

SAC

SINGLE-PHASE CEI 0-16

Sine wave emergency
power supply for MV/LV substations
in accordance with CEI 0-16
TECHNICAL SPECIFICATION



SINE WAVE EMERGENCY MV/LV SUBSTATION POWER SUPPLY IN ACCORDANCE WITH CEI0-16



The SAC series is a range of substation emergency power supplies available in 1 – 2 – 3 – 6 – 10 KVA models, with ON-LINE double conversion (VFI) technology and sinusoidal absorption

SAC ensures that the load is supplied with stabilized voltage and frequency, without interruption.

With wide input voltage tolerance, it significantly reduces battery usage preserving its durability.

The SAC series rescuers are designed for the power supply of critical devices, typical of the industrial environment (in particular MV cabins).

FEATURES

DOUBLE CONVERSION

A DOUBLE CONVERSION continuity system that will provide perfect voltage, for complete high-quality protection for your sensitive devices

POWER OUTPUT FACTOR ϕ 0.9

Comparing this line of ON-LINE Rescuers with the competition on the current market, we can say that the SACs have the best output Power Factor 0.9. Offer high throughput and high efficiency for critical applications

WIDE INPUT RANGE (110 V - 300 V)

SAC is able to provide stable and clean current to connected equipment even in very critical and unstable environments.

FUNCTION (EPO) Emergency Power Off

This function is used to extinguish the SAC by the personnel in charge in the event of a fire or other emergency situation.

SIMPLIFIED INSTALLATION

SAC rescuers come with charged batteries and ready to use. The connection is therefore very simple and does not require the intervention of specialized technicians.

For critical applications, we recommend externally creating a manual Bypass circuit so that SAC can be replaced without creating interruptions to the load.

The device is equipped with an intuitive LCD control panel for displaying the operating condition and any anomalies.

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Battery efficiency testing can also be carried out.

BY-PASS MAINTENANCE MANUAL

The manual By-Pass ensures the absence of voltages inside SAC for maintenance interventions, ensuring power supply to the connected equipment.

COMMUNICATION

Communication accessories are available for interfacing with supervision systems (relay boards, ethernet, ModBus and related software).

Controls the automatic and scheduled shutdown of Windows and Linux applications.

It can be downloaded free of charge from the website:

www.power-software-download.com

USB cable included in the package.



12 MONTH WARRANTY

SAC IS EQUIPPED WITH A POWER RESERVE FOR RESETTING THE LOAD AFTER THE END OF THE EXPECTED AUTONOMY.

- The battery rescuer must be switched on again to power the DG before the general disconnector is closed.
- Thermal protections are integrated inside the appliance.
- Additional battery modules are available as an option to extend the range

FOR CABIN AUXILIARIES, THE CEI 0-16 STANDARD PROVIDES FOR THE UNINTERRUPTED POWER SUPPLY OF THE COMMAND OF THE PG AND DG.

The power failure coil and the control circuits of the PG and DG must be powered by the same auxiliary voltage coming from the Rescuer (UPS) or backup batteries with an autonomy of 60 minutes. In the event of a long interruption due to maintenance or breakdown, the DG must be resupplied by suitably trained personnel. Before closing the main disconnector, it is necessary to supply the DG with power.

The following protections are required:

- Mains interruptions due to poor maintenance to the user's circuit
- Untimely trips of the DG due to faults in the trip circuit
- Indication of the alarm condition for DG trip due to power failure

Technical data and images are indicative only and may be changed at any time without prior notice

