

High Flow Circulation Pump

A MAGNETIC DRIVE SEAL-LESS PUMP WITH BRUSHLESS ELECTRIC MOTOR
38 MM PORTS, DESIGNED FOR A NOMINAL FLOW OF 135 LITRES / MIN @ 0.4 BAR

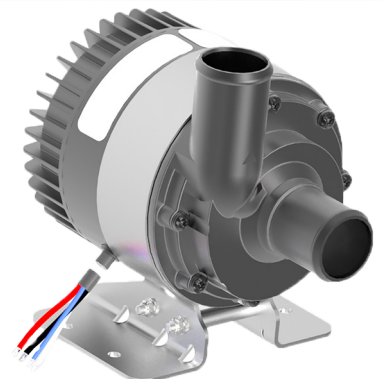
The CM100HF is a high-flow, magnetically driven (seal-less), circulation pump with a DC motor designed for a 40 000 hour service life. The brushless motor of the CM100HF eliminates brush maintenance and related motor failures.

The CM100HF is designed for liquid circulation requirements in heating and cooling systems. The CM100HF pump generates a high flow for such demanding applications as buses, trains and other commercial vehicles. The durable design will also provide dependability on physically demanding applications such as agricultural equipment, construction and mining vehicles as well as on and off-road vehicles.

The CM100HF comes with IP6K9K and IP67 ratings to ensure the highest degree of reliability in the most demanding environmental conditions. These IP ratings ensure the pump to be waterproof, dustproof and to withstand salt and high-pressure/steam jet cleaning. The pump is also tested and approved to withstand shock and vibrations. The cast aluminium pump housing is available with 38mm (1 1/2") ports. The metal design of the CM100HF also allows us to meet the flammability rating UL 94 Class V0.

The CM100HF is designed for speed control with 0-10V or PWM (Puls Width Modulation) control and offers security features such as; built-in thermal overload protection, built-in temperature limitation function, reversed polarity protection, voltage transients protection, low voltage protection, internal current limitation and dry running protection.

The CM100HF will withstand ambient temperatures from -40° to +105°C (-40° to +220°F).



Features & Benefits

- Nominal flow @ 0.4 bar
135 l/min (35.6 GPM) with connection Ø38 mm (1 1/2")
- Designed for ambient temperatures of -40°C to +105°C at liquid temperature +93°C (-40°F to +220°F at liquid temp +200°F)
- Magnetic drive (no shaft seal/ mechanical seal)
- Designed for continuous duty
- Long service life
- Wide temperature range
- Speed control
- Built-in thermal overload protection
- Derating, automatic speed control at overheating
- Tacho out signal
- Reversed polarity protection
- Low voltage protection
- Dry run protection
- Current limitation
- Voltage transients protection
- Enclosure; IP6K9K and IP67

CM100HF – High Flow Centrifugal Pump with Magnetic Transmission powered by a Brushless DC Electromotor

Technical specifications:

Capacity:

38mm (1 1/2") port 135 l/min (35.6 GPM) at 0.4 bar (13.38 ftH₂O)

System pressure: -0.2 to +2.5 bar at 100°C (+212°F)

Liquid: Water/glycol mixture; max. 60% glycol

Motor service life: The motor is designed for a service life of 40.000 hours at nominal voltage and ambient temperature of +40°C (+104°F)

Motor, voltage: Nominal 27.2V DC for use between 16-32V DC

Motor: Enclosed (as per IP6K9K and IP67) permanent magnet, ball bearing mounted brushless motor, designed for continuous operation

Input power: Max. 410 W

Dry running: Max. 25 minutes

Ports: 38 mm (1 1/2") diameter

Weight: 3.9 kg (8.5 lb)

Pump Housing: Aluminum, black anodized

Impeller: PA12 GF

Intermediate part: PPA GF

Mounting: Separate universal bracket for flat surfaces

Flammability: UL94 Class V0 (external polymer materials meet same requirements)

Degree of protection: IP6K9K, IP67 (ISO 20653)

EMC approved according to:

UN ECE R10 rev. 5, with references to CISPR 12, CISPR 25, ISO 11452-2, -3, -4, -5 and ISO 7637.

EN61000-6-3:2007 + A1:2011, +AC:2012 Class B.

EN 61000-6-2:2005 + AC: 2005 Industrial.

EN 60945:2002 Marine, Chapter 9 and 10.

