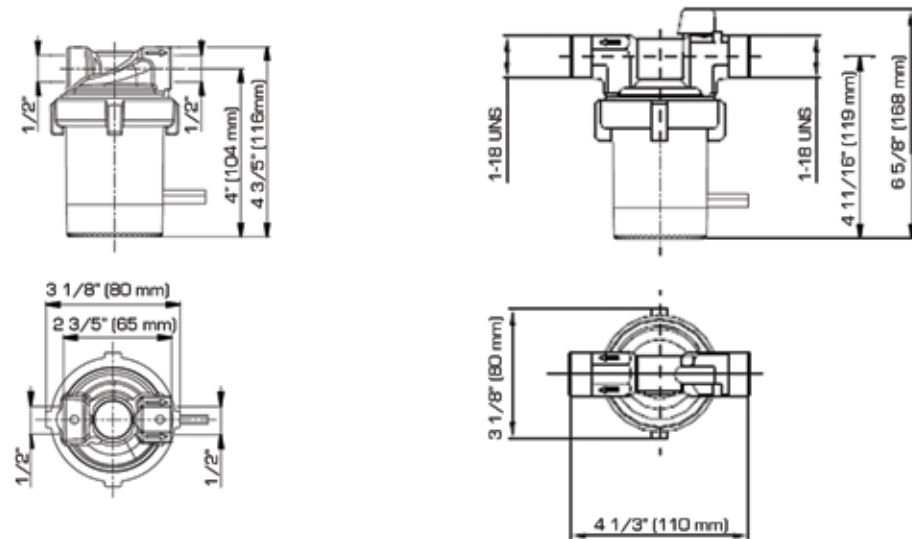
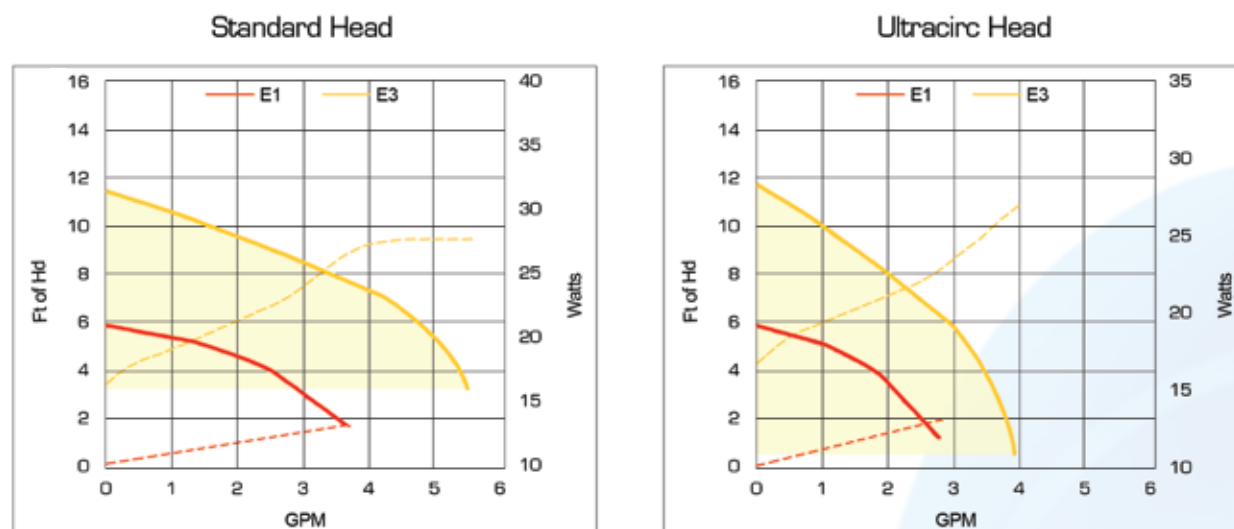


Dimensional Drawings Domestic Hot Water Pumps E Series



Pump curves **ecoCirc**® E1 and E3



*The ball valve and check valve are incorporated in the UC housing and require no additional valves.

BR-28

LAING

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Laing Thermotech, Inc. • Effective October 2008 • Specifications are subject to change without notice



Instant Hot Water. More Comfort. Less Energy. Live Better.



ecoCirc® E Series



Unequalled Economically!
As Little As 12 Watts!

- Saves 68% electricity compared to a standard circulating pump
- Highly efficient ECM Technology
- Long lasting, silent operation
- Resistant to scale build up
- Maintenance free without blockage, extended service life
- Single bearing design
- Shaftless and seal less

LAING

simply the best • by design

Instant Hot Water With As Little As 12 Watts!

The E Series

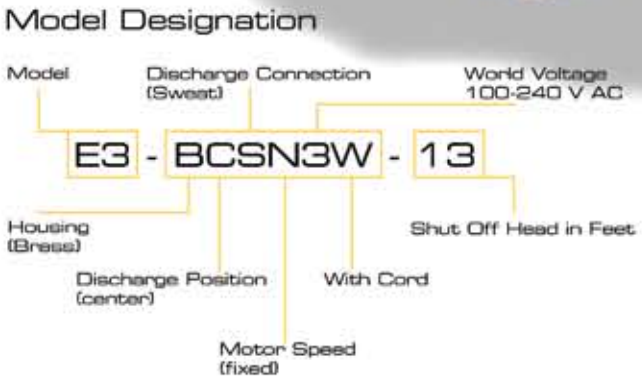
Application
Domestic hot water pumps are installed in the recirculation pipe of the hot water system. Circulating the hot water ensures that it will be available instantly even at the tap furthest from the water heater. The added comfort of instant hot water will be enjoyed by you and your family for years to come.

