

<b>JOB:</b>	<b>REPRESENTATIVE:</b>	
<b>UNIT TAG:</b>	<b>ORDER NO.</b>	<b>DATE:</b>
<b>ENGINEER:</b>	<b>SUBMITTED BY:</b>	<b>DATE:</b>
<b>CONTRACTOR:</b>	<b>APPROVED BY:</b>	<b>DATE:</b>



## Energy Efficient, Permanent Magnet Motor Electronically Commutated **ecocirc<sup>®</sup>** 19-14 Circulators for Heating Systems

### Description

**ecocirc<sup>®</sup>** 19-14 auto and vario circulators were designed with highly efficient electronically commutated permanent magnet motor (ECM/PM technology) specifically for hydronic systems.

### Control Modes

auto: The **ecocirc<sup>®</sup>** auto has a proportional pressure control which automatically adjusts the pump performance continuously to the requirements of the heating system, based on the curve that is set on the adjustable dial. When the zone or thermostatic valve closes, the pump performance is reduced to save energy and to avoid velocity noise in the system.

vario: The **ecocirc<sup>®</sup>** vario allows for stepless speed control to set the pump performance to meet individual system requirements.

### Materials of Construction

Pump Body: Cast Iron  
O-Ring: EPDM  
Bearing: Carbon/Alumina Ceramic  
Impeller: Nylon/PPO  
Motor: High Efficiency ECM/PM  
All Other Wetted Parts: Stainless Steel

### Motor

Designed with shaft-less spherical motor with permanent magnet technology for improved efficiency.

### Dry Run Protection

The **ecocirc<sup>®</sup>** 19-14 is protected against dry run condition. The circulator recognizes when there is no water in the pump housing and automatically stops the pump until the presence of water is detected.

### Operating Data

Maximum Working Pressure: 150 psi (10 Bar)  
Maximum Working Temperature: 203°F (110°C)  
Minimum Working temperature: 40°F (4°C)

### Motor:

ECM/PM Spherical Motor  
115 Volts, 60 HZ, 1 Phase  
60 Watts Power Consumption  
Automatic Overload Protection  
Low in-rush current

### Piping Connection

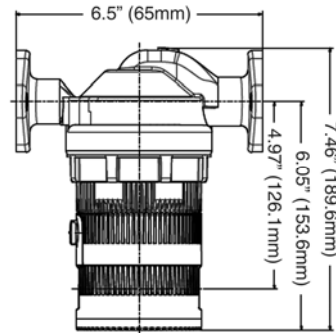
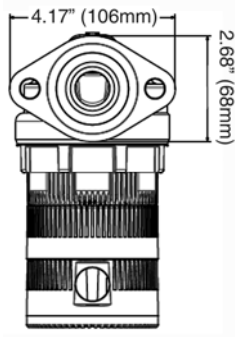
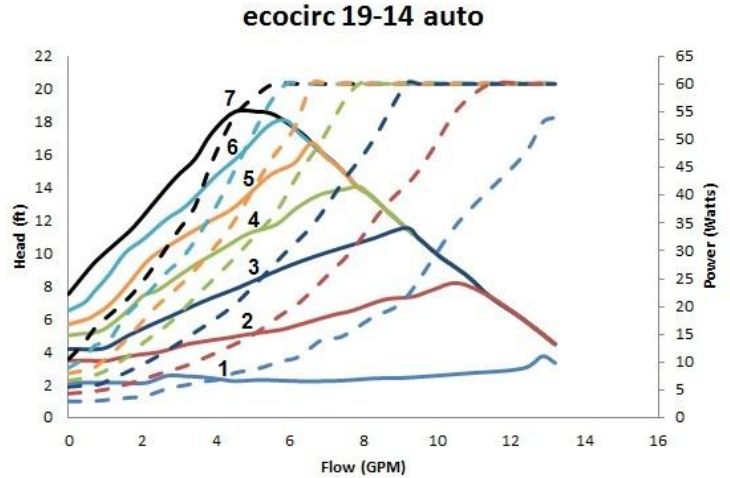
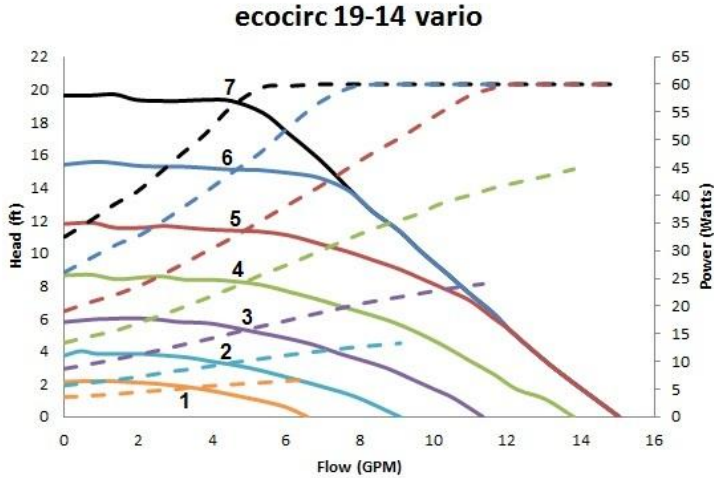
Flanged, 2-Bolt  
For use with ¾, 1, 1¼, or 1½ inch pipe

**Specification:**

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

1. The pumps shall be of the high efficiency type specifically designed for quiet operation.
2. Pump to be suitable for 203°F (110°C) operation at 150 psi (10 Bar) working pressure.
3. The pumps shall have a shaft-less, wet rotor design with a ceramic ball bearing lubricated by the system fluid.
4. Pump to have built-in stepless speed switch.
5. Motor shall be spherical electronically commutated, permanent magnet motor (EC/PMM).
6. Motor shall be non-overloading at any point on the pump curve and shall have built-in overload protection.
7. Pumps to have a capacity of \_\_\_GPM at \_\_\_foot of head.
8. All pumps to be supplied by Bell & Gossett Model\_\_\_\_\_.

**Performance Curves:**



Part Number	Model	Control Mode	Shipping Weight
6050B2000	ecocirc® 19-14 auto	auto - Proportional Pressure	9.25 lb
6050B2001	ecocirc® 19-14 vario	vario - Constant Curve	9.25 lb

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