



Submittal Data Information

Viridian 15-30

301-2100.1

EFFECTIVE: March 1, 2013

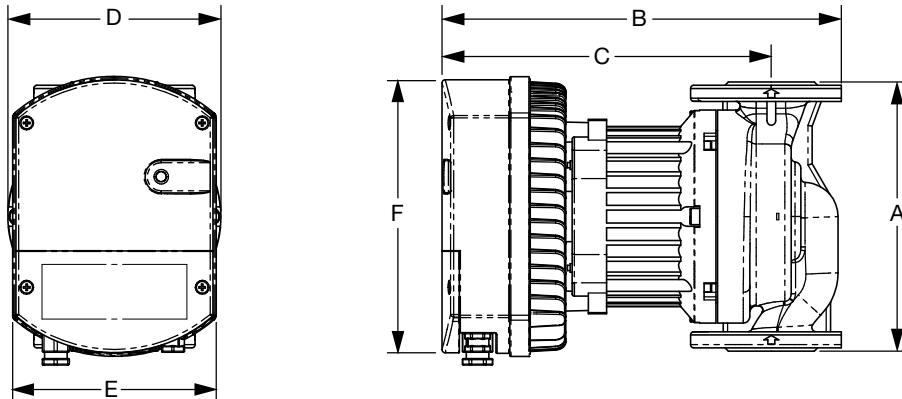
SUPERSEDES: January 15, 2013

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 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)
VR20-1	2"	0.035 - 1.088	11 (280)	16 ³ / ₄ (425)	13 ¹ / ₄ (336)	7 ¹⁵ / ₁₆ (201)			71 (32)
VR25-2	2½"	0.054 - 1.496	13 ³ / ₈ (340)	17 ¹¹ / ₁₆ (449)	14 ¹ / ₂ (369)	8 ¹ / ₁₆ (221)			82 (37)
VR30-2	3"	0.054 - 2.175	14 ³ / ₁₆ (360)	19 ¹³ / ₁₆ (503)	15 ⁷ / ₈ (403)	9 ¹ / ₄ (235)			99 (45)

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, 200 - 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

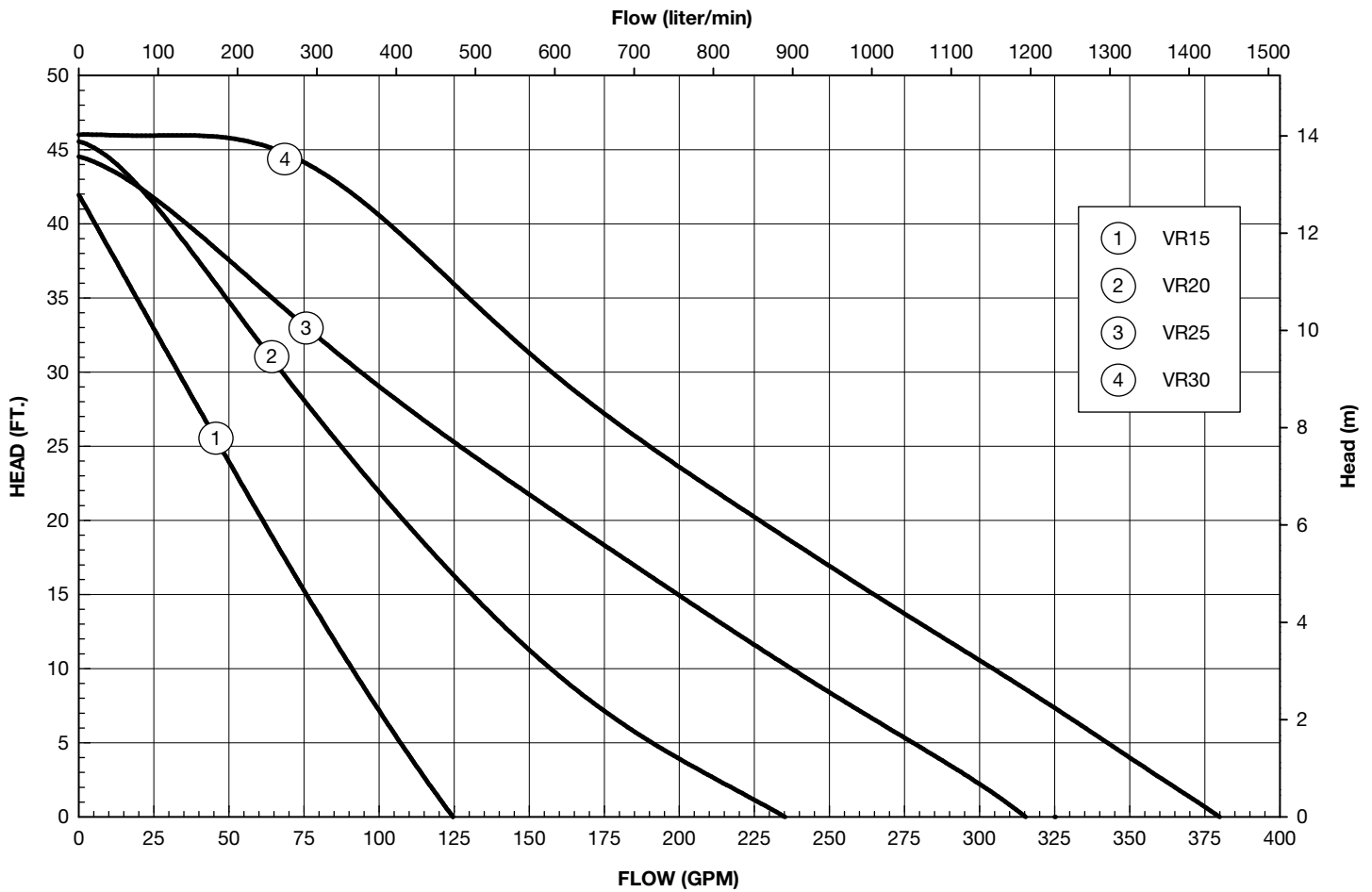
OPERATING MODES:

- 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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