Depending on the system design, Ecocirc® pumps can service a single family home or an apartment on as little as 12 watts, about the same as a nightlight. The water and energy savings make an important contribution towards conserving our natural resources and the reduction of CO₂ due to a reduction in power consumption and wasted water. The average family wastes 17,000 gallons of water each year while waiting for the water to turn hot. The Ecocirc® pumps eliminate wasting water and give you added comfort with instant hot water at all taps in the house, no matter the distance from the water heater or time of the year.

The Ecocirc® pumps are easy to install. To avoid reverse flow through the pump, a check valve should be used. In combination with a ball valve, the whole pump can be isolated quickly if service becomes necessary. To facilitate installation, Ecocirc® pumps are also available with integrated check valves and ball valves. Other areas of application include solar systems, heat pumps or industrial use.

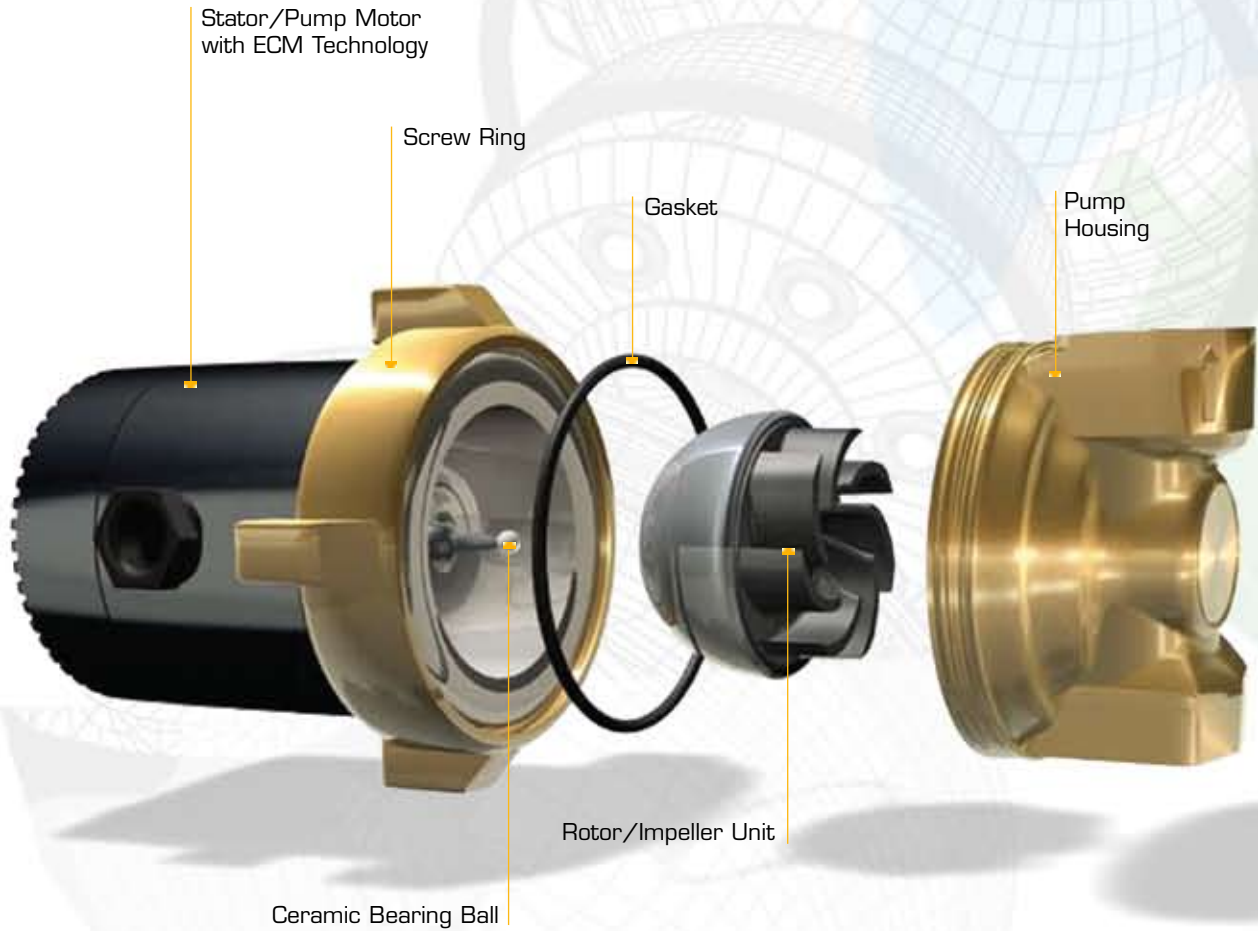
The circulators Ecocirc® E Series are the first of its kind to require as little as 12 Watts of power. This enormous energy savings is made possible by the combination of the spherical motor design invented by Laing and ECM Technology.

Energy Efficiency due to ECM Technology (Electronically Commutated Motor)
The Ecocirc® pumps' highly efficient ECM design results in significant energy savings with improved performance: Through microprocessor technology the fields of the motor are 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 circulators.



Technical Data	
Motor design	Electronically commutated shaftless spherical motor with permanent magnet technology
Power consumption	12 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	

Design Domestic Hot Water Pumps



Energy Efficient Due to ECM Technology

The spherical motor design:
Ecocirc® DHW pumps are of the spherical motor pump 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 pump therefore will operate quietly for years.

The bearing is self-realigning. It is automatically lubricated and cooled by the pumped media (wet rotor pump). Ecocirc® pumps are normally maintenance free.

The rotor is magnetically centered on the bearing and therefore 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. Integrated stepless scale protection thermostats are optional. These thermostats are used to set a water temperature where the pump shuts off. This also results in further electricity savings.