

Primary switch mode power supplies

CP range

Benefits and advantages



2CDC 255 002 F0006

- **Primary switch mode power supplies**
 - High efficiency of approx. 90 %
 - Low power dissipation and low heating
 - Long lifetime
- **Wide range of AC or DC supply voltages**
 - World wide use also in high fluctuating networks and battery-powered plants
- **Constant and adjustable output voltage (depending on type)**
- **Use in very harsh industrial environments**
 - Reliable construction
 - According to EMC Directives EN 61000-6-2 (Interference immunity) and EN 61000-6-4 (Interference emission)
- **Open-circuit, overload and short-circuit proof**
- **Integrated input fuse**
- **Safety**
 - Closed construction
 - Touch-proof connecting terminals
 - Electrical isolation
- **Easy and fast mounting**
 - Mounting on DIN rail
- **Status LED**
- **Example of application**
 - Supply of programmable logic controllers (PLC) e. g. AC31, AC500
- **Devices in modular design in 2 versions: CL-SD001 and CL-SD002**
→ see subchapter Logic relays and Display system - CL range

NEW

Primary switch mode power supplies

CP-E range

Benefits and advantages - Approvals and Marks



20CDC 255 004 F0606

Features of CP-E range

- Output voltages 5 V, 12 V, 24 V, 48 V DC
- Adjustable output voltages
- Output currents 0.625 A / 0.75 A / 1.25 A / 2.5 A / 3 A
- Power range 18 W, 30 W, 60 W
- Wide range input 100-240 V AC (85-265 V AC, 90-375 V DC)
- High efficiency of up to 87-89 %
- Low power dissipation and low heating
- Free convection cooling (no forced cooling with ventilators)
- Operating temperature range -10...+70 °C
- Open-circuit, overload and short-circuit stable, automatic recovery
- Integrated input fuse
- U/I characteristic curve for devices > 18 W (fold-forward behaviour at overload – no switch-off)
- Redundancy unit CP-A RU offering true redundancy
- Status LED "OUTPUT OK"
- "DC OK" output (transistor) for 24 V devices (> 18 W)

"DC OK" output

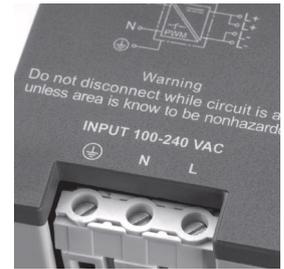
The 24 V devices of the CP-E range offer a semiconductor output for function monitoring and remote diagnosis.



20CDC 276 008 F0006

Wide range input

Optimised for world-wide applications: The CP-E power supplies can be supplied with 85-265 V AC or 90-375 V DC.



20CDC 276 009 F0006

Adjustable output voltage

The CP-E range types feature a continuously adjustable output voltage. Thus, they can be optimally adapted to the application, e.g. compensating the voltage drop caused by a long line length.



20CDC 276 008 F0006

Redundancy unit CP-RUD 1SVR 423 418 R9000

For decoupling of parallelized power supply units. Thus, true redundancy can be achieved.



20CDC 271 006 F0003

■ existing □ pending		CP-E							CP-RUD
		CP-E 5/3.0	CP-E 12/2.5	CP-E 24/0.75	CP-E 24/1.25	CP-E 24/2.5	CP-E 48/0.62	CP-E 48/1.25	
Approvals									
	cULus 508	■	■	■	■	■	■	■	
	UL 1310 Listed Class 2 Power Supply	■	■	■	■	■	■	■	
	UL 1604 (Class I, DIV 2)	□	□	□	□	□	□	□	
	UL 60950	■	■	■	■	■	■	■	
	GOST	■	■	■	■	■	■	■	
	CB scheme	□	□	□	□	□	□	□	
	CCC	■	■	■	■	■	■	■	
	RMRS								
Marks									
	CE	■	■	■	■	■	■	■	■
	C-Tick	□	□	□	□	□	□	□	□



Primary switch mode power supplies

CP-S and CP-C range

Benefits and advantages - Approvals and Marks



2CDC 275 015 F0004

Features of CP-S and CP-C range

- Output current 5 A, 10 A and 20 A
- Integrated power reserve of up to 50 %
- 5 A and 10 A devices with pluggable connecting terminals

CP-S range

- 10 A and 20 A devices with front-face selector switch to adjust rated input voltage range: 110-120 V AC or 220-240 V AC
- Output voltage fixed at 24 V DC
- Parallel operation for redundancy

CP-C range

- Wide range input 110-240 V AC (85-264 V AC, 100-350 V DC)
- Output voltage adjustable in a range of 22-28 V DC
- Parallel operation for increased capacity and redundancy
- Power factor correction (PFC) acc. to EN 61000-3-2
- Function module pluggable onto the front side
 - CP-C MM: Messaging module with relay outputs "INPUT OK" and "OUTPUT OK" and REMOTE ON/OFF function to switch on and off the power supply externally.

CP-A RU (Redundancy unit)

- Decoupling of CP-S or CP-C power supply units with 2 inputs each up to 20 A per input / channel and 1 output up to 40 A
- Control modul CP-A CM pluggable onto CP-A RU

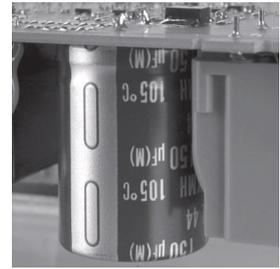
- existing
- pending

		CP-S			CP-C				CP-A	
		CP-S 24/5.0	CP-S 24/10.0	CP-S 24/20.0	CP-C 24/5.0	CP-C 24/10.0	CP-C 24/20.0	CP-C MM	CP-A RU	CP-A CM
Approvals										
	cULus 508	■ ¹⁾	■	■						
	UL 1604 (Class I, DIV 2)	■ ¹⁾		■						
	UL 60950	■ ¹⁾		□						
	GOST	■	■	■	■	■	■		□	
	CB scheme	■	■	■	■	■	■		□	
	CCC	■ ¹⁾		□						
	RMRS									
Marks										
	CE	■	■	■	■	■	■	■	■	■
	C-Tick	■	■	■	■	■	■	■	□	

¹⁾ Approvals refer to the rated input voltage U_{IN} .

Integrated power reserve

The new CP-S and CP-C range power supplies feature an integrated power reserve of up to 50 %. No oversized electricity supply is needed, especially under heavy load conditions.



2CDC 273 056 F0004

Pluggable connecting terminals

Extended flexibility in operation due to pluggable connecting terminals (this feature is not offered on all devices).



2CDC 273 057 F0004

Adjustable output voltage

The CP-C range types feature a continuously adjustable output voltage from 22 to 28 V. Thus, they can be optimally adapted to the application, e.g. compensating the voltage drop caused by long line length.



2CDC 273 046 F0004

Pluggable function modules

The CP-C range power supplies can be equipped with pluggable modules to add additional functions (e.g. messaging module). Thus, the power supplies can be ideally adapted to the relevant application.



2CDC 273 068 F0004