

CONSTANT POWER LED EMERGENCY DRIVER

Class 2 output

LEM-Pxx-060-A-U-PT



E467188



FEATURES



1. Emergency operation of LED luminaires for factory installation
2. Perfectly compatible with most AC LED drivers
3. Constant emergency power output: Class 2 output voltage (13-60V), output current auto adjustable
4. One single driver model pairing with different battery packs
5. Field-replaceable NiMH battery pack with quick connect
6. Auto Test
7. Slim aluminum housing
8. Suitable for indoor, dry and damp applications

CHARACTERISTICS

LED Emergency Driver

Type	LEM-P05-060-A-U-PT	LEM-P09-060-A-U-PT	LEM-P15-060-A-U-PT	LEM-P25-060-A-U-PT
Rated voltage	120-277VAC 50/60Hz			
Rated current	0.04A	0.05A	0.07A	0.1A
Rated power	2W	3W	4.5W	5.5W
Emergency output power	Max. 5W @1500mAh Battery	Max. 9W @2100mAh Battery	Max. 15W @3800mAh Battery	Max. 25W @4500mAh Battery
Output voltage	10-60VDC	11-60VDC	15-60VDC	25-60VDC
Output current	Max. 1A			
Output current of AC driver	Max. 5A			
Operation frequency	320kHz $\geq f \geq$ 50kHz			
Power Factor	120V >0.4 ; 277V >0.3			
Operation temperature	0-50°C			
Efficiency	80%			
Abnormal protection	Over load, Inrush current limiting, over temperature, open circuit, short-circuit protection with auto-reset			
Life time	5 years			
EMC/FCC/IC standard	FCC part 15, ICES-005			
Safety standard	UL924, CSA C.22.2 No. 141, California Code of Regulations, Title 20			
Dimension mm[inch]	L125 [4.92] x W65 [2.56] x H22 [0.87] Mounting Center: 117 [4.61]			

Battery Packs

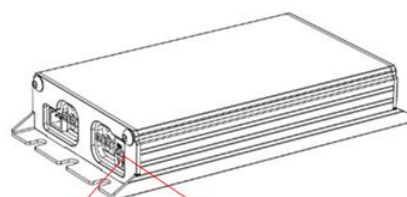
Model No.	BCP-NiMH-9.6-1.5	BCP-NiMH-10.8-2.1	BCP-NiMH-10.8-3.8*	BCP-NiMH-14.4-4.5*
Nominal Voltage (V)	9.6	10.8	10.8	14.4
Pack Capacity (Ah)	1.5	2.1	3.8	4.5
Output Wattage (W)	Max. 5	Max. 9	Max. 15	Max. 25
Chemistry	NiMH			
Charging time	24 Hours			
Discharge time	>90 Minutes			
Charging current (A)	0.08	0.11	0.19	0.23
Charging cycles	>500			
Dimension mm[inch]	L126[4.96] x W59[2.32] x H17[0.67], Mounting Center: 115[4.53]	L176[6.93] x W51[2.01] x H19.5[0.77], Mounting Center: 165[6.50]	L241[9.49] x W56[2.20] x H21[0.83], Mounting Center: 230[9.06]	L227[8.94] x W78[3.07] x H28.4[1.12], Mounting Center: 216[8.50]



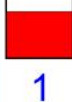
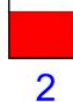




*More dimension options can be found on page 8.

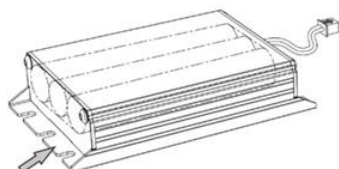
WIRING CONFIGURATION

LEM-Pxx-060-A-U-PT

Select different combination of the DIP switches on terminal block and pair it with the corresponding battery pack to have different LEM-Pxx-060-A-U-PT model with different emergency power output.



