

Let's talk!

AC-DC Converter ACDC500-230-67

Universal Power Supply for Telecom Applications

General

Electrical safety	EN 62368
Protection class	1
Isolation group	pollution degree 2
Inflammability	according to UL94V0

Electrical data – AC input

Nominal voltage	$U_N = 230V_{AC}$
Voltage range	197 – 265 V_{AC}
Frequency range	45 – 66Hz, sine wave
Mains connection	1 – 2 phase, phase angle max. 120°
Number of inputs	two redundantly separated inputs (for 2-phase redundant operation)

Electrical data – DC output

Nominal voltage	-67 V_{DC} , positive pole connected to housing/protective earth
Output current I_{NOM}	3.7A per 250W converter module
Output power	up to 500W, depending on number of built-in modules, (single module = 250W), without derating up to 50°C
Overload I_{MAX}	1.2 x I_{NOM}
Efficiency	> 90%
Mains hum at full load	≤ 100mVpp (at 197 V_{AC})
Ripple at full load	≤ 200mVpp (20MHz)
AC input regulation	≤ 0,1% (at 197/264 V_{AC})
Load regulation	≤ 1% (10/90% load jump)
Recovery time	≤ 1ms (10/90% load jump)
OVP threshold	75 V_{DC}
TC of output voltage	≤ 0,05% / 1°C
Current limit	constant current, permanent short-circuit-proof
Upgrade capability	2 x 250W modules in one subrack (redundant)
Number of outputs	5
Output fuse protection	electronic fuses, 0 – 9A adjustable via step switches on front side
Output characteristic	UI characteristic



Picture may differ from actual device

Environmental conditions

Ambient temperature during operation	-5°C to +50°C, non-condensing
Ambient temp. during storage / transport	-40°C to +85°C (in original packing)
Relative air humidity	0% to 95%
Operation altitude	max. 2000 meters

EMC

Emission	EN 61000-6-3
Immunity	EN 61000-6-2 (industrial environment)
Burst (EFT)	4kV, 50Ω, directly coupled
Surge	2kV
ESD	15kV air, 8kV conducted

Signalling

Alarm contacts	potential-free relay contacts, 3-pole led out (COM-NC-NO): - mains error AC1 - mains error AC2 - cumulative converter module error
Optical	LED (green) for each 250W module: power good LED (red) for each DC output: fuse tripped

Reliability

Life utility	≥ 8 years with an MTBF ≥ 50 years
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Mechanical data

Case material	sheet steel, galvanized
Construction	for mounting in 19" racks
Dimensions:	
Subrack	19", 1U, depth 244mm
250W module	130 x 40 x 160mm
Weight:	
Subrack	approx. 4.3kg (fully loaded)
250W module	approx. 1.5kg
Ingress protection:	
Subrack	IP20
Wiring	rear connection
Cooling	integrated heat sink, temperature-regulated fan per module

Electrical connections

AC inputs	IEC appliance inlets
DC outputs	pluggable screw-clamp connector, type Phoenix CombiCon, 3-pole
Signal connector	Phoenix MC 1,5/10-G-3,81 (10-pole, 1.5mm ²)

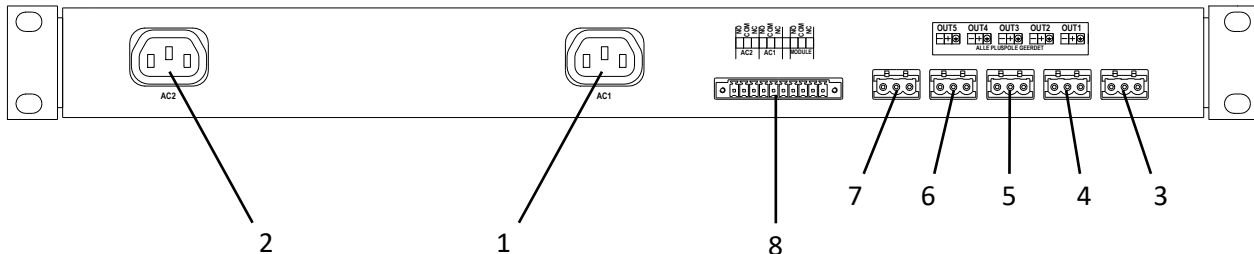
Warranty **24 months**

Order code

ACDC500-230-67
(Subrack with two modules)

ACDC250-230-67
(Subrack with one module)

Subrack, connections on the rear side



No.	Function	Designation	Type
1*	AC input 1: 230V _{AC} / 50Hz	AC1	IEC appliance inlet EN 60320
2*	AC input 2: 230V _{AC} / 50Hz	AC2	IEC appliance inlet EN 60320
3 – 7	DC outputs 1 – 5: -67V _{DC}	OUT 1 – OUT 5	Phoenix CombiCon
8	Signal connector	Signal	Phoenix MiniCombiCon

* The AC inputs enable mains phase redundant operation of the power supply. The inputs are internally connected via changeover relays in such a way that AC1 is in rest position. If input AC2 is connected and the input voltage is within the operating parameters, the relays automatically switch to input AC2 (AC2 has priority over AC1). Therefore, if both AC inputs are connected, input AC1 is backup source. In single-phase operation, the internal relays automatically switch to the input connected.