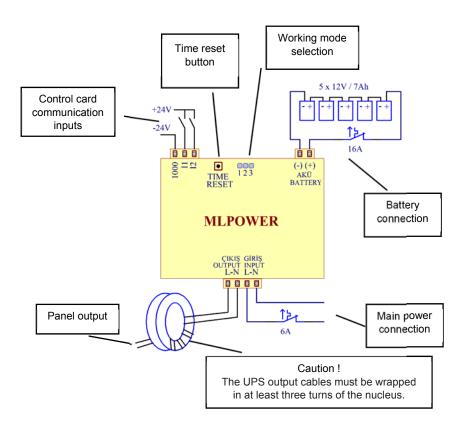
# **MLPOWER USER MANUAL**

MLPOWER is a UPS working with 60V-7Ah batteries. The device can operate safely in the conditions of 170Vac-265Vac main voltage. Product operating temperature range is  $(-20 \,^{\circ}\text{C})$  –  $(+60 \,^{\circ}\text{C})$ . Maximum output current is 3A.

#### 1. Device Installation

- 1) Load and main power connection is made during device installation. Then battery connections are made.
- 2) The device will not run without connecting the batteries.
- 3) Protection of the device is done with delayed fuse against the reverse polarity of the batteries. Therefore, when the battery is connected, the + and terminals of the battery must be connected to the correct terminals of the battery terminal.
- 4) The device supplies loads via main electricity via RL1 relay without battery connection.
- 5) Connection of the device to the control panel should be done as shown below. The device output cable must be wrapped around the nucleus in the box for three rounds.





## 2. Working Style

### 2.1. If There is Main Power

1) If there is a main phase, all loads are fed over the main power and the battery is charged.

#### 2.2. If There is No Main Power

- 1) If there is no main phase, RL1 relay is energized ve loads are fed through the device, the system begins to work from the battery.
- 2) If 2 and 3 pins are short-circuited, the device will shut-off after 300 seconds.
- 3) If 1 and 2 pins are short-circuited, the device is *in operating mode in according to EN 81-20 standards*. In this mode, If 24V "Rescue completed" information comes from the lift controller to the I1 input, the device will stop generating output voltage and does not produce output voltage until the main power come and go again. If "Rescue completed" does not appear, the device will shut-off after 300 seconds and does not generate voltage by staying in standby mode for 300 seconds. Until "Rescue completed" information comes, this cycle (generate 300 seconds of voltage, wait 300 seconds) is repeated up to 7 times for 1 hour. If "Rescue completed" information does not still come to the device, it will not generate any more voltage until the main power come and go again.
- 4) There is a "TIME RESET" button on the device. The aim is to end the waiting period in the place where the main power is cut-off when a technical service or authorized person arrives. When the "TIME RESET" button pressed, the 300 seconds waiting period is immediately ended and the device begins to generate voltage.

## 3. Warning Cases, Buzzer and Leds

When it is first energized, the buzzer sounds for 2 seconds. During this time the battery is not charged or discharged.

### 3.1. Device Operating from the Main Power:

- 1) UPS led is OFF.
- 2) Battery led is always ON when the batteries is connected and battery voltages are at normal values. If the batteries is not connected battery led is off.
- 3) When the first main power comes, if battery voltage is low (if it is less than 56V), the battery led will flash for 10 seconds to warn.
- 4) When main power high voltage or main power low voltage fault, the main power led will flash to warn.
- 5) If main power voltage is normal, its led is always ON.

### 3.2. Device Operating from the Battery:

- 1) The buzzer sounds intermittently during the working time of the device.
- 2) Main power led is off.
- 3) If the voltage generation stage is working correctly, UPS led is always ON. The UPS led is off when the study period ends.
- 4) When the battery low voltage fault, the battery led will work flashing. if battery voltage is low (if it is less than 56V), the buzzer intermittently sounds. if battery voltage is lower than 50V, the device shut-off
- 5) When the operation time reaches 300 seconds, the device is completely shut-off. After this, the current will not current again and the battery will not discharge more. UPS led is also off. If the battery is normal, battery led is continuesly ON.
- 6) If overload occurs, the buzzer always sounds during overload, UPS led warns with flashing.
- 7) The device will shut down if the overload is over than 5 seconds and UPS led is ON. The device will not work again until the main power comes back. After 1 minute the UPS led will shut-off completely.

