



# Uninterruptible power supply

## Reliable protection against all types of faults on the mains side

Within power supply networks even the slightest voltage fluctuations or power failures can cause significant disturbances in IT systems. Devices for uninterruptible power supply intercept these mains faults and through battery support, they ensure a constant supply voltage. Computer crashes, program errors or data loss are thus prevented effectively. UPS systems therefore help to provide an increased level of availability in important parts of the company.

<b>Main range</b>	<b>216</b>
<b>Selection guide</b>	<b>218</b>
<b>UPS devices</b>	<b>220</b>
<b>Battery unit</b>	<b>222</b>
<b>UPS accessories</b>	<b>224</b>

# Uninterruptible power supply

## Main range

Two mounting positions

Parallel/redundant operation

Network-capable

Comprehensive accessories

Control panel with:

- LEDs for quick status check
- Illuminated LCD
- Large function buttons

Swivel display

Optional network cards

UPS-SNMP-CARD E

- 10/100 Mbit Base-T Ethernet (auto sensing)
- MODBUS
- AUX
- D-SUB adapter cable
- Status LED

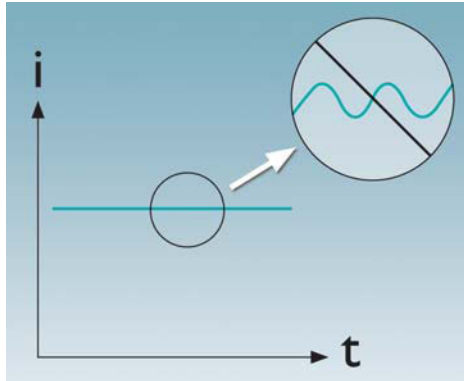
UPS-SNMP-CARD

- 10/100 Mbit Base-T Ethernet (auto sensing)
- Status LED

**Constant power supply and improved power quality**

UPS devices play an important role in ensuring reliable power quality. They bridge power failures and remove other mains faults such as:

- Undervoltages or surge voltages
- High-frequency noise
- Frequency fluctuations
- Harmonics



**Class VFI-SS-111 UPS devices according to IEC 62040-3**

The UPS devices are class VFI-SS-111 single-phase uninterruptible power supplies. The connected loads are protected against any faults on the mains side. Double conversion technology permanently supplies loads with an output voltage/frequency that is independent of the mains input.

**Long battery life**

The special charge control of the UPS-CP devices ensures ripple-free DC voltage without higher-level AC currents.



**Easy battery replacement**

Batteries can be easily replaced during operation and when integrated. This is true for all UPS devices and battery modules.

**Integrated safety cut-off**

If required the UPS-CP devices can be integrated in a safety concept via a two-pos. connection.



**Stand-alone or 19" rack installation**

Depending on the application, the control panel on the UPS-CP devices can be rotated 90° for optimum display clarity.

Mains faults according to IEC 62040-3									
Type of mains fault									
Mains failure	Voltage dips	Voltage peaks	Under-voltages	Surge voltages	Transient surge voltages	Voltage surges	Frequency fluctuations	Voltage distortion	Harmonics
VFD - Voltage + Frequency Dependent									
VI - Voltage Independent									
VFI - Voltage + Frequency Independent									

# Uninterruptible power supply

## Selection guide

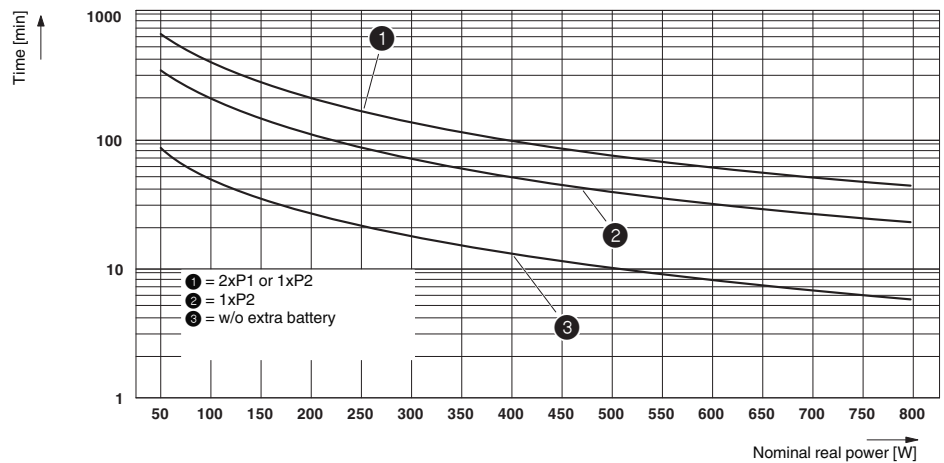
In order to select the ideal UPS, the power requirement of the connected loads and the required bridging time must be known. The diagrams illustrated can be used to select the appropriate UPS.

