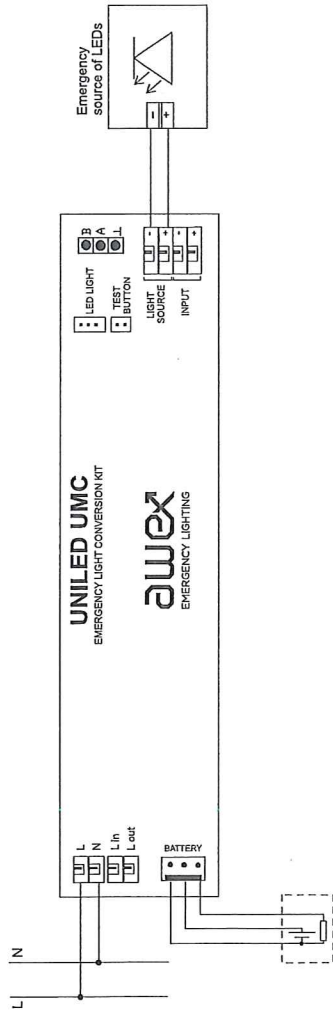
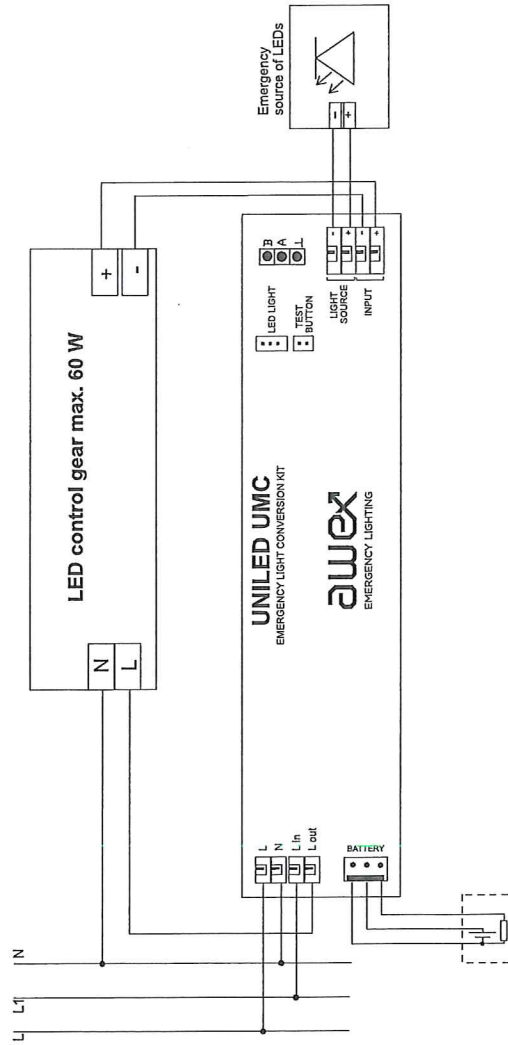


Connecting the UNILED-UJC model with one LED source in the emergency mode\_1-function (SE\_dark).



Connecting the UNILED-UJC module with an external power supply source and one LED light source in the grid\_emergency mode\_2-function (SA\_bright).



### UNILED UMC SIGNALLING STANDARD

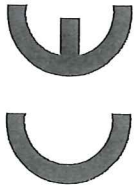
Light colour (blinking) LED, R- red, G- green	Light Source	Description
	ON	Emergency operation
	OFF	Rest mode
Error signalling or off	Any	Lack of battery
G	OFF	Battery charging
G	OFF	Standby mode (battery is charged)

### UNILED UMC SIGNALLING PREMIUM

Light colour (blinking) LED, R- red, G- green			Light Source	Description
G	R	G	R	Confirmation of reset of errors (AT only)
			ON	Emergency operation
			OFF	Rest mode
	R	R	Any	Communication error (RU only), lack of battery
G	R	G	R	Communication error (RU only), battery connected
	R		Any	Battery error
		R	Any	Light source or electronics error
Error signalling or off			ON	Test or grid operation in progress
Error signalling or off			Any	Lack of battery
G			OFF	Battery charging
G			OFF	Standby mode (battery is charged)

### TEST BUTTON FEATURES (optional)

Service button provides the following features: Error reset, time reset, test launch. Two options of pressing the button: short, lasting from 0.1 sec. to 2 sec. and the long one longer than 2 sec.  
**Error reset:** if any error occurs, long press the button may reset it. Error deletion is confirmed with quick, alternating blinking of the green and red diode for 3 seconds. If no error occurs, long press will turn on the battery light.  
**Turning on the battery light (control test):** The feature can be triggered only in case no errors occurs. In case of any errors, delete them first. Press and hold the button to turn on the light. The light will turn on after 2 seconds and will remain on as long as the button is pressed. Minimal illumination time is 2 seconds. Green and red diodes are alternatively blinking during the control test in order to check signalling. Errors are checked during the control test in the same way as during the short or long test.  
**Time reset:** Launch the control test. After the light is off, the green diode start blinking for 2 seconds. Long press the button during this time. Time deletion is confirmed with quick, alternating blinking of the green and red diode for 3 seconds.  
**Launching the short test:** Launch the control test. After the light is off, the green diode start blinking for 2 seconds. Short press the button during this time. The short test will be launched for the time of 1 minute. After completion of the test, errors will be set in case of any irregularities found. Launching the test is only possible if the battery was charging continuously for the last 4 hours.  
**Launching the long test:** Long press the button during the short test. Programming the long test is signaled with quick, alternating blinking of the green and red diode for 3 seconds. The long test will be performed after 24 hours of continuous charging of the battery.



