

SR100-250i SERIES

No-Break DC UPS System with Communications



24 Month Warranty

FEATURES AND BENEFITS

- Battery detection - regular battery presence and battery circuit integrity checks
- Deep discharge protection for battery
- Battery circuit overload , short circuit protection and reverse polarity protection for battery.
- Automatic temperature compensated output
- Battery condition test BTC automatic or user controlled via comms.
- LED flash codes for precise state indication
- "Mains" & "Battery System" alarm relay outputs.
- LAN supervision output for Ethernet versions.
- Suitable for use with all types of lead acid batteries (batteries external to power supply)
- Adjustable charge current limit

COMMUNICATIONS INTERFACES

- Ethernet
- RS485
- RS232

PROTOCOLS

- SNMP
- Modbus RTU, TCP/HTTP (using external protocol converter)
- Innovative Energies ASCII code

SPECIFICATIONS All specifications are typical at nominal input, full load and at 20°C unless otherwise stated.

MODEL		SR100i	SR250i	MODEL		SR100i	SR250i
SPECS				SPECS			
ELECTRICAL				No-Break™ FUNCTIONS AND ALARMS			
Input	180V - 264VAC			Battery charge current limit	See Model Table for default settings - may be increased to PSU rated current		
Input Optional	88V - 132VAC (internal link select) 88-135VDC (specify at time of order)			Reverse polarity protection	Battery reverse connection will open internal fuse (and produce alarm)		
Frecuency	45-65Hz			Battery monitoring	Detects for presence of battery on start up, then every 60 minutes when charge current < 200mA		
Fusing	Internal AC input fuse			Battery circuit protection	Electronic circuit breaker (ECB) operates under the following conditions:		
Overcurrent protection	Constant current limit under overload and short circuit conditions			- low battery volts	battery voltage drops to 1.67V/cell - auto reset on power on		
Isolation	1KV DC input - output / earth			- overload	< 300ms for I bat > 6 x I PSU rated , allows ~1.5x rated PSU current from battery without acting,		
Efficiency	> 85%			- short circuit	< 2ms, backed up by fuse		
Inrush current	<30A, 1.8ms	soft start circuit		LED indication	Green: Power OK - Green: Battery OK		
Output power	100W	250W		Alarms	- Power OK (Mains/PSU fail) - Battery System OK - alarms when battery voltage low (on mains fail) , battery missing, battery circuit wiring faulty, BCT fail (if enabled)		
Output voltages	13.8, 27.6, 34.5, 41.4, 55.2VDC			Alarm relay contacts	C - NO - NC full changeover rated 30VDC,2A /110VDC,0.3A/125VAC,0.5A		
Voltage adj. range	85 - 115% of Vout			Battery condition test (BCT)	Standard on SR100- 250i - 20mins/28days unless otherwise specified on ordering.		
Temperature Compensation	Temperature sensor on 1.7m lead with adhesive pad: -4mV / °C / cell ±10%			Standby Mode	Turns off DC output of PSU & allows load to run off battery		
Current limit	PSU: 100% rated current - Battery: 25-100% PSU current			MECHANICAL			
Line regulation	<0.04% over input range	<0.2% over input range		Dimensions	147W x 177D x 62H mm	242W x 150D x 61H mm (excluding mounting feet and connections)	
Load regulation	<0.5% open circuit to 100% load	<0.4% open circuit to 100% load		Weight	0.95 Kg	1.7Kg	
Noise	<0.3%	<1%		AC Input Connector	IEC320 inlet socket		
Hold-up time	15 - 20 ms without battery			DC Connections	Plug in style socket & mating screw terminal block: (max. wire 2.5 mm ²)	M6 brass studs or plug-in socket with screw terminals	
Thermal Protection	Yes, self-resetting			STANDARDS			
ENVIRONMENTAL				Emi	To CISPR 22 / EN55022 class A		
Operating temperature	0 - 50 °C ambient at full load.De-rate linearly >50 °C to no load @ 70 °C			Safety	To IEC950 / EN60950 / AS/NZS3260		
Storage temperature	-10 to 85 °C ambient						
Humidity	0 - 95% relative humidity non-condensing						
AC Input Connector	IEC320 inlet socket						

