SC300 System Controller

The **Eaton® SC300 (V4) System Controller** is an advanced control and monitoring solution for Eaton DC Power Solutions.

The SC300 (V4) is the latest version of system controller providing better performance and a range of advanced features, while being fully compatible with existing systems. The new hardware version includes an additional physical port to allow connection to a larger range of external RS485 devices and dual A+B systems.

It provides a full suite of advanced communications options, including built-in Ethernet interface, Web server, and SNMP agent.

Alarm notifications may be by SNMP traps, email, SMS, or relay contact closures.

An intelligent "Smart Alarms" feature provides highly configurable control and alarms to automated site management and improves performance – e.g. disconnect loads during peak AC grid loading, run outdoor cabinets in low noise mode at night, manage cooling, or customise site alarms to network requirements.

The SC300 provides full generator control and fuel metering capability for off-grid, hybrid generator, battery, solar and wind applications.

The SC300 is supplied preconfigured with a default configuration file, or factory customized for a particular application, ensuring fast and problem free installation. On-site changes are easily made from the front panel or with a Windows PC.

The high-resolution colour LCD display is easy to read and has an easy to use menu structure.

The SC300 works with separate system I/O boards for powerful and userfriendly interfacing. Easy, low cost I/O expansion is possible by adding additional I/O boards.

Typical applications:

- 24 V & 48 V power systems
- Wireless cell sites & switches
- Transmission terminals
- Local & central office switching
- Solar hybrid systems
- Data collection and control (SCADA)

Options:

- Additional I/O boards for system expansion
- SiteSure-3G modules for site management
- FC100/200 fan controller for outdoor cabinet / shelter cooling control

New software & hardware features

- 100 BaseT Ethernet
- RJ45 with isolated RS485 (additional to DB9 RS232/ RS485)
- USB Type C for local terminal connection
- IP version 6 (and IPV4)
- Dcdc converter support
- Lithium battery support
- A+B dual dc system support
- Meter up to 20 channels of energy and power
- Control ASC48-ES solar charger
- Add, average and Multiply input values with Smart Analogs
- Outdoor cabinet fan control (with FC100/200)
- User-configurable data / event log
- Radius logon Authentication*

Features:

- Ethernet interface built-in
- SNMP agent V2c and V3
- Battery mid-point monitoring & discharge time remaining
- Generator control & fuel metering
- Alternative energy input metering
- Comprehensive system control functions
- Complies with international standards
- Setup via web, keypad or DCTools configuration software
- Language options
- Optional extra I/O boards or SiteSure-3G modules for expansion
- Latched or normally-open LVD options
- Smart alarms
- Modbus

only with firmware v1.20 or above

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Technical specifications

V4 hardware with IOBGP

Operation	
Supply voltage range	18 to 60 Vdc
Operating range	Standard: -10 to +50° C [+14 to +122 °F] Extended: -25 to +70° C [-13 to +158 °F]

Input / output standard	
Analog inputs	Current sensor (3), Bus voltage (1), Temperature (2)
Digital inputs	4 internal (pre-defined) 6 external (user-defined) with IOBGP-00/01 9 external (user-defined) with IOBGP-10/11/20/21
LVD contactor outputs	2 with one IOBGP-00/01/20/21 module 3 with one IOBGP-10/11 module Latched or normally-open contactor options Up to 32 with additional IOBGP modules
Relay outputs	Voltage free, NO-C-NC, 0.1A @ 60 VDC Screw-less terminal block, 0.5 mm^2 - 2.0 mm^2 conductors Number: 6 with IOBGP-00 8 with IOBGP-20/21 10 with IOBGP-10/11

Communications interfaces	
Physical	Ethernet (100 BaseT), Type C USB, RJ45 (RS-485), DB9 (RS-232 & RS485), RJ45 (RXP)
Software	IPV4, IPV6, http, https (secure web), S3P, Modbus, SMTP (email), SNMP V2c, V3 DHCP and Auto IP
Management software	Web server PowerManagerII or VPM remote management software. SNMP version V2c or V3. Supports standard Network Management System software. Modbus-TCP and Modbus-RTU. Supports standard BMS software.

User interface	
Display	Back-lit colour dot matrix LCD 160 x 128 pixel Adjustable viewing contrast
Keypad	6 keys
Language option	Default: English Option: German Option: Chinese Other language software upgrades by arrangement.
Indicators	Power on, Critical/Major alarm, Minor alarm

Mechanical	
Dimensions H,W,D	SC300: 133.5 mm (3U), 44.5 mm, 70 mm IOBGP: 106 mm, 175 mm, 18 mm
Mounting	SC300: rectifier slot or flush panel mount Orientation: vertical or horizontal IOBGP: panel mount

Datalogging	
Maximum size	
Event log	10,000 records
Data log	10,000 records
Energy log	10,000 records

Options	
Input / output	With IOBSS module (SiteSure-3G): Analog inputs: 60 Digital inputs: 108 Digital outputs: 108
Modem communications	3G/4G modem for SMS alarm notification 3G/4G Router for full wireless communication

Certifications	
North America	UL, FCC Verification, IC
Europe	CE
Australia / New Zealand	RCM

In the interests of continual product improvement all specifications are subject to change without notice.

Some software features may be dependant on firmware version installed in the controller.

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