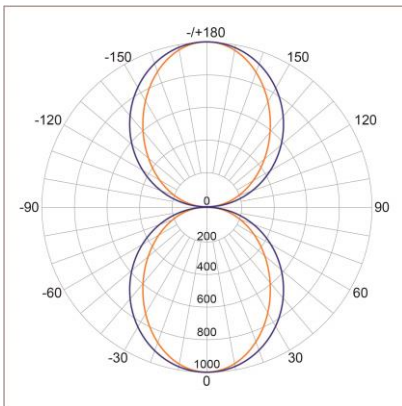


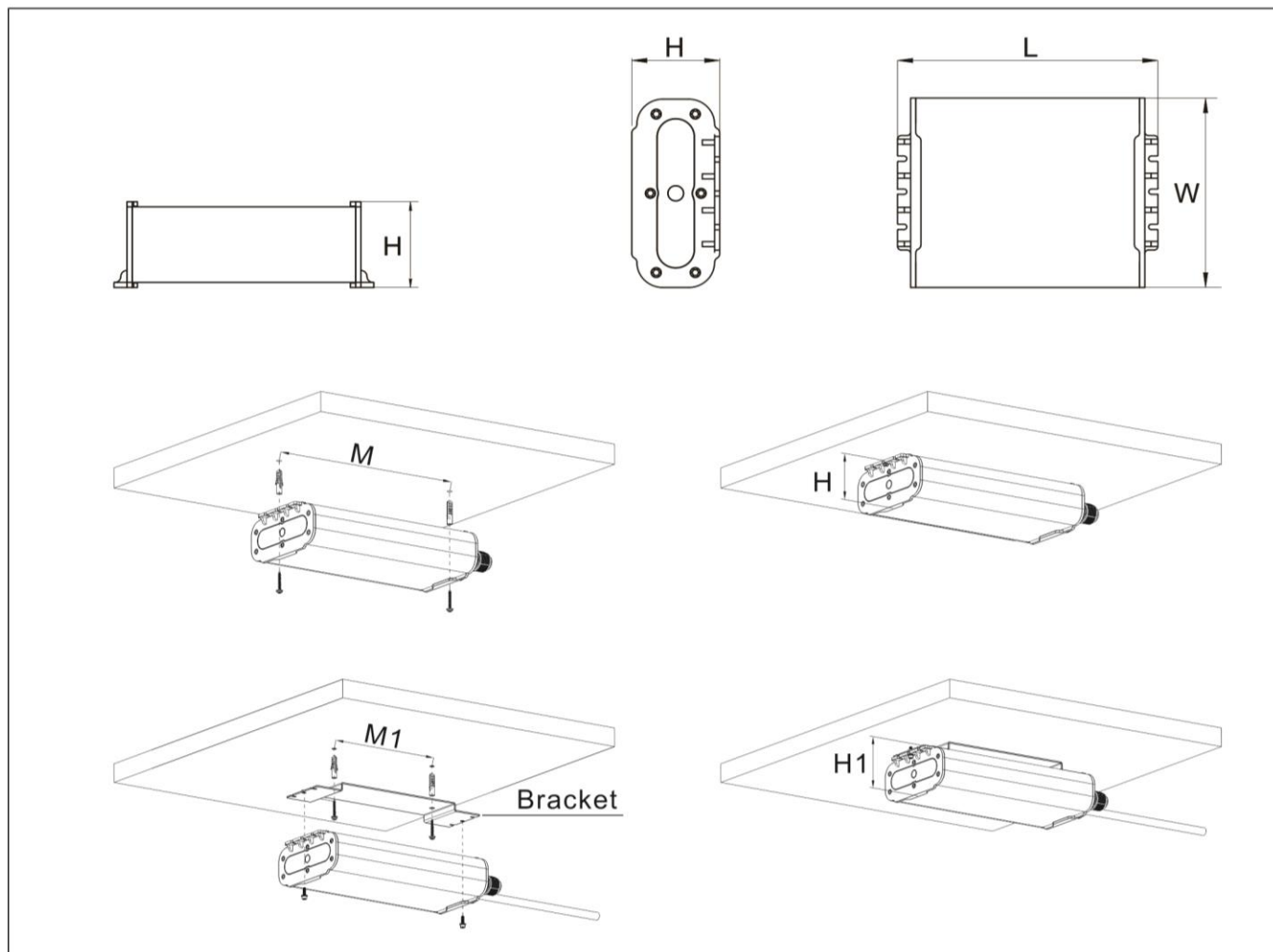
**SPR LADDER**  
IP67 LED LIGHT**IP67 IK10****Features****Default Factory Configuration**