### INTENDED USE:

Electronic emergency conversion unit UNILED UMC for emergency lightning is compatible with LED light sources operating in the range from 10 to 50VDC. UNILED UMC conversion unit detects power loss and converts battery voltage to the voltage compatible with emergency LED light source. Emergency illumination time depends on LED power and connected battery capacity. Technical parameters of the UNILED UMC inverter (quick detection of 220-240V/50-60Hz power loss and switching to emergency mode) enable using UNILED UMC inverters in emergency power supply systems in buildings with high rate of primary power supply loss. Electronic system of emergency conversion unit UNILED UMC is compatible with illumination frames in the following operation modes:

-, emergency" (1-function, dark) - with one emergency LED light source which switches on only in case of grid power failure.  
 -, grid - emergency" (2-function, bright) - with several LED sources powered from external power supply driver and one emergency LED source switching to emergency mode, in case of grid failure. It means, that in case of power loss, LED sources operating with grid power supply are turned off, and the LED operating in emergency mode is switching on, powered from batteries.

### TECHNICAL DESCRIPTION:

UNILED UMC inverter, when powered with 220-240V/50-60Hz, is charging the connected battery pack with dedicated voltage. Charging depends on capacity and type of the battery package included in the integral set of emergency lightning. If voltage in the power grid drops below the critical value or is lost, UNILED UMC automatically switches to emergency mode from the battery. Charging process and presence of alternating voltage 220-240V/50-60Hz is signalize with green LED. UNILED UMC inverter reaches rated parameters for the needs of emergency lightning in max. 24h from the last working cycle in the emergency mode. Repeated power loss 220-240V/50-60Hz before the 24h results in correct switching of the emergency system into emergency mode. In this case, operation time in the emergency mode depends on the battery pack charging level. The electronic monitoring system of the battery pack charging level, in the emergency mode, protects battery pack against total discharge, which positively affects to lifecycle and capacity of batteries.

### TESTING (standard version):

There is an option to test the lightning frame equipped with the UNILED UMC electronic emergency conversion unit using test button, which is lead from the inverter and should be fixed in an easily accessible place. A green LED light is on when the power to grid is connected. This provides a signal from power supply in the electronic system about battery charging. Pressing the Test button starts a simulation of power loss and switches the UNILED UMC electronic system into the emergency mode. The grid LED sources switch off during emergency operation - the emergency lightning frame is powered from the battery. After the Test button is released the grid power is restored and the lightning frame is in grid power mode - battery charging process begins (standby mode).

### TESTING (autotest version):

The A test is triggered automatically every 28 days. The first short test is initiated after 28 days from the moment the AC power supply was provided and batteries were connected. Following parameters are tested during the A test: Forcing of emergency operation of the lightning frame for the time of 1 minute, battery charging level check, battery discharge current check. The B test is triggered automatically every 364 days. Following parameters are tested during the B test: Forcing of emergency lightning frame for the time defined for particular frame, battery discharge current, battery voltage check. In case when AC power is lost, the tests will be delayed. By 4h in case of test A and 24h in case of test B.

### TECHNICAL PARAMETERS:

Power supply voltage: 220-240V/50-60Hz  
 Output power in case of emergency: 3W or 4W  
 Grid LED sources power supply: 10VDC - 50VDC, max 60W  
 Mode of the operated lightning sources in emergency: LED light source supplied with 10 - 50VDC  
 Ambient temperature (ta): 0...+50°C  
 Batteries used: service-free Ni-Cd or LiFePO4  
 Battery package voltage: 3.6V, 4.8V or 6.4V and the capacity of 1,0, 4,0Ah (depending on the model)  
 Max charging time: up to 24h  
 Backup time: 1h, 3h depending on battery capacity. Protection class: IP20  
 Grade: I  
 Power supply cables diameter: 0.5 - 1,5 [mm2]  
 Diameter of the cables connected to the lightning source: 0.5 - 1,5 [mm2]  
 Dimensions (l x w x h): 190x34x21 [mm]

### UNILED UMC BASIC

CODE	POWER [W]	AUTONOMY [h]	OPTIONS	BATTERY
UMC/3/1/PT	3	1	PT	Ni-CD 3.6V 1,5Ah
UMC/3/3/PT		3	PT	Ni-CD 3.6V 4,0Ah

### UNILED UMC STANDARD

CODE	POWER [W]	AUTONOMY [h]	OPTIONS	BATTERY
UMC/4/1/PT	4	1	PT	Ni-CD 4.8V 1,5Ah
UMC/4/3/PT		3	PT	Ni-CD 4.8V 4,0Ah

### UNILED UMC PREMIUM

CODE	POWER [W]	AUTONOMY [h]	OPTIONS	BATTERY
UMC/4/1/AT		1	AT	LiFePO4 6,4V 1,0Ah
UMC/4/3/AT	4	3	AT	LiFePO4 6,4V 3,0Ah
UMC/4/1/RU		1	RU	LiFePO4 6,4V 1,0Ah
UMC/4/3/RU		3	RU	LiFePO4 6,4V 3,0Ah