

EFFECTIVE: March 1, 2013

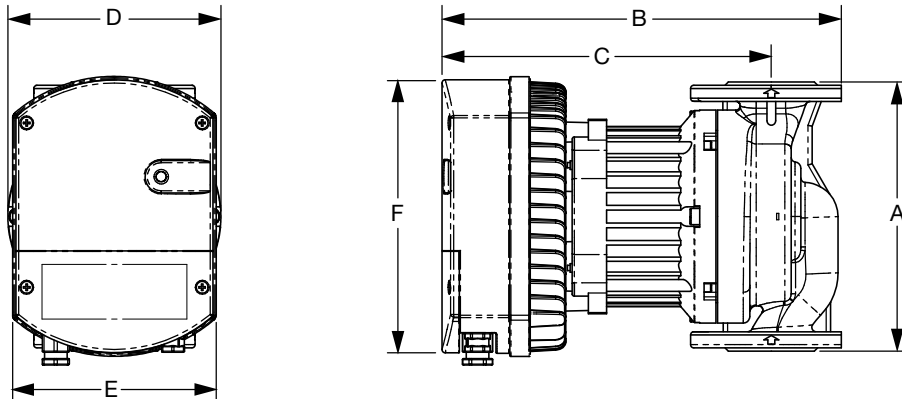
SUPERSEDES: January 1, 2013

JOB \_\_\_\_\_ ENGINEER \_\_\_\_\_

CONTRACTOR \_\_\_\_\_ REP. \_\_\_\_\_

ITEM NO.	MODEL NO.	G.P.M.	T.D.H.	MAX HP	ELEC. CHAR.	H MAX SETTING	% PROP SETTING
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WEIGHT \_\_\_\_\_ PUMP/MOTOR \_\_\_\_\_



**DIMENSIONS:**

MODEL NUMBER	FLANGE SIZE (ANSI)	POWER (HP)	DIMENSIONS — IN. (mm)						WEIGHT LBS. (KG)
			A	B	C	D	E	F	
VR15-1	1½"	0.027 - 0.680	9 <sup>13</sup> / <sub>16</sub> (250)	15 <sup>3</sup> / <sub>16</sub> (386)	12 <sup>5</sup> / <sub>8</sub> (321)	7 <sup>13</sup> / <sub>16</sub> (198)	7 <sup>7</sup> / <sub>16</sub> (189)	10 <sup>1</sup> / <sub>16</sub> (255)	57 (26)
VR20-1	2"	0.035 - 1.088	11 (280)	16 <sup>3</sup> / <sub>4</sub> (425)	13 <sup>1</sup> / <sub>4</sub> (336)	7 <sup>15</sup> / <sub>16</sub> (201)			71 (32)
VR25-1	2½"	0.054 - 1.496	13 <sup>3</sup> / <sub>8</sub> (340)	17 <sup>11</sup> / <sub>16</sub> (449)	14 <sup>1</sup> / <sub>2</sub> (369)	8 <sup>1</sup> / <sub>16</sub> (221)			82 (37)
VR30-1	3"	0.054 - 2.175	14 <sup>3</sup> / <sub>16</sub> (360)	19 <sup>13</sup> / <sub>16</sub> (503)	15 <sup>7</sup> / <sub>8</sub> (403)	9 <sup>1</sup> / <sub>4</sub> (235)			99 (45)

\* See Submittal Data Sheet 301-2100.1 for information on 200-240/60/1 VR25-2 and VR30-2 models.

**PUMP SPECIFICATIONS:**

- Maximum Operating Pressure: 175 PSI (12 bar)
- Water Temperature Range: 14° – 230°F (-10° – 110°C)
- Ambient Operation Temperature Range: 32° – 104°F (0° – 40°C). Ambient temperature should be 104°F (40°C) or lower when fluid temperature exceeds 194°F (90°C).
- 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

- Designed for closed loop heating and cooling systems pumping water or a water/glycol mixture.
- For indoor use only - employer uniquement a l'interieur.
- Flanged in-line connections. Companion ANSI flanges not included.

**MATERIALS OF CONSTRUCTION:**

- Casing: Cast Iron
- Impeller: Stainless Steel
- Shaft: Stainless Steel
- Bearing: Metal Impregnated Carbon

**ELECTRICAL SPECIFICATIONS:**

- Pump Ratings: 1 phase, 110 - 240V, 47 - 63Hz (VR15 & VR20)  
1 phase, 230 - 240V, 47 - 63Hz (VR25 & VR30)
- Power Consumption (HP): VR15 = 0.027 - 0.680 HP  
VR20 = 0.035 - 1.088 HP  
VR25 = 0.054 - 1.496 HP  
VR30 = 0.054 - 2.175 HP
- Power Consumption (W): VR15 = 20 - 500 W  
VR20 = 26 - 800 W  
VR25 = 46 - 1100 W  
VR30 = 40 - 1600 W
- Rated Current (1 phase, 115/230V): VR15 = 2.2 A - 6.0 A  
VR20 = 3.5 A - 6.0 A
- Rated Current (1 phase, 230V): VR25 = 8.0 A  
VR30 = 8.0 A
- 24V Supply Output: Max. Current up to 100 mA,  
Output Voltage of 24V ± 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  
Input Impedance ~5kΩ  
Logical »1« Voltage > 8V  
Logical »0« Voltage < 2V  
Insulation to Supply Voltage = 4kV @ 1s,  
275V permanent
- Continuous Duty
- Built-in Startup Circuit