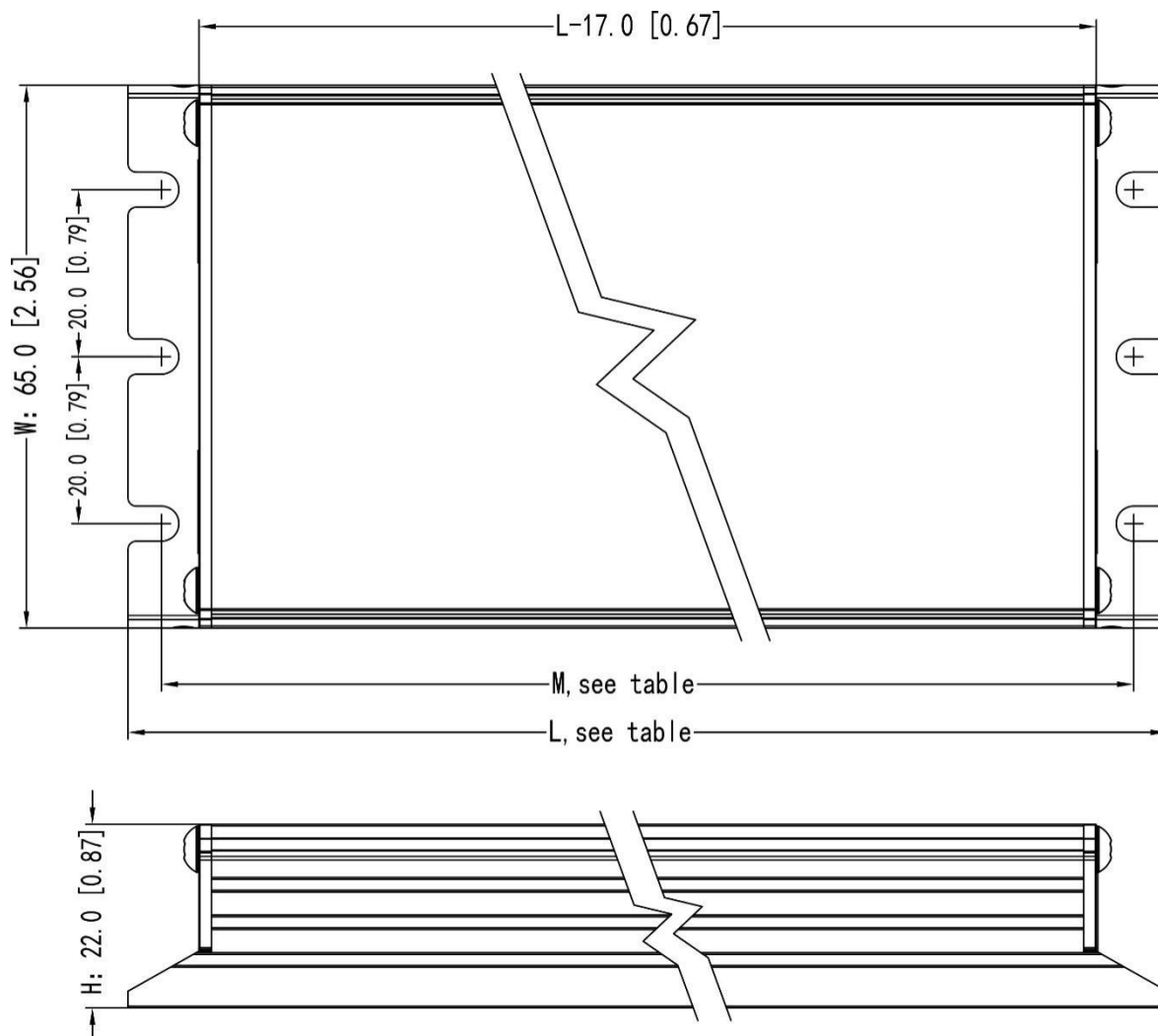
O	N	1	2	Model	Power	Battery
		○	○	LEM-P05-060-A-U-PT	5W	9.6V 1.5AH
		●	○	LEM-P09-060-A-U-PT	9W	10.8V 2.1AH
		○	●	LEM-P15-060-A-U-PT	15W	10.8V 3.8AH
		●	●	LEM-P25-060-A-U-PT	25W	14.4V 4.5AH



Battery mounting box (optional)

