# Four-Pole Squirrel-Cage Induction Motor, 2 kW 586569 (8503-00)





LabVolt Series

Datasheet

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Festo Didactic en 120 V - 60 Hz 03/2022

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# **General Description**

The Four-Pole Squirrel-Cage Induction Motor consists of a 3-phase machine rated at 2 kW. Each phase of the stator winding is accessible via the connection module to allow wye or delta connections. The machine is equipped with a standard cast-aluminum squirrel cage rotor.

The winding dimensions permit the study of machine operation as a squirrel-cage induction motor or as an asynchronous generator when driven by a prime mover.

The machine has a 5-turn, full-pitch stator search coil to allow the observation of the instantaneous flux distribution.

# **Specifications**

Parameter	Value
Motor (Full Load)	
Connection	3 ~, wye connected
Line Voltage	120/208 V – 60 Hz
Power	2 kW
Speed	1770 r/min
Current	8.8 A
Torque	10.8 N·m (95.6 lbf·in)
Efficiency	80%
Power Factor	0.77
Friction and Windage Losses	130 W
Iron Losses	70 W
Motor (Starting)	
Current	55 A
Torque	12.3 N·m (108.9 lbf·in)
Stator Resistance (per phase at 25° C)	0.6 Ω
Search Coil	
Stator - Full Pitch	5 turns
Physical Characteristics	
Moment of Inertia	0.107 kg·m² (365.7 lb·in²)
Dimensions (H x W x D)	830 x 400 x 605 mm (32.7 x 15.7 x 23.8 in)
Net Weight	88 kg (193.6 lb)

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