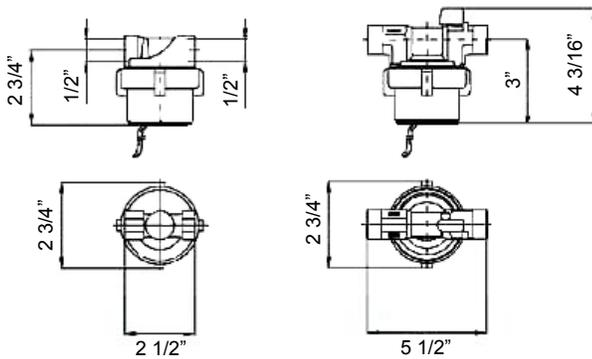
Integrated over-temperature protection

- Each pump has an integrated over-temperature safety device that shuts the pumps electronics off when reaching the temperature limit of +203° F.
- If the over-temperature safety device is activated the pump will restart automatically after the pump has cooled completely.

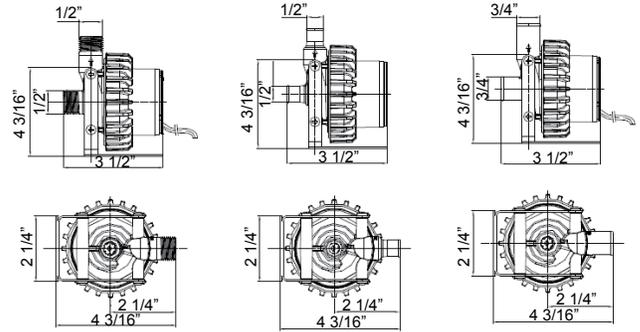


Dimensional Drawings

ecocirc® D5 Bronze



ecocirc® D5 Plastic



Model	Power Consumption	Housing Material	Connection
D5 710 B	8-25 Volt DC 3-35 Watts, 0.30-1.50 Amps	Bronze	1/2" female thread
D5 720 B	D5 strong: 3-55 Watts, 0.13-2.1 Amps		1/2" sweat
D5 090 B			1/2" sweat union w/check valve



Model	Power Consumption	Housing Material	Connection
D5 850 N	8-24 Volt DC, 3-35 Watts, 0.30-1.50 Amps	Plastic (Noryl)	1/2" MPT
D5 810 N	D5 strong: 3-55 Watts, 0.13-2.1 Amps		1/2" hose barb
D5 790 N			3/4" hose barb

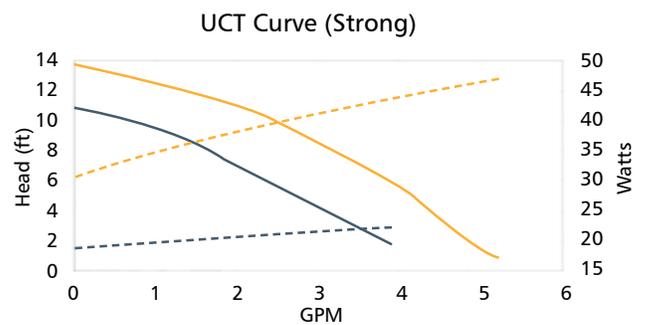
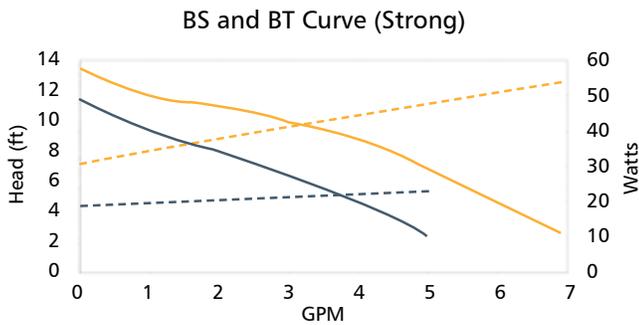
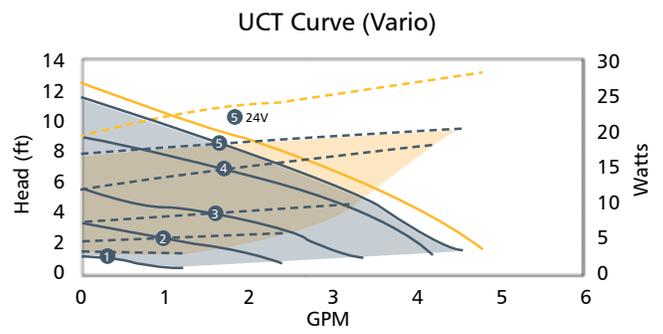
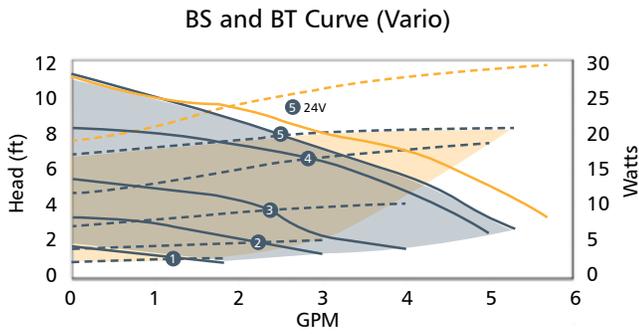
Technical Data

