

Applications

Ductile Iron Model

Closed loop, pressurized Heating and Chilled Water HVAC Systems

Stainless Steel Model

Potable water systems (DHW recirculation, pressure boosting)

Standards, Protection & Flange Type

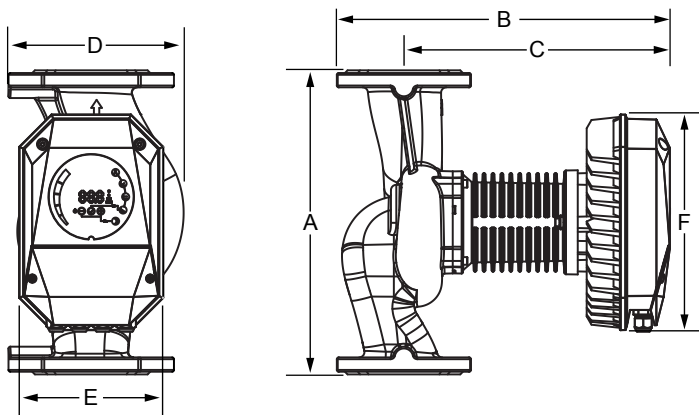
Insulation Class H	LDV (73/23/EC): EN 60335-1, EN 60335-2-51
Enclosure: Class 2, IP44	
Integrated Motor Protection (electronically protected)	Machine Safety (98/37/EC): EN ISO 12100
Continuous Duty	Standard 125# ANSI Flanges
UL778, 1004-1, 508C	Stainless Steel Version: NSF/ ANSI 61 & 372 Commercial Hot
CAN/CSA22.2 #108, #100, #107.1	
EMC (89/366EEC): EN 61000	



Dimensions

FLANGE SIZE	Dimensions						Weight Lbs.	
	A	B	C	D	E	F	CI	SS
1 1/2"	9.8 (250)	15 (380)	11.7 (297)	7 (179)	5.9 (150)	9.5 (241)	26 (12)	28 (13)

English dimensions are in inches. Metric dimensions are in millimeters. Metric data is presented in (). Do not use for construction purposes unless certified.



Specifications

Max Shut-Off Head	27 feet
Max. Flow	86 USGPM
Max. Operating Pressure	175 PSI (12 bar)
Water Temperature Range	14 to 230°F (-10 to 110°C)
Ambient Temperature Range	32 to 104°F (0 to 40°C)
Ambient Humidity	Less than 95% RH

Electrical Specifications

Voltage (All Single Phase)	110-240
Power Consumption (Hp)	0.4 HP
Power Consumption (W)	270 W
Current Limit	6
24 Volt Supply Outlet	Max current up to 100mA, Output Voltage +/- 20% of 24 Volts, Output Ripple under 1 Volt
Relay Outlet	230 Vac, 3A, AC1 Potential Free Changeover Contact
Number Of Relay Outputs	2
Analog Inputs	Max Input Voltage 32Vdc, 2 Inputs, 1 output
Ethernet	RJ-45 Connector, Http server and FTP Client server

Materials of Construction

CASING		Impeller	Shaft	Bearings
HVAC Model	DHW Model			
Cast Iron, Cataphoresis Coated	304 Stainless Steel	PES GF-30	ANSI 420	Carbon Sleeve Type

Minimum Static Inlet Pressure

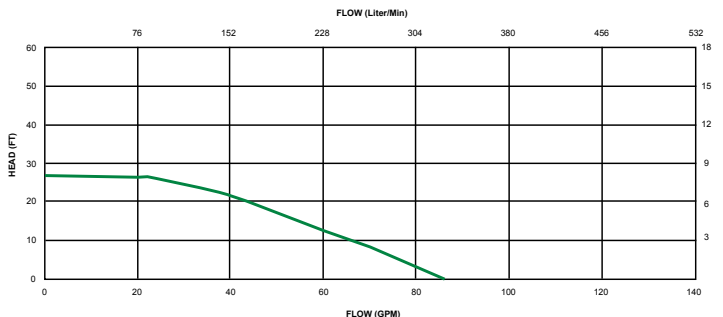
at pump suction port (PSIA / bar) to avoid cavitation at fluid temperatures

