

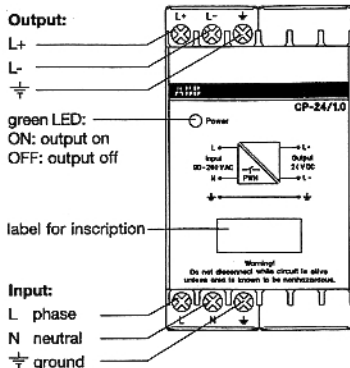
Operating and installation instructions

English

Switching power supplies CP-Range

The device must be installed by qualified persons only.

CP-5/3.0
CP-6/3.0
CP-12/2.0
CP-24/0.3
CP-24/1.0



⚠ No parallel connection of the power supplies

ADDITIONAL INFORMATION
UL Standard 1604 and CSA 22.2 No. 213-M1987. This equipment is suitable for use in Class I, Division 2, Groups A, B, C, and D or non-hazardous locations only.
⚠ **WARNING - EXPLOSION HAZARD -**
Substitution of components may impair suitability for Class I, Division 2.
Do not disconnect equipment unless power has been switched off or the area is known to be non-hazardous.

Technical Data

	CP-5/3.0	CP-6/3.0	CP-12/2.0	CP-24/0.3	CP-24/1.0
Input					
Supply voltage	90...260 VAC, 105...260 VDC				
Frequency, AC input	47 ... 440 Hz				
Mains buffering	min. 10 ms at 100 % load				
Inrush current at 25°C (≤ 2 ms)	7.5 A				
Internal input fuse	3.0 A (slow blow)				
Input current at nominal load	0.4 A (90 VAC) 0.2 A (260 VAC)	0.5 A (90 VAC) 0.25 A (260 VAC)	0.8 A (90 VAC) 0.27 A (260 VAC)	0.2 A (90 VAC) 0.1 A (260 VAC)	0.6 A (90 VAC) 0.27 A (260 VAC)
Output					
Output voltage at delivery	5 VDC ± 3 %	6 VDC ± 3 %	12 VDC ± 3 %	24 VDC ± 3 %	24 VDC ± 3 %
Adjustable output voltage range					
Output current	3 A	3 A	2 A	0.3 A	1 A
Derating at Tamb. > 45 °C	-25 mA/°C	-25 mA/°C	-20 mA/°C	—	-10 mA/V
Derating at Vin < 100 VAC	—	—	-20 mA/V	—	—
Residual ripple / noise	max. 50 mVpp	max. 50 mVpp	max. 300 mVpp	max. 100 mVpp	max. 300 mVpp
Deviation of output with input change	max. ± 0.5 %	max. ± 0.5 %	max. ± 0.1 %	max. ± 0.5 %	max. ± 0.1 %
Deviation of output with static load change	max. ± 2.5 %	max. ± 2.5 %	max. ± 0.5 %	max. ± 0.5 %	max. ± 0.5 %
Deviation of output with dynamic load change 10-90 %	max. 5 %	max. 5 %	max. 5 %	max. 5 %	max. 5 %
Efficiency at nominal load	approx. 78 %	approx. 80 %	approx. 80...83 %	approx. 70 %	approx. 82...84 %
Short circuit protection	overcurrent switch off with automatic restart				
Overload protection	overtemperature and overcurrent switch off				
Reset after thermal overload	disconnection of mains min. 30 s				

Norms, approvals

Product standard
Electrical safety standards, approvals

IEC61204, EN61204
EN50178/VDE0160, UL508, UL1604¹⁾, UL1310²⁾, C22.2 Nr.14-95, C22.2 Nr.213-M1987¹⁾
¹⁾ not CP-24/0.3, ²⁾ not CP-24/0.3, CP-24/1.0
reliable isolation acc. to IEC664-1, DIN VDE0106-101
2.5 kVAC, 3 kVAC type test

Galvanic isolation
Voltage withstand input <-> output
Clearance and creepage distances according to

overvoltage category 2
pollution degree 2

Electromagnetic Immunity (EMI)

ESD: EN 61000-4-2 level 3 6 / 8 kV
RF field: EN 61000-4-3 level 3 10 V/m
Burst: EN 61000-4-4 level 4 4 kV
Surge: EN 61000-4-5 3 kV
conducted RF: EN 61000-4-6 level 3 10 V

Electromagnetic compatibility (EMC)

radiated noise EN 55011, class B

Input current harmonics
Protection against contact

no limitation
terminals: IP 20
housing: IP 50

Protection class

1

General characteristics

Status indication
Ambient temperature
Terminals
Weight
Dimensions (W x H x D)
Mounting hints

green LED, power OK
operating temperature: 0...+55 °C / storage temperature: -25...+75 °C
screw terminals, 2 x 14 AWG (2.5 mm²)
approx. 0.22 kg (0.48 lb)
45 mm x 78 mm x 100 mm
normal position: horizontal onto DIN rail, spacing to other modules: left side min. 1 cm, vertical distances min. 5 cm

ABB