By adding external battery units, longer bridging times can be achieved accordingly.

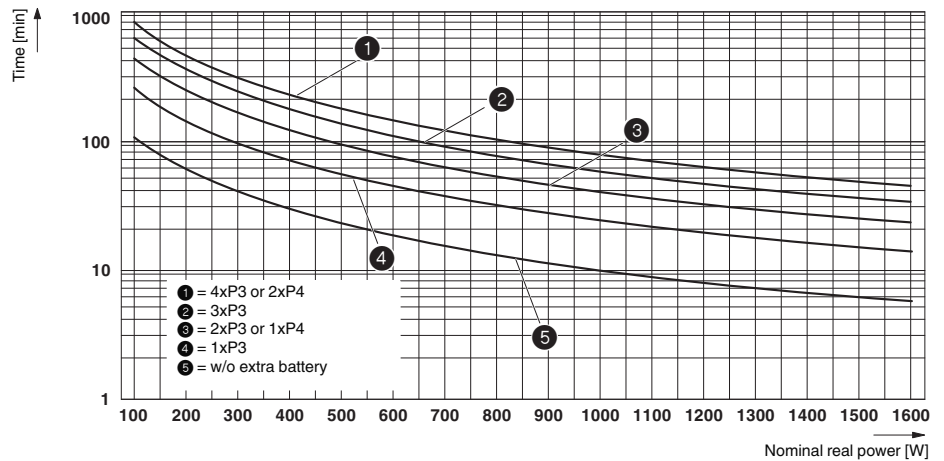
For the assignment and maximum possible number of external battery units, please refer to the table on the right.

UPS-CP-...	... BAT-1kVA-P1				
	... BAT-1kVA-P2		... BAT-2/3kVA-P3		... BAT-2/3kVA-P4
			... BAT-2/3kVA-P4		... BAT-4.5/6kVA-P5
...1kVA/240AC	Max. 2	Max. 1	—	—	—
...2kVA/240AC	—	—	Max. 4	Max. 2	—
...3kVA/240AC	—	—	Max. 4	Max. 2	—
...4.5kVA/240AC	—	—	—	—	Max. 5
...6kVA/240AC	—	—	—	—	Max. 5