SR100i TABLE

Model	DC Output				Peak load on power fail (A)
	Output (V)	PSU Rated (A)	Charge Limit (A) *1	Recomm. Load (A)	
SR100i12	13.8	7.5	7.5	6	11
SR100i24	27.6	3.7	3.7	3	5.5
SR100i30	34.5	2.9	2.9	2.3	4.3
SR100i36	41.4	2.4	2.4	1.9	3.6
SR100i48	55.2	1.9	1.9	1.5	2.8

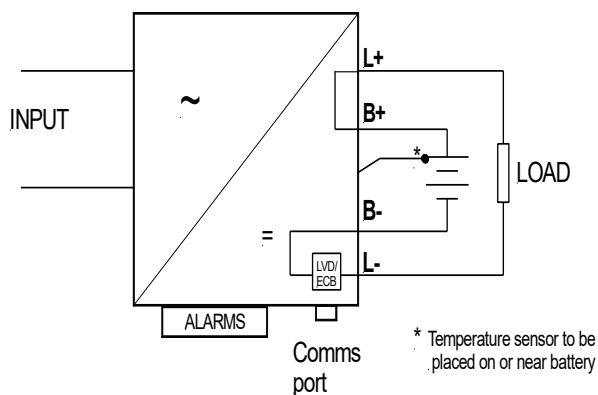
SR250i TABLE

Model	DC Output				Peak load on power fail (A)
	Output (V)	PSU Rated (A)	Charge Limit (A) *1	Recomm. Load (A)	
SR250i12	13.8	18	9	12	27
SR250i24	27.6	9	9	5	13.5
SR250i30	34.5	7.2	7.2	3.7	10.8
SR250i36	41.4	6	6	3	9
SR250i48	55.2	4.5	4.5	2	6.7

*1 Factory default setting unless differently specified at time of ordering



SCHEMATIC BLOCK DIAGRAM



ADDITIONAL OPTIONS

Battery Condition Test: May be enabled or disabled on start up. BTC relay provided to control an external test load or to provide BTC interlock when 2 units are connected for redundancy. Please ask our sales staff for assistance with system design.

Communication Port: Choice of RS485 , RS232 , Ethernet.

+PROTOCONMB-x : Protocol Converter (MODBUS via RS485) with programming port for PC. Power MBLink setup software supplied.

LVD: Low voltage disconnected level may be customized .Please call us for further information.

Parallel Redundancy: Use external output diode, eg +P50.

CABINET OPTIONS

19" Rack Mount 2U sub rack option: add **SR-RM2U**.

Optional V/I meter for subrack: **SR-METER**.

Wall Mount Enclosure PSU may be fitted into enclosure with MCBs and terminals.

Parallel Redundancy: Use external output diode, +P50.



Modbus Protocol Converter

+PROTOCONMB-x

MODEL CODING AND SELECTION CHART

MODEL	INPUT VOLTAGE	OUTPUT CONECTOR	TEMPERATURE COMPENSATION	COMMUNICATION PORT	QUANTITY
SR100i12	230VAC 110vac 110vdc	YES NO	YES NO		
SR100i24	230VAC 110vac 110vdc	YES NO	YES NO		
SR100i30	230VAC 110vac 110vdc	YES NO	YES NO		
SR100i36	230VAC 110vac 110vdc	YES NO	YES NO		
SR100i48	230VAC 110vac 110vdc	YES NO	YES NO		
SR250i12	230VAC 110vac 110vdc	YES NO	YES NO		
SR250i24	230VAC 110vac 110vdc	YES NO	YES NO		
SR250i30	230VAC 110vac 110vdc	YES NO	YES NO		
SR250i36	230VAC 110vac 110vdc	YES NO	YES NO		
SR250i48	230VAC 110vac 110vdc	YES NO	YES NO		