

SONAES



Charger and Monitoring Unit

The SONAES series of battery chargers (24 VDC) are designed for Voice Alarm system. The battery chargers are microprocessor based devices that have been designed to charge lead acid batteries (back-up batteries connected to the voice alarm system) and simultaneously provide power to auxiliary devices such as the DIVA and IDA8 controllers. The SONAES includes two EN 54-4 certified models:

- **SON 24V 6A MS40 RACK**
- **SON 24V 12A MS150 RACK**

The maximum charging current is 6 or 12A. The battery charger is two rack units high, and has to be installed in a 19" rack. Maximum battery capacity 114 or 225 AH. The SONAES comes without batteries.

OVERVIEW

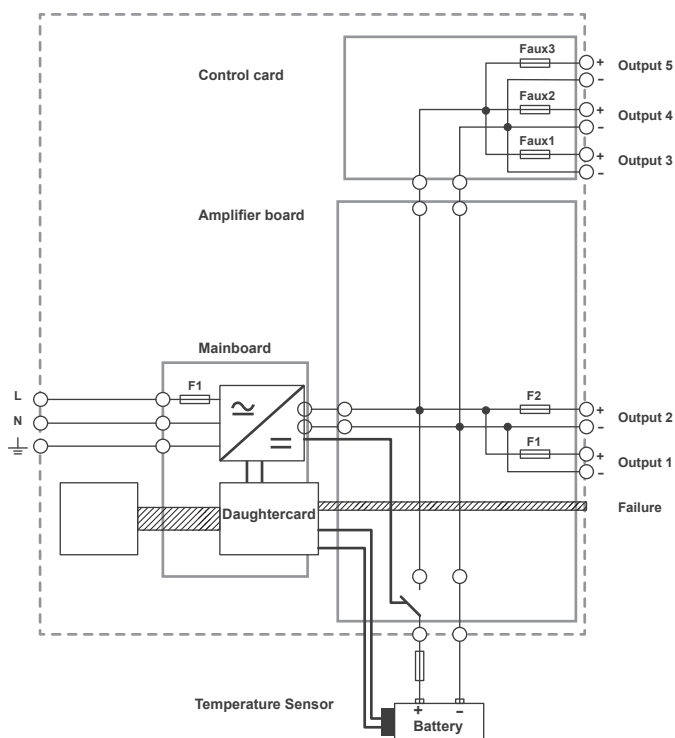
To meet the secured power backup system need, determining the exact conditions and the amount of battery backup for a system is much complex than other applications. Public address/voice alarm system does not draw a constant current. The standard defines a standby time and an evacuation time. In this case, it is crucial to pick a battery backup that shall supply the minimum amount of power for a set amount of time. With SONAES battery chargers, it provides you with a battery calculator program which determines the exact capacity.

REGULAR PROCEDURE AS FOLLOWS

1. Determine the standby/evacuation current and the amount of battery backup of the system
2. Detect and enhance the standby/evacuation current simultaneously for 24 hours
3. 24 hours discharge capacity of the battery

- **SON 24V 6A MS40 RACK**
 - 2 RU-rackmount charger
 - 3 auxiliary outputs, max. 5A per output
 - 2 main outputs, max. 20A per output
 - Battery capacity: 24 AH to 114 AH
- **SON 24V 12A MS150 RACK**
 - 2 RU-rackmount charger
 - 3 auxiliary outputs, max. 5A per output
 - 6 main outputs, max. 40A per output
 - Battery capacity: 65 AH to 225 AH

BLOCK DIAGRAM FOR SON 24V 6A MS40 RACK



TECHNICAL SPECIFICATIONS

ELECTRICAL

- Mains power supply
 - Voltage: 230 VAC $\pm 15\%$, 50/60 Hz
 - Power consumption
 - ◆ SON 24V 6A MS40 RACK: 190W at full load
 - ◆ SON 24V 12A MS150 RACK: 380W at full load
- Battery power supply
 - Voltage: 24VDC
 - Maximum charging current
 - ◆ SON 24V 6A MS40 RACK: 6A
 - ◆ SON 24V 12A MS150 RACK: 12A
- Outputs
 - Main for amplifiers
 - ◆ SON 24V 6A MS40 RACK: max. 40A for 2 outputs
 - ◆ SON 24V 12A MS150 RACK: max. 150A for 6 outputs
 - Auxiliary for controllers: 3
 - Maximum current: 5A
- Batteries: 2 x 12V, 24 to 225 AH
 - Approved brands
 - ◆ Yuasa NPL Series
 - ◆ Power-Sonic GB Series
 - ◆ ABT TM Series
 - ◆ EnerSys VE Series
 - ◆ Effekta BTL Series
 - ◆ Long GB Series

CERTIFICATIONS AND APPROVALS

Europe	Voice Alarm	EN 54-4
		1116-CPR-112
		1116-CPR-089
Europe	CE/EMI	EN 55032 - B Class
Europe	CE/EMC	EN 61000-6-1 EN 61000-6-2 EN 61000-6-3 EN 61000-6-4

PARTS INCLUDED

Quantities	Components
1	SON 24V 6A MS40 RACK SON 24V 12A MS150 RACK
1	Set of connectors

MECHANICAL

- Dimensions (W x H x D)
 - SON 24V 6A MS40 RACK: 483 x 88 x 355 mm (19" x 3.5" x 14")
 - SON 24V 12A MS150 RACK: 483 x 88 x 398 mm (19" x 3.5" x 15.7")
- Weight
 - SON 24V 6A MS40 RACK: 3.1 kg (6.8 lbs)
 - SON 24V 12A MS150 RACK: 5.4 kg (12 lbs)
- Mounting: 19" 2U rack
- Colour: RAL 7016
- IP rate: IP30

ENVIRONMENTAL

- Operating temperature: -5 °C ~ +45 °C (+23 °F ~ +113 °F)
- Storage temperature: -25 °C ~ +85 °C (-4 °F ~ +185 °F)
- Relative humidity: 20 % to 95 % (non-condensing)
- Air pressure: 600 to 1100 hPa
- Heat dissipation: 1,300 BTU/hr

ORDERING INFORMATION

- **SON 24V 6A MS40 RACK** : SONAES, Charger and Monitoring Unit, 2U 6A rackmount charger
- **SON 24V 12A MS150 RACK** : SONAES, Charger and Monitoring Unit, 2U 12A rackmount charger