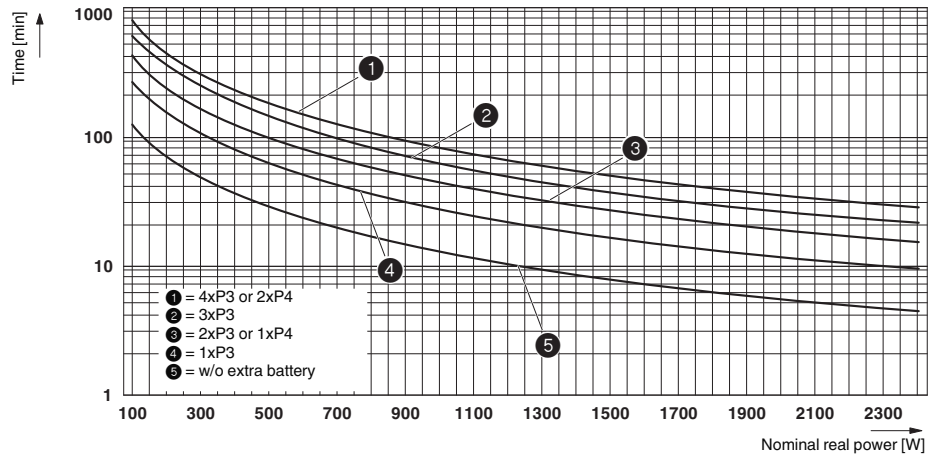
### UPS-CP-1kVA/240AC



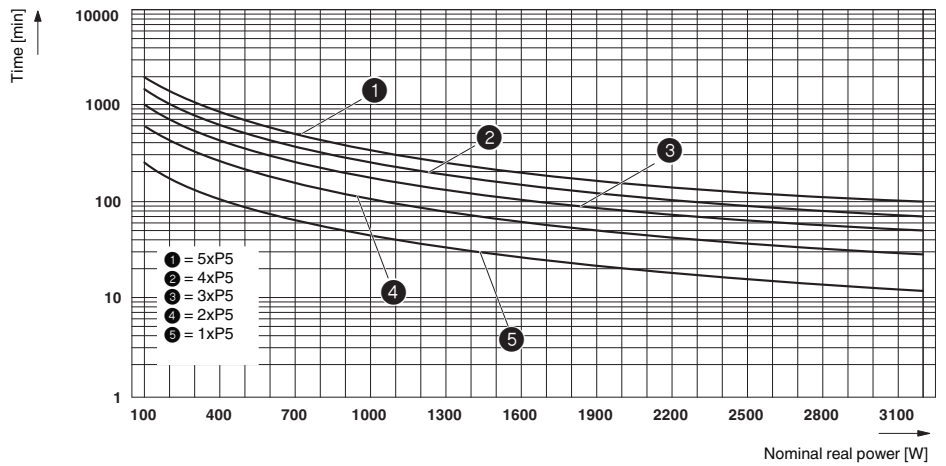
### UPS-CP-2kVA/240AC



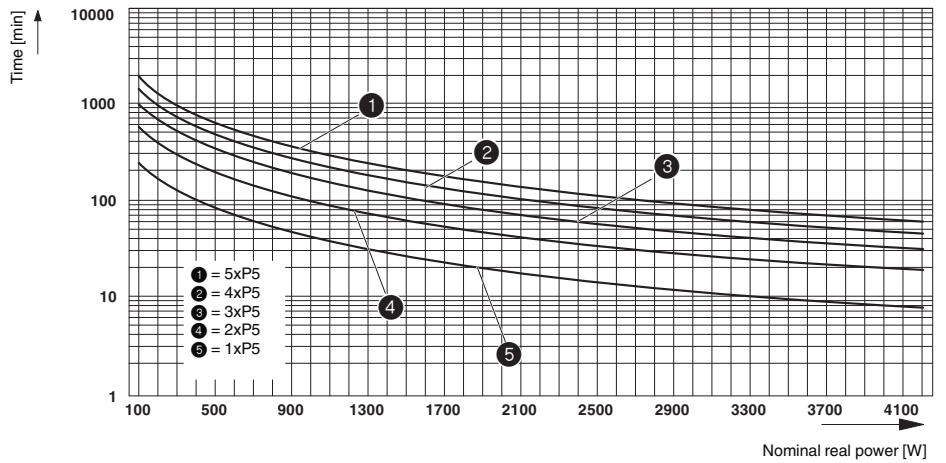
**UPS-CP-3kVA/240AC**



**UPS-CP-4.5kVA/240AC**



**UPS-CP-6kVA/240AC**



# Uninterruptible power supply

## UPS unit

### UPS devices

- Class VFI-SS-111 single-phase UPS (according to IEC 62040-3)
- Double conversion technology for maximum voltage quality
- Use as rack (19") or tower device with rotatable control panel
- Hot-swappable battery replacement on the front
- Long battery life thanks to ripple-free charging
- Mains-independent output voltage
- Comprehensive accessories for enhanced functions
- Supports a variety of operating systems

