

Switching power supply with integrated battery charger

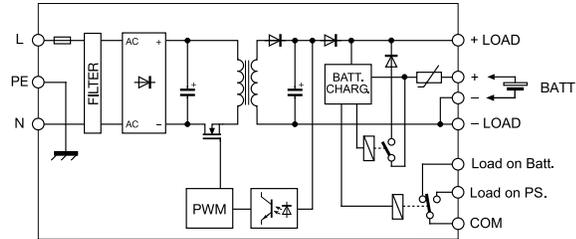
- Suitable for 12 Vdc loads and batteries
- Suitable for lead batteries
- Suitable for charging batteries while feeding loads
- Battery protection circuit
- "Deep discharge" battery protection
- Status display LED and failure contact



NOTES

- The depth dimension includes the terminal blocks and the DIN clamp.
- (2) With 100...127 Vdc input voltage, constant output power and $T_a > 45^\circ\text{C}$, the output current must be derated by 25%
- (3) In addition to the current load, the device supplies about 0.8 A for battery charging
- (4) Over 50°C (122°F) apply a derating $-0.13 \text{ A}/^\circ\text{C}$, max 60°C

BLOCK DIAGRAM



VERSIONS

- Output 12 Vdc 5 A
- Output 24 Vdc 5 A

Cod. XCSC120B

CSC120B

Cod. XCSC120C

CSC120C

APPLICATIONS

INPUT TECHNICAL DATA

Input rated voltage	120-230 Vac (range 90...264 Vac / 100...370 Vdc) (2)	
Frequency	47...63 Hz	
Current @ nominal Iout (Uin 120 / 230 Vac)	2.0 A / 1.1 A \pm 10%	
Inrush peak current	< 20 A	
Power factor	> 0.6	
Internal protection fuse	T 3.15 A replaceable	
External protection on AC line	circuit breaker: 4 A - C characteristic - fuse: T 3.15 A	

OUTPUT TECHNICAL DATA

	12.5...15.5 Vdc	23...27.5 Vdc
Output voltage with operating power supply	12...14.4 Vdc	24...26.2 Vdc
Output voltage with batteries		
Continuous current	7 A @ 50°C (3)	5 A @ 50°C (3)
Overload limit	>11 A for >30 s	>8 A for >30 s
Short circuit peak current	>18 A for >50 ms	>12 A for >50 ms
Load regulation	< 1%	< 1%
Ripple @ nominal ratings	80 mVpp	80 mVpp
Hold up time @ In (Uin 120 / 230 Vac)	>24 ms / >80 ms	>17 ms / >72 ms
Overload / short circuit protections	with operating power supply: hiccup at the overload limit with auto reset non operating power supply: auto resettable electronic fuse against battery short circuit with non operating power supply: threshold-relay against battery deep discharge	
Alarm signals	"PSU OK" green LED / failure contact / "BATTERY" red LED	
Max. charging current	0.8 A (suitable for sealed lead batteries up to 15 Ah)	

GENERAL TECHNICAL DATA

Efficiency (Uin 120 / 230 Vac)	>86% / >90%	>90%
Dissipated power (Uin 120 / 230 Vac)	21 W / 13 W	< 13 W
Operating temperature range	-20...+60°C, with derating over 50°C / over temperature protection (4)	
Input/output isolation	1.5 kVac / 60 s SELV output	
Input/ground isolation	1.5 kVac / 60 s	
Output/ground isolation	0.5 kVac / 60 s	
Standard/approvals	IEC950, EN60950	
EMC Standards	EN55011, EN61000-6-1	
MTBF @ 25°C @ nominal ratings	>500'000 h acc. to SN 29500 / >150'000 h acc. to MIL Std. HDBK 217F	
Overvoltage category/Pollution degree	II / 2	
Protection degree	IP 20 IEC 529 EN60529	
Connection terminal	2.5 mm ² pluggable screw type	
Housing material	aluminium	
Approx. weight	500 g (17.65 oz)	
Mounting information	vertical on rail, allow 10 mm spacing between adjacent components	

MOUNTING ACCESSORIES

Mounting rail type according to IEC60715/TH35-7.5	PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB
Mounting rail type according to IEC60715/G32	