DIMENSION

LED Emergency Driver



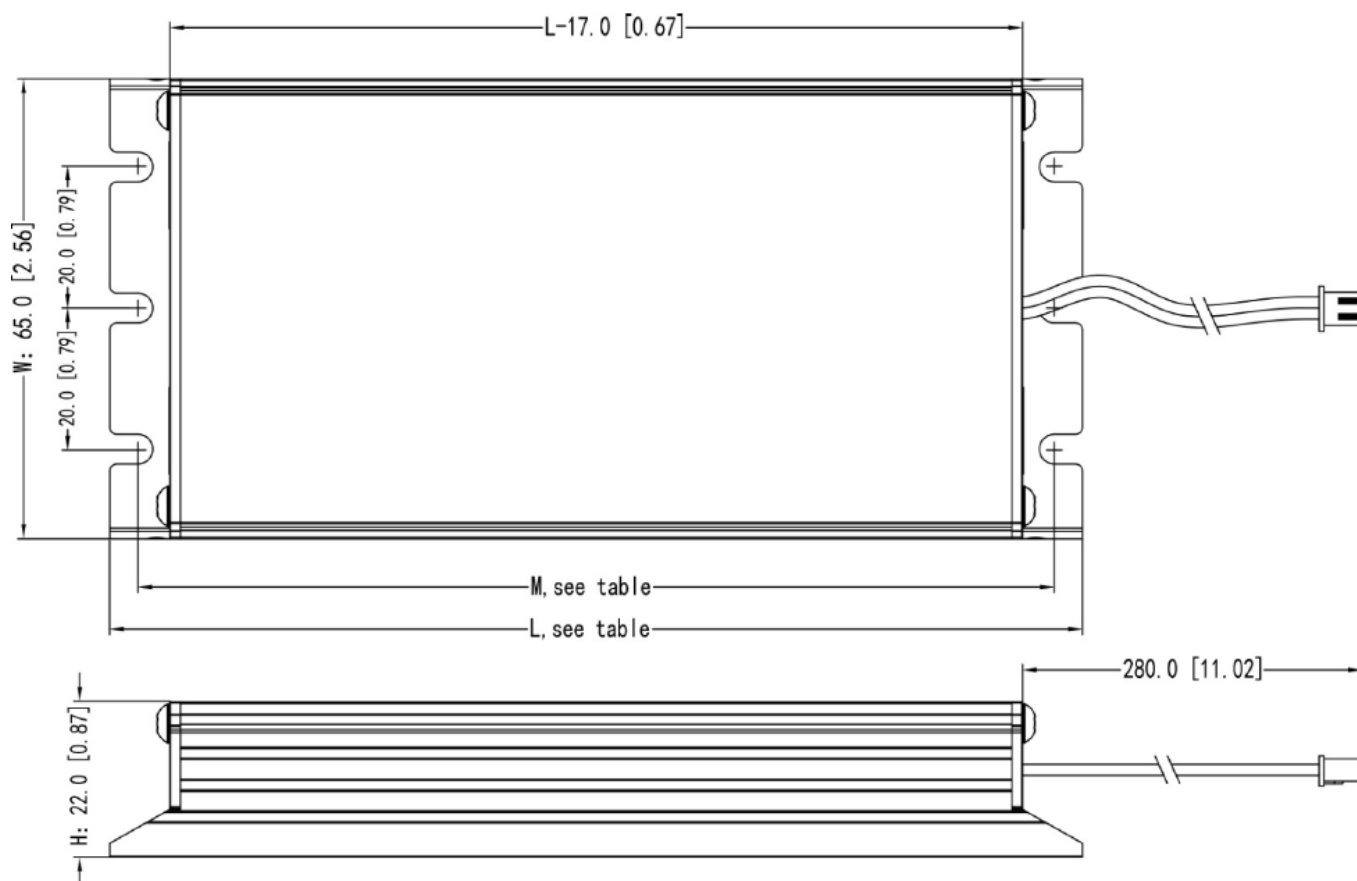
Item No.	L mm [inch]	M mm [inch]	W mm [inch]	H mm [inch]
LEM-P05-060-A-U-PT	125 [4.92]	117 [4.61]	65 [2.56]	22 [0.87]
LEM-P09-060-A-U-PT				
LEM-P15-060-A-U-PT				
LEM-P25-060-A-U-PT				

Notes:

1. Dimension unit: mm[inch]
2. Dimension tolerance: +/-1[0.04]

DIMENSION

BATTERY MOUNTING BOX (OPTIONAL)



