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Laing Thermotech

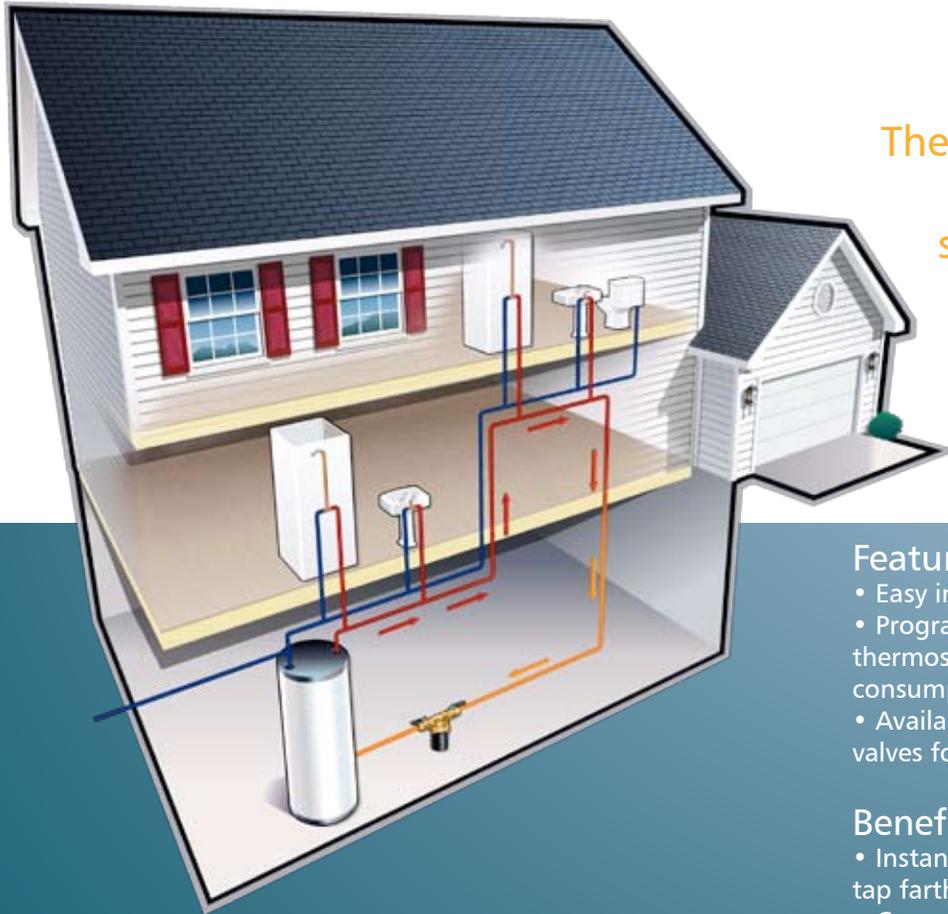
ecocirc[®] E Series, E1 and E3 Domestic Hot Water Pumps. **As Little As 10 Watts!**



- Saves 68% electricity compared to a standard circulating pump
- Highly efficient ECM technology
- Long lasting, silent operation
- Resistant to scale build up
- No shaft, no seal
- Maintenance free without blockage
- Single bearing design



ecocirc® E Series, E1 and E3 Domestic Hot Water Pumps



The first pump to run off of
10 watts - about the
same as a night light!

Features

- Easy installation
- Programmable timer and built-in thermostat available to further reduce energy consumption.
- Available with integrated check and ball valves for quick isolation during service.

Benefits

- Instant availability of hot water, even at the tap farthest from the hot water heater.
- Conserves natural resources - reduced power consumption, CO₂ emissions and wasted water.

Energy Efficient Due to ECM Technology

The ecocirc® pumps' highly efficient ECM (Electronically Commutated Motor) design results in significant energy savings with improved performance: Through microprocessor technology the motor is provided the precise frequency and voltage for optimum performance. A permanent magnet motor eliminates the requirement for input power to magnetize the rotor, thus maximizing efficiency. This unique design offers superior starting torque when compared with standard induction motor type pumps.

The spherical motor design:

The only moving part of this pump type is a spherical rotor/impeller unit which is suspended on an extremely wear resistant ceramic ball. Shaft seals or conventional bearing bushings with a shaft have been eliminated.

The only self realigning bearing in the small pump market has many advantages:

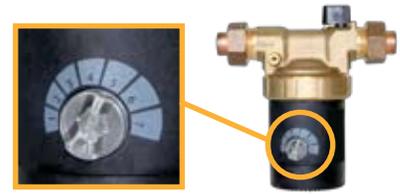
- The suspension on a ball eliminates any bearing play, even after years of use.
- The bearing is self-realigning. It is automatically lubricated and cooled by the system fluid.
- The rotor is magnetically centered on the bearing and can tilt to avoid blockage by small dirt particles. Even after a long time of shut-off, a safe start-up is virtually guaranteed.
- The pump can be cleaned easily with typical household cleaners in the unlikely case of scale deposits.
- Step-less scale thermostats are optional.

Adjustable Thermostat Option

For models with the adjustable thermostat, there is an adjustable Set Point range from 68°F to 158°F (20°C to 70°C). This built-in temperature sensor will turn the circulator off when it reaches the Set Point and turn the circulator on when the temperature is more than 10°F (6°C) below the Set Point. The adjustable thermostat is only available on fixed-speed motors.

