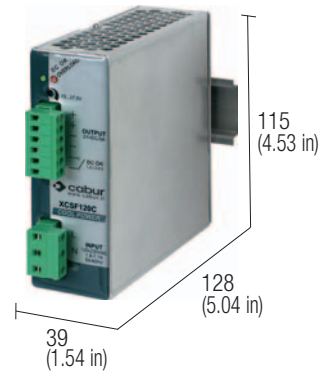


# Single-phase switching power supply 120-230 Vac output power 120 W

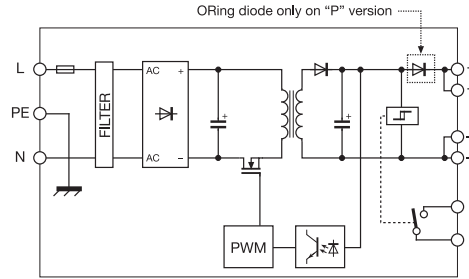
- Single-phase input 90...264 Vac and DC 100...345 Vdc
- Short circuit, overload, over temperature, input and output overvoltage protections
- High outrush current to guarantee downstream overcurrent protections selectivity and to start-up heavy loads
- Failure contact for Uout -10%
- Compact dimensions
- Suitable for applications in SELV and PELV circuits



## 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) Over  $45^\circ\text{C}$  ( $113^\circ\text{F}$ ) apply a derating  $-0.08\text{ A}/^\circ\text{C}$  for version C, CP and CPH;  $-0.12\text{ A}/^\circ\text{C}$  for version B;  $-0.05\text{ A}/^\circ\text{C}$  for version DP;
- (4) For this peak current, the output voltage does not drop more than 10% of the nominal value, but the current value, provided by the power supply also depends on the total line resistance.
- (5) Only on version CSF120CP, for orders, adds the letter H to the code (XCFS120CPH)
- (6) article available till seal-out

## BLOCK DIAGRAM



Special version for DC motors

## VERSIONS

- Output 24 Vdc 5 A
- Output 24 Vdc 5 A redundant version
- Output 12...15 Vdc 7 A
- Output 48 Vdc 2.5 A

Cod. XCSF120C	Cod. XCSF120CP	Cod. XCSF120B	Cod. XCSF120DP
CSF120C	CSF120CP		
		CSF120B (6)	
			CSF120DP

## INPUT TECHNICAL DATA

Input rated voltage	120-230 Vac (range 90...264 Vac / 100...345 Vdc) (2)
Frequency	47...63 Hz
Current @ nominal lout (Uin 120 / 230 Vac)	1.9 A / 1.1 A $\pm 10\%$
Inrush peak current	< 20 A
Power factor	> 0.65
Internal protection fuse	T 3.15 A replaceable
External protection on AC line	circuit breaker: 4 A - C characteristic - fuse: T 4 A

## OUTPUT TECHNICAL DATA

	24 Vdc	12...15 Vdc	48 Vdc
Output rated voltage	23...27.5 Vdc	12...15 Vdc	45...55 Vdc
Output adjustable range			
Continuous current	5 A @ 45°C (3)	7 A @ 45°C (3)	2.5 A @ 45°C (3)
Overload limit	8 A for >30 s with 90% Un (4)	8 A for >30 s with 90% Un (4)	8 A for >30 s with 90% Un (4)
Short circuit peak current	15 A for 50 ms (4)	15 A for 50 ms (4)	7.5 A for 50 ms (4)
Load regulation	< 1%	< 1%	< 1%
Ripple @ nominal ratings	$\leq 30\text{ mVpp}$	$\leq 40\text{ mVpp}$	$\leq 30\text{ mVpp}$
Hold up time @ In (Uin 120 / 230 Vac)	>17 ms / >72 ms	>24 ms / >80 ms	>16 ms / >81 ms
Overload / short circuit protections	hiccup at the overload limit with auto reset / over temperature protection		
Status display	"DC OK" green LED / "DC OK" alarm contact/ "Overload" red LED		
Alarm contact threshold	<21.6 Vdc	<10.8 Vdc	<43.2 Vdc
Parallel connection	possible	possible	possible
Redundant parallel connection	possible with external ORing diode	factory provided with internal ORing diode	factory provided with internal ORing diode

## GENERAL TECHNICAL DATA

Efficiency (Uin 120 / 230 Vac)	>86% / >90%	>85% / >89%	>86% / >90%
Dissipated power (Uin 120 / 230 Vac)	19 W / 13 W	21 W / 15 W	20 W / 13 W
Operating temperature range	$-20\text{...}+60^\circ\text{C}$ , with derating over $45^\circ\text{C}$ / over temperature protection (3)		
Input/output isolation	3 kVac / 60 s SELV output		
Input/ground isolation	1.5 kVac / 60 s		
Output/ground isolation	0.5 kVac / 60 s		
Standard/approvals	EN50178, EN61558, EN60950, IEC950, UL508, UL60950		
EMC Standards	EN61000-6-2, EN61000-6-4, EN61000-4-2, EN61000-4-3, EN61000-4-4, EN61000-4-5, EN61000-4-6, EN61000-4-11		
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 / 3		
Protection degree	IP 20 IEC 529, EN60529		
Connection terminal	2.5 mm <sup>2</sup> pluggable screw type		
Housing material	aluminium		
Approx. weight	400 g (14.12 oz)		
Mounting information	vertical on rail, allow 10 mm spacing between adjacent components		

## MOUNTING ACCESSORIES

- Mounting rail type according to IEC60715/TH35-7.5
- Mounting rail type according to IEC60715/G32

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