Fluid Temperatures	PSIA / bar
112°F (50°C)	7.3 / 0.5
176°F (80°C)	11.6 / 0.8
230°F (110°C)	20.3 / 1.4

Operating Modes

activeADAPT®	BACnet
Proportional Pressure	ModBus
Constant Pressure	0-10Vdc
Constant Speed	PWM
Setback	Twin Pump Mode

Performance Curve — VR15L



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Standards, Protection & Flange Type

Insulation Class H	LDV (73/23/EC): EN 60335-1, EN 60335-2-51
Enclosure: Class 2, IP44	
Integrated Motor Protection (electronically protected)	Machine Safety (98/37/EC): EN ISO 12100
Continuous Duty	Standard 125# ANSI Flanges
UL778, 1004-1, 508C	Stainless Steel Version: NSF/ANSI 61 & 372 Commercial Hot
CAN/CSA22.2 #108, #100, #107.1	
EMC (89/366EEC): EN 61000	

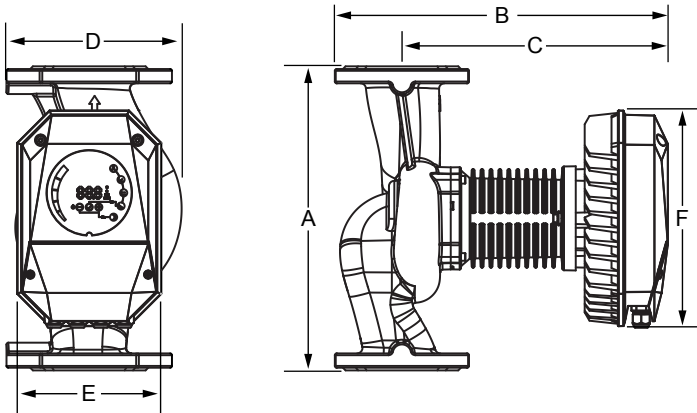


Stainless Steel Model

Dimensions

FLANGE SIZE	Dimensions						Weight Lbs.	
	A	B	C	D	E	F	CI	SS
1 1/2"	9.8 (250)	15 (380)	11.7 (297)	7 (179)	5.9 (150)	9.5 (241)	26 (12)	28 (13)

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Specifications

Max Shut-Off Head	39 feet
Max. Flow	108 USGPM
Max. Operating Pressure	175 PSI (12 bar)
Water Temperature Range	14 to 230°F (-10 to 110°C)
Ambient Temperature Range	32 to 104°F (0 to 40°C)
Ambient Humidity	Less than 95% RH

Electrical Specifications

Voltage (All Single Phase)	110-240
Power Consumption (Hp)	0.6 HP
Power Consumption (W)	480 W
Current Limit	6
24 Volt Supply Outlet	Max current up to 100mA, Output Voltage +/- 20% of 24 Volts, Output Ripple under 1 Volt
Relay Outlet	230 Vac, 3A, AC1 Potential Free Changeover Contact
Number Of Relay Outputs	2
Analog Inputs	Max Input Voltage 32Vdc, 2 Inputs, 1 output
Ethernet	RJ-45 Connector, Http server and FTP Client server

Materials of Construction

CASING		Impeller	Shaft	Bearings
HVAC Model	DHW Model			
Cast Iron, Cataphoresis Coated	304 Stainless Steel	PES GF-30	ANSI 420	Carbon Sleeve Type

Minimum Static Inlet Pressure

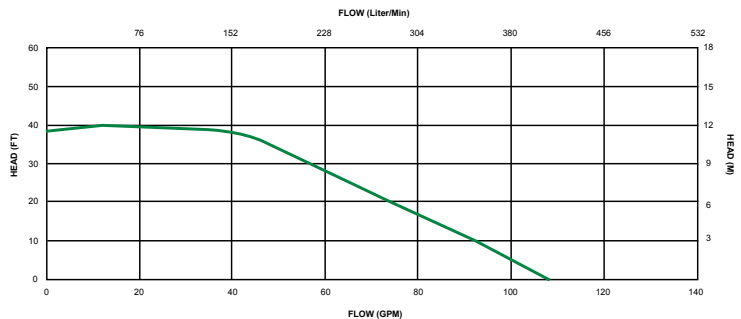
at pump suction port (PSIA / bar) to avoid cavitation at fluid temperatures

