Power Safety

AC 2800 CAN

Modular switch-mode rectifier designed for industrial applications

Output Rating from a single rectifier:
20 A (at 110 Vdc)
10 A (at 220 Vdc)

Applications

For all industrial applications. Provides secured DC power in combination with a parallel battery, for supply of all types of DC consumers including constant voltage and current sources such as Central Control Rooms in Nuclear and Non-Nuclear Power Plants as well as on-board power supplies for rail vehicles and ships.

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. This can be achieved by using our PSC 100 control unit (option). Together with this controller complex 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 easily accessed from the front panel. Programming is simple thanks to the illuminated LCD-display (2 x 8 characters) controls and indicators which are installed on the front panel.

Key features

- Compact 19" design
- n+1 parallel redundant systems can be provided due to the compact design as a 19" plug-in module with 5 height units
- Seismic approved version in accordance with KTA 3503
- Low inrush current
- Resistant to sustained short circuit
- Communication capable (CAN-Bus)
- Operation with PSC 100 control unit:
  - Active current sharing
  - 4 charge characteristics
  - Temperature compensated battery charging
- Advanced microprocessor technology
- Illuminated LCD-display

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AC 2800 CAN: Specification

TYPE AC 2800 CAN	110 V/20 A E230 G 110/20 BWrg-Cpü	220 V/10 A E230 G 220/10 BWrg-Cpü
Part number	3000000531	3000000532
INPUT		
Nominal input voltage	230 Vac ± 15 %	
Current consumption	13.4 Aac	
Inrush current	≤ Nominal input current	
Required mains fuse	GL 16 A or circuit breaker with C-characteristic	
OUTPUT		
Output voltage	122.7 Vdc ± 1 % (2.23 V/cell)	245.3 Vdc ± 1 % (2.23 V/cell)
Setting range	90 to 148.5 Vdc ± 2 %	180 to 297 Vdc ± 2 %
Output current	20 Adc ± 2 %	10 Adc ± 2 %
Setting range	1 to 20 Adc	0.5 to 10 Adc
Voltage ripple	≤ 250 mV	≤ 500 mV
Power factor	0.92	
Efficiency	91 %	
Dynamic behaviour	≤ 5 % for sudden changes in load between 10 %–90 %–10 % of rated output current (correction rate t < 1 ms)	
Short circuit response	Resistant to sustained short circuit	
Parallel operation/Load sharing	Max. 31 units, load sharing approx. 10 % with inclined characteristic curve; when connected to CAN-BUS load sharing approx. 1 %	
Characteristic line	IU-characteristic to DIN 41772/DIN 41773	
MONITORING AND INDICATION		
Mains monitoring	Under-voltage with switch-off, self-acknowledging	
Response value/Setting range	OFF/ON 188.5/195 Vac/OFF ≤ 188.5 V to ≤ 225 Vac	
	Over-voltage with switch-off, self-acknowledging	
Response value/Setting range	OFF/ON 270/265 Vac/OFF ≤ 241.4 V to ≤ 270 Vac	
Output monitoring	Heat sink temp. monitoring with current de-rating and switching-off	
DC-Under-voltage (Software monit.)	OFF/ON 110/115 Vdc OFF/ON 220/230 Vdc	
Setting range	90 to 126 Vdc 180 to 252 Vdc	
DC-Over-voltage (Software monit.)	OFF/ON 130/125 Vdc OFF/ON 260/250 Vdc	
Setting range	115 to 155 Vdc 230 to 310 Vdc	
DC-Over-voltage (Hardware monit.)	160 Vdc 320 Vdc	
	Uout and Iout by illuminated LCD-display 2x8 characters; charge: LED green; failure: LED red; potential free change over contact provided as failure indication; delay 10 seconds; ON/OFF via external potential free contact; display of the error memory	
MECHANICAL		
Design	1/3-19"-module for installation in sub-frame to DIN 41494	
Ingress protection	IP 20	
Mechanical strength and vibration resistance	To EN50178 section 9.4.3.2	
Equipment colour	RAL 7035 (front panel)	
Dimensions W x H x D (mm)	142 x 262 x 405 (1/3-19" x 6 HU)	
Weight	Approx. 12.5 kg	
Mains connection	Angle plug type GDM 2011, supplied with unit	
DC output	Power-CombiCon type PC 6/2-STF-10.16 2-pole with threaded flange	
Signal interface	CombiCon type MSTB 2.5/3-STF-5.08 3-pole	
Remote ON/OFF	CombiCon type MSTB 2.5/3-STF-5.08 3-pole	
Earth bolt terminal	M4	
CAN-Bus interface	16-pole clip connector	
RS232 service interface	9-pole Sub-D socket	
ENVIRONMENTAL		
Type of cooling	Natural air cooling	
Operating temperature range	0 °C to 45 °C, (measured below the module)	
Storage temperature	–20 °C to +70 °C	
Environmental conditions	EN60721 part 3-3 class 3K3/3Z1/3B1/3C2/3S2/3M2	
Installation height	Up to 1000 m above sea level at nominal load	
STANDARDS		
Interference emission	EN61000-6-4	
Interference resistance	EN61000-6-2	
Low voltage function with safe disconnection	EN50178 EN60950-1	
Approvals	CE, KTA 3503 – Seismic (option)	
Certification	ISO9001	

For further information
please refer to our website:

www.aegps.com

PERFECT IN FORM AND FUNCTION

AEG