

COMPASS H | DESIGN ENVELOPE VARIABLE SPEED WET ROTOR CIRCULATORS | SUBMITTAL

File No: 10.65
Date: JUNE 29, 2022
Supersedes: 10.65
Date: NOVEMBER 26, 2020

Job: _____ Representative: _____
 _____ Ordered by: _____ Date: _____
 Engineer: _____ Submitted by: _____ Date: _____
 Contractor: _____ Approved by: _____ Date: _____

TECHNICAL DATA

Supply voltage: 1 × 115 V - 10%/+ 6%

	MINIMUM	MAXIMUM
Amp	0.05	0.72
Watt	5	45

Motor type: Permanent Magnet ECM

Motor protection: The pump requires no external motor protection.

Maximum working temperature: 230°F (110°C) maximum

Maximum working pressure: 150 psi (10 bar).

Maximum relative air humidity (rh): 95%.

Flow range: 0 - 20 USgpm (0 to 1.26 L/s)

Head range: 0 - 20.0 feet (0 to 6.09 m)

Enclosure class: Type 2

Insulation class: H

Certification: ETL listed for US and Canada (conforms to ULSTD.778 certified to CSA STD. C22.2 NO.108-01)

*NSF 372 (for stainless steel models)

INLET PRESSURE

Minimum inlet pressure in relation to liquid temperature:

LIQUID TEMPERATURE	MINIMUM INLET PRESSURE
150°F (65°C)	3.0 ft (0.91 m)
167°F (75°C)	4.4 ft (1.34 m)
194°F (90°C)	9.2 ft (2.8 m)
230°F (110°C)	36.1 ft (11.0 m)

Sound pressure level: The sound pressure level of the pump is lower than 43 dB(A).

Ambient temperature: 32°F (0°C) - 104°F (40°C)

Pumped liquids: Water or water Glycol mix.

Liquid temperature: 36°F (2°C) - 230°F (110°C)**

To avoid condensation in the control box and stator, the liquid temperature must always be higher than the ambient temperature.

AMBIENT TEMPERATURE	LIQUID TEMPERATURE	
	MIN.	MAX.
32°F (0°C)	35.6°F (2°C)	230°F (110°C)
50°F (10°C)	10°C (50°F)	230°F (110°C)
68°F (20°C)	68°F (20°C)	230°F (110°C)
86°F (30°C)	86°F (30°C)	230°F (110°C)
95°F (35°C)	95°F (35°C)	194°F (90°C)
104°F (40°C)	104°F (40°C)	176°F (80°C)

MATERIALS OF CONSTRUCTION

Pump body: Cast iron (closed systems)

Stainless steel** (open systems)

Impeller: Noryl

Shaft: Ceramic

Bearings: Ceramic

Gasket material: EPDM

DIMENSIONS AND WEIGHTS

STAINLESS STEEL*	A	B	C	D	E	F	G	CONNECTION TYPE & SIZE	WEIGHT
Compass H 20-20 ss flange	6.50 (165)	7.08 (180)	5.75 (146)	4.00 (102)	2.00 (50)	3.25 (80)	5.31 (135)	Flange - (2) 1/2" dia. bolt holes	8.0 (3.6)
Compass H 20-20 ssu	6.00 (152)	7.08 (180)	5.75 (146)	4.00 (102)	2.00 (50)	1.25 (32)	5.31 (135)	1 1/4" Union	
CAST IRON	A	B	C	D	E	F	G	CONNECTION TYPE & SIZE	WEIGHT
Compass H 20-20 ci flange	6.50 (165)	7.08 (180)	5.75 (146)	4.00 (102)	2.00 (50)	3.25 (80)	5.31 (135)	Flange - (2) 1/2" dia. bolt holes	8.0 (3.6)

