

Datasheet SON



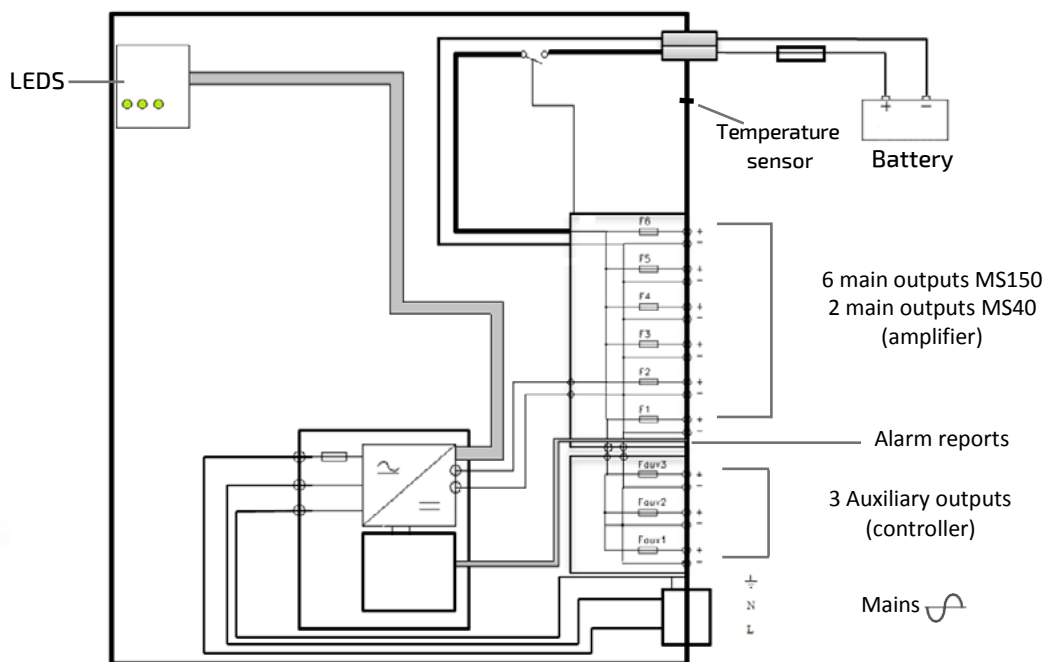
Front



MS40 Back







MS150 Back



	SON 24V 6A MS40	SON 24V 12A MS150	SON 48V 12A MS150
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>Standards-based specifications

Safety	EN 54-4		
EMC - Immunity	EN 60950-1 SELV CLASS		
EMC - Emission	EN 50130-4 - EN 61000-6-1 - EN 61000-6-2		
Trade	EN 61000-3-2 -EN 61000-6-3 - EN 55022 B class		
Environment	This product range meets the environmental requirements of ISO 14001, RoHS and WEEE standards.    		

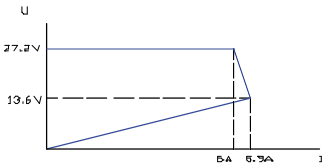
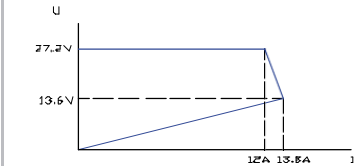
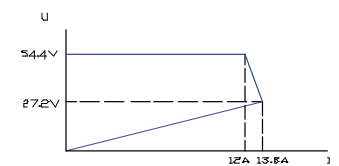
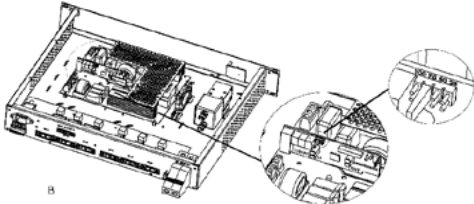
N°CPR (CE)	0333-CPR-	0333-CPR-	0333-CPR-
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Environmental specifications








Humidity	storage : relative humidity 10% to 95% (non-condensing) operating : relative humidity 20% to 95% (non-condensing).		
Storage temperature	-25 to +85°C		
Working temperature	-5 to + 45°C		
Altitude	Above 2,000 m, the temperature decreases by 5% every 1,000 m		
Working life	200,000h with external ambient temperature of 25°C, nominal mains voltage,		

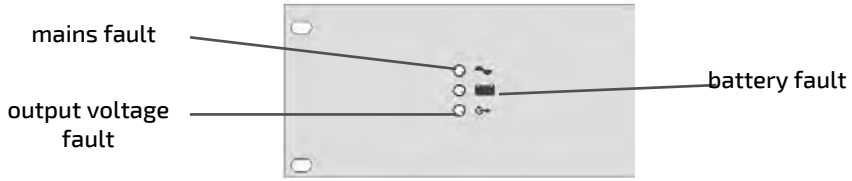
Rates

Maximum current for all outputs	40 A	150 A	150 A
Number of amplifier outputs	2	6	6
Maximum power per amplifier outputs	20 A	40A	
Number of controller outputs	3		
Maximum power per controller outputs	5 A		

