

SC9000 EP Frame F drive

Medium-voltage variable frequency drives



Where high horsepower meets the reliability that you expect

Eaton's SC9000™ medium-voltage variable frequency drives have reached new heights. The SC9000 Frame F drive is designed for use with 4160 volt induction or synchronous motors from 6500 to 12000 horsepower. As delivered with other SC9000 designs, the Frame F drive provides higher horsepower from the reliable design and construction you've come to expect of the Ampgard™ medium-voltage motor control family.

Features

The SC9000 EP Frame F drive boasts a robust feature set that puts it ahead of the competition:

- Small footprint per horsepower
- Modular roll-in/roll-out inverters
- 24-pulse transformer for IEEE® 519 compliance
- NEMA® 1 remote transformer is standard; NEMA 3 remote or NEMA 1 close-coupled also available
- Silicone encapsulation
- 6.5 kV rated components
- Proven SC9000 EP components including rectifiers, inverters and dV/dT filters connected in parallel to achieve ratings up to 12000 hp
- Optional Ampgard main breaker to feed isolation transformer

Benefits

The Frame F drive brings a host of benefits for any operation:

- Time and cost savings due to low mean time to repair (MTTR)
- Allows maximum use of equipment room space and reduced installation costs
- Remote transformer reduces indoor footprint and cooling requirements
- Roll-in/roll-out dual inverters minimize maintenance time



Powering Business Worldwide

Standards

Eaton designs all Amgard products, including the SC9000 drive, to the highest of standards:

- UL® 347A
- IEEE 1566
- IEEE 519

Flexible communication

Multiple communication protocols allow easy connectivity with all commonly used control systems such as:

- INCOM™
- Modbus®
- Ethernet
- DeviceNet™

Applications

The SC9000 drive's rugged design makes it the perfect choice for many variable speed applications including harsh-duty industries such as:

- Oil and gas
- HVAC
- Pulp and paper
- Petrochemical
- Water/wastewater
- Utility
- Cement
- Minerals and mining

Specifications

Description	Ratings
Power semiconductors	6.5 kV IGBTs, diodes
Line-side converter	24-pulse diode rectifier
Inverter	Encapsulated IGBT power modules
Control	Sensorless vector control Volt/Hz Closed loop vector control
Power section isolation	Fiber-optic cable
Efficiency	>97%
Service duty	Standard 110% for 1 minute every 10 minutes Optional 150% for 1 minute every 10 minutes
Input frequency	60 or 50 Hz ±5%
Output frequency	0–120 Hz
Output voltage	4160 V
Speed regulation	0.1% without tach feedback 0.02% with tach feedback
Power loss ride-through	5 cycles
Ambient temperature	0 to 40 °C
Altitude	0–3300 ft
Watts loss	23 watts/hp with transformer 9 watts/hp with remote transformer

For more information on Eaton variable frequency drives:

Eaton.com/SC9000

1-877-ETN-CARE, option 2, then option 7

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