Section	**Voice Evacuation**
Category	**Accessories / Battery-charging and checking**
Range	**W-MS24**
Code	**W-MS24/4** *(Mod. AES 24V 4A F3U)*
Certificate	**EN 54-4:** n. 0333-CPR-075192

Description

24VDC 4A battery-charger

The **W-MS24/4** battery-charger unit, characterized by a low energy consumption and an aluminum cabinet with ABS recyclable cover, ensures continuity of service through built-in features:

- Control of the battery and its circuit: protection, management, self-diagnostic.
- Real time monitoring of system status: interface of mains, charger power supply and battery information with remote reporting via dry contacts.

Quick and easy installation, user-friendly operation:

- Connection diagram on the back of the product.
- Screw terminals, suitable for large cable sizes.
- Easier handing with plug-in connections for alarm reports.
- Easy wiring with two load outputs that allow for an increased number of applications.
- Wide choice of installation locations owing to its compact size and noiseless operation.
- No preventive maintenance: continuous monitoring of the emergency power supply with local display and remote reporting.

The **W-MS24/4** allows a reliable output voltage, resistent to:

- Overvoltages encountered on the mains network (lighting, industrial, isolation fault or impedance-earthed neutral system).
- Short-circuit on the primary power supply.
- Shock waves.
- Battery polarity inversion.
- Overvoltages on secondary.
- Overcurrents and short-circuits on secondary.
- Short-circuit inside the product, protected by primary fuse.
- Increasement in external temperatures (outside the specified range).

Output current limitation:

- Allows a charge a charge cycle to be started with a dead battery.
- Completely protects the product from short-circuits on the installation.
- Protection selectivity is ensured by fuses on each load output and the battery fuse.
- Preservation of the battery capacity to guarantee optimum system operation.

For the control and management of the emergency power source, monitoring of:

- Status of mains, battery and load fuses.
- Battery presence / absence / impedance.
- Temperature inside the cabinet.
- Battery voltage and operating status.
- Mains voltage present in the correct operating range.

To ensure optimum operation of the battery:

- The charge voltages are factory set for “sealed” recombination-type lead acid batteries.
- They’re consistent with the battery manufacturers’ recommendations.
- The maximum current capacity of the battery hasn’t to be higher than 55 Ah (rated value): the W-MS24/4 has to be connected to batteries with values not higher than 55 Ah.

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Description

Indicators:

- MAINS FAULT: failure of the main power supply, signaled locally by a yellow LED.
  If the mains is not present or < 195V. If the mains fuse is blown or not present, or if the product is out of order. Remote reporting by dry contact with delay (failsafe).
- BATTERY FAULT : failure of the battery (safety supply): signaled by a yellow LED. Remote reporting by dry contact with delay (failsafe).
  The battery is tested in the following manner:
  - every 30 seconds for the first 20 minutes after commissioning.
  - every 15 minutes after the first 20 minutes.
  - if a fault is detected, the test is conducted every 30 seconds, and continues up to 20 minutes after the fault disappears.
  - if the internal impedance is too high (test every 4 hours maximum on a charged battery) the impedance limit value is 24V 100W = 410 mΩ ±10%.
  - if the battery voltage is <1.8V/élt. ±3%.
- OUTPUT 1 : voltage presence (replacement normal source):
  Voltage presence on this output is indicated by a green LED.
- OUTPUT 2 : voltage presence (replacement normal source):
  Voltage presence on this output is indicated by a green LED.
- Remote reporting by dry contact with delay (failsafe) of the absence of one of the 2 load outputs.

W-MS24/4 operates when the 2 green LEDs, corresponding to the load outputs, are illuminated.
If voltage is not present, the LEDs are off.

Temperature compensation:
A battery voltage compensation system maintains the charge characteristics within the limits specified by the battery manufacturer across the entire operational temperature range.

Battery current limitation:
A configuration jumper on the daughterboard (position 25%, 50%, 75% of the rated current) allows the battery's charge current to be adapted to its capacity. The product comes with the jumper in the 75% position.

Battery low voltage outage:
The outage threshold is 1,8 V/élt. ±3%.

Connections:
Screw terminals:
1 Mains input (Ph-N-GDN). Max 2,5 mm²
1 Batteries (+ and -). Max 6 mm² each.
2 Outputs (OUT 1 + and - , OUT 2 + and -). Max 6 mm² each.
3 Alarm Fault. Max 1,5 mm² each.

Technical data

Power supply	230 VAC ± 15% - 50/60 Hz
Maximum output current at load	4 A
Primary load outputs @24VDC	2 x 4 A
Auxiliary load outputs @24VDC	-
Battery capacity (minimum/maximum)	7 Ah / 55 Ah
Nominal output rectifier current	3 A
Fault indications	Mains fault, battery fault, output voltage fault
Low voltage disconnection threshold	21,6 V ± 3%
19" rack mounting (modular units)	Direct (3U)
Dimensions (W x H x D)	482 x 133 x 110 mm
Net weight	3 kg

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