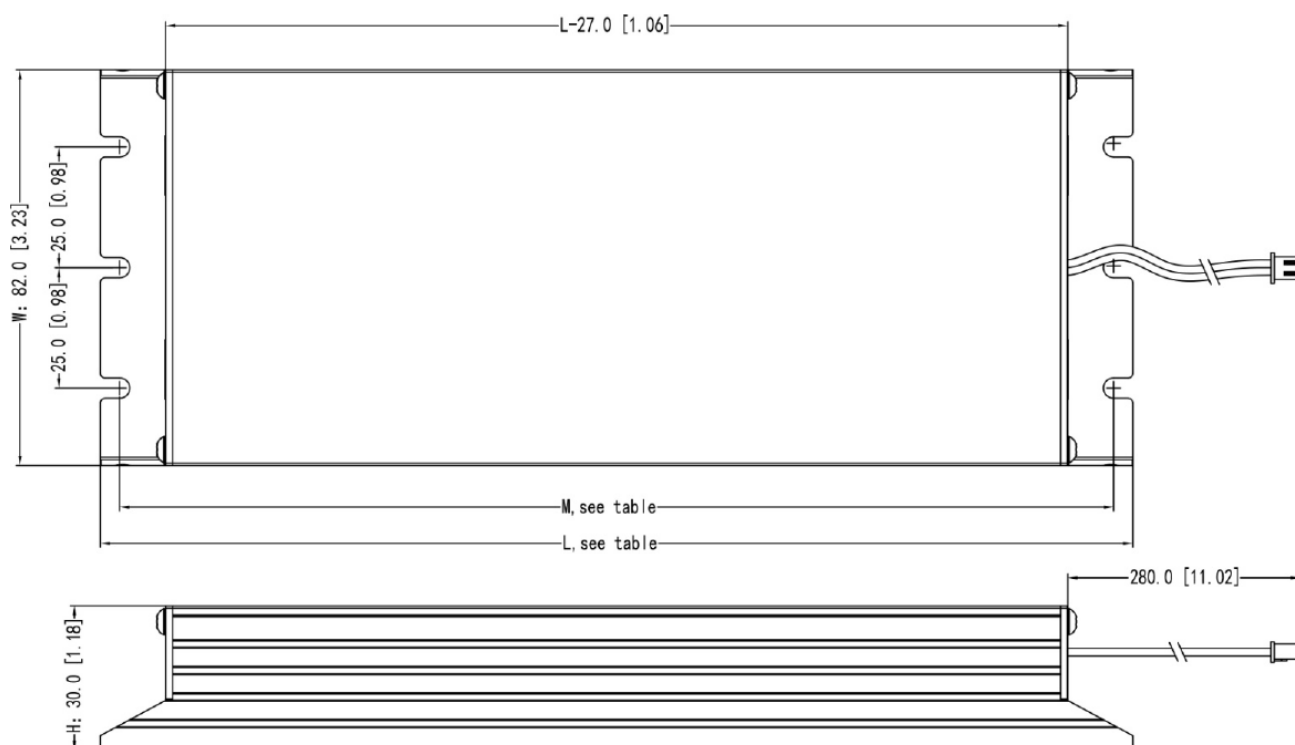
Battery Size	BCP-NiMH-9.6-1.5 mm [inch]	BCP-NiMH-10.8-2.1 mm [inch]	BCP-NiMH-10.8-3.8 mm [inch]
L	128 [5.04]	180 [7.09]	240 [9.45]
M	121 [4.76]	173 [6.81]	233 [9.17]

Notes:

1. Dimension unit: mm [inch]
2. Dimension tolerance: +/-1[0.04]

DIMENSION

BATTERY MOUNTING BOX (OPTIONAL)