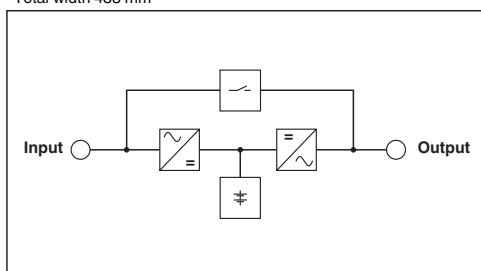


1 kVA nominal power

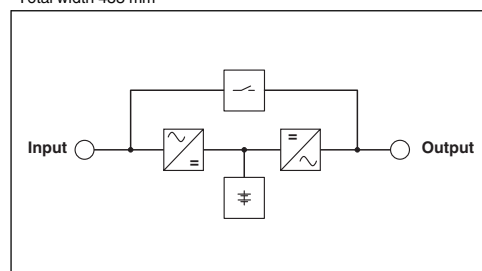


2 kVA nominal power

Total width 483 mm



Total width 483 mm



**Notes:**  
UPS management software can be found at [www.phoenixcontact.com](http://www.phoenixcontact.com)

#### Technical data

#### Technical data

Common characteristics	
Apparent power	1000 VA
Nominal power (real power)	800 W
Power factor	0.8
UPS topology	Double conversion technology
Classification	VFI-SS-111
UPS input side	
AC input voltage range	160 ... 288 V AC
AC frequency range	50 Hz ... 60 Hz +/- 5 Hz (automatic detection)
Nominal input current	3.8 A
Power factor (cos phi)	0.99 (with linear load)
Current distortion (THDi)	< 6% (at full load)
UPS output side	
Output voltage range	230 V AC +/- 1% (200/208/220/230/240 V AC adjustable)
Nominal output current	4.35 A
AC frequency range	50/60 Hz (automatic detection)
Battery system	
Battery type	VRLA
Bridging time	≥ 6 min
Charging time	4 h (90% charge)
Type of battery replacement	Hot-swappable
General data	
Ambient temperature (operation)	0°C ... 40°C
Ambient temperature (storage/transport)	0°C ... 45°C
Degree of protection	IP20
Height unit	2 HU
Design	19" rack/fixing housing
Depth	490.00 mm
Permissible humidity (operation)	0% ... 90% (no condensation)
Noise level	50.00 dB(A)
Weight	19.00 kg

Common characteristics	
Apparent power	2000 VA
Nominal power (real power)	1600 W
Power factor	0.8
UPS topology	Double conversion technology
Classification	VFI-SS-111
UPS input side	
AC input voltage range	160 ... 288 V AC
AC frequency range	50 Hz ... 60 Hz +/- 5 Hz (automatic detection)
Nominal input current	8 A
Power factor (cos phi)	0.99 (with linear load)
Current distortion (THDi)	< 6% (at full load)
UPS output side	
Output voltage range	230 V AC +/- 1% (200/208/220/230/240 V AC adjustable)
Nominal output current	8.7 A
AC frequency range	50/60 Hz (automatic detection)
Battery system	
Battery type	VRLA
Bridging time	≥ 6 min (nominal load)
Charging time	4 h (90% charge)
Type of battery replacement	Hot-swappable
General data	
Ambient temperature (operation)	0°C ... 40°C
Ambient temperature (storage/transport)	0°C ... 45°C
Degree of protection	IP20
Height unit	2 HU
Design	19" rack/fixing housing
Depth	680.00 mm
Permissible humidity (operation)	0% ... 90% (no condensation)
Noise level	50.00 dB(A)
Weight	30.00 kg

#### Ordering data

#### Ordering data

Description	Type	Order No.	Pcs. / Pkt.
UPS compact	UPS-CP-1KVA/240AC	2800274	1

Description	Type	Order No.	Pcs. / Pkt.
UPS compact	UPS-CP-2KVA/240AC	2800275	1

#### Accessories

#### Accessories

Description	Type	Order No.	Pcs. / Pkt.
Optional battery module	UPS-CP-BAT-1KVA-P1	2800280	1
	UPS-CP-BAT-1KVA-P2	2800281	1
DIN rail For 19" rack installation	UPS-CP-19"MR	2800288	1

Description	Type	Order No.	Pcs. / Pkt.
Optional battery module	UPS-CP-BAT-2/3KVA-P3	2800283	1
	UPS-CP-BAT-2/3KVA-P4	2800284	1
DIN rail For 19" rack installation	UPS-CP-19"MR	2800288	1



3 kVA nominal power

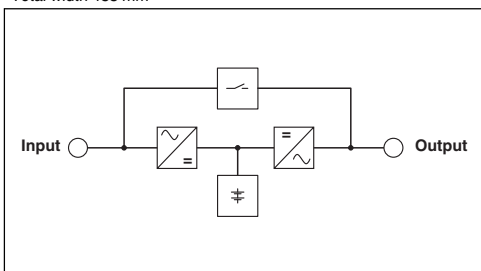


4.5 kVA nominal power



6 kVA nominal power

Total width 483 mm



### Technical data

3000 VA  
2400 W  
0.8  
Double conversion technology  
VFI-SS-111

160 ... 288 V AC  
50 Hz ... 60 Hz +/-5 Hz (automatic detection)

