innovative energies

Global Solutions Personal Focus

SR100C

incl. SR100i

Communication Options Available

Z367

♦ 24 Month Warranty

- ***'No-Break'* switching to backup battery**
- **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 relay alarms**
- **LED flash codes for precise fault indication**
- **Optional communication interface allows remote monitoring & user control of BCT function - *i* versions**
- **Optional automatic battery condition test**
- **Optional second voltage output - see # code**

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

ELECTRICAL

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

STANDARDS

EMI	to CISPR 22 / EN55022 class A, C-tick compliance
Safety	to IEC950 / EN60950 / AS/NZS3260

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	Electronic circuit breaker (ECB) operates under the following conditions:
- low battery volts	• 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.

PHYSICAL

AC input connector	IEC320 input socket (similar to PCs etc.)
DC connections	Plug-in style socket & mating screw terminal block: (max. wire 2.5mm² / way)
Alarm connections	Plug in screw terminal block
Enclosure	Zinc plated & powder coated steel
Dimensions	147W x 177D x 62H mm
Weight	0.95 Kg

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

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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

Versions with optional comms port ***(SR100i)*** and second DC output ***(-#)***

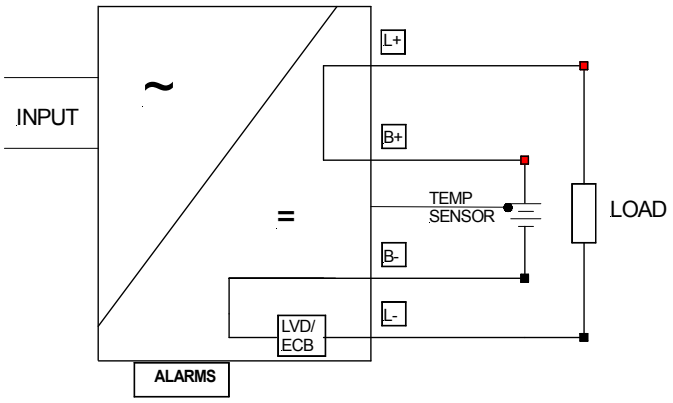
ENVIRONMENTAL

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

SCHEMATIC BLOCK DIAGRAM



OPTIONS

Battery Condition Test	Add option **SFMCT xxxxx** for SR100C. Default setting 20mins/28 days. **SR100*i* :** 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 **SR100*i* ... 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

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-#

 # = Additional DC output: **1** = 12V **2**= 12.5V **4** = 24V Blank = none

Optional Communications Interface Port	**Blank** = no comms. port **485** = RS485 **232** = RS232 **LAN+** = Ethernet (SNMP) **LAN** = Ethernet (ASCII)
Input voltage and front panel standby switch	**Blank** = 230V AC **J** = 88-135VDC **G** = 110V AC
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 UPS/charger ***i*** = **C** with serial or ethernet communications port
Power	**100W**