HELIOS
POWER SOLUTIONS
www.heliosps.com

QUALITY POWER SOLUTIONS BACKED UP BY REAL-WORLD ENGINEERING EXPERIENCE

SR250HI Series 250W DC UPS

POINTS OF DIFFERENCE

- Separate outputs for load and battery.
- Battery detection—regular battery presence and battery circuit integrity checks.
- Battery deep discharge protection.
- Power loss & battery system alarms
- No transition switching to backup battery
- Rugged design and construction for long life and challenging environments

APPLICATIONS

- Security - Access Control
- Industrial Processes
- Switching Protection
- SCADA
- Radio Repeaters - Remote Sites

SERIES TABLE

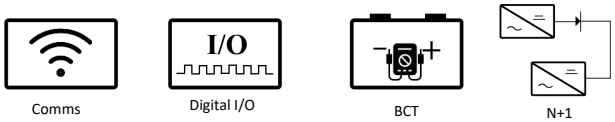
DC Output

Model	Output (V)	PSU Rated (A)	Charge Limit (A)	Recomm. Load (A)	Peak load on power fail (A)
SR250Hi12	13.8	18	9	12	27
SR250Hi24	27.6	9	9	5	13.5
SR250Hi30	34.5	7.2	7.2	3.7	10.8
SR250Hi36	41.4	6	6	3	9
SR250Hi48	55.2	4.5	4.5	2	6.7

GENERAL SPECIFICATIONS

Output power	250W
Input Voltage	180V-264VAC & 88V-132VAC 45-65Hz
Output Voltages	12V, 24V, 30V, 36V, 48V
Voltage Adj. Range	85% - 120% of Vnom
Frequency	45-65Hz
Overcurrent protection	Constant current limit under overload and short circuit conditions
Isolation	Input – earth – 2.5KVdc Output – earth - 500Vdc
Efficiency	> 85%
Noise	<1%
Operating temperature	-20 to 50 °C ambient at full load
Humidity	0 - 95% relative humidity non - condensing
LVD	Low Voltage Disconnect
LED Indication	Green: Batt OK Green: Power OK Red: Standby
Alarms Relay	Form C contacts 30VDC,2A/110VDC,0.3A,125VAC, 0.5A AUX (Activated by BCT) POWER (main fails, PSU fails) BATTERY (batt missing , batt low, BCT fail)
Temp. Compensation	Temperature sensor on 1.7m lead with adhesive pad: -4mV/ °C / cell ± 10%
Battery Charge Current Limit	Customizable on request.
Reverse Polarity	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 Circuit Protection	Electronic circuit breaker (ECB) operates under the following conditions:
	- *Low Battery Volts:* Battery Voltage drops to 1.67V/cell
	Overload: Max load must not exceed 110% of rated current. Peak loads must be connected to B+ & B– terminals. Not suitable for N+1 connection
	Short Circuit: <2ms, backed up by fuse
Standby Mode	Turns off DC output of PSU & allows load to run off battery

OPTIONAL FEATURES



OPTIONS

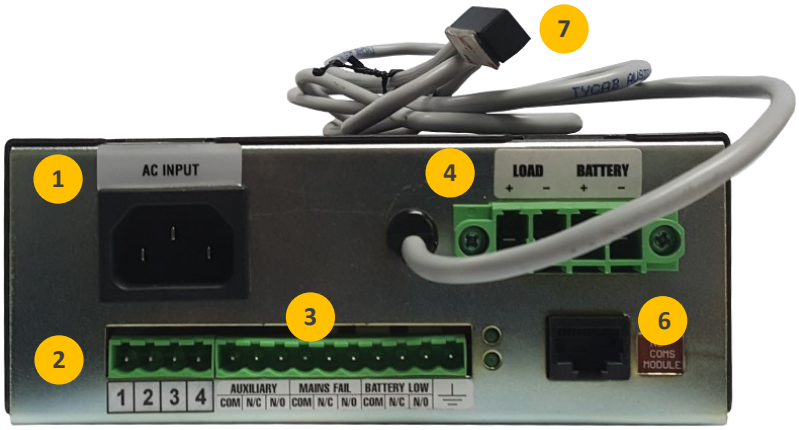
Optional DC Input Voltage	DC Input available on request
Communication Port	• RS232 (ASCII) • RS485 (ASCII) • Modbus RTU • SNMP V1, Webpages
Digital Inputs/Outputs	Digital Input (pins 1,2) / Input or Output (pin 3) / Return (pin 4)
Battery Condition Test (BCT)	Option auto test enabled on start-up
Mounting	• 19"Rack Mount - Optional V/I meter for subrack : SR-Meter • Wall Mount Cabinet
N+1 Redundancy	Using 2 chargers each & Output diodes
Boost Charger	Customizable feature on request
Conformal Coating	For harsh environments

