

SI48-1U power systems are designed for uninterruptible power supply of 48V loads with DC current up to 16A (SI48-1U-16) or 8A (SI48-1U-8) in a system with a common positive bus.

The layout of the power plant provides straightforward floating operation (rectifier units and powered devices are connected in parallel with battery banks).



### APPLICATION

- professional telecommunications (telephone exchanges and access systems)
- Subscriber telecommunications
- Industrial automation systems
- Fiber optic transmission system

### CHARACTERISTICS

- small dimensions: 1U/19" cassette with depth less than 300mm
- cooling - automatic switching of internal fans
- possibility of connecting two battery banks
- possibility of connecting two loads
- factory settings for AGM batteries
- can cooperate with various acid batteries
- can operate without batteries
- includes PFC circuit
- UPI output characteristics
- 1 phase power supply
- digital communication
- remote information about events

### FUNCTIONS

- precise maintenance of the floating operation voltage
- dependence of floating operation voltage on temperature
- conducting bulk battery charging with charging current limitation
- low and high battery voltage control
- monitoring of battery circuit continuity
- battery protection against too deep discharge
- control of battery operation symmetry
- overload control of power plant outputs
- check and light signaling of output fuses and battery fuses status
- checking the correctness of rectifier operation
- internal temperature control
- visual, audible and remote signaling of alarm conditions
- digital measurement of voltages, currents and temperature
- possibility of assigning various events as alarm states
- ability to accept and handle two external alarms
- record keeping of the history of events in non-volatile memory (memory of 600 events)

### EQUIPMENT

- LED light signaling unit for power system operation status
- 3½-digit LCD digital display (voltage, current and temperature measurements and error number display)
- internal deep battery discharge disconnecter (RGR)
- internal electronically controlled fans
- circuit breaker for the power plant (shuts down output voltage and battery banks simultaneously)
- fuses for output circuits and batteries with light indication of their blowing
- screw terminals for two outputs and two battery banks
- screw terminals for mains connection
- grounding terminal
- connector for remote signaling: urgent alarm, non-urgent alarm and power failure (three relay contacts available for each output)
- connector for two external alarm inputs (one treated as urgent, the other as non-urgent)
- internal audible signal
- connector for an external temperature probe (the probe is included in the equipment of the powerhouse)
- connector for RS-232 or RS-485 digital communication

**ADDITIONAL EQUIPMENT**

- external Ethernet module type MK-MX4T2, SI48-ZM-MK or higher
- 48V/12Ah battery cassette type AK48-12S
- voltage distribution panel for 8 outputs type PO-48S, PO-48S1, PO-48S2

**BASIC PARAMETERS****Common parameters for SI48-1U**

INPUT		GENERAL	
Supply voltage	184...230...253V	Efficiency	87%
Frequency	47...53Hz	Operating temperature range	-33...70°C
Power factor	0,95	Cooling	convective/forced
OUTPUT		Ingress protection	IP20
Battery (external)	48V	Dimensions (H × W × D)	44(1U) × 483(19") × 275
Voltage adjustment range	46...54,24...56V	Weight	5,1kg
Characteristics	UPI		
Output voltage stabilization	0,5%		

**Individual parameters**

Type	Output current	Output power	Mains current consumption	Digital communication	
				RS-232	RS-485
SI48-1U-8-2	8A	400W	max 2.5A	+	
SI48-1U-8-3					+
SI48-1U-16-2	16A	800W	max 5.0A	+	
SI48-1U-16-3					+

**MANUFACTURER****MERAWEX Sp. z o.o.**

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