

Single- and two-phase, primary switched mode power supply

PC 2AC



General Data

Nominal input voltage: 200 - 500 Vac
Nominal output voltage: 24 Vdc
Nominal output current: 5 A - 10 A
Ambient temperature -25 °C to +70 °C
Protection index IP 20

Advantages

Stabilised and adjustable output voltage
Fast tripping of conventional circuit breakers
DC OK signalling
Parallel operation
Push-in terminals
Robust DIN rail mounting
Resistant to transient overvoltages up to 4 kV
Optional with 50 % Power Boost (PC-0224-xxx-2)

Applications

The economic power supplies in the Power Compact series set new standards in their class. Above-average robustness against transients and energetic surge pulses at their input and equipped with essential additional aspects for a worldwide high plant availability. A powerful and flexible option that's still light and compact. Due to a single or two-phase supply from 180 V to 550 V, these power supplies are suitable for a highly diverse range of applications in solar, measurement and control technology and they really come into their own in industrial and building automation. The output voltage can be set easily using the rotary potentiometer on the front of the housing. The robust DIN rail fastening method and push-in connection terminals enable fast and secure mounting.

Standards

Primary switched mode power supply
to UL 60950, UL 508

Safety:
EN 61558-2-16, EN 60950-1

EMC:
EN 61204-3

Approvals



UL 60950, UL 508, GL (prepared)



