

SiteFlex[®] MCU1

SYSTEM CONTROLLER



OVERVIEW

- **Modular, hot swappable controller for use with SiteFlex[®] 1RU power modules**
- **Hybrid power management function including genset, VRLA and Lithium-ion batteries, rectifiers and Maximum Power Point Tracking (MPPT) solar modules**
- **Manages up to 20 rectifiers**
- **Can read up to 11 analog and 8 digital values including system voltage, load current, battery current and battery temperature**
- **Controller manages energy saving standby function of rectifiers for lower operating costs**

The SiteFlex[®] MCU1 controller is designed for SiteFlex[®] power solutions, used in both indoor and outdoor applications. The MCU1 controller minimises installation time thanks to its configuration file upload feature.

The SiteFlex[®] MCU1 controller communicates with hosts in two modes, RS485 and Ethernet (WEB and SNMP). WEB browser access enables the user to set (or edit) parameters as well as to download both alarm and operating history. Communication within the system, between controller and power modules, utilizes CAN bus.

The 128 x 32 LCD display provides easy access for local users to see the status of operating conditions and any potential alarms. Furthermore, the controller is equipped with a three LEDs, which provides status of operating conditions and alarms.

The SiteFlex[®] MCU1 controller gives access to a 1,000 event alarm history log and a record of 5,000 system readings. In addition, a log of 50 historical battery test readings is available.

ELECTRICAL

Input Voltage	19 to 60 VDC
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FEATURES

Display	Integrated 128x32 LCD display with selection and navigation buttons
Web UI	All configuration done via web-UI, default IP address 192.168.70.2
Web features	Web functionality includes; Real-time data or status, parameter settings, send control commands, pop-up alarms, access system history, upload and download of configuration files etc.
Audio	Built-in speaker
LED Indicators	Operation – Green* Minor alarm – Yellow* Major alarm – Red* <small>*Please consult manual for details</small>

MECHANICAL

Mounting	Integrated controller for 1U SiteFlex power modules
Dimensions (H x W x D)	42.8 x 85.9 x 252.9 mm
Weight	≤0.8 kg

ENVIRONMENTAL

Temperature	Operation: -40°C to 75°C LCD working temperature -20°C to 70°C Storage: -40°C to 75°C
Humidity	5% to 95% RH non-condensing
Elevation	0 to 4,000 m
Protection class	IP20

SYSTEM I/O

Alarm Relays	8 dry contacts (6 default + 2 for future extension)
Analog Inputs	11 (System voltage, Load current, Battery current, Battery mid-point voltage, Battery temperature, Ambient temperature, Humidity, Load fuse, Battery fuse, AC voltage, AC frequency)
Digital Inputs	8
Output Power port	12V, 100mA (max)

COMMUNICATION

SNMP	SNMP v1/v2c via Ethernet SNMP protocol supports GET, SET and TRAP
TCP/IP	IPv4

COMMUNICATION PORTS

CAN	Internal system communication, 125kbps Self-defined protocol
Ethernet (LAN)	1 x Port (front); 10/100 Mbit/s Monitoring and configuration via: HTTP or SNMP
RS485	1 x RJ-45 port (front), for communication with client computer (Baud rate 2400 - 38400, default 9600) 2 x ports (backplane) for communication with BMS

STANDARDS AND CERTIFICATION

Electrical safety	EN 62638-1 Ed.2 IEC/EN 62368-1 Ed.3
EMC	ETSI EN 300 386* Emission: EN 55032, CISPR 32, EN IEC 61000-3-12, EN IEC 61000-3-11 Immunity: EN 55035 IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11 <small>*Tested in application</small>
RoHS / WEEE	Compliant
CE Mark (UE)	Yes