

AC 7000 N1

Switch-mode power supply

High reliability 8 KW rectifier for industrial applications



The Switch Mode Power Supply (SMPS) AC 7000 N1 is the new generation of the proven AC 7000 series from AEG Power Solutions. The reliable rectifier is very compact (19"), robust and ideal for all types of industrial applications. The output power of the system is 8000 W at 24, 110/120 and 220 VDC. Thanks to advanced protection (input, output, temperature, current, power) AC 7000 N1 is highly reliable and benefits of a high MTBF. The rectifier provides secured DC power in combination with a parallel battery, to supply all types of DC consumer loads including constant voltage and current sources.

Typical applications

For all industrial applications

- Power generation
- Nuclear power plant
- Oil & Gas
- Petrochemical and chemical
- Transportation and signalling

FEATURES

- Robust design
- Characteristic curve changeover via external contacts
- Low voltage ripple to prolong battery life
- Automatic stop at high and low mains voltage with automatic re-start
- Self-protection against high temperature conditions via automatic switch-off and automatic restart
- Double row LCD display for output voltage and output current
- Complies with RCCE, KTA, IEEE standards

BENEFITS

- Compact in 19" technology
- Adapted to charge many types of batteries including vented lead acid, valve regulated lead-acid (VRLA) or nickel-cadmium batteries (NiCd)
- The system can also be used as a direct power supply without batteries
- Switchable via external contact between float charge, boost charge, manual charge, Genset (all adjustable via potentiometer)
- High availability, MTBF over 350 000 hours



Accessible connectivity via front end termination points

Specifications

TYPE			
Output rating from single rectifier	24 V/250 A	110 V/75 A	220 V/30 A
Part number	3000001261	3000001401	3000001281
INPUT			
Input voltage	3 x 400 VAC ±10 %		
Input frequency	47 to 63 Hz		
Input current	3 x 11.3 A	3 x 15.0 A	3 x 12.2 A
Inrush current	1.0 nominal peak current		
Power factor	0.92		
OUTPUT			
Output voltage nominal (default)	24 VDC (26.8 VDC)	110 VDC (120.4 VDC)	220 VDC (240.8 VDC)
Setting range	18 to 32 VDC	105 to 135 VDC	185 to 280 VDC
Output current	250 A	75 A	30 A
Setting range (adjustable current limit)	150 to 250 A	42 to 75 A	20 to 30 A
Voltage ripple	<30 mV pp	<30 mV pp	<30 mV pp
Power factor	0.92	0.92	0.92
Efficiency	89%	92%	92%
Line and load regulation	<1%		
Dynamic response	3 % with sudden load fluctuation between 10% – 90% – 10% nominal output current (adjustment time <1ms)		
Short circuit behavior	Permanently short circuit proof, 1 - 1.3 x nominal output current		
Parallel operation	Number unlimited, current sharing approx. 20 %		
Characteristic line	IU Characteristics in acc. to DIN 41772		
MONITORING AND INDICATION			
Mains-side monitoring systems	Under-voltage/over-voltage with switch-off, self-acknowledging		
Output-side monitoring systems	Over voltage with switch-off I under voltage without switch-off		
Display	Double row LCD display		
Alarms	Central fault alarm		
Indicators	LED: Power on, over temperature, DC overvoltage, DC undervoltage		
MECHANICAL			
Design	19" module 5U (110 V/220 VDC) / 6U (24 VDC) for installation in 19" rack		
Degree of protection	IP 20		
Mechanical strength and vibration resistance	EN 60068-2-6		
Equipment color	Anodized aluminium (front plate)		
Dimensions W x H x D (mm)	483 x 265.9 x 400 mm (19" x 6HU)	483 x 221.4 x 400 mm (19" x 5HU)	483 x 221.4 x 400 mm (19" x 5HU)
Weight (kg)	approx. 29 kg	approx. 26 kg	approx. 26 kg
Connections	front connections		
ENVIRONMENTAL			
Type of cooling	Forced air cooling		
Operating temperature	0 to 45 °C		
Storage temperature	-25 to 60 °C (in original packing)		
Environmental conditions	EN 60721 part 3-3, class 3K3/3Z1/3B2/3C2/3S2/3M2		
Installation height	Up to 1000 m above sea level at nominal load		
STANDARDS			
Interference emission	EN 61000-6-4 / EN 55011 Class "B"		
Interference resistance	EN 61000-6-2		
Low voltage electrical installations	@ U _o <60 VDC EN 60364-4-41 VDE 0100-410		
Safe electrical Isolation	@ U _o >60 VDC EN 50178 VDE 0160		

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Approach your local AEG Power Solutions representative for further support. Contact details can be found on: www.aegps.com