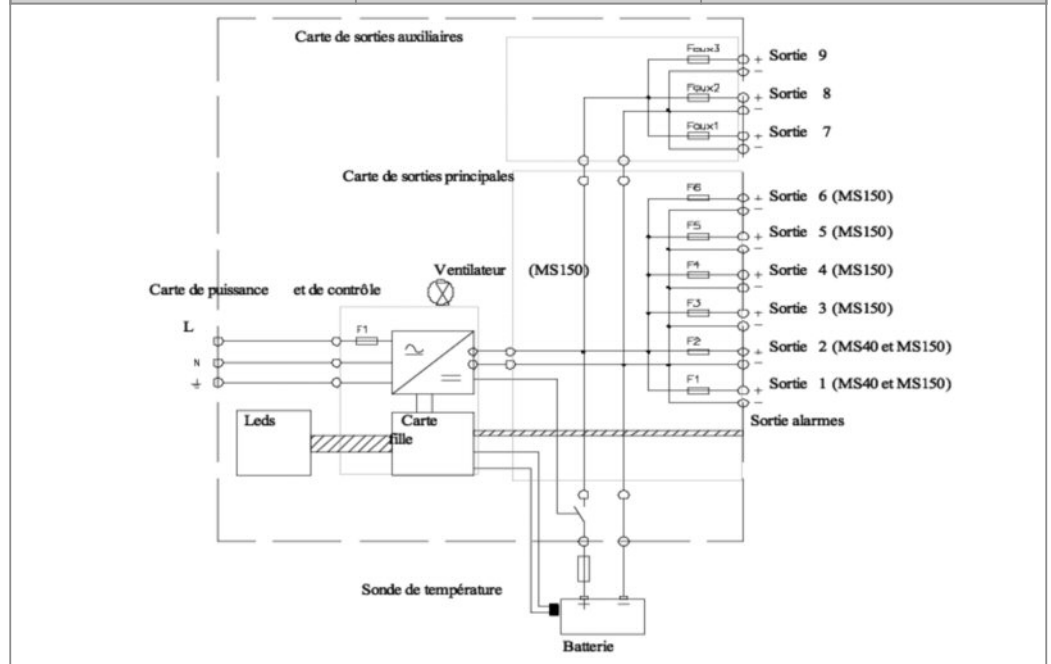




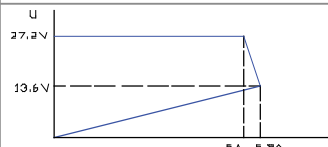
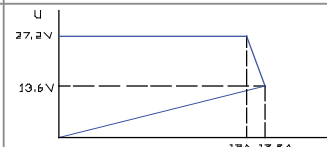
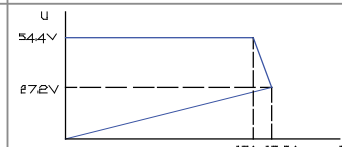
SONAES RACK 2U

SON 24V 6A MS40 RACK	SON 24V 12A MS150 RACK	SON 48V 12A MS150 RACK
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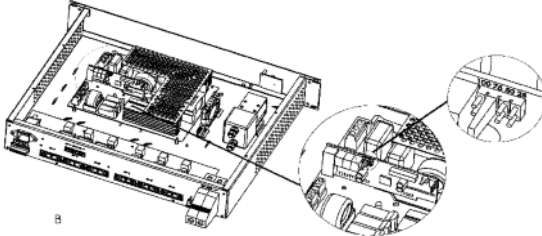







Maximum power for all outputs	960W	3600W	7200W
Number of amplifier outputs	2	6	6
Maximum power per amplifier outputs	480W	960W	1920W
Number of controller outputs	3	3	3
Maximum power per controller outputs	120W	120W	240W

> Mains			
Mains voltage	230V +/-15% (195 à 264V)		
Frequency	47 à 63Hz		
Power at full load	190W	380W	760W
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 set at half load and 25°C	27.2V	27.2V	54.4V
Nominal output rectifier current	6A	12A	12A
Current limitation - short circuit current:			
Peak to peak HF residual voltage (20MHz-50Ω)	< 4% of floating voltage		
RMS LF residual voltage	< 0.2% of floating voltage		
Static and dynamic regulation characteristic	< 5% of floating for mains voltage and output load (from 10 to 90%)		



