

Factory Test Facility


Medium Voltage Adjustable Frequency Drive

Eaton test drives every SC9000™ EP
We invite you to come along for the ride.



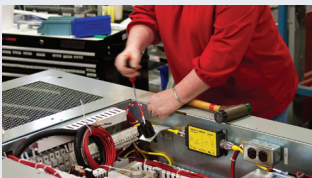
EATON

Powering Business Worldwide



Only 100% accuracy
gets the green light.

Eaton's state-of-the-art test facility is designed to provide customers with pre-installation testing of the performance, interoperability, and efficiency of SC9000™ EP Medium Voltage Adjustable Frequency Drives under a variety of conditions. Our process ensures unparalleled precision and efficiency.



Step-By-Step Testing

- 100% testing (functional, Partial Discharge, burn-in, etc.) of all active components
- Module "pulse" testing of inverters before & after encapsulation
- Up to 24-hour burn-in at rated load and overload of all drives. The test/burn-in procedure runs the drive for a minimum of 12 hours before shipping. This allows us to make sure problems are detected and corrected before shipment. This process exceeds the new IEEE 1566 requirements of 4-hour minimum test/burn-in before shipment.



Production Capability Development

- (8) Test Bays
- +25,000HP of test motors available
- Up to 3,000HP at 2400V 60Hz
- Up to 6,000HP at 4160V 60Hz
- Up to 6,000HP at 6900V 60Hz

State-of-the-Art Test Facilities

The SC9000 EP's test facility consists of 5 test bays with combined power of 25,000 hp. Each drive receives a minimum 12-hour, and up to 24 hour burn-in at full load. The test bays are equipped with ambient temperature control up to 50° C.



Advanced Research Lab

- Unique facility designed to develop new MV Drive technologies
- Advanced materials research



The performance you expect.

Eaton's SC9000 EP medium voltage adjustable frequency drive combines innovative technology with the reliable design and construction you've come to expect from Eaton products. This ground-breaking drive is the first of its kind to offer control-gear configuration that integrates motor starters, load break switches, AFD sync transfer control, AFD bypasses, main and/or feeder breakers, under one bus in a common lineup.

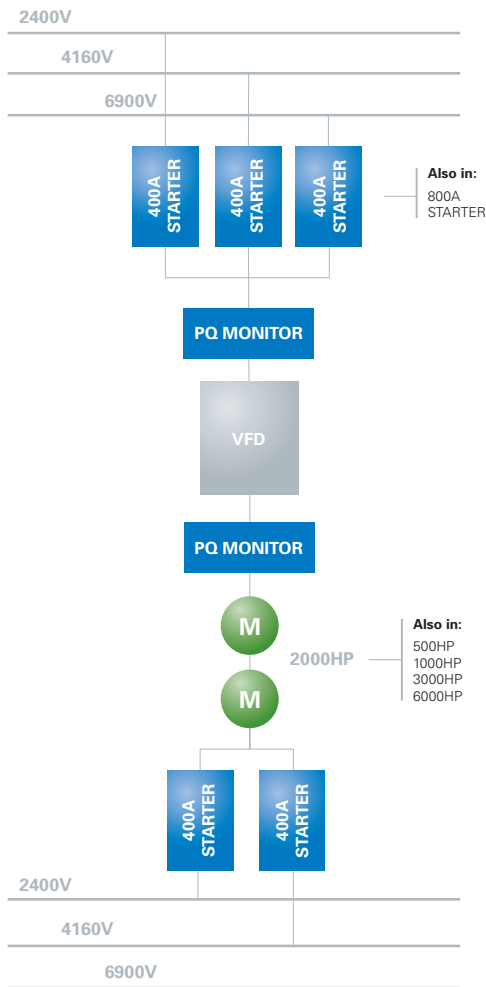
The reliability you demand.

At Eaton, we understand that purchasing a medium voltage adjustable frequency drive is a major investment. Our new state-of-the-art, ISO 9000 certified Test Facility in Arden, North Carolina provides absolute confidence in the quality and reliability of your SC9000 EP. More than 17,000 square feet of this facility is solely dedicated to the assembly and testing of Eaton drives.

The proof you deserve.

Our testing process ensures that your SC9000 EP is functioning properly. But don't just take our word for it. We invite you to come to our facility and witness the testing of your drive first-hand. You'll leave with total assurance that you've made a sound purchase, backed by documentation that you can retain for your records. Eaton provides all test results in an electronic or hard copy form during on-site testing. You'll also receive a Certified Test Report once your equipment has shipped.

