

Permanent Magnet Synchronous Machine, 2 kW 8101935 (8541-10)

FESTO

LabVolt Series

Datasheet



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General Description

The Permanent Magnet Synchronous Machine, Model 8541-1, is the 2 kW variant of the 0.2 kW Permanent Magnet Synchronous Machine, Model 8245. Just like its 0.2 kW counterparts, Model 8541-1 is equipped with a thermistor for measuring the rotor temperature, as well as with Hall effect sensors to determine coarse rotor position. The machine is permanently mounted on a mobile cart, and includes a double-extension shaft terminated with geared-type flanges. It can be joined to different machines using a hard rubber coupling device and patented locking fastener designed to eliminate vibrations.

The Permanent Magnet Synchronous Machine has a specifically high inertia to simulate a high-power machine. The frames of the machine are equipped with transparent shatter-proof shields for inspection of the interior. The insulation class of the machines is B (80E temperature rise), the service factor is continuous, and the construction is of the open type.

All machine windings are brought out to the faceplate of a connection module through a 3 m (10 ft) long, heavy-duty, interconnecting cable fitted with a keyed connector. The Permanent Magnet Synchronous Machine, Model 8541-1, can only be connected to its associated connection module, Model 8542-1. All windings are individually accessible on the faceplate of the connection module associated with the machine. Power windings are terminated by 4 mm color-coded safety jacks, while the thermistor and Hall effect sensors outputs are terminated by 2 mm miniature banana jacks.

Specifications

Parameter	Value
Machine Characteristics	
Nominal Power	2.39 kW
Nominal Speed	1800 rpm
Motor Back EMF	96.6 V/Kr/min
Stator Current	9.7 A
Thermistor	LV Type 3
Temperature Rise	100 Celsius degrees
Ambient Temperature	40 Celsius degrees
Insulation Class	F
Encoder	0/5 V 2048 PPR
Inverter DC Bus Voltage	320 V
Physical Characteristics	
Dimensions (H x W x D)	830 x 400 x 605 mm (32.7 x 15.7 x 23.8 in)

Reflecting the commitment of Festo Didactic to high quality standards in product, design, development, production, installation, and service, our manufacturing and distribution facility has received the ISO 9001 certification.

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