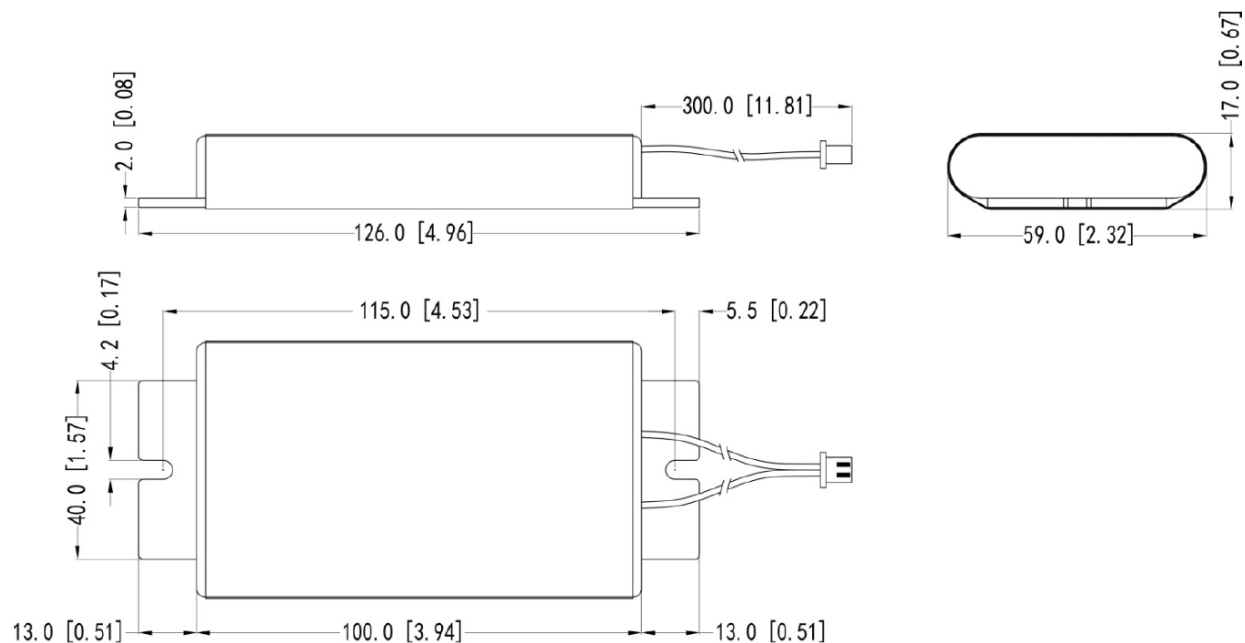
Battery Size	BCP-NiMH-14.4-4.5 mm [inch]
L	238 [9.37]
M	230 [9.06]

Notes:

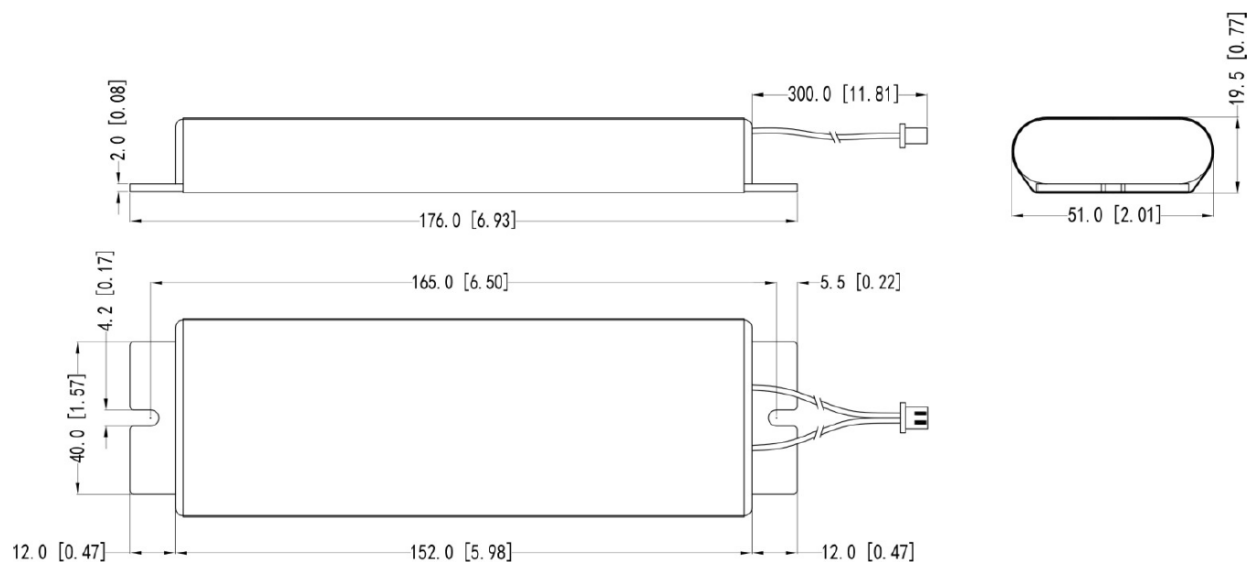
1. Dimension unit: mm [inch]
2. Dimension tolerance: $\pm 1[0.04]$

