

Power supply CP-E 24/20.0

Primary switch mode power supply

The CP-E range offers enhanced functionality while the number of different types has been considerably reduced. Now all power supply units can be operated at an ambient temperature of up to +70 °C.



2CDC 271 029 F0008

Characteristics

- Rated output voltage 24 V DC
- Output voltage adjustable via front-face rotary potentiometer “OUTPUT Adj”
- Rated output current 20 A
- Rated output power 480 W
- Wide range input 115-230 V AC (90-264 V AC, 120-375 V DC)
- Typical efficiency of 89 %
- Low power dissipation and low heating
- Free convection cooling (no forced cooling with ventilators)
- Ambient temperature range during operation -40...+70 °C
- Open-circuit, overload and short-circuit stable
- Integrated input fuse
- Redundancy unit CP-A RU offering true redundancy, available as accessory
- Signalling contact “13-14” (solid-state) for output voltage OK
- LEDs for status indication

Approvals

- UL LISTED US UL 508, CAN/CSA C22.2 No.107.1 ¹⁾
- UL LISTED US ANSI/ISA-12.12, CAN/CSA C22.2 No. 213 (Class I, Div. 2, hazardous locations)
- UL LISTED US UL 60950, CAN/CSA C22.2 No.60950 ¹⁾
- EAC EAC
- CCC CCC ¹⁾

¹⁾ Approval refers to rated input voltage U_n

Marks

- CE CE
- RCM RCM

Order data

Type	Input voltage range	Rated output voltage / current	Order code
CP-E 24/20.0	90-264 V AC / 120-375 V DC	24 V DC / 20 A	1SVR 427 036 R0000

Order data – accessories

Type	Description	Order code
CP-A RU	Redundancy unit The CP-A RU provides decoupling of two CP-E power supply units ≤ 40 V and ≥ 5 A.	1SVR 427 071 R0000

Functions



- 1** OUTPUT L+, L+, L-, L-:
terminals – output
- 2** INPUT L, N, PE:
terminals – input
- 3** 13-14:
terminals – signalling contact
- 4** OUTPUT LOW:
red LED – output voltage too low
- 5** OUTPUT OK:
green LED – output voltage OK
- 6** OUTPUT Adj:
potentiometer – adjustment of the output voltage
- 7** single/parallel:
sliding switch – adjustment of single or parallel operation
- 8** Circuit diagram

Application

The primary switch mode power supply offers two voltage input ranges. This enables the supply with AC or DC. Furthermore it is equipped with two generous capacitors, which ensure mains buffering of at least 30 ms (at 230 V AC). That is why the devices can be used worldwide also in high fluctuating networks and battery-powered plants.

Operating mode

By means of the potentiometer “OUTPUT Adj” the output voltage can be adjusted within a range of 22.5 to 28.5 V DC. Thus, the power supply can be optimally adapted to the application, e.g. compensating the voltage drop caused by a long line length.

The green LED “OUTPUT OK” is lightening during proper operation.

The red LED “OUTPUT LOW” is lightening when the output voltage is too low.

Switch “single/parallel” for selection of single or parallel operation.

Signalling contact 13-14 (max. 60 V DC / 0.3 A) is ON when the output voltage is more than 75 %.