harmer & simmons

HSR48DCU

DC POWER CONTROLLER



Product description

HSR48DCU is the new generation DC power controller module developed by Harmer & Simmons. The Controller module adopts ARM Cortex-A8 CPU as primary controller. HSR48DCU has expanded its larger SRAM, Flash, and RTOS as system platform. HSR48DCU offers many features and functions, and a more robust, user-friendly, and easy-to-use interface.

Applications

Indoor/outdoor power supply

In addition to controlling of rectifier modules, AC/DC distribution, HSR48DCU manages battery charge, discharge, test, maximizes battery capacity and lifespan. With improved memory, HSR48DCU can store mass alarm/event and data logs for system performance analysis and fault diagnose.

DI/DO connectors and RS485/Ethernet ports provide flexible extension function and parameters setting, software and logs downloading/uploading, remote monitor system accessing.

Key features

Indoor/outdoor power supply

- Flexible and scalable to satisfy your present and future needs
- Smart battery management gives long battery lifespan
- Automatic battery test including advanced scheduled test / constant test / fast test
- Lower operating cost due to energy saving standby function for rectifier
- Powerful hybrid power management function
- Log record and statistic with advanced algorithm
- Minimized installation time because of easily configurable file upload/download

Key functions

Measurement

- Analog value measurement
- Digital value measurement

Communication

- The Controller can communicate with the host computer in 2 modes: RS485 and Ethernet (WEB and SNMP). It can communicate with rectifier and solar modules in CAN bus mode.
- 3 southbound RS485 for battery BMS or extension function boards.
- For remote and local monitor system via WEB browser, controlling, parameters upload /download, data load.
- SNMP protocol supports GET, SET and TRAP on Ethernet.

DI/DO

- 8+1 user digital input interfaces freely configurable
- 8 groups of dry contact outputs freely configurable

Screen and LEDS

- 160x128 LCD screen display running information and local setting interface.
- Green/Yellow/Red LEDS indicate running status for local instant diagnose.

Alarm history, event history store

- 10000 alarms history and 10000 events history store, FIFO for system analysis.

Data log store (advanced version)

- 20000 data logs including bus voltage, load current, battery current and temperature with time tag.

Harmer & Simmons: Approach your local Harmer & Simmons representative for further support.

