



Options:
 - battery condition test
 - communication interface port, SR250i/V

Optional Modbus converter for use with SR250i/V - 485 versions

◆ 24 Month Warranty

- High performance **No-Break™ DC UPS** system
- Separate outputs for load and battery
- Battery detection - regular battery presence and battery circuit integrity checks
- Deep discharge protection for batteries
- Battery condition test (BCT) standard for models with communication port option
- ECB for battery overload & short circuit protection
- Fused reverse battery polarity protection
- Automatic temperature compensated output volts
- Optional serial communication interface allows remote monitoring & user control of BCT function - i and V versions
- No transition switching between PSU & battery
- LED flash codes for precise state indication
- "POWER OK" & "BATT SYS OK" alarm relay outputs

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

ELECTRICAL	
Input voltage	
▪ standard	180 - 264V, 45-65Hz
▪ optional	88 - 132VAC (internal link select)
Fusing / protection	5A input fuse plus varistor Output fuse & ECB for battery circuit
Isolation	1KV DC input - output / earth
Efficiency	≥ 85%
Inrush current	Soft start circuit
Output power	250W
Output voltage	13.8, 27.6, 34.5, 41.4, 55.2VDC
Voltage adj. range	85 - 105% of Vout
Temp. compensation	Temperature sensor on 1.7m lead with adhesive pad: -4mV / °C / cell ±10%
Current limit	PSU: 100% rated current Battery: 30-100% PSU current
Line regulation	<0.2% over AC input range
Load regulation	<0.4% open circuit to 100% load
Noise	<1%
Drift	0.03% / °C
Hold-up time	20 ms without battery (nominal - max. Vin)
Turn on time	< 1 sec
Thermal protection	Yes, self-resetting
Overvoltage protection	Over-voltage protection on output at ~ 130% of nominal output voltage
EMI	CISPR 22 / EN55022 class A
Safety	IEC950 / EN60950 / AS/NZS3260
Vibration	Designed to meet MIL-STD-810F Method 514.5

No-Break™ FUNCTIONS AND ALARMS	
Reverse polarity protection	Battery reverse connection will open internal fuse (and produce alarm)
Battery monitoring	Detects for presence of battery on start up, then every 60 minutes when charge current < 200mA
Battery protection	Electronic circuit breaker (ECB) operates under the following conditions:
- low battery volts	• battery voltage drops to 1.67V/cell - auto reset
- overload	• < 300ms for load > 6 x rated PSU current, allows ~1.5x rated PSU current from battery without acting,
- short circuit	• < 2ms, backed up by fuse
Indication LEDs	Green: Battery System OK, Power OK Red: Standby
Alarms	• Mains Fail (Mains or PSU fail, standby mode) • Battery System OK - alarms when battery voltage low (on mains fail), battery missing, battery circuit wiring faulty, BCT fail (if enabled)
Alarm relay contacts	C - NO - NC full changeover rated 1A /50V DC, 32VAC
Standby mode	Turns off DC output of PSU & allows load to run off battery
Battery condition test (BCT)	Enabled or disabled by user on SR250i - (20mins/28days). Optional for SR250C . BCT relay provided to control an external test load.

ENVIRONMENTAL	
Operating temperature	-20 to 50 °C ambient at full load De-rate linearly >50 °C to 0 load @ 70 °C
Storage temperature	-30 to 85 °C ambient
Humidity	0 - 95% relative humidity non-condensing
Cooling	Natural convection except for 12V model (fan)
Protection	IP20

250 Watt No-Break™ DC charger for lead acid batteries

SR250C

incl. SR250M SR250i SR250V SR250J

MODEL TABLE (ratings apply to all variants)					
MODELS	DC Output				
	Output (V)	PSU Rated (A)	Charge Limit (A) *1	Recomm. Load (A)	Peak load on power fail (A)
SR250C12	13.8	18.0	6.0/9.0	12.0	27
SR250C24	27.6	9.0	4.0/9.0	5.0	13.5
SR250C30	34.5	7.2	3.5/7.2	3.7	10.8
SR250C36	41.4	6.0	3.0/6.0	3.0	9
SR250C48	55.2	4.5	2.5/4.5	2.0	6.7

*1 Higher value is default setting for SR250i models and optional for SR250C.

