

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.



- High-efficiency ECM motor uses up to 85% less electricity
- Delta-T operation maximizes system efficiency and comfort
- Can lower fuel bills up to 5%
- LCD displays mode, 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:**
 - Mode, speed or temperature setting, watts, supply and 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**

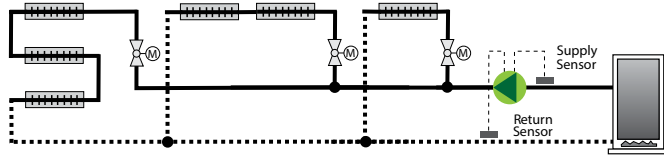
Swivel-flanged casing with nut capture feature provides 360° rotation for mounting flexibility and easy assembly



Typical Variable Speed Applications

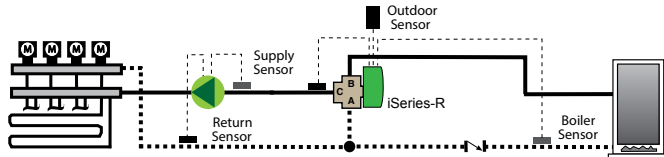
Delta-T

Across a series loop system using zone valves



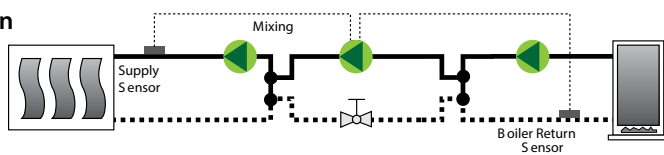
Delta-T

Across multi-zone radiant manifolds with loop actuators



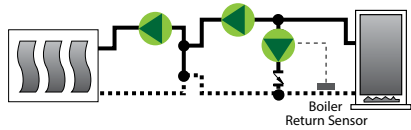
Radiant Injection with boiler protection

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

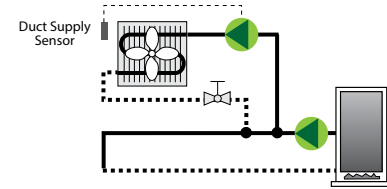


Heating or Chilled Water Cooling

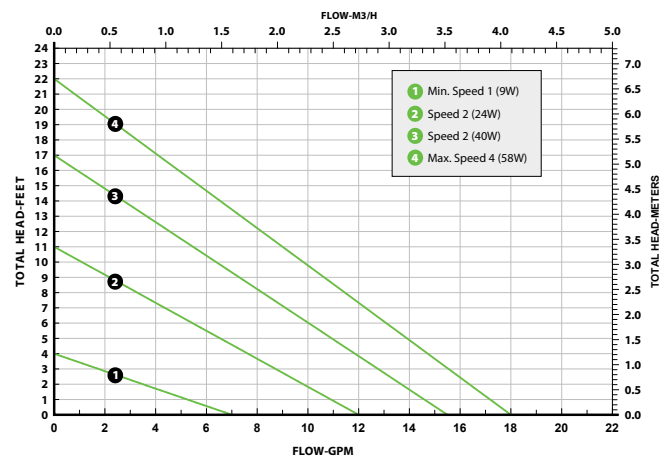
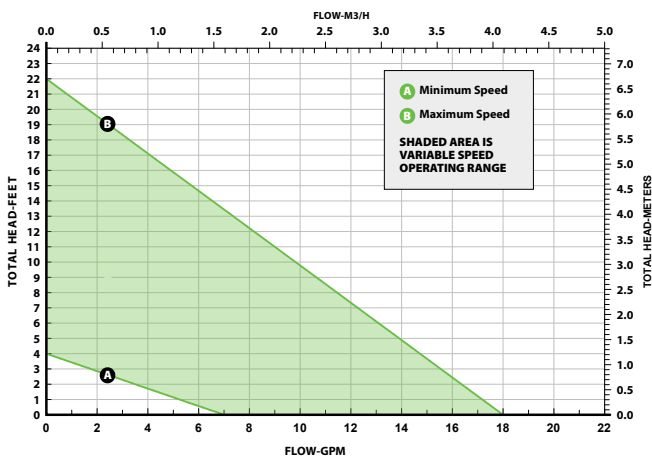
Fan coil fixed water temperature

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 # 101-165
Supersedes: New

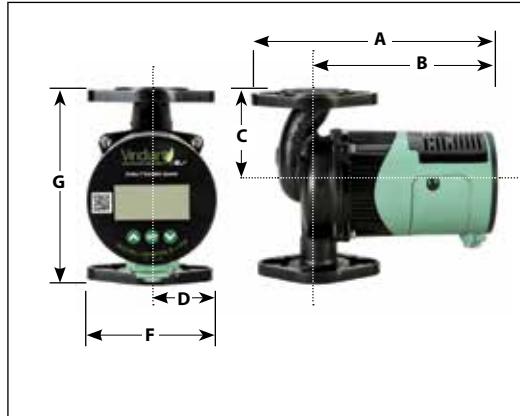
Effective: 04/07/14

Specifications

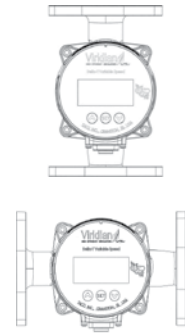
- Maximum Shutoff Head: 22 feet
- Maximum Flow: 18 gpm
- Maximum Operating Pressure: 125 psi (862 kPa)
- Maximum Water Temp: 230°F (110°C)
- Electrical specifications:
 - Voltage: 110-120V, 50/60 Hz, Single phase
 - Operating Power Range: 9W to 58W
 - Maximum AMP Rating: 0.67
- Equipped with a cast iron 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, 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.



Mounting Positions



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
VT2218-1	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
VT2218-1	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

