Power Safety

AC 7000 CAN

Modular switch-mode rectifier designed for industrial and telecommunication applications

Output Rating from a single rectifier:
250 A (at 24 Vdc)
125 A (at 48 Vdc)
100 A (at 60 Vdc)

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Applications

The 24 V rectifier is designed for industrial applications. The switchable 48 V (60 V) rectifier is designed for supplying power to telecommunication systems. Both are designed as a battery charger/rectifier for protected direct current supply.

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. Further enhancement of the system e.g. remote control via modem can be achieved using our optional Power Supply Monitoring unit (PSM).

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 (24 V with 6 height units)
- Low weight
- Low start 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
- Windows based SMR software tool for adjustment of the output values

TYPE AC 7000 CAN	24 V/250 A D400 G24/250 BWrug-CFpüx	48 V/125 A (60 V/100 A) D400 G48/125 BWrug-CFpüx (D400 G60/100 BWrug-CFpüx)	
Part number	3000000179	37204902	
INPUT			
Nominal input voltage	3 x 400 Vac ± 15 %		
Frequency	47–63 Hz		
Current consumption	3 x 12 Aac		
Inrush current	≤ nominal input current		
Required mains fuse	gL 3 x 16 A or circuit breaker C-characteristic		
OUTPUT		**G48/125**	**G60/100**
Output voltage	26.8 Vdc ± 1 %	53.5 Vdc ± 1 %	66.9 Vdc ± 1 %
Setting range	5 to 32.4 Vdc	35 to 63.6 Vdc	40 to 79.5 Vdc
Output current	250 Adc ± 2 %	125 Adc ± 2 %	100 Adc ± 2 %
Setting range	12.5 to 250 Vdc	6.25 to 125 Vdc	5 to 100 Vdc
Voltage ripple/Interference voltage	≤ 100 mV/acc. to CCITT-A filter £ 1,8 mV		
Number of battery cells lead acid nickel cadmium on request	11	23 to 24	28 to 30
Power factor	0.93		
Efficiency	89 %	91 %	92 %
Dynamic behaviour	≤ 5 % for sudden changes in load between 10 %-90 %-10 % IA rated output current (settling time 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 the control unit via CAN-BUS the load sharing is approx. 5 %		
Characteristic line	IU characteristic to DIN 41772/DIN 41773		
MONITORING AND INDICATION			
Mains monitoring	Phase failure, self-acknowledging Under-voltage with switch-off, self-acknowledging		
Response value	OFF/ON 310/355 Vac Over-voltage with switch-off, self-acknowledging OFF/ON 460/445 Vac		
Output monitoring with LED indication	DC under-voltage with no switch-off, self-acknowledging		
Response value	≤ 24 Vdc 48 Vdc 60 Vdc		
Setting range	0.5 to 28 Vdc 35 to 60 Vdc 40 to 70 Vdc DC over-voltage with switch-off and locking		
Response value	28.2 Vdc 56.5 Vdc 70.3 Vdc		
Setting range	5 to 37 Vdc 35 to 64 Vdc 40 to 80 Vdc Over-temperature with switch-off, self-acknowledging		
Display of output voltage and current	Via measuring sockets		
External functions	Central fault alarm via potential free change over relay contact; External ON/OFF via external potential free change over relay contact; External set-point assignment via CAN-BUS; External sensor cables for output voltage Uout; Over-temperature signal via potential free change over relay contact; Programming via RS 232 interface		

AC 7000 CAN: Specification

MECHANICAL		
Design	19" plug-in 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	RAL 7035 (front panel)	
Dimensions W x H x D (mm)	483 x 265.9 x 400 (19" x 6 HU)	483 x 221.4 x 400 (19" x 5 HU)
Weight	Approx. 32.5 kg	Approx. 31.5 kg
Mains connection/DC output	Angle plug type GDME 313/threaded bolt M 10	
Signal interface	CombiCon type MCVW 1.5/12-ST-3.81	
Earth bolt terminal	Threaded bolt M6	
CAN-BUS-/RS 232 interface	16-pole clip connector/9-pole Sub-D socket	
ENVIRONMENTAL		
Type of cooling	Forced-air cooling	
Operating temperature range	0 °C to 45 °C (measured below the module)	
Storage temperature	–20 °C to +70 °C	
Environmental conditions	EN 60721 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	EN 61000-6-4	
Interference resistance	EN 61000-6-2	
Low voltage function with safe disconnection	EN 50178, EN 60950-1	
Approvals	CE	
Certification	ISO9001	

For further information
please refer to our website:

www.aegps.com

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