

## VT2218 ECM High-Efficiency Circulator

Taco 00e<sup>®</sup> series — VT2218 Delta-T Variable Speed circulator is a temperature sensing, self-adjusting, variable speed, high-efficiency wet rotor circulator with an ECM permanent magnet motor. Operating modes include Delta-T differential temperature, 4 fixed speeds, set point heat, set point cool and boiler protection.

- Delta-T operation maximizes system efficiency and comfort
- High-efficiency ECM motor uses up to 85% less electricity
- Can save hundreds in fuel costs
- LCD displays operating mode, temperature or speed setting, watts, GPM and supply & return temperatures
- Easy to program and install
- **Sure Start**<sup>®</sup> automatic unblocking mode
- **BIO Barrier**<sup>®</sup> filter protects pump from system contaminants
- Easy access junction box and 6" stranded wire leads for easy wiring



## Features

# The ONLY temperature sensing pump in its class.

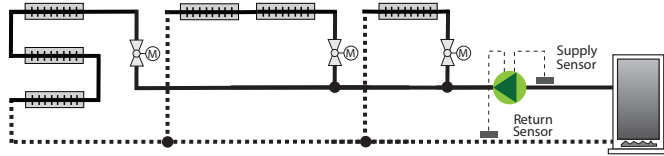
- 22' Shut-off Head, 18 gpm max flow
- ECM High-efficiency motor
- Operates in 5 different modes:
  - Delta-T (5-50°F) Variable Speed [factory pre-set : 20°F ΔT]
  - Multi-Speed (4 fixed speeds)
  - Set Point Heat (50-220°F) variable speed with boiler protection option
  - Set Point Cool (32-100°F)
  - Boiler Protection (100-160°F), protects boiler from low return water temperature
- Full Speed Over-ride
  - For system fill and purging
- Full backlit LCD displays:
  - Operating mode, temperature or speed setting, watts, GPM and supply & return temperatures
  - Error code diagnostics
  - English or Metric units
- Use with a Taco ZVC Zone Valve Control or SR Switching Relay for ON/OFF operation.
- Sensors and Integral Flow Check (IFC®) included
- Whisper quiet operation
- Optional 2-way flange reduces SKU's and provides universal fit-up to any flange position



## Typical Variable Speed Applications

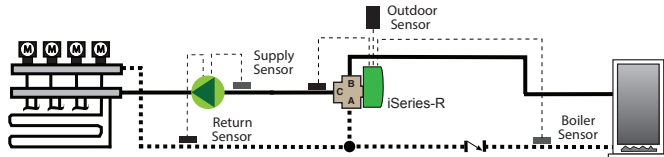
### Delta-T

Across a series loop system using zone valves



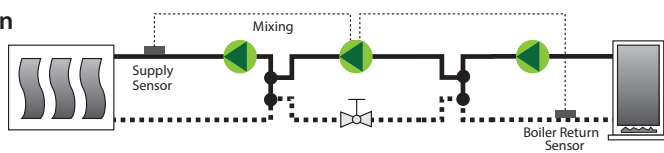
### Delta-T

Across multi-zone radiant manifolds with loop actuators



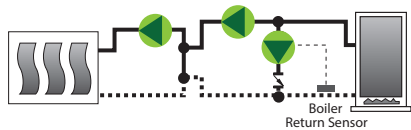
### Radiant Injection with boiler protection

Decreases speed to protect boiler from low return water temperature and flue gas condensation



### Boiler Protection — by-pass loop

Increases speed to protect boiler from low return water temperature and flue gas condensation

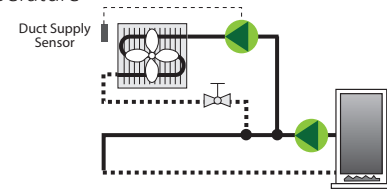


### Heating or Chilled Water Cooling

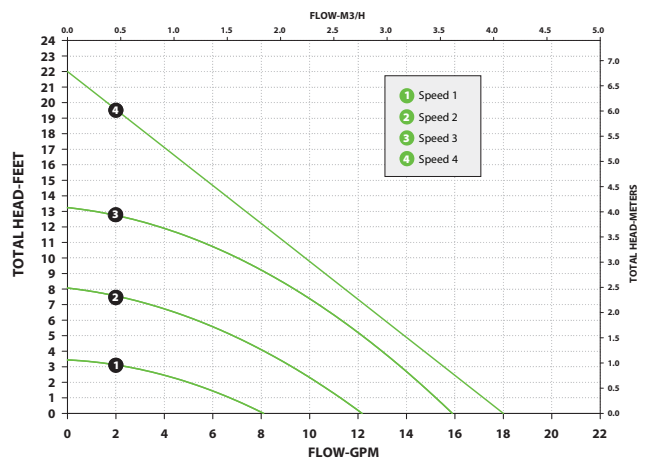
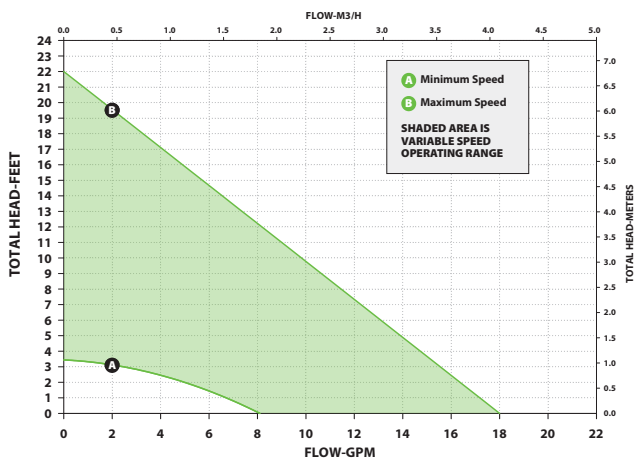
Fan coil fixed water temperature

