

# Single phase switching power supply

## 5 Vdc regulated output

- 90-264 Vac/110–300 Vdc input voltage
- Short circuit, overload, over temperature, input / output over-voltage protection
- Output protected against internal or external overvoltage
- High efficiency and low dissipated power
- Suitable for SELV and PELV circuitry



**5 Vdc 8 A @ 45°C**

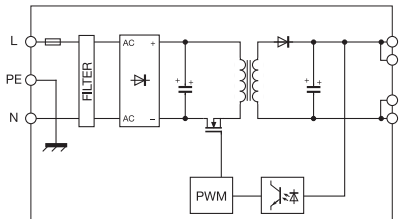
### NOTES

Dimensions indicated on drawings and photos, are overall dimensions, are inclusive of external components such as terminal blocks and Din-rail clamps.

(1) Version available upon request.

(2) With 100–127 Vdc input voltage, constant output power and ambient temperature  $\geq 45^\circ\text{C}$ , the output current must be derated by 25%

### BLOCK DIAGRAM



### APPLICATIONS

With 120-230 Vac input range, are suitable in every supply mains world wide.

The devices comply with IEC and EN EMC Standards for Building automation applications without any external filter. Engineering has been focused on achieving an high efficiency allow to reduce energy consumption and operating temperature of the components. High efficiency moreover makes available over +20% power boost at operating temperature of 45°C, without exceeding the standard temperature limits and guaranteeing safety and reliability.

Short-circuit - overload - over temperature protections are set to give +150% of the rated current to feed heavy loads, start-up currents, while the over temperature protection prevents failure of the power supply also in case of long overload duration with high ambient temperature. Output is adjustable and overvoltage protected. The housings assure a high ventilation of internal components, compact dimensions and a IP20 protection degree according to IEC529 Std.

#### Battery charger:

these units are suitable as battery chargers while feeding other loads.

To allow a power supply to charge batteries, we developed the cost effective CSBC module (Cat. No. XCSBC), featuring protection diodes, current charge limiting resistor and battery protection fuse. For more details, refer to the accessories section.

### VERSIONS

Standard  
With failure contact

**CSF3A** cod. XCSF3A  
- (1)

### INPUT TECHNICAL DATA

Rated voltage	<b>90–264 Vac / 110–300 Vdc</b> (2)
Frequency	47–63 Hz
Current @ Iout max.	1.3 A @ 120 Vac / 0.7 A @ 230 Vac
Inrush current	< 20 A
Power factor	> 0.7
Protection fuse	T 2 A - internal, replaceable

### OUTPUT TECHNICAL DATA

Voltage	<b>5 Vdc</b> $\pm$ 5% adjustable
Maximum current	8.5 A @ 120 Vac / 10.5 A @ 230 Vac
Continuous current	<b>8 A @ 45°C</b> / 10 A @ 25°C
Load regulation	< 1%
Ripple @ rated U-I output	$\leq$ 40 mVpp @ 230 Vac
Hold up time	> 20 ms @ 230Vac full load
Overload / short circuit protection	Hiccup 1.6 In auto reset / over temperature protection
Output signal	-
standard version	SPDT 2 A / 250 Vac - 30 Vdc
"P" version	Possible
Parallel connection	"P" version provided with Oring diode
Redundant parallel connection	

### APPROVALS



### GENERAL TECHNICAL DATA

Efficiency	> 83 % @ 120 Vac / > 86 % @ 230 Vac
Dissipated power	9 W @120 Vac / 7 W @ 230 Vac
Operating temperature	-20 ... +60°C, with overtemperature protection
Input / output isolation	3 kVac / 60 s
Input / ground isolation	1.5 kVac / 60 s
Output / ground isolation	0.5 kVac / 60 s
Protection degree	IP20
Standard / Approvals	IEC950, EN60950, UL 508C
EMC Standards	EN 50081-1, EN 50082-2, EN 61000-3-2
Surge immunity	EN61000-4-2, EN61000-4-4, EN61000-4-5, level 4
Connection terminal blocks	2.5 mm <sup>2</sup> , screw type pluggable
Housing material	Aluminium and stainless steel
Approximative weight	515 g (18.1 oz)
Mounting information	Vertical on rail, allow 10 mm spacing between adjacent components
Mounting rail type according to IEC60715/TH35-7.5	<b>PR/3/AC - PR/3/AS</b>