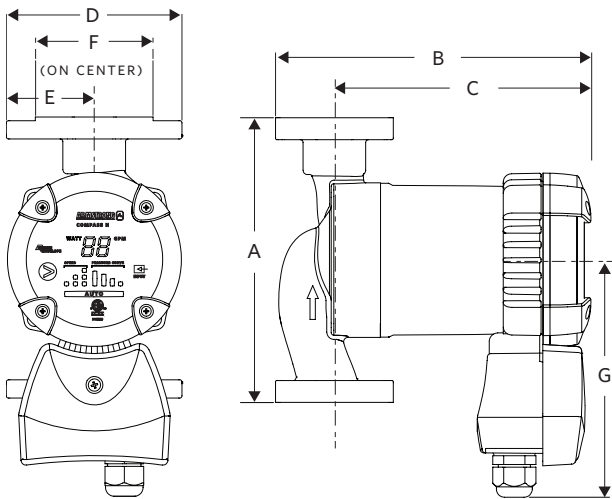
NOTE:

All dimensions are in inches (mm) and weights in lbs (kg).

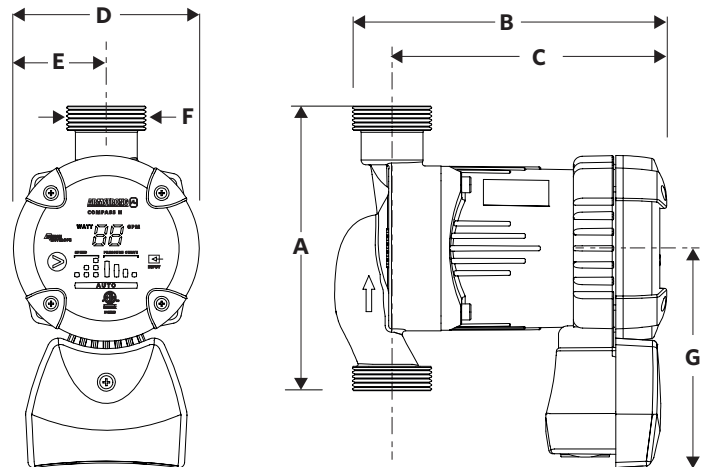
*Certified <0.25 weighted average percent lead and complies with California Health and Safety Code Section 116875 (commonly known as AB 1953).

** For open systems, it is recommended that the liquid temperature be less than 150°F (65°C) to avoid precipitation of calcium.

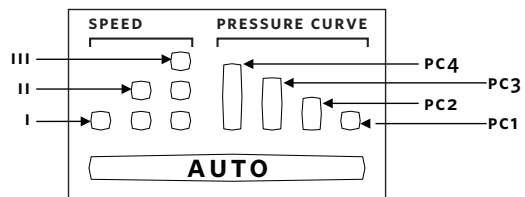
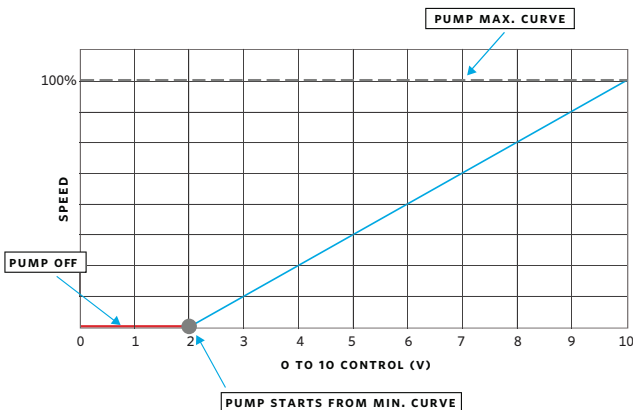
COMPASS H FLANGE