11.5 A  
0.99 (with linear load)  
< 6% (at full load)

230 V AC +/-1% (200/208/220/230/240 V AC adjustable)

13.04 A  
50/60 Hz (automatic detection)

VRLA  
≥ 5 min (nominal load)  
4 h (90% charge)  
Hot-swappable

0°C ... 40°C  
0°C ... 45°C  
IP20  
2 HU  
19" rack/fixe housing  
680.00 mm  
0% ... 90% (no condensation)  
50.00 dB(A)  
33.00 kg

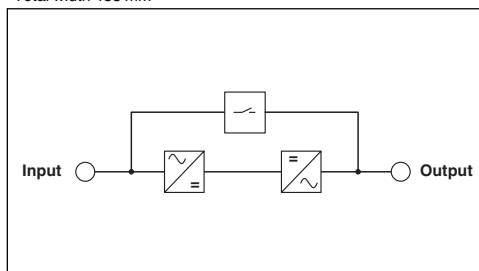
### Ordering data

Type	Order No.	Pcs. / Pkt.
UPS-CP-3KVA/240AC	2800276	1

### Accessories

UPS-CP-BAT-2/3KVA-P3	2800283	1
UPS-CP-BAT-2/3KVA-P4	2800284	1
UPS-CP-19"MR	2800288	1

Total width 483 mm



### Technical data

4500 VA  
3150 W  
0.7  
Double conversion technology  
VFI-SS-111

160 ... 280 V AC  
50 Hz ... 60 Hz +/-5 Hz (automatic detection)

18.1 A  
0.99 (with linear load)  
< 6% (at full load)

230 V AC +/-1% (200/208/220/230/240 V AC adjustable)

19.57 A  
50/60 Hz (automatic detection)

-  
-  
-  
-  
0°C ... 40°C  
0°C ... 45°C  
IP20  
2 HU  
19" rack/fixe housing  
680.00 mm  
0% ... 90% (no condensation)  
50.00 dB(A)  
22.00 kg

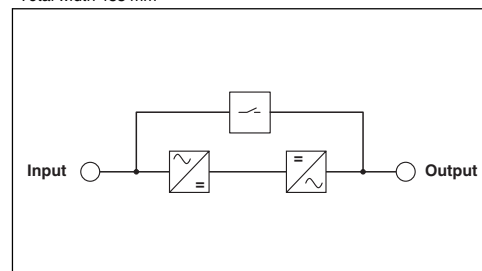
### Ordering data

Type	Order No.	Pcs. / Pkt.
UPS-CP-4.5KVA/240AC	2800277	1

### Accessories

UPS-CP-19"MR	2800288	1
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Total width 483 mm



### Technical data

6000 VA  
4200 W  
0.7  
Double conversion technology  
VFI-SS-111

160 ... 280 V AC  
50 Hz ... 60 Hz +/-5 Hz (automatic detection)

23.7 A  
0.99 (with linear load)  
< 6% (at full load)

230 V AC +/-1% (200/208/220/230/240 V AC adjustable)

26.09 A  
50/60 Hz (automatic detection)

-  
-  
-  
-  
0°C ... 40°C  
0°C ... 45°C  
IP20  
2 HU  
19" rack/fixe housing  
680.00 mm  
0% ... 90% (no condensation)  
50.00 dB(A)  
22.00 kg

### Ordering data

Type	Order No.	Pcs. / Pkt.
UPS-CP-6KVA/240AC	2800278	1

### Accessories

UPS-CP-19"MR	2800288	1
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# Uninterruptible power supply

## Battery unit

### Battery modules

- Battery modules for increasing the bypassing time
- Hot-swappable battery replacement
- Error-free connection thanks to adapted connection method



For UPS-CP-1KVA, 19 minutes (nominal load)



For UPS-CP-1KVA, 36 minutes (nominal load)