Contact details can be found on: **www.harmer-simmons.com**

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PRODUCT FEATURES

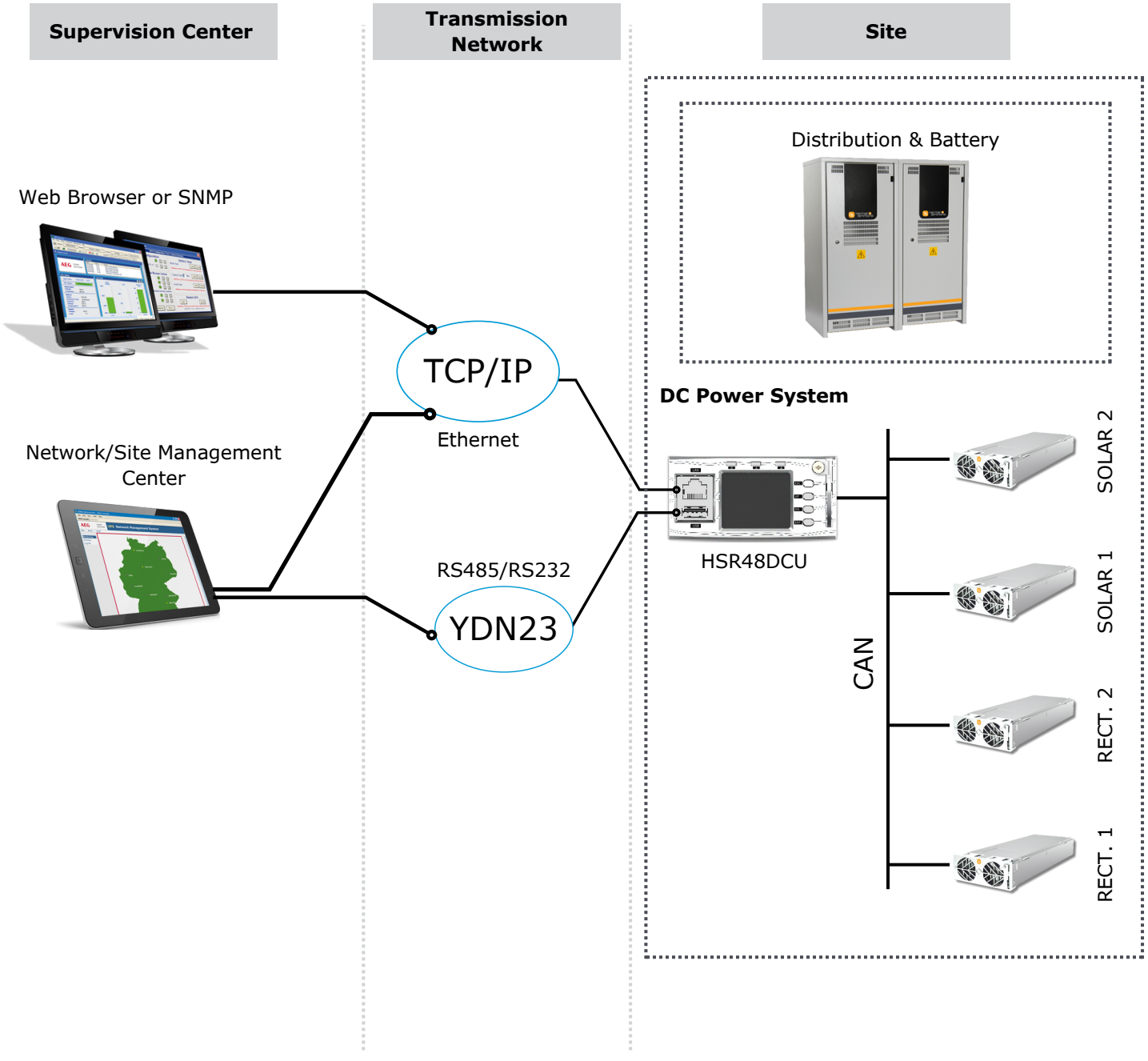
Remote Metering	Remote Control	Battery Management	Energy Saving Mode
6 ways AC volts	Equalizing and floating charge of battery	Boost Charge	High/standard efficiency rectifiers mixture management
11 ways DC volts	Voltage regulating of rectifier or solar modules	Temperature Compensation	Rectifiers running cyclic
4 ways Load currents	Current limiting of rectifier or solar modules	Battery Test	Rectifiers running dormancy
2 ways Battery currents	On/Off control of rectifier or solar modules	Low Voltage Disconnection	
3 ways Battery temperature	4 ways Load disconnect	High Temperature Disconnection	
1 ways Ambient temperature	1 way Battery disconnect	Battery Capacity Prediction	
Rectifier modules voltage/current			
Solar modules voltage/current			
Alarms/Events			
SPD alarm	Load disconnect	Rectifier on/off status	Battery charge over-current
Configurable digital input alarm	Battery disconnect	Solar communication fail	Battery temperature alarm
Load fuse alarm	AC power failure	Solar fault	Ambient temperature alarm
Battery fuse alarm	Rectifier communication fail	Solar fan fault	Battery imbalance
Manual mode alarm	Rectifier AC input failure	Solar protect	System energy-saving mode
Battery discharge	Rectifier fault	Solar on/off status	Energy-saving fault
Current imbalance	Rectifier fan fault	AC over voltage and under voltage	
Battery test fail	Rectifier protect	DC over voltage and under voltage	

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SITE MONITORING SOLUTION



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SUPPORTED FUNCTION LIST

SuB device support	GUI	North Bound Protocols	Energy Management
Rectifiers	LCD	SNMP v3	Energy management priorities,
Photovoltaic Modules	Web-based on the HTTPS protocol	YDT-1363	Peak shaving
Inverter Modules		Modbus Northbound Protocol	Energy-saving management for rectifier modules
Lithium Batteries			
Environmental Units			
Smart DCDUs			
Battery Management			
Equalization management (automatic, manual)	Manual constant current test	Current limiting charging	Battery over-temperature discharge protection
Float charging management (manual, automatic)	Manual normal test	Temperature compensation	Battery low discharge protection
Peak load shifting	Periodic constant current test	Battery protection: load and battery discharge under voltage	Midpoint voltage detection
Cycle discharge	Periodic normal test	Capacity	SOC calculation
Test management: Manual short test	Scheduled constant current test	Power-off time conditions	
Periodic short test	Scheduled normal test	Battery over-temperature voltage reduction protection,	
Parameter Management	**Alarm Management**	**Log Management**	
Management of upper and lower limits and constraint relationships, export	Alarm masking	50,000 pieces of historical data	Historical alarms and event logs are viewable on the LCD
Web restore default parameter values	Alarm relay association	200,000 pieces of historical alarms	Other records are not viewable on the LCD. All log records are viewable on the web
LCD restore default parameter values	Alarm level	5,000 battery test records	Support for web page Excel export
Web parameter import	Dry contact input alarm	100,000 event logs	USB historical record export
LCD parameter import		Daily energy consumption records for 1 year	Web historical record export
Web parameter export		Log records for 1 year, 5,000 battery charge and discharge records	
LCD parameter export		Extreme value records	

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SUPPORTED FUNCTION LIST

Software Version Management	Others		
WEB online update	Multi-tenant management	Dual-line IPv4	Linux-RT
Local USB update	Automatic based on the NTP protocol	IPv6	
	NTP	U-boot	

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