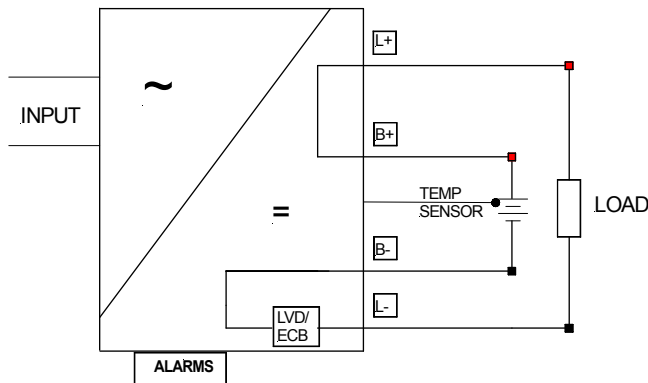


SR250i (please refer to separate data sheet on comms options)

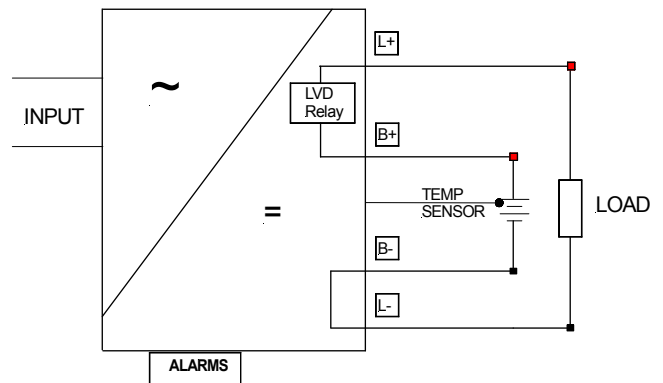
PHYSICAL DETAILS	
AC input connector	IEC320 input socket (included)
DC output connections	M6 brass stud or 'Phoenix combicon' Plug-in style socket & mating screw terminal block:
Alarm connections	Plug in screw terminal block
Enclosure	Powder coated & zinc plated steel
Weight	1.7kg
Dimensions	150W x 242D x 61H mm (excluding mounting feet and connections)
19" rack mount	2U sub rack option: add SR-RM2U Optional V/I meter for subrack: SR-METER

OPTIONS	
Battery condition test (standard on SR250i & SR250V)	Add option SFMC T xxxxx on SR250C . BCT relay provided to control an external test load. Please refer to the BCT application notes or ask our sales staff for assistance with system design.
Communication port for i & V versions	Choice of RS485, RS232, LAN (SNMP or ASCII)
Modbus converter	Using RS485 & Protocol Converter with programming port for PC. Power MBLink setup software supplied. SR250i: add +PROTOCONMB or +PROTOCONMB-OE with ethernet port SR250V: add +PROTOCONMB-V or +PROTOCONMB-V-OE with ethernet port:

SR250C Block Diagram



SR250J Block Diagram

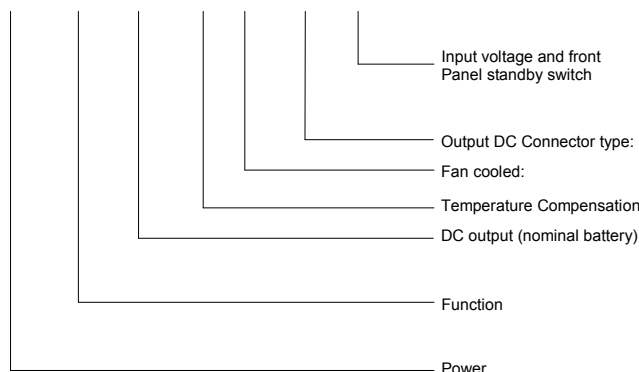


MODEL IDENTIFICATION CODES

SR250C12 T F S L- 485

Optional Communications Interface Port

For SR250i versions:
485 = RS485 232 = RS232 LAN = Ethernet (ASCII)
LAN+ = Ethernet (SNMP)



L = 230V AC + switch
U = 110V AC + switch
H = 110V DC + switch
M = 230V AC + switch + 300V MOV (to be used with IEOVPHVAC)

Blank = 230V AC no switch
G = 110V AC no switch
J = 110V DC no switch

S = Stud
F = Fan
T = Yes
12, 24, 30, 36, 48, 60V

X = Plug in /screw terminal block
Blank = No fan
Blank = No

C = No-Break™ DC PSU/charger, M = C with load output at nominal voltage (eg 24V)
i = C with serial communications port
V = i with dual battery output
J = C with LOAD- & BATT- common (Note: no battery detection function)

250W