



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.

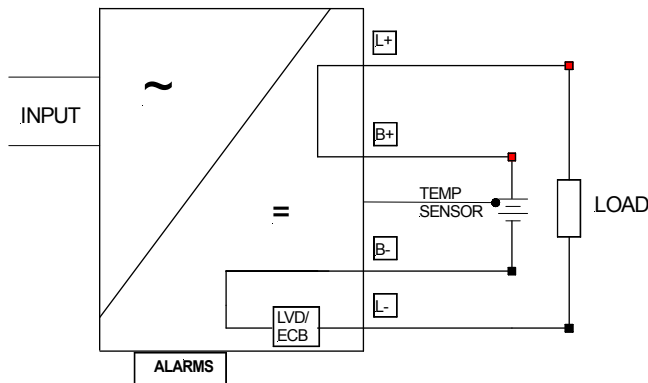


SR250i (please refer to separate data sheet on comms options)

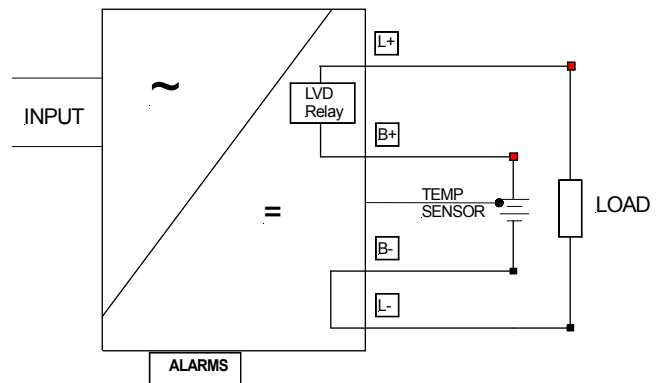
| PHYSICAL DETAILS | |
|-----------------------|---|
| AC input connector | IEC320 input socket (included) |
| DC output connections | M6 brass stud or 'Phoenix combicon' Plug-in style socket & mating screw terminal block: |
| Alarm connections | Plug in screw terminal block |
| Enclosure | Powder coated & 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 SFMCCT 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

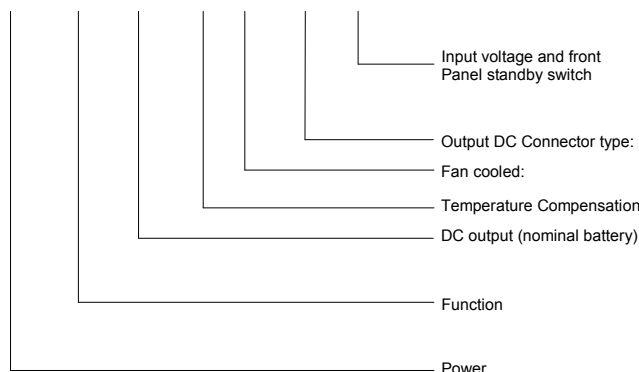


MODEL IDENTIFICATION CODES

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