ISO 9001

European manufacturer

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GR-1107/60V

PROGRAMMABLE COVENTIONAL LED LUMINAIRE TO EMERGENCY LED LUMINAIRE CONVERTER

CE

TECHNICAL CHARACTERISTICS

OPERATION VOLTAGE	200-250V AC/50-60Hz
MAXIMUM POWER CONSUMPTION	4.75W / 5VA
POWER FACTOR	>0.95
LED VOLT OUTPUT	12….58V DC
OUTPUT CURRENT	350mA maximum
MAXIMUM POWER OUTPUT	3.8W
CAPACITANCE OF BATTERIES	1.5Ah (B-973/HT), 3Ah (B-941/HT) in 4.8V selectable
CHARGING TIME	16 hours
CHARGING CURRENT	200mA for batteries 1.5Ah - 400mA for batteries 3Ah
AUTONOMY SELECTION	1.5h or 3h
EXTERNAL LED TYPE	luminaire without an internal drive circuit
LED OUTPUT SHORT CIRCUIT PROTECTION	Included
EXTERNAL LED DRIVING TYPE	with constant current output
DEGREES OF COVER PROTECTION	IP20
PRODUCED IN ACCORDANCE WITH	EN 61347-1, EN 61347-2-7, EN 61347-2-13, EN 55015, EN 61547, EN 61000-3-2, EN 61000-3-3
OPERATION TEMPERATURE RANGE ta	0 to 45 °C
MAXIMUM COVER TEMPERATURE tc	50 °C
RELATIVE HUMIDITY (maximum)	<90%, without concentrations
CONSTRUCTION MATERIALS	Bayblend FR3010
EXTERNAL DIMENSIONS	171 x 41 x 31 mm
TYPICAL WEIGHT	135gr.
GUARANTEE	3 years

SELECTIONS

DIP SWITCH SELECTION

Battery capacitance selection (BATTERY CAP.)		Backup autonomy selection (DURATION)	
ON	1.5Ah	ON	1.5 hours
ON	3Ah	ON	3 hours

MAXIMUM POWERS OUTPUT

BATTERY CAP. / DURATION	2W	BATTERY CAP. / DURATION	3.8W
BATTERY CAP. / DURATION	0.9W	BATTERY CAP. / DURATION	2W

CONNECTIONS

Note!! For the electrical connections remove with a flat blade screwdriver the two protective covers as shown on th left.
When you are done with the connections replace them to their original place.

The option of the battery capacity does not depend on the selected autonomy time but determines the maximum luminosity of the luminaire.

Congratulations for your selection to buy this product.
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GENERAL

The GR-1107/60V device is an electronic device that enables the installer to convert a conventional low voltage LED lamp into an emergency luminaire. It supports the connection of the external drive mechanism of the led lamp (LED Driver) through the inner Relay, forming a maintained emergency luminaire. The supply of LED Driver is provided by **~L OUT** contact in order to be connected in the mains at the right time, while the external switch **SW 1** (page 1) controls the supply of LED Driver from the network to function when desired. The processor of the device, manages the charging and discharging of the battery in such a way, as to ensure its longevity. The battery charger is powered by a high performance switcher that isolates the battery charger and supply of the circuits, from the disruption of the network. It can provide up to 400mA charge current and has a short circuit protection of the output. The discharge circuit continuously monitors the current in relation to the settings and thus regulates the power consumption of the luminaire to ensure the desired autonomy, regardless of their requirements.

BATTERY CUTOFF

The unit enters this state during the power supply failure and when the battery has been fully discharged. The luminaire draws the least current from the battery within absolute safe limits, in order to prevent a disastrous deep discharge. The restoration of the mains power reinstates the device to normal operation.

MANUAL TESTING

This test runs when pressing momentarily, the optional button (supplied on request) that has been connected to the relevant contacts of the device. The device simulates the interruption of the mains power and activates the luminaire from the battery for 3''. In this way the user can test the entire backup circuit for malfunction. To do a manual test the device must be connected to the mains power supply. The battery must also be connected. If the LED charging indicator is connected, it will be off during the test.

BATTERIES CAPACITY OPTIONS

The capacity of the battery is selected according to the type of luminaire (how many LEDs the circuit has in series) and the desired autonomy. The device will adjust the consumption of the luminaire, to achieve in anyway the selected autonomy. This often has a result that the luminaire will operate with less power than the named. The two different options of the power are achieved through a selector BATTERY CAP and are the following:

■□ 1.5Ah, □■ 3Ah.

AUTONOMY OPTIONS

The device continuously measures the power consumption of the battery and regulates the output accordingly to ensure absolutely the selected duration of autonomy. The two different options of autonomy are achieved through a DURATION selector and are the following:

■□ 1.5 hours, □■ 3 hours.

OUTPUT CIRCUIT

The output current to the luminaire is provided by a circuit that can support luminaires having voltage output of 12-58V. All luminaires having only LEDs directly are supported by the output circuit with a maximum current of 350mA and a maximum voltage output of 58V DC. The current adjustment is continuous in order to achieve, primarily, the requested autonomy in relation to the selected battery. The device, namely, continuously adjusts the output current, so it is within the required limits, as result the lower brightness of the luminaire in some cases. The luminaires having integrated LED driver circuits in most cases, are supported properly. In cases, where the luminaire requires high initiation current boosts or the LED driver circuit requires specific behavior of the supply circuit (in this case the GR-1107/60V) it is possible that a malfunction will occur and the luminaire will not be activated. (It is proposed to check the operation of GR-1107/60V before you order the luminaire). The output circuit is protected from accidental or permanent short circuits and avoids destruction of the device. The protection mechanism prevents currents larger than a safe value consumed by the luminaire by disconnecting the output.

BATTERIES STORAGE

·Batteries should be stored under appropriate conditions of temperature and humidity. The optimal conditions are: temperature of +5 °C to 25 °C, humidity 65% (+/-20%).

· We need to avoid areas where the air contains corrosive gases.

· The battery must be disconnected from the device when it is stored or delivered to

the user.
· We need to avoid storing a battery that is discharged. The ideal situation is the 24 hour charge before storing.
· The long term storage of a detached battery leads to discharge (due to self discharge) and chemical inactivation of its content. It requires a number of charge-discharge cycles, and the battery will acquire its initial capacity characteristics.

CONNECTIONS

Remove the plastic end caps using a flat blade screw driver to gain access to the connection terminals. After finishing all the connections according to the adjacent diagram (page 1) use the supplied cable ties to secure the cables to the casing of the GR-1107/60V. After securing the cables refit the plastics caps.

WARRANTY

Olympia Electronics guarantees the quality, condition and operation of the goods. The period of warranty is specified in the official catalogue of Olympia Electronics and also in the technical leaflet, which accompanies each product. This warranty ceases to exist if the buyer does not follow the technical instructions included in official documents given by Olympia Electronics or if the buyer modifies the goods provided or has any repairs or re-setting done by a third party, unless Olympia Electronics has fully agreed to them in writing. Products that have been damaged can be returned to the premises of our company for repair or replacement, as long as the warranty period is valid.
Olympia Electronics reserves the right to repair or to replace the returned goods and to or not charge the buyer depending on the reason of defection. Olympia Electronics reserves the right to charge or not the buyer the transportation cost.

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