

## Viridian® — VT2218

### Delta-T Variable Speed, ECM High-Efficiency Circulator

The Viridian VT2218 circulator is a temperature sensing, self-adjusting, variable speed 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, supply & return temperatures
- Easy to program and install



## Features

# The ONLY temperature sensing pump in its class.

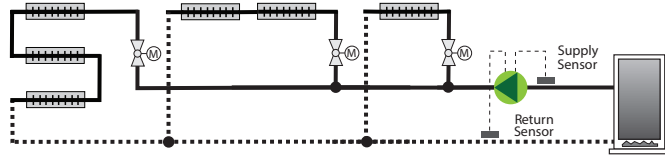
- **22' Shut-off Head, 18 gpm max flow**
- **ECM High-Efficiency Motor**
- **Operates in 5 different modes:**
  - Delta-T (5-50°F) Variable Speed [factory pre-set : 20°F ΔT]
  - Multi-Speed (4 fixed speeds)
  - Set Point Heat (50-220°F) variable speed with boiler protection option
  - Set Point Cool (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 LCD display showing:**
  - Operating mode, temperature or speed setting, watts, 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**
- **BIO Barrier® filter protects rotor/bearings from black iron oxide**
- **Whisper quiet operation**



## Typical Variable Speed Applications

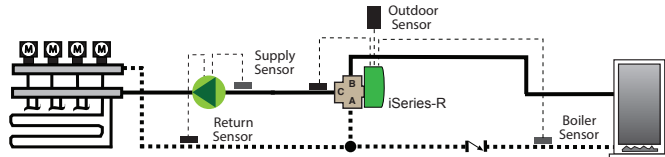
### Delta-T

Across a series loop system using zone valves



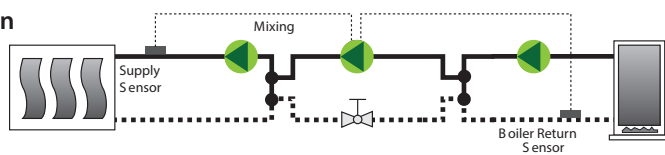
### Delta-T

Across multi-zone radiant manifolds with loop actuators



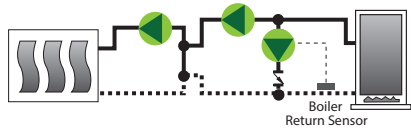
### Radiant Injection with boiler protection

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

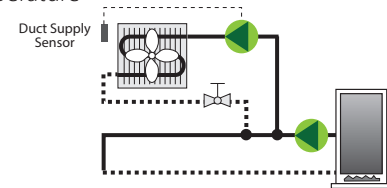


### Heating or Chilled Water Cooling

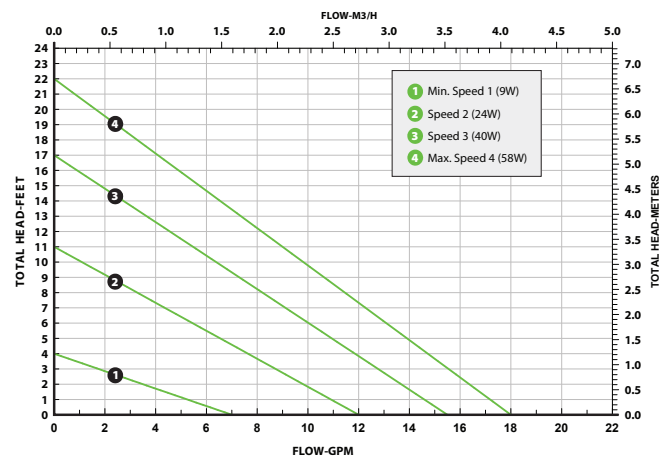
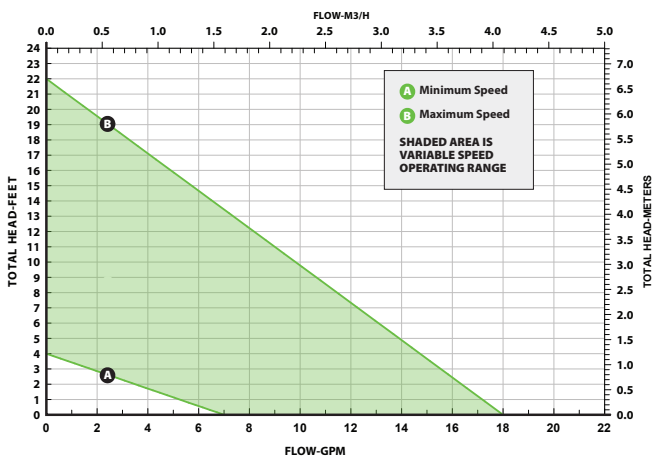
Fan coil fixed water temperature