Single- and two-phase, primary switched mode power supply

PC 2AC

Electrical data	Typ	PC-0224-050-0	PC-0224-050-2	PC-0224-100-0	PC-0224-100-2
	Input				
Input rated voltage		200 - 500 Vac	200 - 500 Vac	200 - 500 Vac	200 - 500 Vac
Input voltage range		180 - 550 Vac (254 - 780 Vdc)	180 - 550 Vac (254 - 780 Vdc)	180 - 550 Vac (254 - 780 Vdc)	180 - 550 Vac (254 - 780 Vdc)
Input voltage derating		-0.5 %/Vac < 200 Vac (-0.4 %/Vdc < 280 Vdc)	-0.5 %/Vac < 200 Vac (-0.4 %/Vdc < 280 Vdc)	0.5 %/Vac < 200 Vac	0.5 %/Vac < 200 Vac
Rated frequency range		44 - 66 Hz	44 - 66 Hz	44 - 66 Hz	44 - 66 Hz
Input rated current (rated load)		1.25 A (200 Vac) / 0.67 A (500 Vac)	1.25 A (200 Vac) / 0.67 A (500 Vac)	1.97 A (230 Vac)	1.97 A (230 Vac)
Starting current limiter		< 30 A, NTC	< 30 A, NTC	< 30 A, NTC	< 30 A, NTC
Switch-on time		0.98 s (200 Vac) / 0.47 s (500 Vac)	0.98 s (200 Vac) / 0.47 s (500 Vac)	0.5 s (1 x 230 Vac / 3 x 400 Vac)	0.5 s (1 x 230 Vac / 3 x 400 Vac)
Mains buffering (rated load)		15 ms (200 Vac) / 126 ms (500 Vac)	15 ms (200 Vac) / 126 ms (500 Vac)	20 ms (230 Vac) / 78 ms (400 Vac)	20 ms (230 Vac) / 78 ms (400 Vac)
Power factor		0.52	0.52	0.52	0.52
Input fuse internal		3.15 A	3.15 A	6.3 AT	6.3 AT
Recommended back-up fuse (circuit breaker)		6 A, 10 A, 16 A, characteristic B, C	6 A, 10 A, 16 A, characteristic B, C	6 A, 10 A, 16 A, characteristic B, C	6 A, 10 A, 16 A, characteristic B, C
Transient surge voltage protection		Varistor	Varistor	Varistor	Varistor
Output					
Output rated voltage		24 Vdc	24 Vdc	24 Vdc	24 Vdc
Output voltage range		23 - 28.5 Vdc	23 - 28.5 Vdc	23 - 28.5 Vdc	23 - 28.5 Vdc
Output rated current		5 A	5 A	10 A	10 A
Power Boost		-	7.5 A / 5 s	-	15 A / 5 s @24 Vdc >260 Vac
Output limited current		typ. 5.5 A	8.5 A	11 A	typ. 11 A
Tripping of LS circuit breakers		max. B4	max. B4	max. B6/ C2	max. B6/ C2
Parallel connection		Yes	Yes	Yes	Yes
Serial operation		Yes	Yes	Yes	Yes
Power dissipation, no load/rated load		0.94 W / 16.36 W (230 Vac) 1.35 W / 14.55 W (400 Vac)	0.94 W / 16.36 W (230 Vac) 1.35 W / 14.55 W (400 Vac)	1.33 W / 27.77 W (230 Vac) 2 W / 20.27 W (400 Vac)	1.33 W / 27.77 W (230 Vac) 2 W / 20.27 W (400 Vac)
Max. power losses		18.2 W (200 Vac / 24 V / 5 A)	18.2 W (200 Vac / 24 V / 5 A)	27.77 W (230 Vac / 24 V / 10 A)	27.77 W (230 Vac / 24 V / 10 A)
Ripple factor		typ. 30 mVss	typ. 30 mVss	typ. 22 mVss	typ. 22 mVss
Efficiency		typ. 89 %	typ. 89 %	typ. 90% (230V) / 92.5% (400V)	typ. 90% (230V) / 92.5% (400V)
Resistance to reverse feed max.		35 Vdc	35 Vdc	35 Vdc	35 Vdc
Over-voltage-protection		max. 40 Vdc	max. 40 Vdc	typ. 40 Vdc	typ. 40 Vdc
Signaling					
Status indicator		LED green	LED green	LED green	LED green
Signal output		Relay contact	Relay contact	Relay contact	Relay contact
Approvals					
Approvals		cURus, cULus, GL (prepared)	cURus, cULus, GL (prepared)	cURus, cULus (prepared), GL (prepared)	cURus, cULus (prepared), GL (prepared)
Environment					
Type of cooling		natural convection	natural convection	natural convection	natural convection
Ambient temperature		-25 °C to +70 °C	-25 °C to +70 °C	-25 °C to +70 °C	-25 °C to +70 °C
Storage temperature		-25 °C ... +85 °C	-25 °C ... +85 °C	-25 °C ... +85 °C	-25 °C ... +85 °C
Derating		-2.5 %/K > +55 °C	-2.5 %/K > +55 °C	-2.5 %/K > +55 °C	-2.5 %/K > +55 °C
Required minimum spacing (left/right)		0 mm	0 mm	0 mm	0 mm
Required minimum spacing (over/under)		50 mm	50 mm	50 mm	50 mm
Safety and protection					
Protection index		IP 20	IP 20	IP 20	IP 20
Safety class		I, with PE connection	I, with PE connection	I, with PE connection	I, with PE connection
Order numbers					
Order Number		PC-0224-050-0	PC-0224-050-2	PC-0224-100-0	PC-0224-100-2



Single- and two-phase, primary switched
mode power supply

PC 2AC

Mechanical data	30 mm														
		Typ	Mounting position	Terminals signalling (direct plug-in technology Push-in)	Terminals output (direct plug-in technology Push-in)	Terminals input (direct plug-in technology Push-in)	Weight	Dimension (W x H x D)	Dimension picture (in mm)	A	B	C	D	E	F
		PC-0224-050-0	horizontal for standard rail DIN TS35	max 2,5 mm ²	max 2,5 mm ²	max 2,5 mm ²	0.6 kg	42 x 127 x 126 mm		127	63.5	3	42	118.5	126
		PC-0224-050-2	horizontal for standard rail DIN TS35	max 2,5 mm ²	max 2,5 mm ²	max 2,5 mm ²	0.6 kg	42 x 127 x 126 mm		127	63.5	3	42	118.5	126
		PC-0224-100-0	horizontal for standard rail DIN TS35	max 2,5 mm ²	max 2,5 mm ²	max 2,5 mm ²	0.8 kg	55 x 127 x 125 mm		127	63.5	3	55	118.5	125
		PC-0224-100-2	horizontal for standard rail DIN TS35	max 2,5 mm ²	max 2,5 mm ²	max 2,5 mm ²	0.8 kg	55 x 127 x 125 mm		127	63.5	3	55	118.5	125

Dimension pictures

1