SON 24V 6A MS40 RACK	SON 24V 12A MS150 RACK	SON 48V 12A MS150 RACK
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> Battery			
Minimum battery capacity	24Ah	65Ah if jumper is on '50' position 86Ah if jumper is on '75' position	
Maximum battery capacity	110Ah	225Ah	
Low battery voltage protection	<p>When the mains isn't present, a relay disconnects battery from main outputs and auxiliary outputs to protect it against deep discharge when the battery voltage reaches low voltage disconnection threshold. The charger is switched on and the relay is reconnected when mains is back and the load is < rectifier current.</p> <p>In case of discharger (total current on outputs > rectifier current) with mains present, the relay disconnects battery from main outputs and auxiliary outputs when the battery voltage reaches low voltage disconnection threshold. When the load is < rectifier current, the charger is switched on and the relay is automatically reconnected. After disconnection, the battery current is nearly 0.</p>		
	Low voltage disconnection threshold: 21.6V +/-3%		Low voltage disconnection threshold: 43.2V +/-3%
Internal impedance threshold of the battery fault	50mΩ +/-10%	- 20mΩ +/-10% if jumper in '50' position - 13mΩ +/-10% if jumper in '75' position	- 40mΩ +/-10% if jumper is on '50' position - 26mΩ +/-10% if jumper is on '75' position
Maximum power for all outputs drawn from the battery	960W	- 2400W if jumper is on '50' position - 3600W if jumper is on '75' position	- 4800W if jumper is on '50' position - 7200W if jumper is on '75' position
			
Battery temperature compensation	<p>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 compensated</p>		
Own rectifier consumption	140mA	430mA	290mA
> Connection			
Mains	2.5mm ² plug-in (IEC320) and lockable		
Main outputs	16mm ² plug-in and lockable		
Auxiliary outputs	2.5mm ² plug-in		
Battery output	 16 mm ² plug-in and lockable	50 mm ²	
Alarm outputs	1.5mm ² plug-in		
Temperature sensor	1.5mm ² plug-in		
> Protections			
Against unintentional battery reverse	<ul style="list-style-type: none"> - At start-up: the battery is not connected - During functioning: the fuse F8 (5 x 20, rated:6.3A, type T) on the power and control board blown 	<ul style="list-style-type: none"> - 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 	

SON 24V 6A MS40 RACK	SON 24V 12A MS150 RACK	SON 48V 12A MS150 RACK
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> Protections			
Against battery wiring error	<ul style="list-style-type: none"> - If battery voltage > 30V+/-3%, the battery is not connected - If battery voltage < 14V+/-3%, the battery is not connected 		<ul style="list-style-type: none"> - If battery voltage > 60V+/-3%, the battery is not connected batterie - If battery voltage < 40V+/-3%, the battery is not connected
Against output over-voltage	<ul style="list-style-type: none"> - Regulation problem: by power supply switch off and cyclic restart on. The threshold is 28.8V+/-3% - External: by transient voltage suppressor 		<ul style="list-style-type: none"> - Regulation problem: by power supply switch off and cyclic restart on. The threshold is 57.6V+/-3% - External: by transient voltage suppressor
Against output over current and short circuit by fuse on each outputs	<ul style="list-style-type: none"> - main outputs: <ul style="list-style-type: none"> • dimensions: 10.3 x 38 • rating: 20A • type: gG - auxiliary outputs: <ul style="list-style-type: none"> • dimensions: 5 x 20 • rating: 5A • type: F 	<ul style="list-style-type: none"> - main outputs: <ul style="list-style-type: none"> • dimensions: 10.3 x 38 • rating: 32A • type: gG - Auxiliary outputs: <ul style="list-style-type: none"> • dimensions: 5 x 20 • rating: 5A • type: F 	
Against internal short-circuit by primary fuse	<ul style="list-style-type: none"> • dimensions: 5 x 20 • rate: 2A • type: T • breaking capacity: 1500A 	<ul style="list-style-type: none"> • dimensions: 5 x 20 • rate: 6.3A • type: T • breaking capacity: 1500A 	<ul style="list-style-type: none"> • dimensions: 5 x 20 • rate: 8A • type: T • breaking capacity: 1500A
Against primary over voltage	275V		
Against internal high temperature (65°C)	no	yes	yes
> Fonctionnal characteristics			
Alarms and signalisations			
Mains	Led indication: 1- Green: Ok 2- Yellow: Mains fault active		
	Fault if : <ul style="list-style-type: none"> - mains voltage threshold < 185V+/-5% as long as the charger was switched off, < 165V+/-5% when the charger was switched on - no primary fuse or fuse blown - power supply is broken - internal temperature is too high 		
Batterie	Led indication: 1- Green: Ok 2- Yellow: Batterie fault active		
	Fault if : <ul style="list-style-type: none"> - no batterie - high impedance on batterie and its associated circuit - batterie voltage < 23.5V+/-3% mains present 		<ul style="list-style-type: none"> - no batterie - high impedance on batterie and its associated circuit - batterie voltage < 47V+/-3% mains present
	Internal impedance threshold: - 50mΩ +/-10%	<ul style="list-style-type: none"> - 20mΩ +/-10% if jumper on '50' position - 13mΩ +/-10% if jumper on '75' position 	<ul style="list-style-type: none"> - 40mΩ +/-10% if jumper on '50' position - 26mΩ +/-10% if jumper on '75' position