DIMENSION

BATTERY: BCP-NiMH-9.6-1.5



BATTERY: BCP-NiMH-10.8-2.1

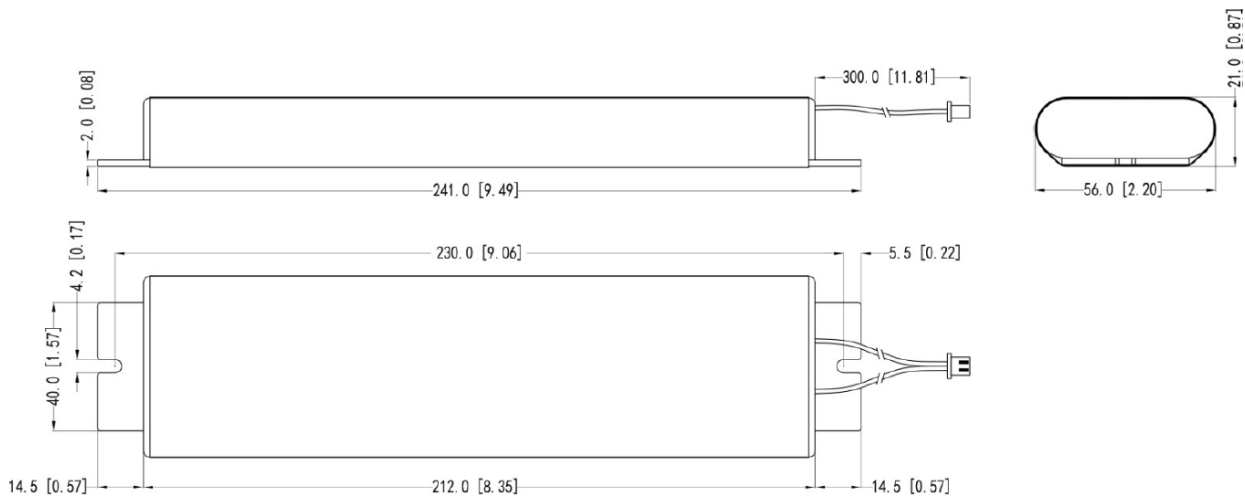


Notes:

1. Dimension unit: mm [inch]
2. Dimension tolerance: +/-1[0.04]

DIMENSION

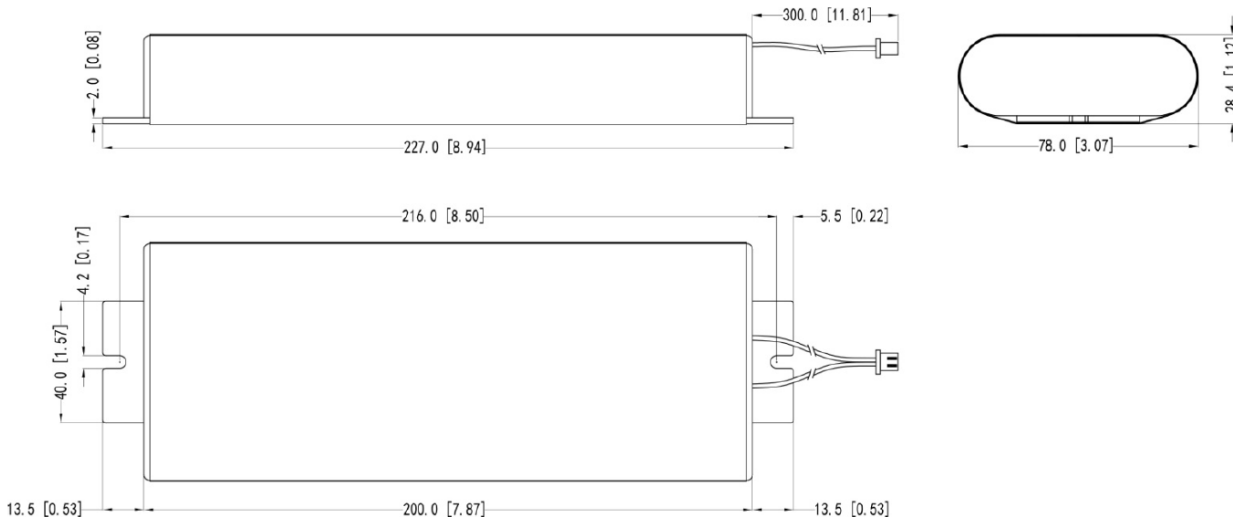
BATTERY: BCP-NiMH-10.8-3.8



BCP-NiMH-10.8-3.8-S (Option):

L167 [6.57] x 71 [2.8] x 21 [0.87] WITHOUT mounting board

BATTERY: BCP-NiMH-14.4-4.5



BCP-NiMH-14.4-4.5-S (Option)

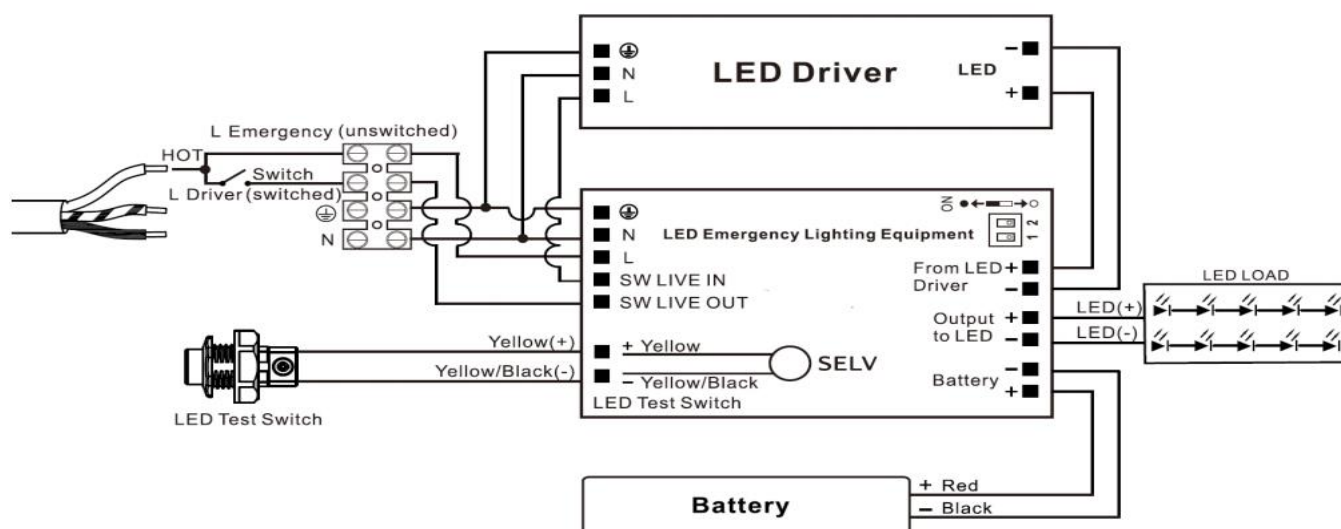
L156 [6.14] x 100 [3.94] x 28.4 [1.12] without WITHOUT mounting board OR