Motor design	Electronically commutated spherical motor with permanent magnet rotor/impeller
Voltage	8 - 25 Volt
Power consumption	See pump curves
Current draw	D5 basic and vario: 0.25 – 1.46 A D5 strong: 0.13 - 2.1 A
Acceptable media	Domestic hot water, water/glycol mixtures, other media on request*
Insulation class	IP 42 / Class F
Max. system pressure	150 PSI - 1.0 MPa (10 bar) for pumps with brass housings 50 PSI - 0.35 MPa (3.5 bar) for pumps with plastic housing
Max. system temperature	-10° F to +203° F (-10 to + 95°C) for pumps with brass housing (non-freezing) +32° F to +140°f (+/- 0 to + 60°C) for pumps with plastic housing (non-freezing)
Weight	1.54 LBS. (0.7 kg) for pumps with brass housing. 77 LBS. (0.35 kg) for pumps with plastic housing* when using more than 20 % glycol, check pump performance

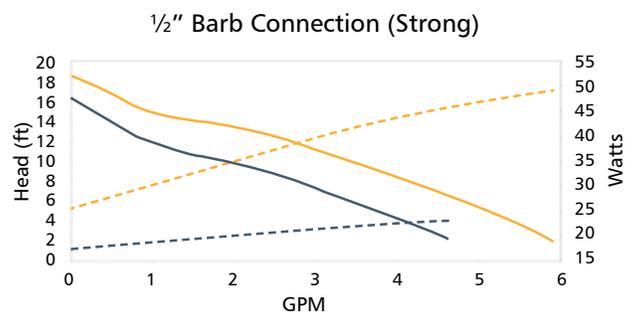
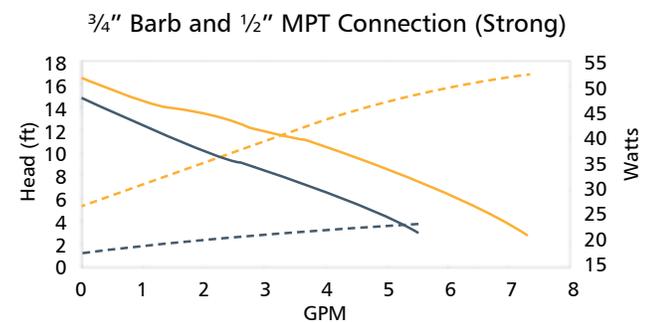
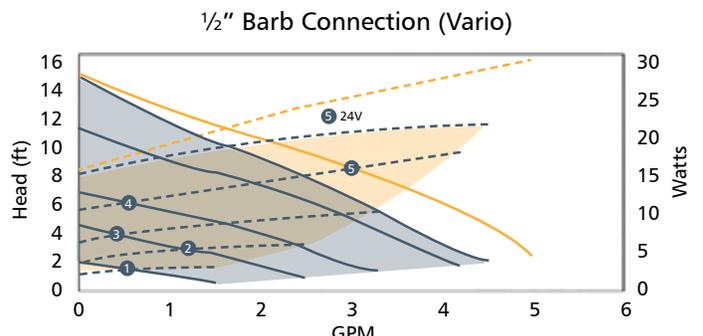
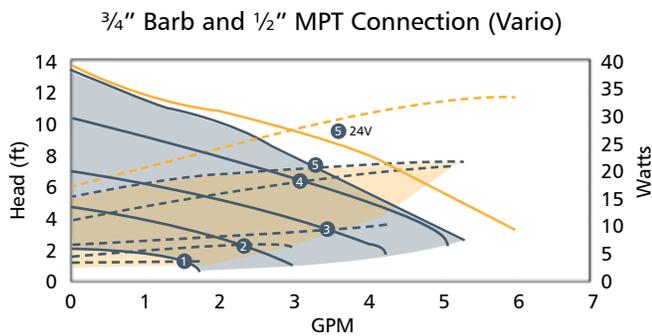


Note that pump curves vary depending on the pump housing, the speed control setting and the supply voltage. All pump curves are shown at 12-24 volts and at each speed controller setting (5 4 3 2 1). The 4 curve is the fixed performance of the D5 basic.

ecocirc® DC Series Pump Curves - Bronze



ecocirc® DC Series Pump Curves - Plastic



ITT
 3878 S. Willow, Suite 104
 Fresno, CA 93725
 Tel: (559) 265-4730 (800) 554-6853
 Fax: (559) 265-4740 (800) 453-7523
 www.lainginc.com



Engineered for life