AC 7000 CAN

MODULAR SWITCH-MODE CONVERTER FOR TELECOMMUNICATION AND INDUSTRIAL APPLICATIONS

Output current of a single power supply:
125 A (for 48 V DC)
100 A (for 60 V DC)
60 A (for 110 V DC)
30 A (for 220 V DC)

Applications

The smart switch mode power supply AC 7000 CAN of AEG Power Solutions consists of three different types of devices. The devices with 110 VDC or 220 VDC are conceived for a variety of applications such as: supply of process control to conventional power plants and nuclear power plants, secure supply of energy in conjunction with parallel connected batteries, direct power supply to DC consumers of all kinds, constant voltage and power source, on-board power supplies in railway vehicles and ships powering the DC users. The switchable device type 48 (60) VDC is specially designed to supply power to telecommunication systems and as a battery-charging rectifier for the secure supply of DC power.

Communication

The unit offers full functionality in stand-alone mode but can additionally be controlled and monitored via the digital CAN-BUS which is immune to interference. By using the optional controller complex PSC 100 control unit, DC systems can be built up on a low cost basis. In addition to the SMR power cabling only simple BUS wiring between the SMR's and the PSC 100 is required to complete the DC system.

Easy Operation

The connections can be easily accessed from the front panel. The lit LCD display of 2 x 16 characters show the output voltage and output current, the device status and error messages clearly.

Compact Design

The compact 19-inch design of AC 7000 CAN converter ensure that it can be used even when there is a little space available. The unit can be configured also in the redundant systems using the N+1 principle.

Key Features

- Mechanical strength and vibration resistance to KTA 3503 (110 V / 220 V)
- Low height and low weight
- Adjustable version 48 VDC/60 VDC
- Capable of communication (CAN-Bus)
- When operated with PSC 100:
  - active current sharing
  - 4 charge characteristics
  - Temperature compensated battery charging
- Future-oriented microprocessor technology
- Lit LCD display
- Windows-based SNT software tool for setting the output values
- Low inrush current
- Short circuit proof
- CE- compliant
- ISO 9001 certified

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AC 7000 CAN

SPECIFICATIONS

TYPE AC 7000 CAN	48 (60) V/125 (100) A		110 V/60 A	220 V/30 A
Part Number	D400 G48(60)/125(100) BWrug-CFpüx		D400 G 110/60 BWrug-CFpüx	D400 G 220/30 BWrug-CFpüx
E-Number	3 000 001 101		3 000 000 533	3 000 000 534
INPUT				
Nominal input voltage	3 x 400 V AC ± 15 %		3 x 400 V AC ± 10 %	
Frequency	47 to 63 Hz			
Current consumption (approx. values)	3 x 12 A AC			
Inrush current	≤ Rated input current			
Required mains fuse	gL 3 x 16 A or circuit breaker C-Characteristics			
OUTPUT				
	G 48/125	G 60/100	G 110/60	G 220/30
Output Voltage Setting Range	53.5 V DC ± 1 % 35 to 63.6 V DC	66.9 V DC ± 1 % 40 to 79.5 V DC	122.7 V DC ± 1 % 90 to 155 V DC	245.3 V DC ± 1 % 180 to 310 V DC
Output Current Setting Range	125 A DC ± 2 % 6.3 to 125 A DC	100 A DC ± 2 % 5 to 100 A DC	60 A DC ± 2 % 3 to 60 A DC	30 A DC ± 2 % 1.5 to 30 A DC
Voltage ripple	< 100 mV pp		< 250 mV pp	< 500 mV pp
Power factor	0,93		0,92	
Efficiency (%)	91	92	91	
Dynamic response	≤5 % for sudden changes in load between 10 % - 90 % - 10 % Rated output current (Compensation time t < 1ms)			
Short circuit response	Short-circuit proof			
Parallel operation	max. 31 units, load distribution approx. 10 % if connected to CAN-BUS			
Characteristic line	IU Characteristic to DIN 41772 / DIN 41773			
MONITORING AND INDICATION				
Mains-Side Monitoring Device OFF/ON	Under-voltage / Over-voltage: with switch-off, self acknowledging OFF ≤325 V or ≥460 V / ON ≥350 V or ≤445 V			
Output-side Monitoring Systems	DC under-voltage without switch-off, self acknowledging			
Message OFF/ON	48 V DC / 50 V DC	60 V DC / 62,5 V DC	110 V DC / 115 V DC	220 V DC / 230 V DC
	DC over-voltage with switch-off and lock (software-controlled)			
Device OFF/ON	≥ 56.5 V DC / ≤ 55 V DC	≥ 70.3 V DC / ≤ 68.3 V DC	≥ 130 V DC / ≤ 125 V DC	≥ 260 V DC / ≤ 250 V DC
	DC over-voltage (hardware-controlled)			
	70 V DC	85 V DC	160 V DC	320 V DC
Alerts and Indicators	U_A and I_A via LCD 2 x 16 characters, lit			
	Loading: LED green Fault: LED red			
	Fault message via floating relay contact; Display of the error memory			
	ON/OFF via external floating contact			
MECHANICAL				
Design	19" module for installation in sub frame to DIN 41494			
Ingress Protection	IP 20			
Mechanical Strength and Vibration Resistance	to EN 50178 Section 9.4.3.2			
Equipment Colour	Colour RAL 7035 (Front panel)			
Dimensions W x H x D (mm)	483 x 221.4 x 400 (19" x 5 HE)			
Weight	approx. 30 kg			
Mains connection	Angle plug type GDME 313			
DC-Output	Threaded bolt M10			
Conductor	Thread M6			
Signals interface	CombiCon type MSTB 2.5/3-STF-5.08 3-pole			
ENVIRONMENTAL				
Type of cooling	Forced air cooling			
Operating Temperature Range	0 °C to 40 °C, when installed in cabinet			
Storage temperature range	-30 °C to 70 °C			
Environment Conditions	EN 60721 part 3 - 3, Class 3K3 / 3Z1 / 3B1 / 3C2 / 3S2 / 3M2			
Installation height	max 1,000 m above sea level, at nominal load			
STANDARDS				
Interference emission	to EN 61000-6-4			
Interference resistance	to EN 61000-6-2			
Low voltage function with safe disconnection	to EN 50178			
Approvals	CE			
Certificate	ISO 9001			

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