L184 [7.24] x 100 [3.94] x 28.4 [1.12] with mounting board

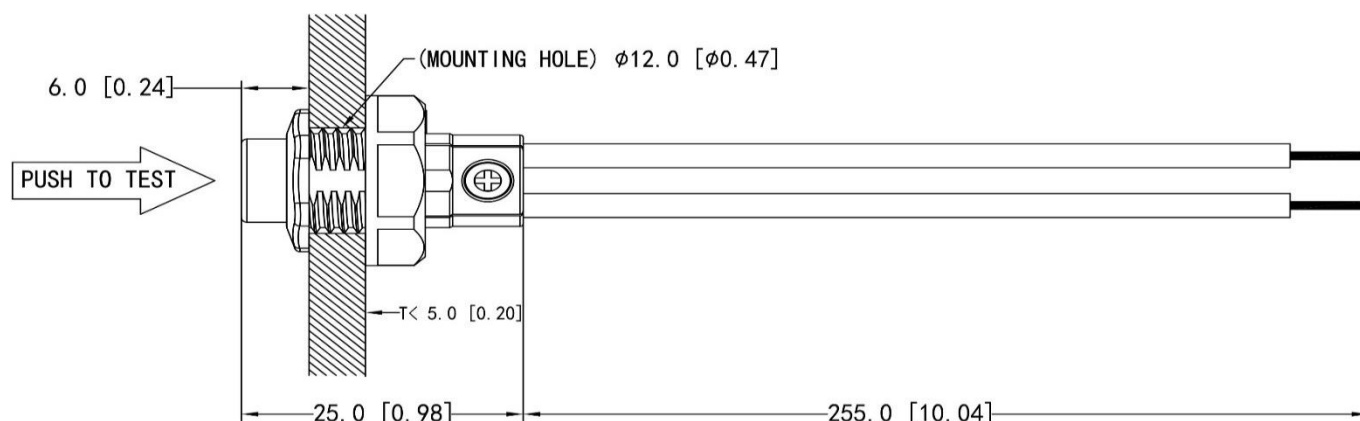
Notes:

1. Dimension unit: mm [inch]
2. Dimension tolerance: +/-1[0.04]

WIRING DIAGRAM



LED TEST SWITCH



Notes:

1. Dimension unit: mm [inch]
2. Dimension tolerance: $\pm 1[0.04]$

OPERATION/TESTING/MAINTENANCE

OPERATION

When AC power is applied, the LED test switch is illuminated, indicating that the batteries are being charged. When AC power fails, the LEM-Pww-060-A-U-PT automatically switches to emergency power, operating the lighting load at rated emergency power. During power failure, the LED test switch will be off. When the AC power is restored, the LEM-Pww-060-A-U-PT switches the system back to normal mode of operation and resumes battery charging. The minimum emergency operation time is 90 minutes. The charging time for a full discharge is 24 hours.

TESTING AND MAINTENANCE

The following Periodic testing is recommended to ensure the system is working correctly.

1. Visually inspect the LED test switch (LTS) monthly. It should be illuminated when AC power is applied.
2. Conduct a 30-second discharge test by switching off the emergency breaker every month. The LTS will be off during test.
3. Conduct a 90-minute discharge test once per year. The LTS will be off during test.

AUTO TEST

The LEM-Pww-060-A-U-PT has an Auto Test feature which saves cost by reducing the need for manual testing.

1. Initial Auto Test
When the system is connected properly and powered on, the LEM-Pww-060-A-U-PT will perform an initial Auto Test. If any abnormal conditions exist, the LTS will flash rapidly*. Once the abnormal condition is corrected, the LTS will function correctly.
2. Monthly Auto Test
The LEM-Pww-060-A-U-PT will conduct the first Monthly Auto Test after 24 hours and up to 7 days after initial power on. Then monthly tests will be performed every 30 days, and will test transfer function from normal to emergency, emergency function, charging and discharging conditions. Monthly test time is approximately 30 seconds.
3. Annual Auto Test
Annual Auto Test will occur every 52 weeks after the initial 24 hours full charge, and will test proper initial battery voltage, 90-minute emergency operation, and acceptable battery voltage at the end of the full 90-minute test.
*If the Auto Test is interrupted by a power failure, a full 90-minute Auto Test will occur again 24 hours after the power is restored. If the power failure causes the battery to fully discharge, the product will restart the Initial Auto Test, Monthly and Annual Auto Test.

MANUAL TEST

- Press the LTS 1 time to force a one-second emergency test.
- Press the LTS 2 times continuously within 5 seconds to force a 30-second monthly test. After the test is complete, the next (30-day) monthly test will count from this date.
- Press the LTS 3 times continuously within 5 seconds to force a 90-minute annual test. After the test is completed, the next (52-week) annual test will count from this date.
- During any manual test, press and hold the LTS for greater than 3 seconds to terminate a manual test. The Preprogrammed Scheduled Auto Test time will not change.

LED TEST SWITCH (LTS) CONDITION*

- Slow Flash (once per 2 seconds): Normal Charging
- On: Battery Fully Charged - Normal Condition
- Off: Power Failure
- Gradual Change: In Testing Mode
- Rapid Flash (once per second): Abnormal Condition - Corrective Action Required