COMPASS H UNION

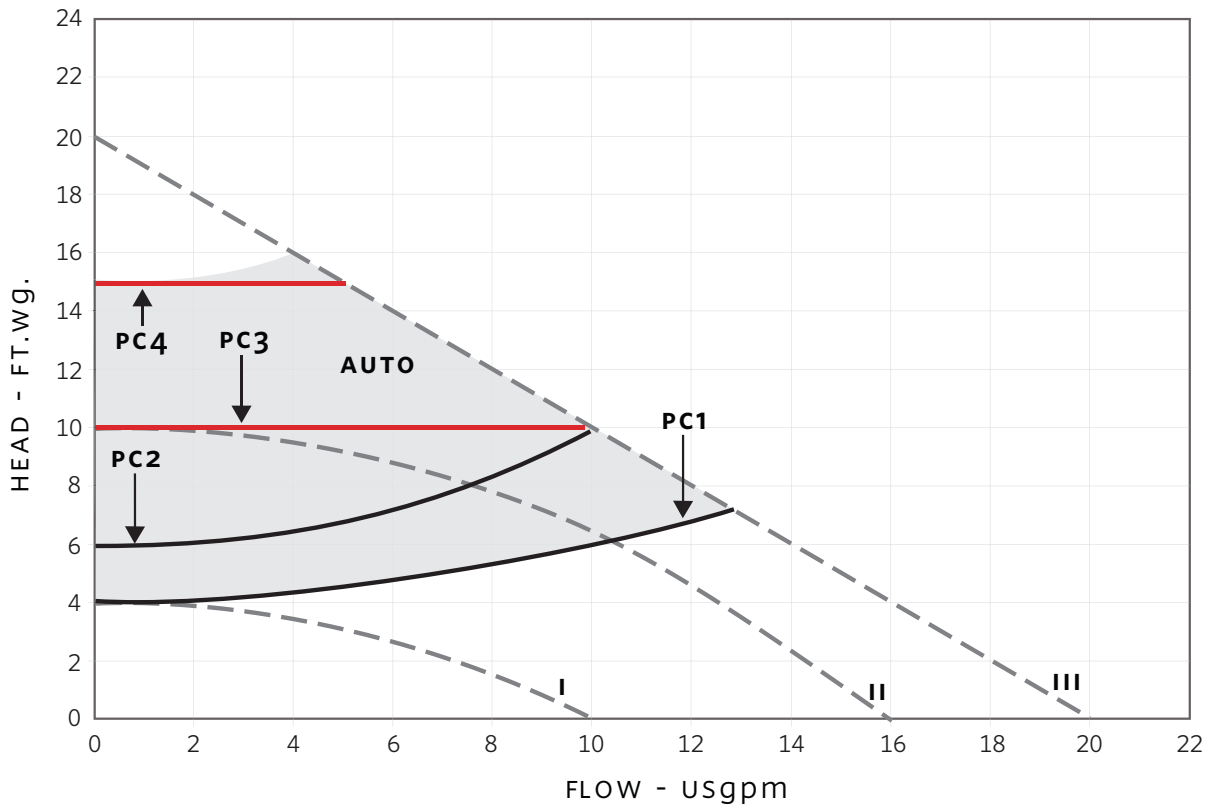


0 - 10VDC OPERATION



Lights on the display indicate the Control mode selected.

COMPASS H PERFORMANCE CURVES



COMPASS H COMPANION FLANGE KITS
(contains two (2) flanges, hardware & gaskets)

CAST IRON		
MODEL	PART NO.	SIZE
Compass H20-20 CI	816013-111	0.75"
Compass H20-20 CI	816012-111	1"
Compass H20-20 CI	816011-111	1.25"
Compass H20-20 CI	816009-111	1.5"

LEAD FREE BRONZE*		
MODEL	PART NO.	SIZE
Compass H20-20 SS	816013-841	0.75"
Compass H20-20 SS	816012-841	1"
Compass H20-20 SS	816011-841	1.25"
Compass H20-20 SS	816009-841	1.5"

LEAD FREE UNION FITTING SETS*
(contains two (2) half unions & gaskets)

MODEL	PART NO.	SIZE
Compass H20-20 SSU	810120-320	1.25" NPSM × 0.5" SWEAT LEAD FREE
Compass H20-20 SSU	810120-322	1.25" NPSM × 0.75" SWEAT LEAD FREE
Compass H20-20 SSU	810120-324	1.25" NPSM × 0.75" FNPT LEAD FREE

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