

Overview

The SMC-150 Synchronous Motor Controller is a prepackaged solution for applications requiring a single DECS-150 Digital Excitation Control System. The system is preconfigured to adapt to a wide variety of installations including existing or new cubicles. With the DECS-150's enhanced capabilities, precise motor control can be obtained. The SMC-150 is designed, built, and completely tested in one location to optimize performance.

Features

- Multiple Control Modes
 - Var/Power Factor
 - Field current regulation
 - Field voltage regulation
- Up to 10-amp pulse-width-modulated (PWM) insulated-gate bipolar transistor (IGBT) power stage
- BESTCOMSPPlus® PC software
- Preprogrammed logic
- Autotracking between modes of operation
- Real-time monitoring
- Sequence-of-events recording
- Extensive communication available
 - USB
 - CAN bus communication
 - Ethernet 100Base-T (Modbus® TCP)
- CE compliant
- Comprehensive protection
 - ES-74S relay for overexcitation protection
 - ES-55 relay for power factor protection
 - RTD monitoring/temperature protection with optional AEM-2020 Analog Expansion Module
 - DECS-150 integrated protection
- ICRM (Inrush Current Reduction Module) for station-powered applications

Benefits

- Complete monitoring of a synchronous motor and streamlined control offer increased reliability.
- Various excitation limiters keep the system within the prescribed parameters and prevent tripping.
- The DECS-150, used on the SMC-150, is programmed using BESTlogic™ Plus within BESTCOMSPPlus® software. With its intuitive interface, BESTlogicPlus provides the flexibility to create custom logic schemes to meet specific requirements.
- Real-time monitoring and event recording capture occurrences within the system for live data analysis.
- Prewired chassis for easy installation into new or existing enclosures.
- Current transformer (CT) shorting provision for added safety.
- Our prewired solutions minimize the need for system-level design time.
- The Offline Simulator, provided in BESTlogicPlus, helps identify and troubleshoot the logic without the physical hardware.
- Design work done by the experts in excitation technology.

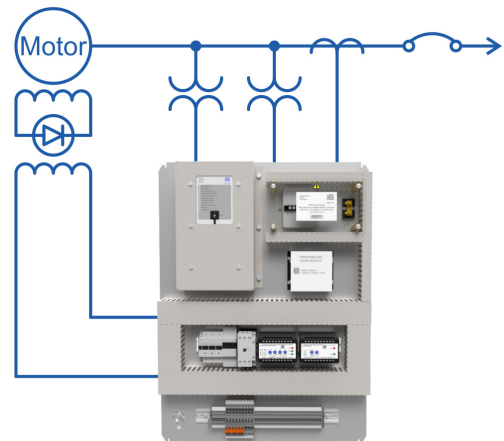


Figure 1 - SMC-150 Connection Diagram for a Typical Application

Specifications

Excitation Current

Up to 10 Adc

Operating Power

Full load continuous field voltage:

| | |
|----------|--|
| 63 Vdc: | 100 to 139 Vac or 125 Vdc |
| 125 Vdc: | 190 to 277 Vac (1-phase), 190 to 260 Vac (3-phase), or 250 Vdc |

Frequency range: 50 to 500 Hz

Control Power Input

| | |
|----------|------------------|
| Nominal: | 24 Vdc |
| Range: | 19.2 to 26.4 Vdc |

Voltage Sensing Input

| | |
|----------------|--------------------------|
| Range: | 100 to 600 Vac, 50/60 Hz |
| Configuration: | 1-phase, 3-phase, 3-wire |

Current Sensing Input

| | |
|----------------|------------------|
| Nominal: | 1 Aac or 5 Aac |
| Configuration: | 1-phase, 3-phase |

Output Contacts

| | |
|-------------------------------------|---------------------------|
| Make, Break, and Carry (Resistive): | |
| Rating: | 7.0 Adc at 24 Vdc/240 Vac |