Example Test Bay Capability



SC9000 EP 2500HP, 4160V AFD



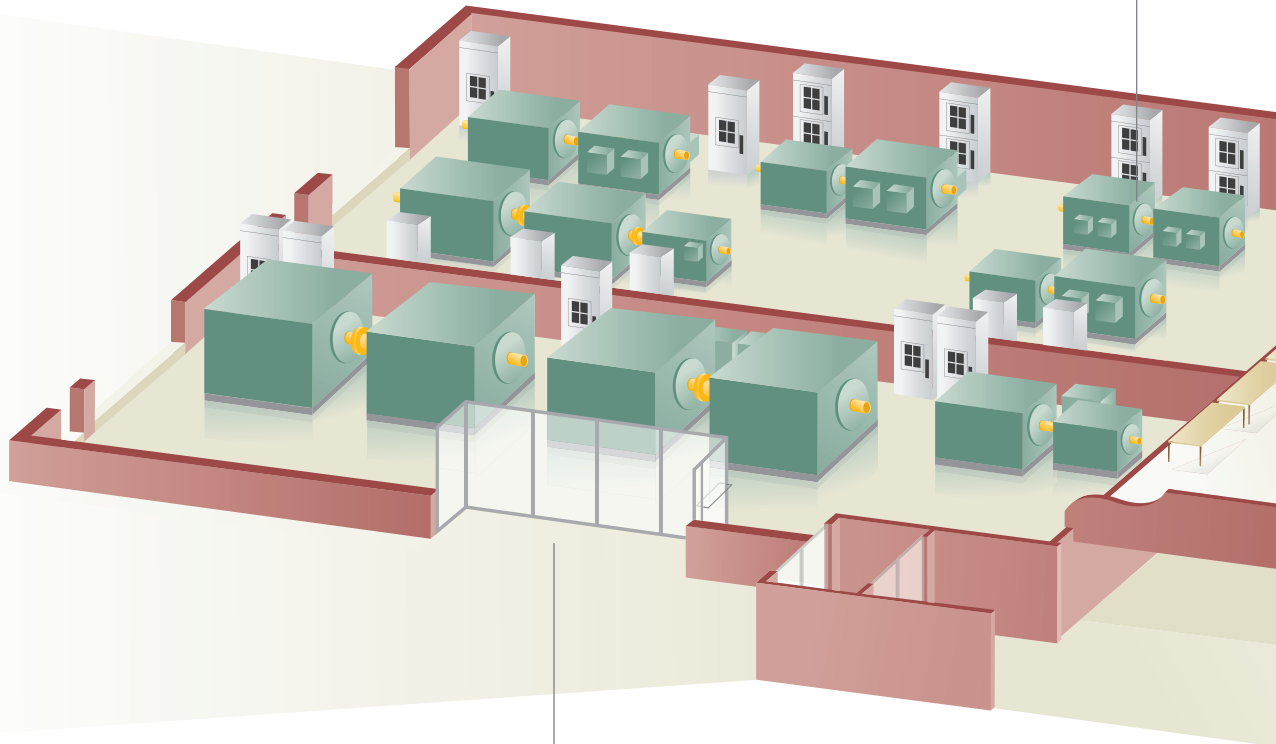
Get a front-seat view when we test drive your SC9000 EP. Contact your local Eaton representative today.

Eaton's SC9000 EP Test Facility



Motor Room

Eaton's Motor Room is a world-class facility that allows us to test with full voltage and current on a real motor to ensure proper operation. Motors currently range incrementally from 500HP to 6,000HP for both 50hz and 60hz operation with voltages ranging from 2.4KV to 13.8KV testing.



