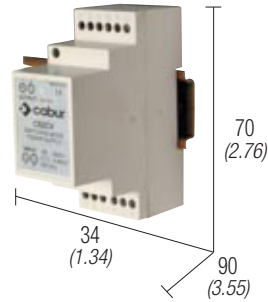


Single phase switching power supply

12 Vdc regulated output

- Class 2 isolation device, do not requires GND connection
- Input voltage 90–264 Vac / 110-230 Vdc
- Standard housing accordin to DIN 43880
- Overtemperature protection
- DIN rail mounting
- Suitable for SELV and PELV circuitry

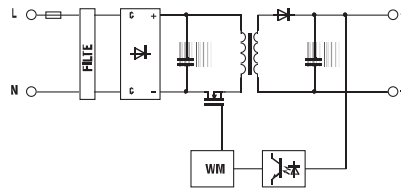


12 Vdc 1.25 A @ 25°C

NOTES

(1) With 110 – 127 Vdc input voltage, 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 Residential applications without any external filter. Engineering has been focused on achieving a high efficiency allow to reduce energy consumption and operating temperature of the components.

Over temperature protection prevents failure of the power supply also in case of long overload duration with high ambient temperature.

The housings assure a high ventilation of internal components, compact dimensions and can be installed in small panel. The power supply has an IP20 protection degree according to IEC529 Std.

VERSIONS

CS2CV

Cod. XAS2CV

INPUT TECHNICAL DATA

Rated voltage	90 – 264 Vac / 110 – 300 Vdc (1)
Frequency	47 – 63 Hz
Current @ lout max	0.23 A a 120 Vac / 0.12 A a 230 Vac
Inrush current	< 7 A
Power factor	> 0.6 full load
Protection fuse	T 0.8 A - internal, replaceable

OUTPUT TECHNICAL DATA

Voltage	12 Vdc ± 1% (not adjustable)
Maximum current	1.5 A overload limit
Continuous current	1.25 A
Load regulation	< 1%
Ripple @ rated U-I output	≤ 50 mVpp
Hold up time	> 20 ms @ 230Vac full load
Overload/short circuit protection	Hiccup circuit, auto reset
Output signal	–
Parallel connection	possible
Redundant parallel connection	possible with external Oring diode

APPROVALS

GENERAL TECHNICAL DATA

Efficiency	> 86%
Dissipated power	1.5 W
Operating temperature	–20 ... +60°C, with overtemperature protection
Input / output isolation	3 kVac / 60 s
Input / ground isolation	Class 2 without PE connection
Output / ground isolation	Class 2 without PE connection
Protection degree	IP 20
Standard / Approvals	IEC 950, EN 60950
EMC standards	EN 50081-1, EN 50082-2
Surge immunity	EN61000-4-2, EN61000-4-4 liv. 4
Connection terminal blocks	2.5 mm ² , screw type pluggable
Housing material	polyamide UL94V-0
Approximative weight	130 g (4.56 oz)
Mounting information	vertical on rail, no spacing required

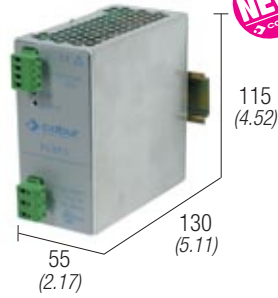
Mounting rail type  according to IEC60715/TH35-7.5

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

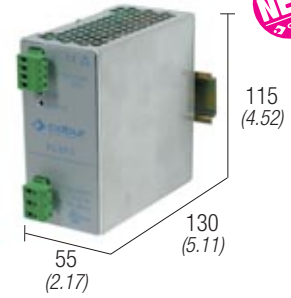
Single phase switching power supply

12-15 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



12 Vdc 6 A @ 45°C
15 Vdc 5 A @ 45°C



12 Vdc 8 A @ 45°C
15 Vdc 7 A @ 45°C

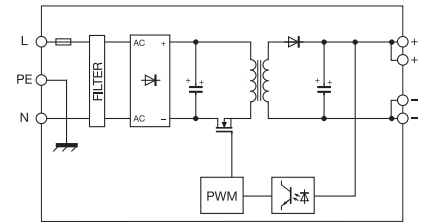
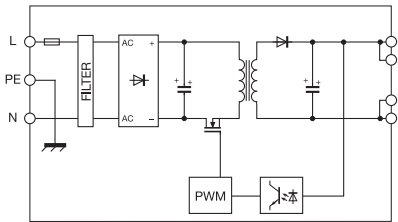
NOTES

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 110 – 127 Vdc input voltage, 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 a 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

INPUT TECHNICAL DATA

Rated voltage **90–264 Vac / 110–300 Vdc** (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 **12–15 Vdc** adjustable
Maximum current 7.5 A @ 120 Vac / 8.5 A @ 230 Vac
Continuous current **6 A @ 12 V / 5 A @ 15 V**, @ 45°C
Load regulation < 1%
Ripple @ rated U-I output ≤ 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 "P" version
Parallel connection Possible
Redundant parallel connection "P" version provided with Oring diode