- Up and down beam directions with high lumen output with low UGR
- Same lumen output in both normal and emergency modes
- C5M Anti-corrosion, IEC 60721-3-3 3M5 vibration resistant
- IP68 quick connectors allow a fast wiring connection without needing open the lighting
- Battery can be easily tested and disconnected by pressing the exposed LED test switch on the endcap
- Automatic testing to minimize maintenance cost after installation
- Ideal for ladders' illumination in onshore and offshore wind mills

## Characteristics

Product name	SPR LADDER ST	SPR LADDER EH
Item No.	LL18H08	LL18J10
Description	Light, LED, Standard, SW/CW	Light, LED , Emergency backup, SW/CW
Input voltage	100-277VAC 50/60Hz	
Input power	8W	8W
		10W (Charging)
		20W (Charging + Heating)
Nominal current	0.08A	0.08A
		0.10A
		0.20A
Operation temp.	-40~55°C	
Survival temp.	-45~60°C	
Lamp type	LED SMD, 4000-6000K	
Normal lumen output	900LM	900LM
Emergency lumen output	N/A	900LM
Emergency time	N/A	90 Minutes
Expected battery life	N/A	7-10 Years
Battery full charge	N/A	24 Hours
Meas. mm [inch]	L200 [7.87] x W150 [5.91] x H69 [2.72] Mounting center: 192 [7.56] / 100 [3.94]	L200 [7.87] x W150 [5.91] x H69 [2.72] Mounting center: 192 [7.56] / 100 [3.94]

## Size and Mounting

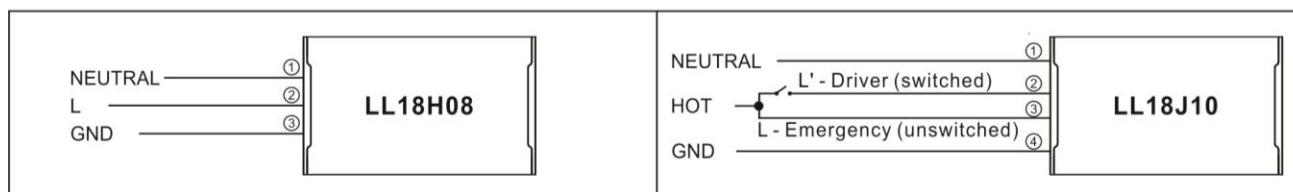


Model	Voltage	Power	Frequency	L	W	H	H1	M	M1	Normal Lumen output	Emergency Lumen output (>90 Minute)	Light Angle
LL18H08	100-277V	8W	50/60Hz	200	150	69	83	190	100	900LM	-	110°
LL18J10	100-277V	6W	50/60Hz	200	150	69	83	190	100	900LM	900LM	

Dimension unit: mm

Tolerance:  $\pm 1$  [0.04]

