D5 Series

BASIC. VARIO. STRONG. SOLAR.

An entirely new generation of pumps, with minimum energy consumption, a shaft-less spherical motor and permanent magnet technology.
Applications

• D5 pumps (basic, vario, strong and solar) can be used in a wide variety of DC applications where a highly efficient circulation pump is required.
• D5 pumps are used in a wide variety of applications such as medical devices, electronics cooling, chillers, laser cooling, RV hot water systems, battery cooling, and fuel cells.

Design

• The single moving part in a spherical motor is a hemispherical rotor/impeller unit. The rotor/impeller rides on an ultra-hard, wear-resistant ceramic ball.
• There are no conventional shaft bearings or seals. Eliminating the possibility of bearing-play and a potential leak path.
• Provide an exceptionally long service life in excess of 50,000 hours.
• Maintenance is not necessary under normal conditions. Even after lengthy shut down periods a reliable start-up is virtually guaranteed.
• Parts exposed to the fluid are completely corrosion resistant even with aggressive fluids.

Speed controller

• Easily adjusts by turning a dial in the pump end. It can be adjusted to vary the hydraulic performance and/or the electrical power consumption.
• Regardless of the setting, the pump always starts with maximum torque. This ensures a reliable start even at the lowest speed.

Integrated over-temperature protection

• Each pump has an integrated over-temperature safety device that shuts the pumps electronics off when reaching the temperature limit of +203°F.
• If the over-temperature safety device is activated the pump will restart automatically after the pump has cooled completely.

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basic. vario. strong. solar.
**Technical Data**

**Motor design**
Electronically commutated spherical motor with permanent magnet rotor/impeller

**Voltage**
8 - 25 Volt

**Power consumption**
D5 basic and vario: 0.25 - 1.46 A
D5 strong: 0.13 - 2.1 A

**Current draw**
- D5 basic and vario: 0.25 - 1.46 A
- D5 strong: 0.13 - 2.1 A

**Acceptable media**
Domestic hot water, water/glycol mixtures, other media on request

**Insulation class**
IP 42 / Class F

**Max. system pressure**
- 150 PSI - 1.0 MPa (10 bar) for pumps with brass housings
- 50 PSI - 0.35 MPa (3.5 bar) for pumps with plastic housing

**Max. system temperature**
- -10°F to +203°F (-10°C to + 95°C) for pumps with brass housing (non-freezing)
- +32°F to +140°F (+/- 0°C to + 60°C) for pumps with plastic housing (non-freezing)

**Weight**
- 1.54 LBS. (0.7 kg) for pumps with brass housing
- 0.77 LBS. (0.35 kg) for pumps with plastic housing when using more than 20% glycol, check pump performance
Note: Pump curves vary depending on pump housing, speed control setting and supply voltage.
The D5 Vario will vary based on the speed control setting. The curves in blue are for supply voltage range 12-23 volts.
For maximum performance for the D5 Vario (shown in yellow), the supply voltage must be 24 volts and speed control setting at maximum.
The D5 Basic have a fixed performance curve for a supply voltage range 12-24 volts, the curve is shown as a setting of the Vario charts. The D5 Strong will vary based on the supply voltage. The maximum performance is shown in yellow with 24 volts supply and the 12 volts supply performance curve is shown in blue.

D5 Series Pump Curves - Brass

D5 Series Pump Curves - Plastic

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