

JOB:

REPRESENTATIVE:

UNIT TAG:
ENGINEER:
CONTRACTOR:

ORDER NUMBER:
SUBMITTED BY:
APPROVED BY:

DATE:
DATE:
DATE:



Lead Free*, Energy Efficient e³ ecocirc Circulators for Potable Water Application

DESCRIPTION

e³ circulators are energy efficient circulators using permanent magnet, ECM (electronically commutated motor) technology. The e³ circulators are designed specifically for potable water applications. These circulators are lead free* and come with a variety of options including a temperature sensor, various body styles, assembled with electrical cord and plug, and more.

MATERIALS OF CONSTRUCTION

Pump Body: Lead Free* Brass
O-Ring: EPDM
Bearing: Carbon/Alumina Ceramic
Impeller: Noryl/PPO
Motor: High Efficiency ECM
All Other Wetted Parts: Type 316 Stainless Steel
Shaft-less, seal-less construction

OPERATING DATA

Pump
Maximum Working Pressure: 150 psi (10.3 Bar)
Maximum Working Temperature: 203°F (95°C)
Minimum Working Temperature: 50°F (10°C)

Motor
ECM Spherical Motor
100-140V 60HZ
5-28 Watts Power Consumption
Automatic Overload Protection
Low in-rush current

Adjustable Speed Switch (Models Without Temp Sensor)
Infinitely variable-speed switch to manually adjust motor speed.

Adjustable Temperature Sensor (Fixed Speed Only)
Adjustable Set Point from 68 to 158 °F (20° to 70°C)
Turns circulator OFF when water temperature reaches set point
Turns circulator ON when water temperature is 10°F (6°C) below set point

Connections
1/2" UltraCirc
1/2" Sweat
1/2" FNPT Threaded

*CSA certified to NSF/ANSI 372 that contains less than 0.25% lead content by weighted average of wetted surfaces.

STANDARD FEATURES

Motor
Designed with a shaftless spherical motor with permanent magnet technology for improved efficiency.
Lead Free
All e³ circulators are made from lead free* construction

OPTIONAL FEATURES

Adjustable Speed Switch
This switch is only available on models without the internal temperature sensor. A stepless motor switch allows infinite motor speed variation.
Adjustable Temperature Sensor
This built-in temperature sensor is adjustable and will turn the circulators off when it reaches the set point and turn the circulators back on when the temperature is more than 10°F (6°C) below the set point. Only available on fixed-speed motors.

Body Types
UltraCirc: The UltraCirc comes with 1/2" union connections and has a built in air purger to remove unwanted air. The UltraCirc also has a built in check and isolation valves for easy isolation and removal of motor housing.
Sweat: The e³ circulators have the option of a 1/2" sweat connection.
Threaded: The e³ circulators have the option of 1/2" female NPT.

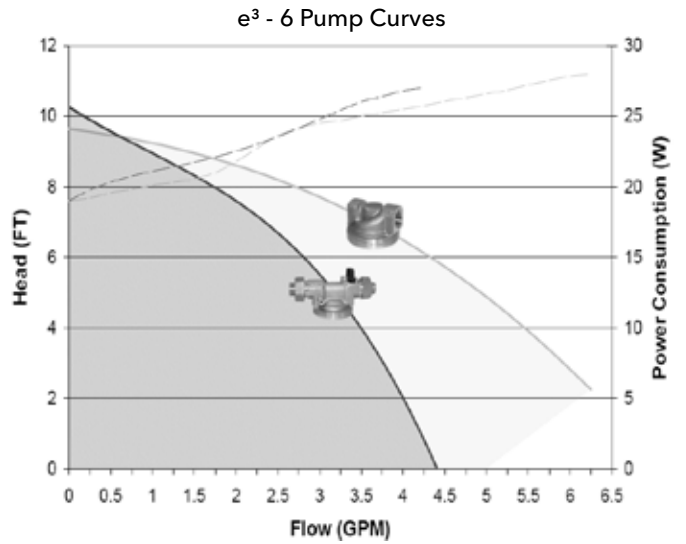
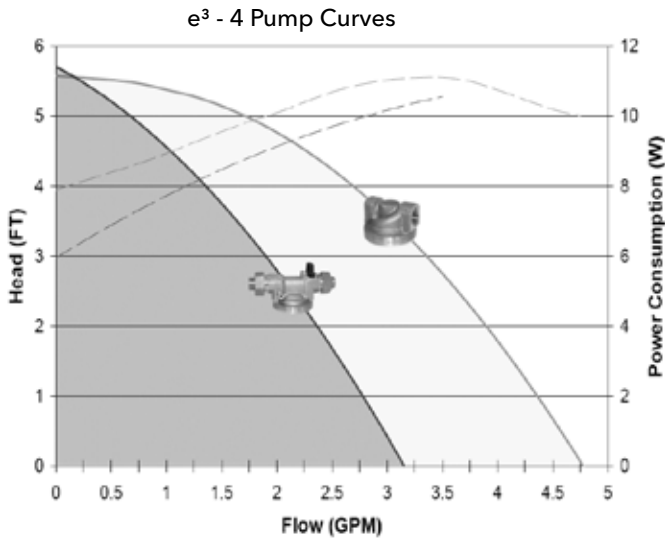
Plug
e³ circulators have the option to be pre-wired with a 6 ft. electrical plug. For fastest installation, install the circulators into the piping and simply plug the circulator into a standard outlet.