**STANDARDS and PROTECTION:**

- Insulation: Class H
- Enclosure: Class 2, IP44
- Integrated Motor Protection (electronically protected)
- 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

**ETHERNET SPECIFICATIONS:**

- Connector: RJ-45 Ethernet Cable (CAT4 or above)
- Speed: BASE-10, 10 Mbit/s
- Galvanic Insulation to Digital Inputs: 1.5kV @ 1s, 48V permanent
- Galvanic Insulation to Line Voltage: 4kV @ 1s, 275V permanent
- Connections: TCP/IP
- Services: http server and client, FTP server
- Web Language: HTML 1.1
- Web Interface (data exchange)
- XML Control Transfer Protocol
- External Digital Input/Output: 2 Inputs & 1 Output

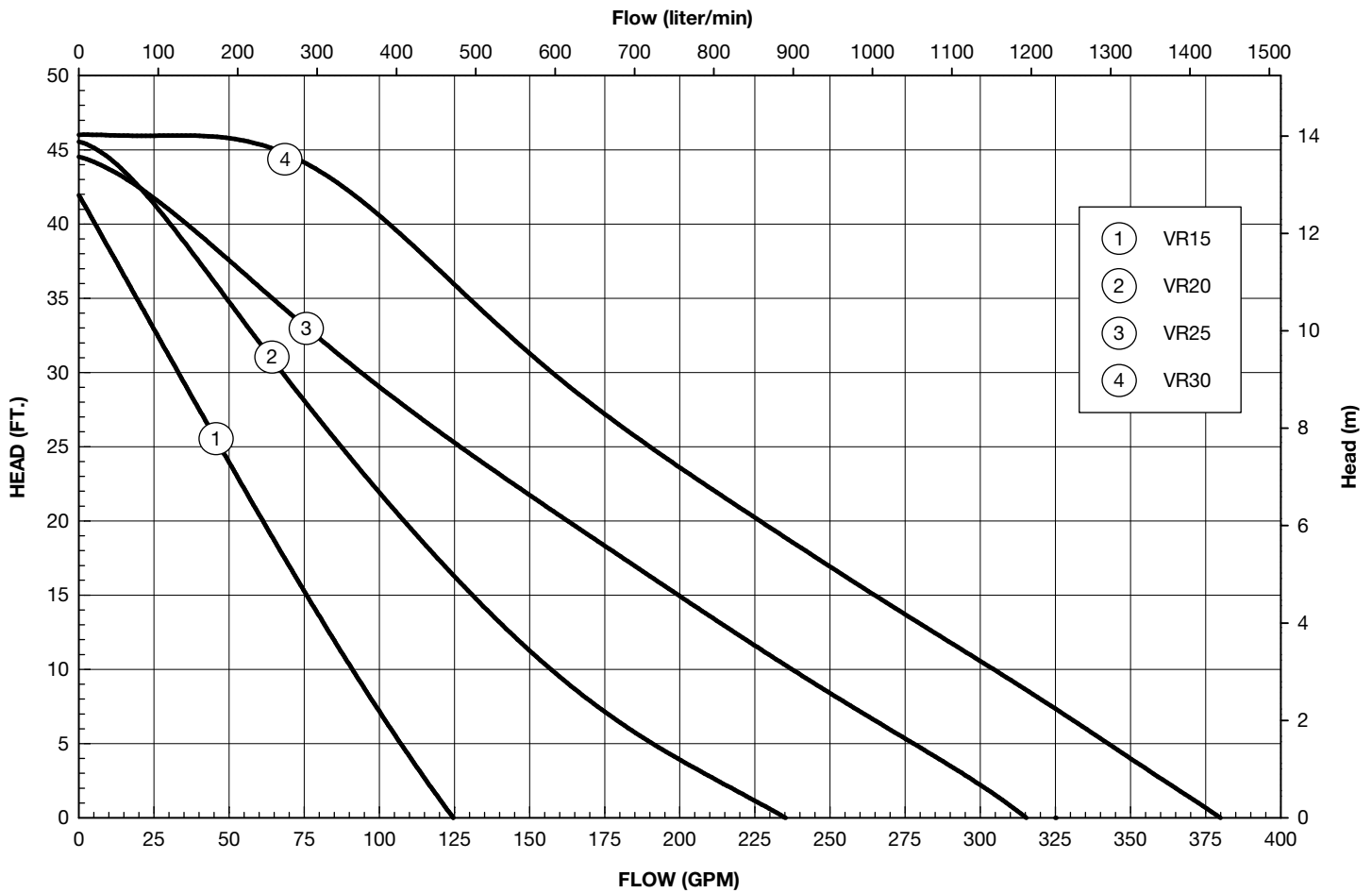
**OPERATING MODES:**

- 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

**Additional Operating Modes for Two Pumps in Parallel**

- Alternating Operation (every 24 hours)
- Standby Operation

**VIRIDIAN 15-30 PERFORMANCE CURVES**



Comments: \_\_\_\_\_

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