Environmental

| | |
|------------------------|-------------------------------|
| Operating Temperature: | |
| Up to 7 Adc output: | 0°C to 60°C (32°F to 140°F) |
| Up to 10 Adc output: | 0°C to 55°C (32°F to 131°F) |
| Storage Temperature: | -20°C to 60°C (-4°F to 140°F) |

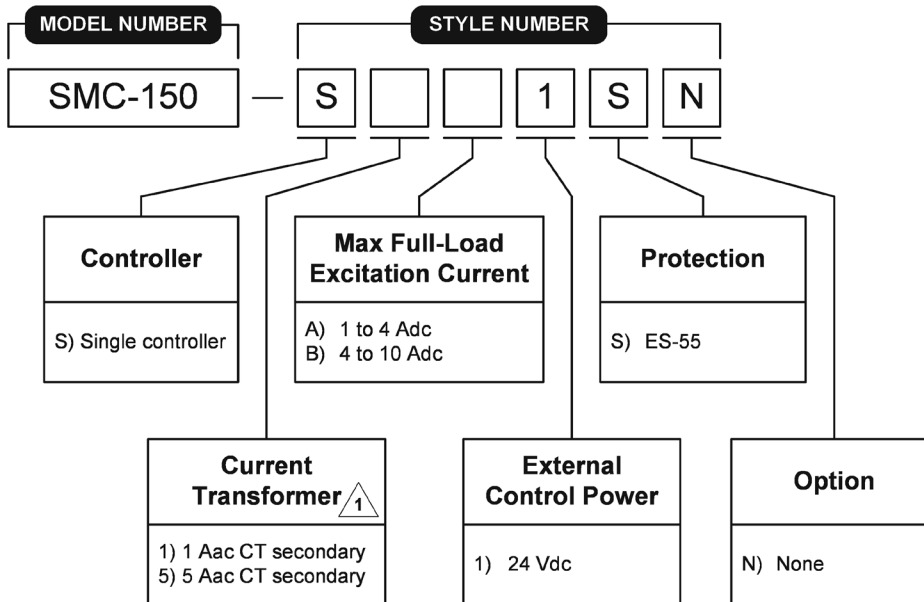
Physical

| | |
|---------------------|---|
| Dimensions (WxHxD): | 21.65 x 29.53 x 5.12 inches (550 x 750 x 130 mm) |
| Weight: | 55 lb (24.9 kg) |

Visit www.basler.com for more information.

Style Chart

Please read and utilize the note below the chart to ensure the appropriate features are specified in the main SMC-150 style chart.



1 The DECS-150 controller will be automatically configured with the SMC-150 style selection made here.

Related Products

BE1-11g Generator Protection System

Offers a complete generator protection system.

DECS-2100 Digital Excitation Control System

An extremely powerful, flexible excitation system that precisely controls, protects, and monitors synchronous generators and motors.

DECS-250 Digital Excitation Control System

Provides precise voltage, var, and power factor regulation, exceptional system response, and generator protection.

DECS-250E Digital Excitation Control System

The DECS-250E Digital Excitation Control System provides accurate and reliable regulation, control, and protection for synchronous motors or generators.

DECS-450 Digital Excitation Control System

A versatile digital excitation control system for synchronous generators and motors.

DGC-2020 Digital Genset Controller

Provides genset and transfer switch control, metering, protection, and programmable logic in a simple, easy to use, reliable, rugged, and cost effective package.

DGC-2020HD Digital Genset Controller

An advanced, but rugged genset control system designed for paralleling and complex load sharing schemes.

ES Series Protection Relays

A wide range of cost-saving options to simplify industrial application protection.

SGC-250N Synchronous Generator Controller

A prepackaged solution for applications requiring single or dual DECS-250N Digital Excitation Control Systems.

SMC-250 Synchronous Motor Controller

Combines the DECS-250 and BE1-11 in a complete unit for easy installation for motor control and protection applications.