Fluid Temperatures	PSIA / bar
112°F (50°C)	7.3 / 0.5
176°F (80°C)	11.6 / 0.8
230°F (110°C)	20.3 / 1.4

Operating Modes

activeADAPT®	BACnet
Proportional Pressure	ModBus
Constant Pressure	0-10Vdc
Constant Speed	PWM
Setback	Twin Pump Mode

Performance Curve — VR15M



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Standards, Protection & Flange Type

Insulation Class H	LDV (73/23/EC): EN 60335-1, EN 60335-2-51
Enclosure: Class 2, IP44	
Integrated Motor Protection (electronically protected)	Machine Safety (98/37/EC): EN ISO 12100
Continuous Duty	Standard 125# ANSI Flanges
UL778, 1004-1, 508C	Stainless Steel Version: NSF/ANSI 61 & 372 Commercial Hot
CAN/CSA22.2 #108, #100, #107.1	
EMC (89/366EEC): EN 61000	

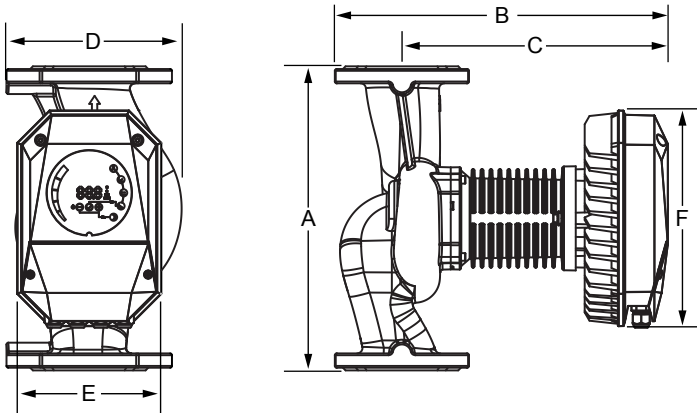


Stainless Steel Model

Dimensions

FLANGE SIZE	Dimensions						Weight Lbs.	
	A	B	C	D	E	F	CI	SS
2"	11 (280)	14.6 (371)	11.3 (287)	8.3 (210)	6.5 (165)	9.5 (241)	31 (15)	32 (15)

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Specifications

Max Shut-Off Head	39 feet
Max. Flow	166 USGPM
Max. Operating Pressure	175 PSI (12 bar)
Water Temperature Range	14 to 230°F (-10 to 110°C)
Ambient Temperature Range	32 to 104°F (0 to 40°C)
Ambient Humidity	Less than 95% RH

Electrical Specifications

Voltage (All Single Phase)	110-240
Power Consumption (Hp)	0.8 HP
Power Consumption (W)	560 W
Current Limit	6
24 Volt Supply Outlet	Max current up to 100mA, Output Voltage +/- 20% of 24 Volts, Output Ripple under 1 Volt
Relay Outlet	230 Vac, 3A, AC1 Potential Free Changeover Contact
Number Of Relay Outputs	2
Analog Inputs	Max Input Voltage 32Vdc, 2 Inputs, 1 output
Ethernet	RJ-45 Connector, Http server and FTP Client server

Materials of Construction

CASING		Impeller	Shaft	Bearings
HVAC Model	DHW Model			
Cast Iron, Cataphoresis Coated	304 Stainless Steel	PES GF-30	ANSI 420	Carbon SleeveType

Minimum Static Inlet Pressure

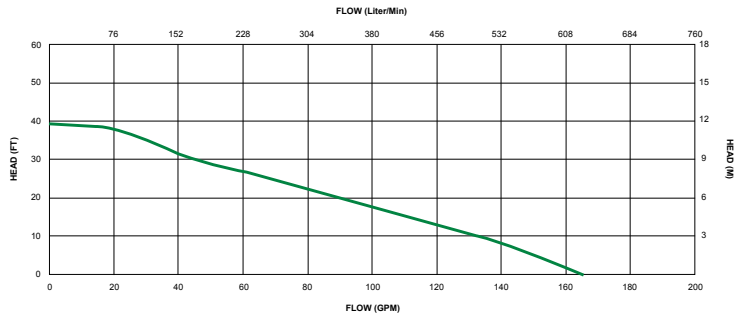
at pump suction port (PSIA / bar) to avoid cavitation at fluid temperatures