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

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



## Performance Curves for the Viridian® VT218



# Submittal Data Information Viridian® High Efficiency Circulator

Submittal Data # 101-169  
Supersedes: New

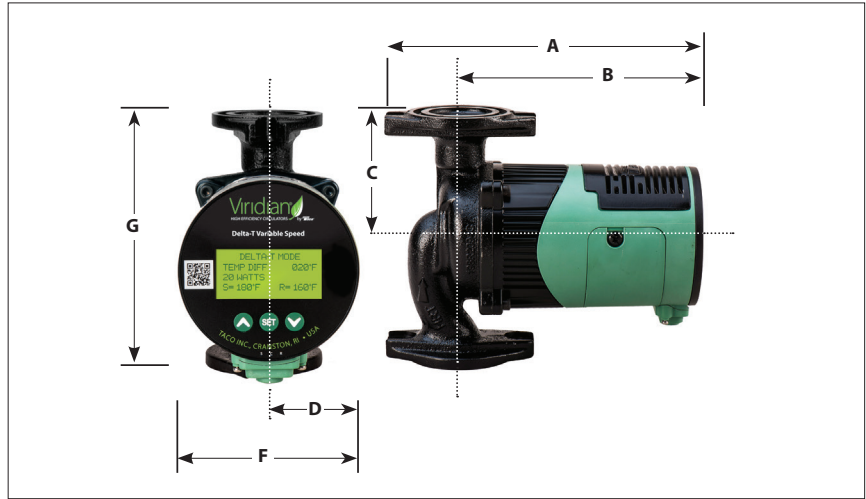
Effective: 08/21/14

## Specifications

- Maximum Shutoff Head: 22 feet
- Maximum Flow: 18 gpm
- Maximum Operating Pressure: 125 psi (862 kPa)
- Maximum Water Temp: 230°F (110°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.

## Applications

The VT2218 is a temperature sensing, variable speed circulator ideal for Delta-T or setpoint temperature applications. Typical uses include hydronic systems zoned with zone valves, radiant loops, injection pumping, snow-melt or hydro-air fan coils. Can also be used in constant speed mode for zoning with circulators, indirect water heaters or primary boiler loops.



## Materials of Construction:

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

## Pump Dimensions & Weights

Model	A		B		C		D		F		G		Ship Wt.	
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	Kg
VT2218F	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

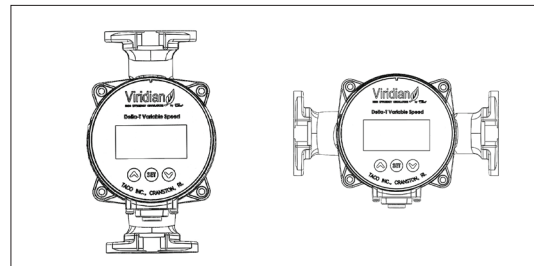
## Electrical Data

Model	Volts	Hz	Ph	Max.Amps	RPM
VT2218F	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

## Mounting Positions



## Flange Orientation