EN 55014-1:2006 + A1:2009 + A2: 2011.

EN55014-2:1997 + A1:2001 + A2: 2008 + AC: 1997.



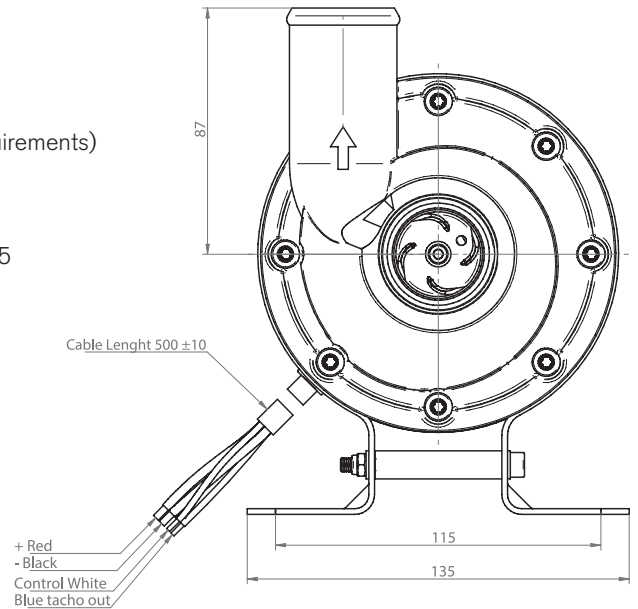
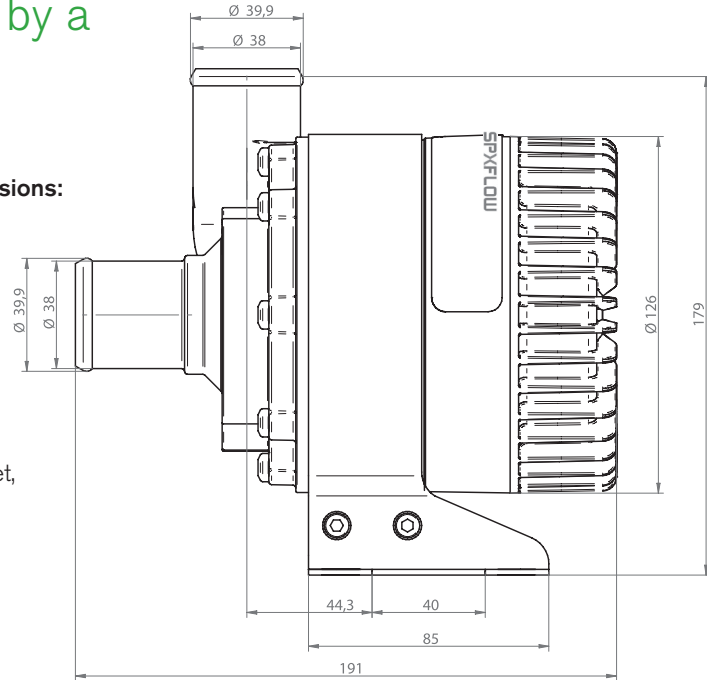
Pressure and capacity data

Based on water at 20°C/68°F (and recommended hose diameter)

HOSE CONNECTION	BACK PRESSURE			FLOW		AMPERAGE
	BAR	kPA	FTH ₂ O	L/MIN	USGPM	27.2V
Ø38 mm (1 1/2")	0.2	20	6.69	164	43.3	14.9
	0.4	40	13.38	135	35.6	14.8
	0.6	60	20.07	108	28.5	14.5
RECOMMENDED FUSE SIZE						25 – 30A

DESCRIPTION	PART NO.
CM100HF AL-1BL 27,2V D38	10-13578-02

Dimensions:



SPXFLOW

Customer Service & Support
Johnson Pump Marine

SE +46 19 21 83 10 johnson-pump.marine@spxflow.com
US +1 847 671-7867 jp-customerservice@spxflow.com
AUS +61 03 9589 9222 ft.aus.cs@spxflow.com

For more information about our worldwide locations, approvals, certifications, and local representatives, please visit www.spxflow.com.

SPX FLOW, Inc. reserves the right to incorporate our latest design and material changes without notice or obligation. Design features, materials of construction and dimensional data, as described in this bulletin, are provided for your information only and should not be relied upon unless confirmed in writing.

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