

Job: \_\_\_\_\_ Engineer: \_\_\_\_\_ Contractor: \_\_\_\_\_ Rep: \_\_\_\_\_

ITEM NO.	MODEL NO.	

#### Pump Specifications

Max. Operating Pressure:  
175 PSI (12 bar)  
Water Temperature Range:  
36° - 230°F (2.2° - 110°C)  
Ambient Operation Temperature Range:  
32° - 104°F (0° - 40°C)  
Designed for closed loop heating and cooling  
systems pumping water or a water/glycol mixture

#### Materials of Construction

Casing .....Cast Iron  
Impeller.....Stainless Steel  
Shaft.....Stainless Steel  
Bearing.....Metal Impregnated Carbon

#### Standards & Protection

Insulation: Class H  
Enclosure: Class 2, IP44  
Integrated Motor Protection (electronically protected)  
Continuous Duty  
UL 778, 1004-1, 508C  
CAN/CSA C22.2 #108, #100, #107.1  
EMC (89/366 EEC): EN 61000  
LVD (73/23/EC): EN 60335-1, EN 60335-2-51  
Machine Safety (98/37/EC): EN ISO 12100



#### Operating Modes

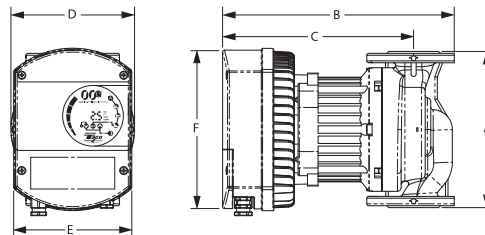
Constant Pressure Control ( $\Delta p$ -c)  
Variable Differential Pressure Control  
( $\Delta p$ -v) - factory default  
Proportional Pressure Control  
Constant Curve Duty (uncontrolled pump)  
RPM Regulation  
Power Limitation (amps or watts)

#### Control Modes

0 - 10Vdc in  
ModBus RTU

#### Electrical Specifications

Pump Ratings	1 phase, 110 - 240V, 47 - 63Hz (VR15 & VR20)
	1 phase, 230 - 240V, 47 - 63Hz (VR25 & VR30)
Power Consumption (HP)	VR15-3 = 0.027 - 0.68 HP
	VR20-3 = 0.035 - 1.088 HP
	VR25-3 = 0.054 - 1.496 HP
	VR30-3 = 0.054 - 2.175 HP
Power Consumption (W)	VR15-3 = 20 - 500 W
	VR20-3 = 26 - 800 W
	VR25-3 = 46 - 1100 W
	VR30-3 = 40 - 1550 W
Rated Current (1 phase, 230V)	VR15-3 = 5.6A - 2.8A
	VR20-3 = 7.2A - 3.6A
	VR25-3 = 5.3A
	VR30-3 = 7.2A
Current Limit (Max.)	VR15-3 & VR20-3 = 6 A
	VR25-3 & VR30-3 = 8 A
24V Supply Output	Max. Current up to 100 mA, Output Voltage of 24V $\pm$ 20%, Output Ripple under 1V
Relay Output:	8A, Max. Voltage 250 VAC, 48 VDC Max. Load up to 500 VA
Digital Inputs:	Max. Input Voltage = 32VDC
	2 Inputs & 1 Output
	Logical »1« Voltage > 8V, Logical »0« Voltage < 2V
Ethernet:	Connector = RJ-45
	Services = http server and client, FTP server



Minimum static inlet pressure at pump suction port (PSI / bar) to avoid cavitation at fluid temperatures

Fluid Temperatures	VR15 & VR20 (PSI / bar)	VR25 & VR30 (PSI / bar)
112°F (50°C)	7.3 / 0.5	4.35 / 0.3
176°F (80°C)	11.6 / 0.8	14.5 / 1.0
230°F (110°C)	20.3 / 1.4	23.2 / 1.6

Model Number	Flange Size (ANSI)	Power (HP)	A		B		C		D		E		F		Weight	
			in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	Kg
VR15-3	1-1/2"	0.027 - 0.680	9-13/16	250	15-3/16	386	12-5/8	321	7-13/16	198	7-7/16	189	10-1/16	255	57	26
VR20-3	2"	0.035 - 1.088	11	280	16-3/4	425	13-1/4	336	7-15/16	201	7-7/16	189	10-1/16	255	71	32
VR25-3	2-1/2"	0.054 - 1.496	13-3/8	340	17-11/16	449	14-1/2	369	8-11/16	221	7-7/16	189	10-1/16	255	82	37
VR30-3	3"	0.054 - 2.175	14-3/16	360	19-13/16	503	15-7/8	403	9-1/4	235	7-7/16	189	10-1/16	255	99	45