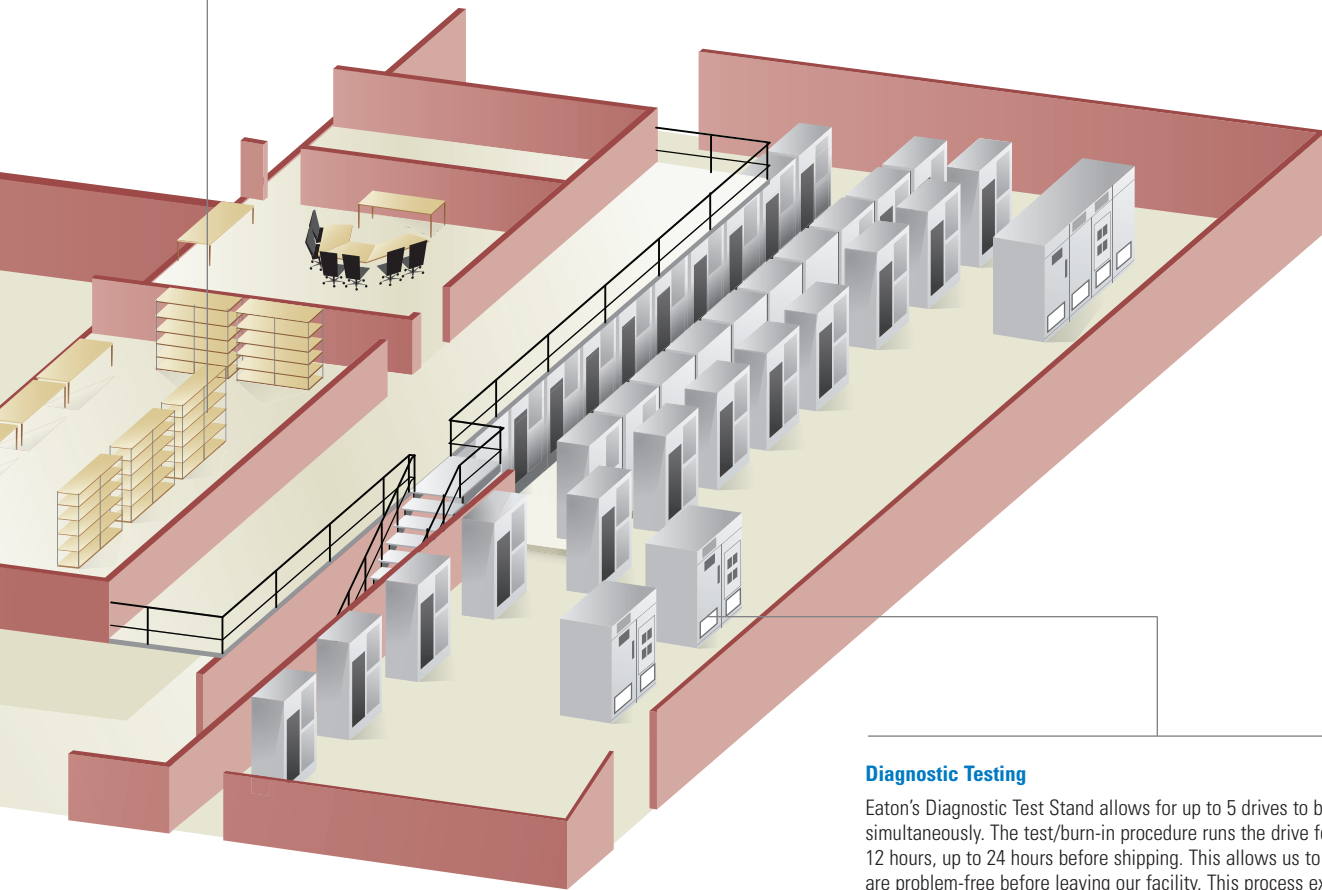
Customer Viewing Area

Our witness testing viewing room allows customers to observe their SC9000 EP undergoing pre-shipment functional performance testing. An in-depth analysis is performed at the input and output of each test stand. Testing consists of:

- Steady-state: 0% to 100% loading
- Dynamic: 110% or 150% overloading for 1 minute every 10 minutes (drive rating dependent)
- Performance: includes efficiency, waveforms, harmonics, frequency and power factor
- Customer-specific test requirements can be performed for an additional charge

Power Components and Circuit Cards Pre-Testing

At the Eaton Test Facility, all semi-conductor components (Diode, IGBT) are tested for partial discharge and characterization, and are run through a functional test procedure. All circuit boards are also tested for accurate functionality before installation.



Diagnostic Testing

Eaton's Diagnostic Test Stand allows for up to 5 drives to be tested simultaneously. The test/burn-in procedure runs the drive for a minimum of 12 hours, up to 24 hours before shipping. This allows us to make sure drives are problem-free before leaving our facility. This process exceeds the new IEEE 1566 requirements of 4-hour minimum test/burn-in before shipment.