**Set Point Heat**  
Decreases speed on temperature rise

**Set Point Cool**  
Increases speed on temperature rise



## Performance Curves for the Taco 00e® series— VT2218



# Submittal Data Information

## 00e® series — VT2218

Submittal Data # 101-169  
Supersedes: 02/09/21

Effective: 08/16/21

### Specifications

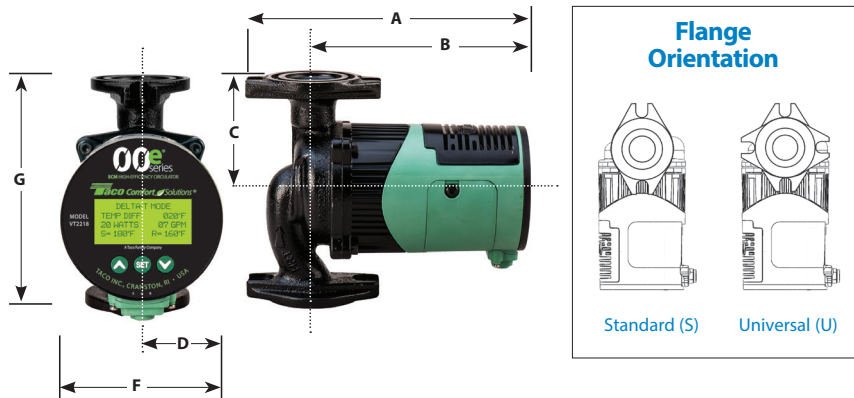
- Maximum Shut-off Head: 22 feet
- Maximum Flow: 18 gpm
- Maximum Operating Pressure: 125 psi (862 kPa)
- Maximum Water Temp: 230°F (110°C)
- Minimum Water Temp: 36°F (2°C)
- Electrical specifications:
  - Voltage: 110-120V, 50/60 Hz, Single phase
  - Operating Power Range: 9W to 58W
  - Maximum AMP Rating: 0.67
- Equipped with a cast iron casing and should be used for closed loop systems only.
- Taco circulator pumps are for indoor use only
- Acceptable for use with water or maximum of 50% water/glycol solution.

### Materials of Construction:

Casing: .....Cast Iron  
 Stator Housing: .....Aluminum/Composite  
 Cartridge: .....Stainless Steel  
 Impeller: .....Non-Metallic  
 Shaft: .....Ceramic  
 Bearings: .....Ceramic  
 O-Ring & Gaskets: .....EPDM  
 Integral Flow Check (IFC\*):  
 Body, Plunger .....Acetal  
 O-ring Seal .....EPDM  
 Spring .....Stainless Steel

### Applications

The VT2218 is a temperature sensing, variable speed, high-efficiency wet rotor circulator with an ECM permanent magnet motor. It's ideal for Delta-T or setpoint temperature applications. Typical uses include hydronic systems zoned with zone valves, radiant loops, injection pumping, snowmelt or hydro-air fan coils. Can also be used in constant speed mode for zoning with circulators, indirect water heaters or primary boiler loops.



### Pump Dimensions & Weights

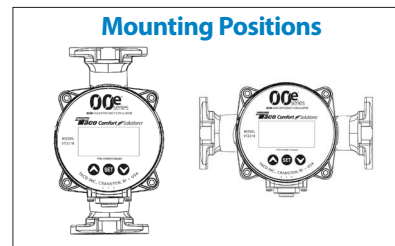
Part Number	Flange Code	A		B		C		D		F		G		Ship Wt.	
		in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	Kg
VT2218-HY2-FC1A00	S	8-1/8	207	6	153	3-1/4	82	2	54	4-1/4	107	6-3/8	161	7-3/4	3.52
VT2218-HY2-4C1A00	U	8-1/8	207	6	153	3-1/4	82	2	54	4-1/4	107	6-3/8	161	7-3/4	3.52

### Electrical Data

Model	Volts	Hz	Ph	Max Amps	RPM
All Models	110/120	50/60	1	.67	1650 - 4200
Motor Type	ECM, Permanent Magnet, Electronically Protected				

### Maximum Watts

Speed 1	Speed 2	Speed 3	Speed 4
9	24	40	58



**HYDRAULIC INSTITUTE ENERGY RATING**

Model #: VT2218 WAIP: 0.077

**CIRCULATOR PUMP CEI: 0.40 (ER 188)**

**ENERGY RATING**

138      188

Most Consumptive      RANGE      Least Consumptive

Note: The ER value is dependent on the selected control. Multiple options may be available on this pump, as follows:

- Full Speed
- Temperature (Rated)

Power savings (watts) over a baseline case can be estimated by multiplying the ER by WAIP and multiplying by 7.46. Multiplying power savings by operating hours and cost of energy will yield estimated cost savings.

QWBMLX      er.pumps.org      Jun 2021



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