STANDARDS

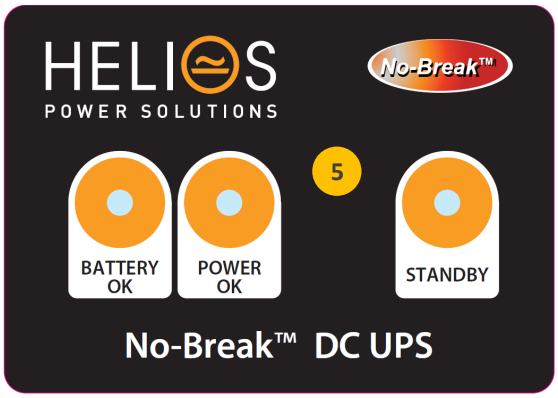
EMC	To CISPR 22 / EN55022 class A
Safety	To IEC950 / EN60950 / AS/NZS3260

HELIOS
POWER SOLUTIONS

BACK PANEL

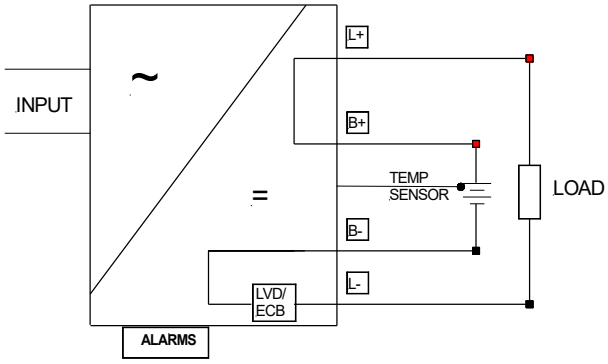


FRONT PANEL



1. AC INPUT IEC60320 - C13
2. Digital Inputs (pins 1,2)/ Input or Output (pin 3)/ Return (pin 4)
3. Alarm Relay Form C (Aux , Power & Battery)
4. Load & Battery connection
5. LED Indications (Battery OK, Power OK and Standby)
6. Comms Port (optional)
7. Tempco Sensor

SCHEMATIC BLOCK DIAGRAM



PHYSICAL

AC input connector	IEC60320— C13 10A input socket (similar to PCs etc)
DC Connections	Plug-in style socket & mating screw terminal block: (max. wire 2.5mm² / way) or M6 brass stud
Alarm connections	Plug in screw terminal block
Enclosure	Zinc plated & powder coated steel
Dimensions	242W x 150D x 61H (± 1mm)
Weight	1.8 Kg

ACCESSORIES SUPPLIED

Mounting feet together with screws
AC power cord 1.5 m with IEC60320 socket & AUS/NZ plug
Mating screw terminal plug for DC output
Mating screw terminal plug for alarms

MODEL CODING AND SELECTION CHART

SR250HI 12 T F X L - 485+

Optional Interface Port

485 = RS485 **232** = RS232 **LAN+=**SNMP-Webpages **485+=**Modbus RTU

Standby Button	Turns output on/off
Output DC connector	**X** = Pluggable connector **S** = Stud
Type of cooling	**F** = Fan (12V Model) **Blank** = No fan
Temperature Compensation	**T** = Yes **Blank** = No
DC output (nominal battery voltage)	**12, 24, 30, 36, 48V**
Function	**HL** = DC PSU/charger - 2 terminal output (see separate datasheet) **Hi** = ***No-Break***™ DC UPS - 3 terminal output (separate battery output)
Power	**250W**