Battery system	
Battery type	VRLA
Battery capacity	14.40 Ah
Bridging time	Additional 19 min (nominal load)
Bridging time	-
Charging time	4 h (90% charge)
Type of battery replacement	Hot-swappable
General data	
Ambient temperature (operation)	0°C ... 40°C
Ambient temperature (storage/transport)	0°C ... 45°C
Degree of protection	IP20
Height unit	2 HU
Design	19" rack/fixed housing
Depth	680.00 mm
Weight	29.00 kg
Description	
Optional battery module	
DIN rail	
For 19" rack installation	

Total width 483 mm

Technical data		
VRLA		
14.40 Ah		
Additional 19 min (nominal load)		
-		
4 h (90% charge)		
Hot-swappable		
Ordering data		
Type	Order No.	Pcs. / Pkt.
UPS-CP-BAT-1KVA-P1	2800280	1
Accessories		
UPS-CP-19"MR	2800288	1

Total width 483 mm

Technical data		
VRLA		
28.80 Ah		
Additional 36 min (nominal load)		
-		
4 h (90% charge)		
Hot-swappable		
Ordering data		
Type	Order No.	Pcs. / Pkt.
UPS-CP-BAT-1KVA-P2	2800281	1
Accessories		
UPS-CP-19"MR	2800288	1



For UPS-CP-2KVA, 8 minutes (nominal load)  
For UPS-CP-3KVA, 5 minutes (nominal load)



For UPS-CP-2KVA, 19 minutes (nominal load)  
For UPS-CP-3KVA, 12 minutes (nominal load)



For UPS-CP-4.5KVA, 10 minutes (nominal load)  
For UPS-CP-6KVA, 8 minutes (nominal load)

Total width 483 mm

Technical data	
VRLA	
7.20 Ah	
Additional 8 min (nominal load - 2 kVA)	
Additional 5 min (nominal load - 3 kVA)	
4 h (90% charge)	
Hot-swappable	
0°C ... 40°C	
0°C ... 45°C	
IP20	
2 HU	
19" rack/fixed housing	
680.00 mm	
29.00 kg	

Ordering data		
Type	Order No.	Pcs. / Pkt.
UPS-CP-BAT-2/3KVA-P3	2800283	1

Accessories		
Type	Order No.	Pcs. / Pkt.
UPS-CP-19"MR	2800288	1

Total width 483 mm

Technical data	
VRLA	
14.40 Ah	
Additional 19 min (nominal load - 2 kVA)	
Additional 12 min (nominal load - 3 kVA)	
4 h (90% charge)	
Hot-swappable	
0°C ... 40°C	
0°C ... 45°C	
IP20	
2 HU	
19" rack/fixed housing	
680.00 mm	
44.00 kg	

Ordering data		
Type	Order No.	Pcs. / Pkt.
UPS-CP-BAT-2/3KVA-P4	2800284	1

Accessories		
Type	Order No.	Pcs. / Pkt.
UPS-CP-19"MR	2800288	1

Total width 483 mm

Technical data	
VRLA	
7.00 Ah	
10 min (nominal load - 4.5 kVA)	
8 min (nominal load - 6 kVA)	
4 h (90% charge)	
Hot-swappable	
0°C ... 40°C	
0°C ... 45°C	
IP20	
3 HU	
19" rack/fixed housing	
680.00 mm	
70.00 kg	

Ordering data		
Type	Order No.	Pcs. / Pkt.
UPS-CP-BAT-4.5/6KVA-P5	2800285	1

Accessories		
Type	Order No.	Pcs. / Pkt.
UPS-CP-19"MR	2800288	1

# Uninterruptible power supply

## UPS accessories

### UPS accessories

- Network cards for UPS remote control and monitoring
- Relay cards with extended signal outputs for control functions
- External bypass modules for bypassing the UPS during servicing
- Multiple socket strips for connecting additional loads
- Redundancy modules for parallel connection of UPS devices to increase the reliability of the supply