	SON 24V 6A MS40	SON 24V 12A MS150	SON 48V 12A MS150
Mains			
Mains voltage	230 V AC +/- (195 to 264		
Frequency	47 to 63 Hz		
Power at full load	190 W	380 W	760 W
Efficiency at full load	84%	87%	91%
Efficiency at 20% of load	74%	82%	86%
Neutral and earthing systems	TT, TN, IT		
Class	Class I		
Output			
Floating voltage (U_n) set at half load and 25°C	27.2 V DC +/- 0.5%		54.4 V DC +/- 0.5%
Nominal output rectifier current	6 A	12 A	
Current limitation - short circuit current:			
Peak to peak HF residual voltage (20 MHz-50 Ω)	< 4% of floating voltage		
RMS LF residual voltage	< 0.2% of floating		
Static and dynamic regulation characteristic	< 5% of floating for mains voltage and output load (from 10 to 90%)		
Battery			
			
Own rectifier consumption	21.6 V +/- 3%		43.2 V +/- 3%
Internal impedance threshold of the battery fault	50 mΩ +/- 10%	- 24 mΩ +/-10% if jumper in '50' position - 16 mΩ +/-10% if jumper in '75' position	- 48 mΩ +/-10% if jumper in '50' position - 32 mΩ +/-10% if jumper in '75' position
Maximum current for all outputs drawn from the battery	40 A	*- 100 A if jumper in '50' position	
Minimum battery capacity	24 Ah	*65Ah if jumper is on '50' position 86Ah if jumper is on	
Maximum battery capacity	120 Ah	225	
Battery temperature compensation	The output battery voltage is compensated by the battery temperature (sensor placed as close as possible). If the sensor is broken or disconnected or has short circuit, the battery voltage isn't		
Own rectifier consumption	140 mA	430	290 mA

* 2 current configurations are available depending on jumper position.

	SON 24V 6A MS40	SON 24V 12A MS150 RACK	SON 48V 12A MS150 RACK
Connections			
Mains	2.5 mm ² plug-in (IEC320) and lockable		
Main outputs	16 mm ² plug-in and lockable		
Auxiliary outputs	2.5 mm ² plug-in		
Battery output	16 mm ² plug-in and lockable 	50 mm ² plug-in and lockable	
Alarm outputs	1.5 mm ² plug-in		
Temperature sensor	1.5 mm ² plug-in		
Protections			
Against unintentional battery reverse	- At start-up: the battery is not connected - During functioning: the fuse F8 (5 x 20, rated:6.3 A, type T) on the power and control board blown	- At start-up: the battery is not connected - During functioning: the fuse F8 (5 x 20, rated:12.5A, type T) on the power and control board blown	
Against battery wiring error	- If battery voltage > 30 V+/-3%, the battery is not connected - If battery voltage < 14 V+/-3%, the battery is not connected		- If battery voltage > 60 V+/-3%, the battery is not connected - If battery voltage < 40 V+/-3%, the battery is not connected
Against output over-voltage	- Regulation problem: by power supply switch off and cyclic restart on. The threshold is 28.8 V+/-3% - External: by transient voltagesuppressor		- Regulation problem: by power supply switch off and cyclic restart on. The threshold is 57.6 V+/-3% - External: by transient voltage suppressor
Against output over current and short circuit by fuse on each outputs	- main outputs: • dimensions: 10.3 x 38 mm • rating: 20 A • type: gG - auxiliary outputs: • dimensions: 5 x 20 mm • rating: 5 A • type: F	- main outputs: • dimensions: 10.3 x 38 mm • rating: 32 A • type: gG - auxiliary outputs: • dimensions: 5 x 20 mm • rating: 5 A • type: F	
Against internal short-circuit by primary fuse	• dimensions: 5 x 20 mm • rate: 2 A • type: T • breaking capacity: 1,500 A	• dimensions: 5 x 20 mm • rate: 6.3 A • type: T • breaking capacity: 1,500 A	• dimensions: 5 x 20 mm • rate: 8 A • type: T • breaking capacity: 1,500 A
Against primary over voltage	275 V		
Against internal high temperature (65°C)	no		yes

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Fonctionnal characteristics			
Alarms and signalisations	 <p style="text-align: center;">Led indication: Green = Ok / Orange=Mains fault active</p>		
Mains	<p>Fault if:</p> <ul style="list-style-type: none"> - mains voltage threshold <185 V+/-5% as long as the charger was switched off, <165 V+/-5% when the charger was switched on - no primary fuse or fuse blown - power supply is broken - internal temperature is too high 		
Battery	<p>Fault if:</p> <ul style="list-style-type: none"> - no battery - high impedance on battery and its associated circuit - battery voltage < 23.5 V+/-3% mains present 		<p>Fault if:</p> <ul style="list-style-type: none"> - no battery - high impedance on battery and its associated circuit - battery voltage < 47 V+/-3%
	<p>Battery fault monitoring</p> <ul style="list-style-type: none"> - Detection of the presence/absence of the battery : 1 test every 30 seconds during the first 20 min and every 15 min after (in normal operation). As soon as a fault detection, the test is every 30 seconds until no fault. - Measurement of the impedance of the battery and its associated circuit: 1 test every 4 hours the mains is present on the power supply and if the power supply has a current < rectifier current. 		
Output	Fault: when one of the auxiliary or main outputs fails		
Alarm reports	Each alarm can be transmitted by dry contacts free of potential (C-NO-NC) allowing 1 A @ 24 V DC, 0.5 A @ 120 V AC		
Mechanical characteristics			
Dimensions	The housing is a 19", 2U rack with connections on the back side. The depth without connectors is 344mm, and 399 with connectors.		
Weight	3.1 kg	5.4 kg	5.9 kg
IP (front side)	IP 30		
Product references			
Available on www.slat.com			

SLAT can change specifications on his products without prior notice.