Single-phase switching power supply 120-230 Vac 24 Vdc regulated output

- Single-phase input 90...264 Vac and DC 100...370 Vdc
- Short circuit, overload, over temperature, input / output overvoltage protection
- High efficiency and low dissipated power
- Designed for use in SELV and PELV circuits
- Pluggable connections

NOTES

The dimension includes 35 mm DIN rail.

(1) Version with Oring diode and failure contact for redundant parallel

(2) With 100...127 Vdc input voltage, constant output power and Ta > 45°C, the output current must be derated by 25%



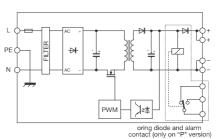
24 Vdc 4 A @ 45°C - 96 W

115 (4.53 in) 128 (5.04 in) 39 (1.54 in)

24 Vdc 6 A @ 45°C - 144 W

BLOCK DIAGRAM

BLOCK DIAGRAM

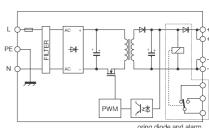


TYPE / Cat. No.

(1)

Cat. No. XCSF85C

Cat. No. XCSF85CP



APPLICATIONS

With 120-230 Vac input range, these power supplies are designed to operate worldwide. The devices comply with IEC and EN EMC Standards for building automation applications without any external filter.

The design of these power supplies was focused on achieving high efficiency operation, thereby reducing energy consumption and operating temperature of the components. This high efficiency design also provides for a +20% power boost at an operating temperature of 45°C, without exceeding the standard temperature limits and guaranteeing safety and reliability.

Short-circuit, overload and over temperature protection are set to give +150% of the rated current to feed heavy loadsand to handle start-up currents. The over temperature protection prevents failure of the power supply in the event of a long overload duration with a high ambient temperature. Output is overvoltage protected. The housing design assures maximum ventilation of internal components, space saving dimensions and an IP20 protection degree according to IEC529

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

INPUT TECHNICAL DATA

Rated voltage Frequency Current @ lout max Inrush current Power factor

Protection fuse

External circuit breaker

120-230 Vac (range 90...264 Vac / 100...370 Vdc) (3) 47...63 Hz 1.3 A @ 120 Vac / 0.7 A @ 230 Vac ± 10% < 20 A

> 0.7

CSF85C

CSF85CP

internal: T 2 A replaceable

4 A with C curve

CSF120C		Cat. No. XCSF120C
CSF5120CP	(1)	Cat. No. XCSF120CP

TYPE / Cat. No.

120–230 Vac (range 90...264 Vac / 100...370 Vdc) 47...63 Hz

1.8 A @ 120 Vac / 1 A @ 230 Vac ± 10%

< 20 A

> 0.7

internal: T 3.15 A replaceable

4 A with C curve

OUTPUT TECHNICAL DATA

Voltage

Maximum current Continuous current Load regulation

Ripple @ rated U-I output

Hold up time

Overload / short circuit protection

Efficiency

Dissipated power

Operating temperature

Input / output isolation

Input / ground isolation

Protection degree

EMC Standards

Standard / approvals

Connection terminal

Mounting information

according to IEC60715/TH35-7.5

Mounting rail type

Housing material

Approx. weight

Output / ground isolation

standard version Output signal

Parallel connection

APPROVALS

GENERAL TECHNICAL DATA

Redundant parallel connection

24 Vdc (adjustable 24...27.5 Vdc)

5 A @ 120 Vac / 6 A @ 230 Vac

4 A @ 45°C / 3 A @ 60°C

< 1%

≤ 40 mVpp @ 230 Vac

> 20 ms @ 230 Vac full load

hiccup 1.6 circuit auto reset / over temperature protection

SPDT 1 A / 250 Vac - 30 Vdc

"P" version with Oring diode





"P" version

possible



>86% @ 120 Vac / >90% @ 230 Vac 12 W @ 120 Vac / 8 W @ 230 Vac

-20...+60°C, with over temperature protection

3 KVac / 60 s

1.5 KVac / 60 s

0.5 KVac / 60 s

IP 20 IEC 529 EN60529

EN50178, EN61558, EN60950, UL508 EN61000-6-2, EN61000-6-4, EN55011, EN61000-4-2, EN61000-4-3.

EN61000-4-4, EN61000-4-5, EN61000-4-6, EN61000-4-11 2.5 mm2, screw type pluggable (24-12 AWG) aluminium and stainless steel

standard version 515 g / "P" version 535 g (1.14/1.18

vertical on rail, allow 10 mm spacing between adjacent

PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB

24 Vdc (adjustable 24...27.5 Vdc) 8 A @ 120 Vac / 10 A @ 230 Vac

6 A @ 45°C / 5 A @ 60°C

< 1%

 \leq 50 mVpp @ 230 Vac

> 20 ms @ 230 Vac full load

hiccup 1.6 circuit auto reset / over temperature protection

SPDT 1 A / 250 Vac - 30 Vdc

possible

"P" version with Oring diode



>87% @ 120 Vac / >91% @ 230 Vac 18 W @ 120 Vac / 12 W @ 230 Vac

-20...+60°C, with over temperature protection

3 KVac / 60 s

1.5 KVac / 60 s

0.5 KVac / 60 s IP 20 IEC 529 EN60529

EN50178, EN61558, EN60950, UL508

EN61000-6-2, EN61000-6-4, EN55011, EN61000-4-2, EN61000-4-3. EN61000-4-4, EN61000-4-5, EN61000-4-6, EN61000-4-11

2.5 mm², screw type pluggable (24-12 AWG)

aluminium and stainless steel

standard version 535 g / "P" version 555 g (1.18/1.22 lbs) vertical on rail, allow 10 mm spacing between adjacent components

PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB