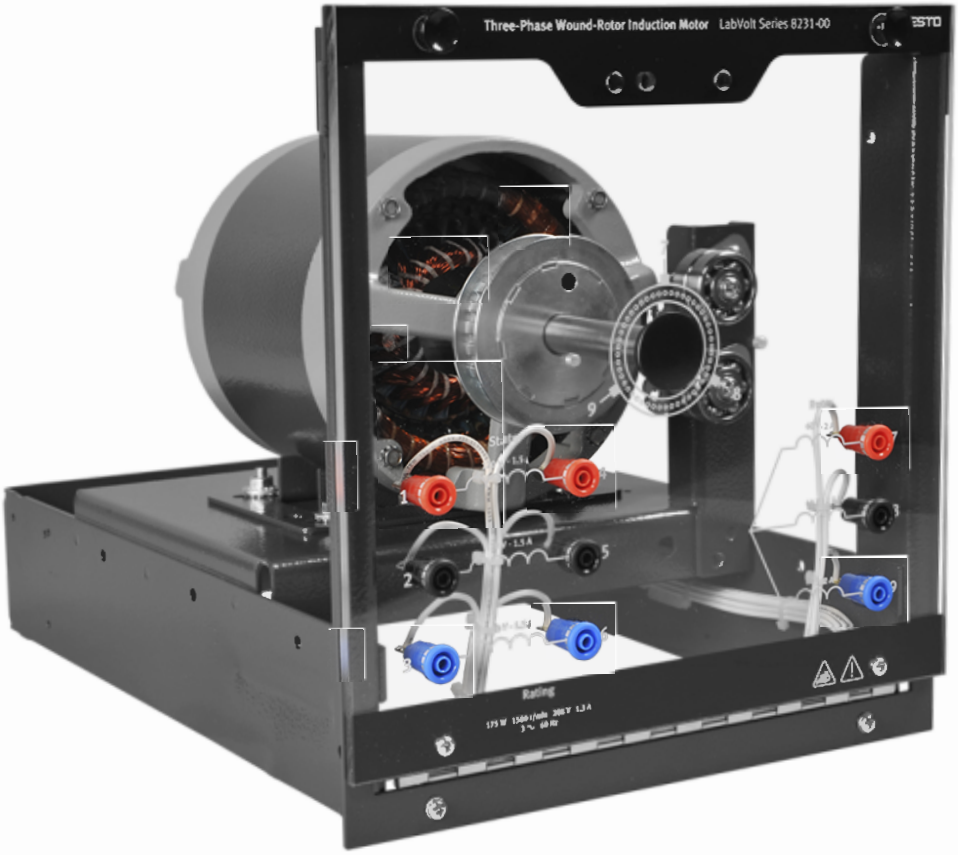
Three-Phase Wound-Rotor Induction Machine
586320 (8231-00)

LabVolt Series

Datasheet



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en 120 V - 60 Hz
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General Description

The Three-Phase Wound-Rotor Induction Machine is a rotating machine mounted in a full-size EMS module. Each phase of the stator windings is independently terminated and identified on the faceplate to permit operation in either delta or star (wye) configuration. The rotor windings are brought out to the faceplate via external slip rings and brushes. This machine can be used as a wound-rotor induction motor, phase shifter, single-phase variable coupling transformer, three-phase transformer, selsyn control, frequency converter or asynchronous induction generator. The speed of the machine can be controlled through the use of the Three-Phase Rheostat, Model 8731.

List of Manuals

Description	Manual number
Phase-Shifting with Transformers (Student Manual)	583981 (27082-00)
The Wound-Rotor Induction Motor and Applications (Student Manual)	584327 (35064-00)

Table of Contents of the Manual(s)

The Wound-Rotor Induction Motor and Applications (Student Manual) (584327 (35064-00))

- 1 The Wound-Rotor Induction Motor – Part I
- 2 The Wound-Rotor Induction Motor – Part II
- 3 The Wound-Rotor Induction Motor – Part III
- 4 Frequency Conversion
- 5 Reactance and Frequency
- 6 Selsyn Control

Optional Equipment

Qty	Description	Model number
1	Three-Phase Rheostat	586786 (8731-00)

Specifications

Parameter	Value
Power Requirement	120/208 V
Rating	
Output Power	175 W
Stator Voltage	120/208 V, 3-phase
Rotor Voltage	60/104 V, 3-phase
Full-Load Speed	1500 r/min
Full-Load Current	1.3 A
Physical Characteristics	
Dimensions (H x W x D)	308 x 291 x 440 mm (12.1 x 11.5 x 17.3 in)
Net Weight	14 kg (30.8 lb)

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Module Options Description

Three-Phase Rheostat
586786 (8731-00)

The Three-Phase Rheostat module consists of three rheostats mounted on a common shaft directly controlled by a single knob on the module faceplate. The rheostats are electrically interconnected in a four-wire wye configuration and each leg is protected from over-current conditions by a thermal-magnetic circuit breaker.

The module is mainly used for speed control of a Three-Phase Wound-Rotor Induction Motor, Model 8505. A limit switch is actuated when the knob of the rheostat is turned fully clockwise, corresponding to maximum resistance. This switch can then be used as an interlock with the Three-Phase Full-Voltage Starter, Model 8521, to make sure that the motor starts with a rotor resistance which provides maximum starting torque. This module can also be used for other applications where a variable power resistor is needed.

Specifications

Parameter	Value
Rating	
Resistance (line-neutral)	16 Ω
Total Power	192 W
Maximum Current (per phase)	2 A
Physical Characteristics	
Dimensions (H x W x D)	154 x 287 x 440 mm (6.1 x 11.3 x 17.3 in)
Net Weight	4.9 kg (10.8 lb)
Shipping Weight	6.5 kg (14.3 lb)

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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