Fluid Temperatures	PSIA / bar
112°F (50°C)	7.3 / 0.5
176°F (80°C)	11.6 / 0.8
230°F (110°C)	20.3 / 1.4

Operating Modes

activeADAPT®	BACnet
Proportional Pressure	ModBus
Constant Pressure	0-10Vdc
Constant Speed	PWM
Setback	Twin Pump Mode

Performance Curve — VR20M



Applications

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Potable water systems (DHW recirculation, pressure boosting)

Standards, Protection & Flange Type

Insulation Class H	LDV (73/23/EC): EN 60335-1,
Enclosure: Class 2, IP44	EN 60335-2-51
Integrated Motor Protection (electronically protected)	Machine Safety (98/37/EC): EN ISO 12100
Continuous Duty	Standard 125# ANSI Flanges
UL778, 1004-1, 508C	Stainless Steel Version: NSF/ANSI 61 & 372 Commercial Hot
CAN/CSA22.2 #108, #100, #107.1	
EMC (89/366EEC): EN 61000	

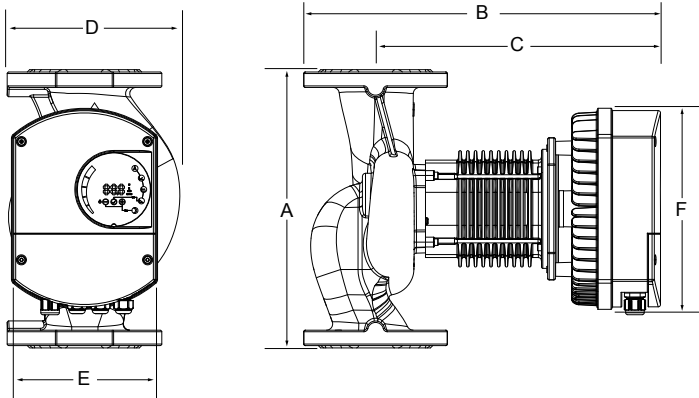


Stainless Steel Model

Dimensions

FLANGE SIZE	Dimensions						Weight Lbs.	
	A	B	C	D	E	F	CI	SS
2 1/2"	13.4 (340)	17.1 (434)	14.1 (359)	8.4 (214)	7.3 (185)	10 (255)	52 (24)	56 (25)

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Specifications

Max Shut-Off Head	61 feet
Max. Flow	284 USGPM
Max. Operating Pressure	175 PSI (12 bar)
Water Temperature Range	to 230°F (-10 to 110°C)
Ambient Temperature Range	32 to 104°F (0 to 40°C)
Ambient Humidity	Less than 95% RH

Electrical Specifications

Voltage (All Single Phase)	200-240
Power Consumption (Hp)	2.1 HP
Power Consumption (W)	1550 W
Current Limit	8
24 Volt Supply Outlet	Max current up to 100mA, Output Voltage +/- 20% of 24 Volts, Output Ripple under 1 Volt
Relay Outlet	230 Vac, 3A, AC1 Potential Free Changeover Contact
Number Of Relay Outputs	2
Analog Inputs	Max Input Voltage 32Vdc, 2 Inputs, 1 output
Ethernet	RJ-45 Connector, Http server and FTP Client server

Materials of Construction

CASING		Impeller	Shaft	Bearings
HVAC Model	DHW Model			
Cast Iron, Cataphoresis Coated	304 Stainless Steel	PES GF-30	ANSI 420	Carbon SleeveType

Minimum Static Inlet Pressure

at pump suction port (PSIA / bar) to avoid cavitation at fluid temperatures

Fluid Temperatures	PSIA / bar
112°F (50°C)	4.36 / 0.3
176°F (80°C)	14.5 / 1.0
230°F (110°C)	23.2 / 1.6

Operating Modes

activeADAPT®	BACnet
Proportional Pressure	ModBus
Constant Pressure	0-10Vdc
Constant Speed	PWM
Setback	Twin Pump Mode

Performance Curve — VR25H

