JOHNSON PUMP
AN SPX BRAND

CM90 Heavy-duty Circulating Pump

A magnetic drive seal-less pump with 20 or 38 mm ports, designed for a maximum flow of 65 or 115 litres

The CM90 circulation pump has been developed primarily for heating and cooling applications in busses, trains and boats, but it is much more. In closed systems or wherever else self-priming is not required, the CM90 is an all-round pump that distinguishes itself for its dependability, capacity and long service life.

The CM90 pump has a magnetic drive, which means that no shaft seal is necessary, as the motor shaft does not penetrate the pump house. With no mechanical seal, longer service life is assured.

Heat flanges on both the motor and the pump also increase service life as they dissipate heat from the unit, which can pump liquids efficiently at a very wide range of temperatures. The CM90 also features integral thermal overload protection and is EMC approved according to EN 55014 standards.

The CM90 magnetic driven centrifugal pump combines a high flow rate with very low electricity consumption, making it ideal for vehicular heating and cooling systems.

Features & Benefits

- Maximum flow of 65 or 115 litres per minute @ 0.1 bar
- Designed for liquid temperatures of -40°C to +100°C
- Seal-less magnetic drive
- Specifically engineered for continuous operation
- Extended service life
- Ball bearing brush motor - Enclosure IP67
- Equipped with heat flanges for improved cooling
- Steel motor housing
- 12V or 24V motors
- Thermal overload protection
- Universal mounting bracket
- Industry standard ports
- Complies with ISO 8846 and EN 55014 standards

SPX®

CM90 – Electrically powered, centrifugal pump with magnetic transmission

The CM90 has been designed to circulate water or a water/antifreeze mixture in the heating systems of busses, trains and boats.

Technical specifications:

Capacity:	65 l/min (17.2 GPM) or 115 l/min (30.4 GPM) at 0.1 bar
System pressure:	-0.3 to +3.0 bar; stationary max. 4.0 bar
Liquid:	water/glycol mixture; max. 60% glycol
Motor service life:	More than 5,000 hours at nominal voltage (and 30°C ambiente temperature) 10,000 start/stops. Interchangeable motor.
Motor, voltage:	Nominal 13.6V DC for use between 10-16V Nominal 27.2V DC for use between 20-32V
Input power:	Max. 125W
Dry running:	30 minutes
Dimensions:	244 mm long x 120 mm wide x 150 mm high
Ports:	20 mm (¾") or 38 mm (1.½") diameter
Weight:	3.0 kg (6.6 pounds)
Body:	PPA, glass-fiber reinforced
Mounting:	Separate universal bracket for flat surfaces

Pressure and capacity data

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

	Back pressure			Flow		Amperage	
Hose connection	bar	kPa	ft	l/min	USGPM	13,6V	27,2V
ø 38 (1 1/2")	0,1	10	3,4	115	30,4	10	4,6
	0,25	25	8,4	85	22,5	9,5	4,5
	0,4	40	13,4	40	10,6	9	4,2
ø 20 (3/4")	0,1	10	3,4	65	17,2	8,5	4
	0,25	25	8,4	50	13,2	8	3,8
	0,4	40	13,4	30	7,9	7,5	3,6
Fuse required						12	6

Order no	Description
10-24501-03	CM10P7-1 12V DIA16
10-24501-04	CM10P7-1 24V DIA16
10-24502-03	CM10P7-1 12V DIA20
10-24502-04	CM10P7-1 24V DIA20
10-24504-03	CM30P7-1 12V DIA20
10-24504-04	CM30P7-1 24V DIA20
10-24750-01	CM90P7-1 13,6V D20
10-24750-02	CM90P7-1 27,2V D20
10-24664-01	CM90P7-1 13,6V D38
10-24664-02	CM90P7-1 27,2V D38

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