

MSS

SINGLE PHASE 0.75KW : 7.5KW

Emergency Centralized Power Supply to EN 50171 TECHNICAL SPECIFICATION



120% CONTINUOUS OVERLOAD

BATTERY REVERSAL PROTECTION

HIGH CHARGING CURRENT

CASING WITH HIGH MECHANICAL PROTECTION

BATTERY LIFE EXPECTANCY 10 YEARS

RESTORE TO 80% AUTONOMY WITHIN 12 HOURS AFTER DEEP DISCHARGE

OPERATING MODE

The CEI EN 50171 standard provides for different types of operation; In practical cases, 2 main operating modes are used, described below.

NON-STOP OPERATION (Always on)

In this mode, the load is permanently supplied by the SCO system via the inverter (fig.3). When the input grid fails, it is always the inverter, through the energy supplied by the batteries, to power the load (fig.4). When switching from the mains condition to the mains condition no input, there is no interruption to the power supply to the load, hence the name "uninterrupted" mode. In this mode, the static bypass of the SCO system works only in the event of a failure of the SCO itself, or is used, together with any manual bypass, for system maintenance purposes



NON-PERMANENT SWITCHING OPERATION (Emergency only)

This mode is used in cases where the security systems require power only when the mains fails, for example emergency lighting systems that only work in emergencies (the so-called S.E. Emergency Only systems). In mains conditions the load is not supplied with power (fig.5). In the event of a mains failure, the SCO device supplies power to the safety devices connected to it, also in this case within a time of 0.5 seconds from the mains failure (fig.6)

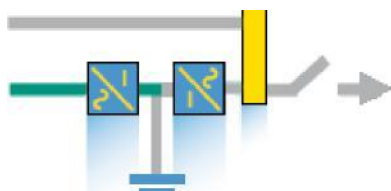


Fig.5 Situation with input network present

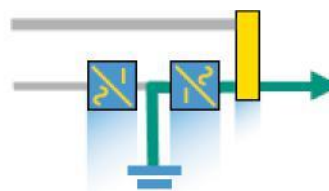


Fig.6 Situation with no input network

OPERATION WITH PERMANENT (always on)/NON-PERMANENT (emergency only) switching

This mode represents the combination of modes 1 and 3 so that one load can be permanently powered (even in the absence of the mains) and at the same time power to another only in the absence of the mains. When the network is present, the "emergency only" load is not powered



0.75 – 1.5 – 2.25kW



4.5 – 7.5kW

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

MODEL		MSS01	MSS02	MSS03	MSS06	MSS10
POWER RATING		1KVA	2KVA	3KVA	6KVA	10KVA
Active power		0.9kW	1.8kW	2.7kW	5.4kW	9kW
Active power according to EN50171		0.75kW	1.5kW	2.25kW	4.5kW	7.5kW
INPUT	Input	Single phase				
	Power factor	THDV input ≤1%				
	Voltage rating	220VAC / 230VAC / 240VAC				
	Rated Frequency	50Hz/60Hz Auto Selection				
	Voltage range	+/-30%				
	Current consumption THDI	≤3% (100% linear load, THDV input ≤1%)				
		≤5% (100% nonlinear load, THDV input ≤1%)				
BATTERY	Battery voltage	24Vdc	48Vdc		72Vdc	
	Number of batteries	16 Standard - 18/20 (configurable)				
	Battery type	LONG LIFE EXPECTED LIFE 10 YEARS				
		Maintenance-free sealed lead				
	Charge type	Quick charge or automatic buffer				
	Charging time	Fast up to 8 hours				
	Maximum charging current	1A – 3A – 5A – 10A (adjustable)				
OUTPUT	Output Type	Monophase				
	Voltage regulation	±1.0%				
	Voltage Distortion (THD)	Less than 2% with 100% linear load Less than 5% with 100% nonlinear load				
	Voltage rating	220V/230V/ 240Vac selectable +/- 3%				
	Frequency adjustment	±0.1% (single unit) ±0.25% (parallel unit)				
	Frequency	Net present: hooks up the network In battery mode: 50Hz / 60Hz				
	Frequency synchronization	1Hz/s (single unit)				
		0.5Hz/s (unit in parallel)				
	Permissible overload with mains present	105% ~ 110%,for max 1h 110% ~ 125%, for max 10 min 125% ~ 150%, for max 1 min >150% switch to bypass now				
	Overload for bypass	Holds the load for a long time if the output current is below 125% The overload of the Bypass is limited by the circuit breaker on the reserve line.				
	Crest factor	3:1				
	Yield in AC	≥93%				
	Dynamic response	± 5.0% (at 0% to 100% load) ≤5% in a cycle				
	Inverter output current limit	When the instantaneous current is 2~3 times the rated peak current (1.414*Rated Power/(3*220)) the inverter enters current limiting				
	DC Component	≤200mV				

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MODEL		MSS01	MSS02	MSS03	MSS06	MSS10
Active power according to EN50171		0.75kW	1.5kW	2.25kW	4.5kW	7.5kW
SWITCH TIME	From mains to battery	0ms				
	Da inverter a bypass					
Noise		<55dB (1m)				
Display		LED + LCD				
Centralized power system		ERP - ERT				
STANDARDS	Reference standards	NF C71815 –(EN50171)				
	Safety	Conforms to EN-CEI 62040-1				
		Conforms to EN-IEC 60950				
		Conforms to EN 50091-2 EMC				
	Performance	Per 62040-3				
	EMC	Conduction: IEC 62040-2				
		Radiation: IEC 62040-2				
		Harmonics: IEC 62040-2				
	Classification (CEI 62040-3)	UPS VFI – SS - 111				
EMS		IEC 62040-2				
Insulation resistance		> 2MΩ (500Vdc)				
Live insulation		2820Vdc, <3.5mA, 1min				
Power surges		Compliant IEC60664-1 1.2/50uS+8/20uS 6KV/3KA				
Degree of protection		IP20				

Working environment

MODEL	MSS01	MSS02	MSS03	MSS06	MSS10
Active power according to EN50171	0.75kW	1.5kW	2.25kW	4.5kW	7.5kW
Temperature	0°C ~ 40°C (excluding batteries)				
Relative humidity	0~95% non-condensing				
Altitude	<1500m - if>1500m the power is reduced				

Mechanical specifications

MODEL	MSS01	MSS02	MSS03	MSS06	MSS10
Active power according to EN50171	0.75kW	1.5kW	2.25kW	4.5kW	7.5kW
Height (mm)	251	339		616	
Width (mm)	144	191		250	
Depth (mm)	368	469		502	
+ BATTERY CABINET ACCORDING TO AUTONOMY REQUIRED					

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