Vario

A standard feature that allows for stepless speed control to enable you to set the pump performance to individual system requirements.



e³-Timer

Description

To increase the overall efficiency of a domestic hot water recirculating system and to reduce water wasted while waiting for hot water, the e³ Timer can be installed on all e³ pumps. The timer is easily installed by removing the motor end cap, plugging in the timer and setting the timer schedule without any wiring. The timer can be used in 3-different selections: ON, OFF and TIMER. The ON selection operates the pump continuously, the OFF selection turns the pump OFF and the TIMER selection (depicted by a clock on the timer) turns the pump on when programmed.

Operational Limits

Power Supply: Internally powered by the e³ circulating pump.

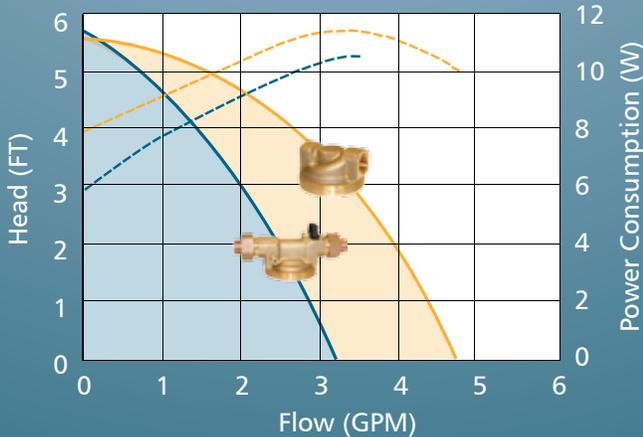
Minimum Switch Interval: 30 minutes.

Run Modes: ON (Continuous), OFF (Off at all times) and TIMER (run at programmed intervals)

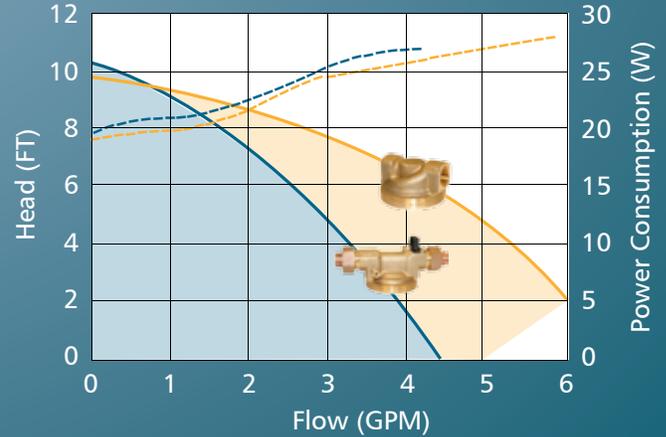


ecocirc® E Series pump curves

E1 Pump Curves



E3 Pump Curves



— UltraCirc Housing Flow - - - UltraCirc Housing Energy Consumption
 — NPT/Sweat Housing Flow - - - NPT/Sweat Housing Energy Consumption

Technical Data

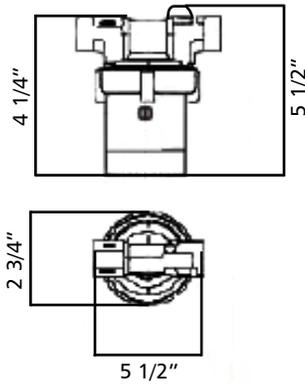
Motor design	Electronically commutated shaft less spherical motor with permanent magnet technology
Power consumption	10 to 28 Watts Max
Max. system pressure	145 PSI (10 Bar)
Electrical connection	100 - 240 V, 50/60 Hz
Max. fluid temperature	203 °F (95°C)
Protection class/Insulation	Class F / IP 55
Acceptable media	Domestic hot water, heating water, water/glycol mixtures* and other media on request.



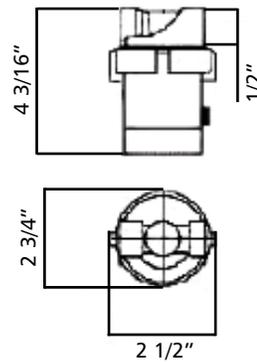
*check pump performance for mixtures of 20% or more glycol

Dimensional Drawings

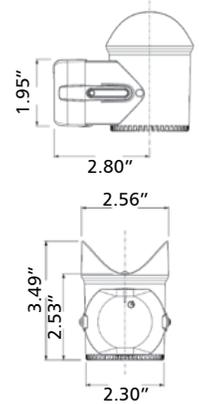
UltraCirc Pump Housing
(Union with Ball & Check Valve)



Standard Pump Housing
(Sweat & Threaded)



E Series Timer



Available Bronze Housing

UCT with Ball & Check Valve



1/2" Threaded



1/2" Sweat



Model Nomenclature

- E1 | Model Family
- B | Pump Housing
 - B—Brass, N—Noryl, S—Stainless, H—Cast Iron
- C | Discharge
 - C—Center, S—Side
- U | Housing Connection
 - H—Hose, T—Threaded, S—Sweat, F—Flanged, U—Union (UC/UCT), A—Autocirc, M—Hose/Threaded
- V | Motor Control
 - V—Variable, P—PWM, F—Flow, N—Fixed, S—Self-Regulates Pressure
- N | Temperature Control
 - C—Fixed, R—Adjustable, N—No Temperature Control
- N | Timer
 - N—No Timer
- 3 | Volts
 - 1—110-120 Volts AC, 2—208-240 Volts AC, 3—100-240 Volts AC
- W | Cord
 - W—With Cord, Blank—No Cord
- 06 | xx Two digit suffix numbers change with minor mechanical variations

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