SAC 01K/02K/03K single-phase ONLINE DOUBLE CONVERSION

MODEL		SAC01K	SAC02K	SAC03K
POWER RATING		1000 VA / 1000 W	2,000 VA / 2,000 W	3,000 VA / 3,000 W
ENTRANCE				
Voltage range		From 160Vac to 300Vac		
Frequency range		45 Hz ~ 65 Hz		
Stages		Single Phase with Neutral		
Power factor P. F.		≥ 0.95		
EXIT				
Output voltage		200-208-220-230-240V		
Tolleranza Volt (Batt. Mode)		± 3%		
Frequency (Range Batt. Mode)		50 Hz ± 0.25 Hz or 60Hz ± 0.3 Hz		
Overload		130% for 1 second		
Crest Current Factor		3:1		
Harmonic distortion		≤ 3 % THD (linear load) ≤ 6 % THD (Nonlinear Load)	≤ 4 % THD (linear load) ≤ 7 % THD (Nonlinear Load)	
Intervention time	Line to Battery	Zero		
	Da Inverter a Bypass	4 ms (Typical)		
D'onda Shape (Battery Mode)		PURE SINE		
EFFICIENCY				
With network present		~ 85%	~ 88%	
Battery operated		~ 83%		
BATTERY				
Battery Type		12V / 7 Ah		12V / 9 Ah
Battery quantity		3	6	
Typical Range		116 min. with 50W	155 min. with 100W	120 min. with 150W
Charging current (max.)		1.0 A		
Charging voltage		41.0 VDC ± 1%	82.1 VDC ±1%	
REPORTS				
LCD Panel		Rescuer Status, Load Level, Battery Level, Input/Output Voltage, Battery Discharge Time, Fault Condition		
ALARMS				
Battery operation		Sound every 4 seconds		
Low Battery		I play every second		
Overload		Double sound every second		
Breakdown		Continuous sound		
DIMENSIONS AND WEIGHTS				
Tower format	Dimensions, D x W x H (mm)	397 x 145 x 220	421 x 190 x 318	
	Net weight (kg)	13.2	28.1	
ENVIRONMENTAL DATA				
Operating Humidity		20-90 % RH @ 0- 40°C (Non-condensing)		
Noise		< 45dBA @ 1 Metro		
INTERFACES				
Smart RS-232/USB		Windows family, Linux, Unix, Mac		
Optional SNMP		Power management per SNMP manager e web browser		

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SAC 06K/10K single-phase ONLINE DOUBLE CONVERSION

MODEL		SAC06K	SAC10K
POWER RATING		6,000 VA / 6,000 W	10,000 VA / 10,000 W
ENTRANCE			
Voltage range		From 160Vac to 300Vac	
Frequency Range		45~65 Hz	
Stages		Single Phase with Neutral	
Power factor P.F.		≥ 0.95	
EXIT			
Output voltages		200-208-220-230-240V	
Tolleranza Volt (Battery Mode)		± 3%	
Frequency (Range Battery mode)		50Hz±0.25Hz / 60Hz ±0.3Hz	
Crest Current Factor		3:1	
Harmonic distortion		≤ 2 % THD (linear load) - ≤ 6 % THD (non-linear load)	
Intervention time	Line to Battery	Zero	
	Da Inverter a Bypass	Zero	
Forma d'onda (Battery Mode)		PURE SINE	
EFFICIENCY			
With network present		90%	
Battery operated		88%	
BATTERY			
Battery Type		12V/7AH	
Autonomy		250 min. with 350W	
Charging current (max.)		1.0 A	
Charging voltage		273.0 VDC	
REPORTS			
LCD Panel		Rescuer Status, Load Level, Battery Level, Input/Output Voltage, Battery Discharge Time, Fault Condition	
ALARMS			
Battery operation		Sound every 4 seconds	
Low Battery		1 play every second	
Overload		Double sound every second	
Breakdown		Continuous sound	
DIMENSIONS AND WEIGHTS			
Tower format	Dimensions, D x W x H (mm)	592 x 250 x 576	
	Net weight (kg)	81	
ENVIRONMENTAL DATA			
Operating Humidity		20-90 % RH @ 0- 40°C (non-condensing)	
Noise		< 45dBA @ 1 Metro	
INTERFACES			
Smart RS-232		Windows family, Linux Unix e Mac	
USB			
Optional SNMP		Power management per SNMP manager e web browser	

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