SNMP interface adapter card



6-way relay card

	Total width 20 mm		Total width 20 mm
	Technical data		Technical data
Electrical data	... CARD	... CARD E	
Input			
Nominal voltage	9 V AC ... 30 V AC	9 V AC ... 30 V AC	-
Nominal current	120 mA	120 mA	-
Power supply connection	PCB connector	PCB connector	PCB connector
Output			
Nominal voltage	-	-	40 V DC
Nominal current	-	-	max. 25 mA
Load connection	RJ45	RJ45, RJ12, Mini-DIN	Screw terminal block
Available interfaces	Ethernet/1 x V.24 (RS-232)	Ethernet/3 x V.24 (RS-232)	Screw terminal block
General data			
Ambient temperature (operation)	0°C ... 60°C	0°C ... 60°C	0°C ... 40°C
Ambient temperature (storage/transport)	0°C ... 45°C	0°C ... 45°C	0°C ... 45°C
Degree of protection	-	-	-
Design	Slot card	Slot card	Slot card

	Ordering data			Ordering data		
Description	Type	Order No.	Pcs. / Pkt.	Type	Order No.	Pcs. / Pkt.
<b>Network card</b>						
Basic version (RJ45)	UPS-SNMP-CARD	2800289	1			
Extended version (RJ45, Modbus, AUX port)	UPS-SNMP-CARD E	2800290	1			
<b>Relay card</b>						
6-way relay card				UPS-6REL	2800287	1
<b>External bypass module</b>						
For UPS-CP 1 - 3 kVA						
For UPS-CP 4.5 and 6 kVA						
<b>Socket strip</b>						
With 9 x 10 A IEC outputs						
With 4 x 16 A IEC outputs						
With 5 x 16 A + 9 x 10 A IEC outputs						
<b>Redundancy module</b>						
For two units						
For three units						
<b>RCCMD software license</b>						
	UPS-CP RCCMD LICENSEKEY	2800550	1			



**External bypass module**



**Multiple socket strip**



**Module for parallel/redundancy operation with external bypass**

Total width 482.6 mm

Technical data	
... 1/2/3KVA	... 4.5/6KVA
240 V AC max. 16 A Socket C20 - IEC 60320	240 V AC max. 32 A Cable L/N/PE; 2.8 m; open ends
240 V AC 16 A (thermal fuse)	240 V AC 32 A Cable L/N/PE; 2.8 m; open ends
6 x C13/10 A - IEC 60320	
0°C ... 40°C	0°C ... 40°C
0°C ... 45°C	0°C ... 45°C
IP20	IP20
19" rack patch module	19" rack patch module

Total width 483 mm

Technical data		
... 9X10A-IEC	... 4X16A-IEC	... 5X16A/9X10A-IEC
240 V AC max. 16 A C20 - IEC 60320	240 V AC max. 16 A C20 - IEC 60320	240 V AC max. 32 A Terminal block base - L/N/PE
240 V AC 10 A (thermal fuse)	240 V AC 16 A (thermal fuse)	240 V AC 16 A (10 A/thermal fuse)
9 x C13 - IEC 60320	4 x C19 - IEC 60320	5 x C19/16 A - IEC 60320
0°C ... 40°C	0°C ... 40°C	0°C ... 40°C
0°C ... 45°C	0°C ... 45°C	0°C ... 45°C
IP20	IP20	IP20
19" rack patch module	19" rack patch module	19" rack patch module

Total width 483 mm

Technical data	
... 32A-4.5/6KV	... 63A-4.5/6KV
240 V AC max. 32 A Cable L/N/PE; 2.8 m; open ends	240 V AC max. 63 A Cable L/N/PE; 2.8 m; open ends
240 V AC 32 A	240 V AC 63 A
Cable L/N/PE; 2.8 m; open ends	Cable L/N/PE; 2.8 m; open ends
0°C ... 40°C	0°C ... 40°C
0°C ... 45°C	0°C ... 45°C
IP20	IP20
19" rack patch module	19" rack patch module

Ordering data		
Type	Order No.	Pcs. / Pkt.
UPS-CP-BP-1/2/3KVA	2800291	1
UPS-CP-BP-4.5/6KVA	2800292	1

Ordering data		
Type	Order No.	Pcs. / Pkt.
UPS-CP-MS-9X10A-IEC	2800293	1
UPS-CP-MS-4X16A-IEC	2800294	1
UPS-CP-MS-5X16A/9X10A-IEC	2800296	1

Ordering data		
Type	Order No.	Pcs. / Pkt.
UPS-CP-PU-240AC/32A-4.5/6KV	2800297	1
UPS-CP-PU-240AC/63A-4.5/6KV	2800298	1