SR100C SERIES
NO Break / DC UPS Charger: 100 Watts

HELIOS
POWER SOLUTIONS

Features

- High performance *No-Break* ^{TM} *DC* UPS system
- Automatic battery condition test option
- Separate outputs for load and battery
- Battery detection - regular battery presence and battery circuit integrity checks
- Battery deep discharge protection
- ECB for battery overload & short circuit protection
- Reverse battery polarity protection
- Automatic temperature compensated output volts
- Power loss & battery system alarms
- No transition switching to backup battery
- LED flash codes for precise fault indication
- Optional communication interface allows remote monitoring & user control of BCT function - *i* versions

incl. SR100i (with Communications Options)

Specifications

Input voltage	
▪ standard	180V - 264VAC 45-65Hz
▪ optional	88V- 132VAC 45-65Hz,
Fusing / protection	Input fuse & varistor Output fuse & ECB for battery circuit
Isolation	1KV DC input - output / earth
Efficiency	> 85%
Inrush current	<30A, 1.8ms
Output power	100W
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: 25-100% PSU current
Line regulation	<0.04% over AC input range
Load regulation	<0.5% open circuit to 100% load
Noise	<0.3%
Transient response	200mV over / undershoot, load step 20-100%, 400us settling time
Thermal protection	Yes, self-resetting
Hold-up time	15 - 20 ms (nom. - max. Vin) without battery
EMI	to CISPR 22 / EN55022 class A, C-tick compliance
Safety	to IEC950 / EN60950 / AS/NZS3260

Specifications are subject to change without prior notice.

No-Break™ FUNCTIONS AND ALARMS

Battery charge current limit	100% of PSU rated current unless specified on ordering
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 circuit protection - *low battery volts*	Electronic circuit breaker (ECB) operates under the following conditions: ● battery voltage drops to 1.67V/cell - auto reset on power on
- *overload*	● < 300ms for I bat > 6 x I $_{PSU\ rated}$, allows ~1.5x rated PSU current from battery without acting,
- *short circuit*	● < 2ms, backed up by fuse
LED indication	Green: Power OK Green: Battery OK
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)
Alarm relay contacts	C - NO - NC full changeover rated 30VDC,2A /110VDC,0.3A/125VAC,0.5A
Battery condition test (BCT)	Standard on SR100 *i* versions BCT relay contact provided to control an external test load.
Mechanical	IEC320 input socket (similar to PCs etc.) Plug-in style socket & mating screw terminal block: (max. wire 2.5mm² / way) Plug in screw terminal block Zinc plated & powder coated steel 147W x 177D x 62H mm 0.95 Kg

REV (10-01-14)

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STANDARD MODEL TABLE

MODELS	DC Output				
	Output (V)	PSU Rated (A)	Charge Limit (A) *[1]	Recomm. Load (A)	Peak load on power fail (A)
SR100C12	13.8	7.5	7.5	6.0	11
SR100C24	27.6	3.7	3.7	3.0	5.5
SR100C30	34.5	2.9	2.9	2.3	4.3
SR100C36	41.4	2.4	2.4	1.9	3.6
SR100C48	55.2	1.9	1.9	1.5	2.8

SR100i with RS485 serial port

ENVIRONMENTAL

Operating temperature	0 - 50 °C ambient at full load. De-rate linearly >50 °C to no load @ 70 °C
Storage temperature	-10 to 85 °C ambient
Humidity	0 - 95% relative humidity non-condensing

ACCESSORIES SUPPLIED

Mounting feet together with screws
AC power cord 1.5m with IEC320 socket & AUS/NZ plug
Mating screw terminal plug for DC output
Mating screw terminal plug for alarms

OPTIONS

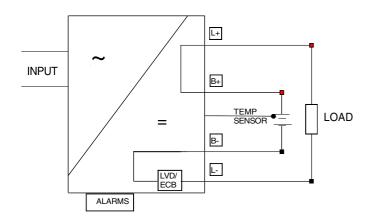|	
Battery Condition Test	Add option SFMCT xxxxx for SR100C. Default setting 20mins/28 days.
	SR100i : default setting is scheduled BCT disabled at start up
Communication Port for -i & V versions	Choice of RS485, RS232, LAN+ (SNMP), LAN (ASCII)
Modbus converter	For SR100i … 485, use protocol converter, with programming port for PC. *Power MBLink* setup software supplied. add +PROTOCONMB or add +PROTOCONMB-OE with ethernet port
*[1] Charge current limit	25% & 50% settings available

SCHEMATIC BLOCK DIAGRAM
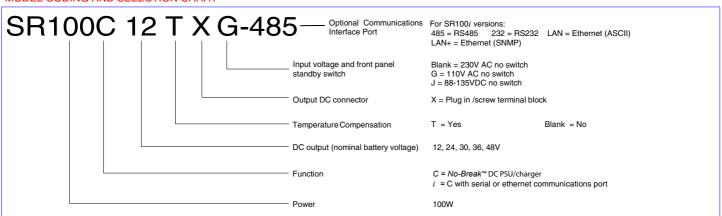

CABINET OPTIONS

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: add SEC-SR

MODEL CODING AND SELECTION CHART

SR100C 12 T X G-485

Code position	Description	Options
Optional Communications Interface Port		For SR100i versions: 485 = RS485 232 = RS232 LAN = Ethernet (ASCII) LAN+ = Ethernet (SNMP)
Input voltage and front panel standby switch		Blank = 230V AC no switch G = 110V AC no switch J = 88-135VDC no switch
Output DC connector		X = Plug in /screw terminal block
Temperature Compensation		T = Yes Blank = No
DC output (nominal battery voltage)		12, 24, 30, 36, 48V
Function		C = *No-Break*™ DC PSU/charger i = C with serial or ethernet communications port
Power		100W

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