APPROVALS

GENERAL TECHNICAL DATA

Efficiency > 86 % @ 120 Vac / > 90 % @ 230 Vac
Dissipated power 12 W @ 120 Vac / 9 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 mm², 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

CSF3B

-

(1)

cod. XCSF3B



CSF5B

-

(1)

cod. XCSF5B



Rated voltage **90–264 Vac / 110–300 Vdc** (2)
Frequency 47–63 Hz
Current @ Iout max. 1.8 A @ 120 Vac / 1 A @ 230 Vac
Inrush current < 20 A
Power factor > 0.7
Protection fuse T 3.15 A - internal, replaceable

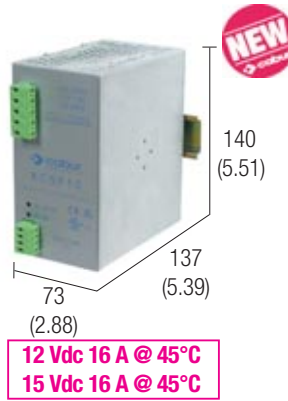
Voltage **12–15 Vdc** adjustable
Maximum current 11.5 A @ 120 Vac / 14 A @ 230 Vac
Continuous current **8 A @ 12 V / 7 A @ 15 V**, @ 45°C
Load regulation < 1%
Ripple @ rated U-I output ≤ 50 mVpp @ 230 Vac
Hold up time > 20 ms @ 230Vac full load
Overload / short circuit protection Hiccup 1.6 In auto reset / over temperature protection
Output signal standard version "P" version provided with Oring diode
Parallel connection Possible
Redundant parallel connection "P" version provided with Oring diode

Efficiency > 86 % @ 120 Vac / > 90 % @ 230 Vac
Dissipated power 17 W @ 120 Vac / 12 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 mm², screw type pluggable
Housing material Aluminium and stainless steel
Approximative weight 535 g (18.8 oz)
Mounting information Vertical on rail, allow 10 mm spacing between adjacent components
Mounting rail type according to IEC60715/TH35-7.5

Single phase switching power supply

12-15 Vdc regulated output

- 120 and 230 Vac double 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



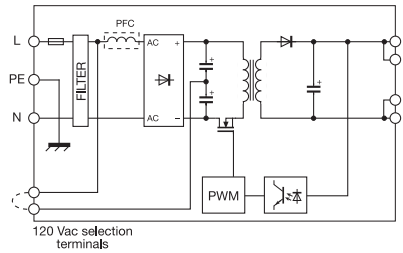
NOTES

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

If not specified, the technical data in this catalogue are typical and measured @ 25°C (77°F), 230Vac, Unom Vdc and rated current; ripple is measured with probe connected to 0.1uF/20MHz termination.

(1) Version available upon request.

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 a 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.

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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

CSF10B

cod. XCSF10B

(1)

INPUT TECHNICAL DATA

- Rated voltage
- Frequency
- Current @ Iout max.
- Inrush current @ cold start al 230 Vac
- Power factor
- Protection fuse

- 120 and 230 Vac ±10%**
- 47– 63 Hz
- 3.5 A @ 120 Vac / 1.8 A @ 230 Vac
- < 35 A
- > 0.6 @ 120 Vac / > 0.85 A @ 230 Vac
- T 6.3 A - internal, replaceable

OUTPUT TECHNICAL DATA

- Voltage
- Maximum current
- Continuous current
- Load regulation
- Ripple @ rated U-I output
- Hold up time
- Overload / short circuit protection
- Output signal standard version "P" version

- 12–15 Vdc adjustable**
- 17 A overload limit
- 16 A @ 45°C**
- < 1%
- ≤ 60 mVpp @ 230 Vac
- > 40 ms @ 230Vac full load
- Hiccup 1.1 In auto reset / over temperature protection

- Parallel connection
- Redundant parallel connection

-
- SPDT 2 A / 250 Vac - 30 Vdc
- Possible
- "P" version provided with Oring diode

APPROVALS



GENERAL TECHNICAL DATA

- Efficiency
- Dissipated power
- Operating temperature
- Input / output isolation
- Input / ground isolation
- Output / ground isolation
- Protection degree
- Standards / Approvals
- EMC Standards
- Surge immunity
- Connection terminal blocks
- Housing material
- Approximative weight
- Mounting information

- > 87 % @ 120 Vac / > 90 % @ 230 Vac
- 35 W @ 120 Vac / 27 W @ 230 Vac
- 20 ... +60°C, with overtemperature protection
- 3 kVac / 60 s
- 1.5 kVac / 60 s
- 0.5 kVac / 60 s
- IP20
- IEC950, EN60950, UL 508c
- EN50081-1, EN50082-1, EN61000-3-2
- EN61000-4-2, EN61000-4-4, EN61000-4-5, level 4
- 2.5 mm², screw type pluggable
- Aluminium
- 920 g (32.4 oz)
- Vertical on rail, allow 10 mm spacing between adjacent components

Mounting rail type according to IEC60715/TH35-7.5

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