Timer Accessory
e³ circulators can provide an even greater increase in energy savings when used in combination with the e³-Timer. The timer is easily installed by removing the motor end cap, plugging in the timer and setting the timer schedule.

Special Specifications

The contractor shall furnish and install in-line circulating pumps as illustrated on the plans and in accordance with the following specification:

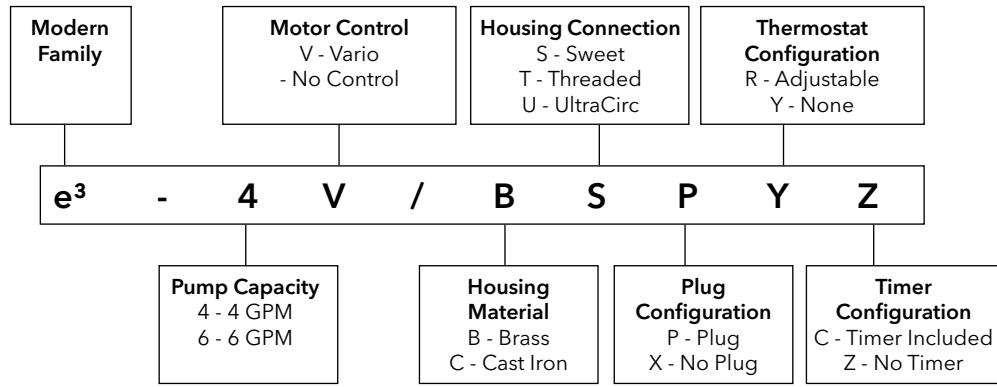
1. The pumps shall be of the high efficiency type specifically designed for quiet operation
2. Pump to be suitable for 203°F (95°C) operation at 150 psig (10.3 Bar) working pressure
3. The pumps shall have a ceramic ball bearing lubricated by the system fluid.
4. Pump body shall be lead-free (less than 0.25% Pb) brass*
5. Pump to have (1) of following options: a) Pump to have built-in adjustable thermostat from 68°F to 158°F (20°C to 70°C)
b) Pump to have built-in stepless speed switch
6. Motor shall be spherical permanent magnet electrically commutated motor (ECM)
7. Motor shall be non-overloading at any point on the pump curve and shall have built in overload protection
8. Pumps to have a capacity of ___GPM at ___foot of head
9. All pumps to be supplied by Bell & Gossett Model_____








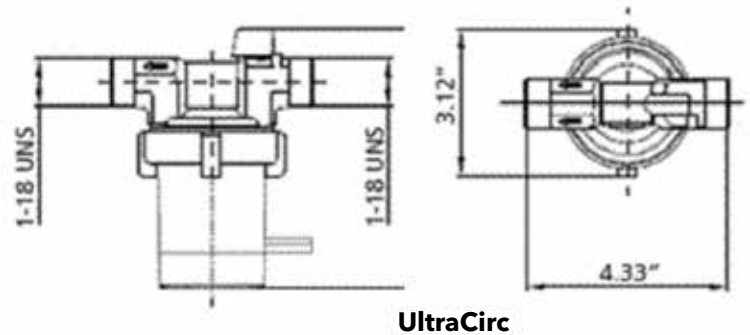
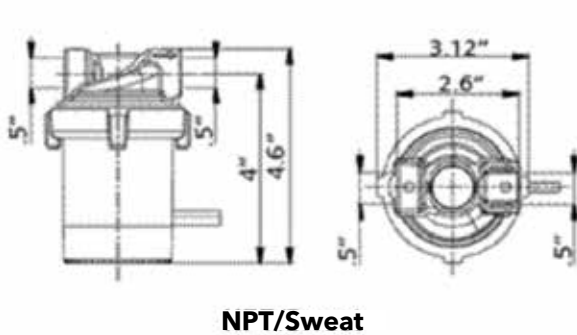
MODEL NUMBER	PART NUMBER	MATERIAL	CONNECTION		ADJUSTABLE SPEED	ADJUSTABLE SIZE TYPE THERMOSTAT	PLUG
			SIZE	TYPE			
e³-4V/BSPYZ	60A0B1001	LEAD-FREE BRASS*	1/2"	SWEAT	•		•
e³-4F/BSXRZ	60A0B3001	LEAD-FREE BRASS*	1/2"	SWEAT		•	
e³-4V/BTXYZ	60A0B1002	LEAD-FREE BRASS*	1/2"	FNPT	•		
e³-4F/BTPRZ	60A0B3002	LEAD-FREE BRASS*	1/2"	FNPT		•	•
e³-4V/BUPYZ	60A0B1003	LEAD-FREE BRASS*	1/2"	UNION	•		•
e³-4F/BUPRZ	60A0B3003	LEAD-FREE BRASS*	1/2"	UNION		•	•
e³-6V/BSPYZ	60A0B1004	LEAD-FREE BRASS*	1/2"	SWEAT	•		•
e³-6V/BTXYZ	60A0B1006	LEAD-FREE BRASS*	1/2"	FNPT	•		
e³-6V/BTPYZ	60A0B1005	LEAD-FREE BRASS*	1/2"	FNPT	•		•
e³-6V/BUPYZ	60A0B1007	LEAD-FREE BRASS*	1/2"	UNION	•		•
e³-6F/BSPRZ	60A0B3004	LEAD-FREE BRASS*	1/2"	SWEAT		•	•
e³-TIMER	60AABT001						

*CSA certified to NSF/ANSI 372 that contains less than 0.25% lead content by weighted average of wetted surfaces.

Model Nomenclature



<p>Motor Control (V) Vario - A built in stepless switch allows for the user to choose the speed at which the pump will operate (_) There is no control and the circulator operates at the selected speed at all times</p>	 <p>(V) (U)</p>
<p>Housing Connection (S) 1/2" Sweat Connection (T) 1/2" FNPT Connection (U) 1/2" UltraCirc Union Connection</p>	 <p>(S) (T) (U)</p>
<p>Plug Configuration (P) e³ Circulators have the option to be pre-wired with a 6ft. electric plug. (X) e³ Circulators can also be permanently wired to the building electrical system.</p>	 <p>(P)</p>
<p>Thermostat Configuration (R) Comes with a built-in adjustable thermostat for ON/OFF function. (Y) No thermostat.</p>	 <p>(R) (Y)</p>
<p>Timer Configuration (C) Comes with pre-assembled timer only available for autocirc models. (Z) Timer sold separately</p>	 <p>(C) (Z)</p>



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 the e³ circulator. 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

e³ - Timer

Power Supply: Internally powered by the e³ circulating pump

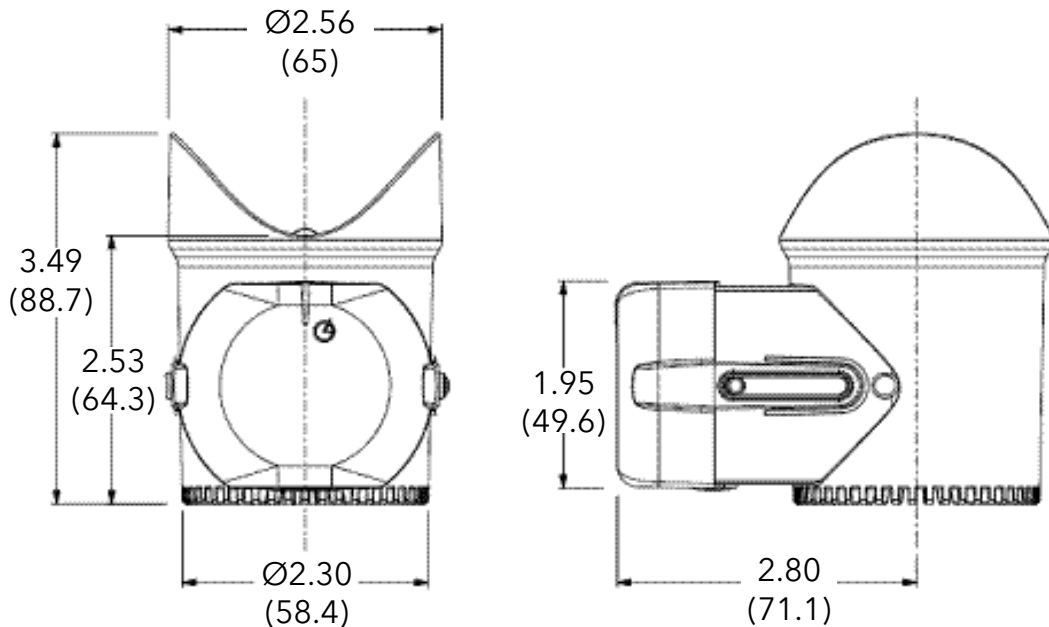
Minimum Switch Internal: 30 minutes.

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

PART NUMBER	MODEL	TAGGING INFORMATION	QUANTITY
60AABT001	e ³ -TIMER		

e3 - TIMER Kit Dimensions

Timer Kit Dimensions in Inches (mm)



TYPICAL SPECIFICATION

Furnish and install as shown on plans and accordance with the following specification:

Timer Kit Dimensions in Inches (mm)

1. The timer kit to be installed on an e³ circulator
2. The timer kit to receive internal power from e³ circulator
3. The timer shall provide ON-OFF control at a minimum interval of 30 minutes. IT shall also have the option for continuous ON or OFF operation.

All unit shall be Bell & Gossett Model No. e³ - Timer



Xylem Inc.
 8200 N. Austin Avenue
 Morton Grove, IL 60053
 Tel: (847) 966-3700 Fax: (847) 965-8379
 www.xylem.com/bellgossett