## WIRING DIAGRAM



## ELECTRIC CONNECTION

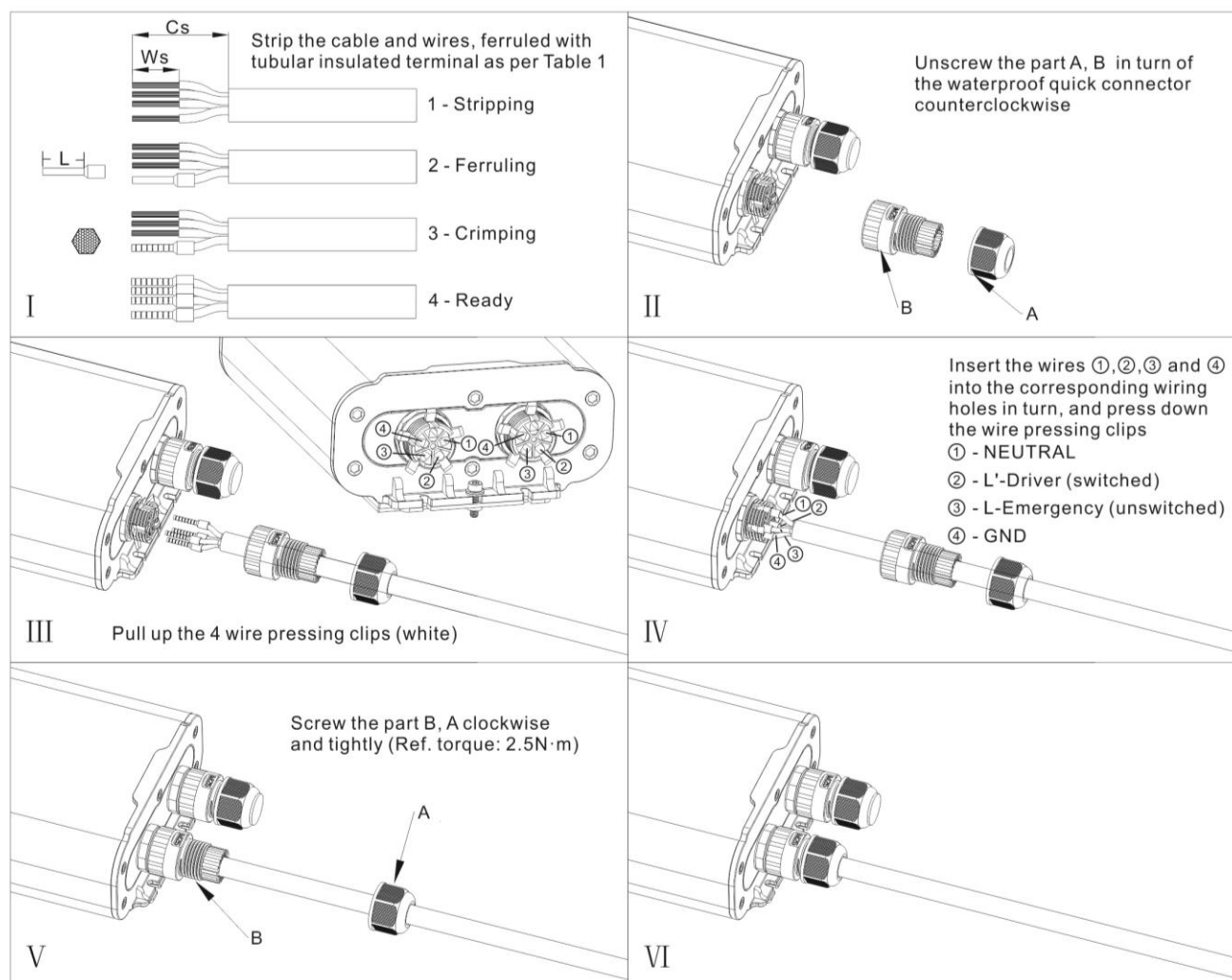
Use VDE or UL approved power cable with the outer diameter from 9mm to 14mm.

Use wire with 1.0-2.5mm<sup>2</sup> or 14-17AWG for electric connection.

After connection, the conductors shall not be exposed.

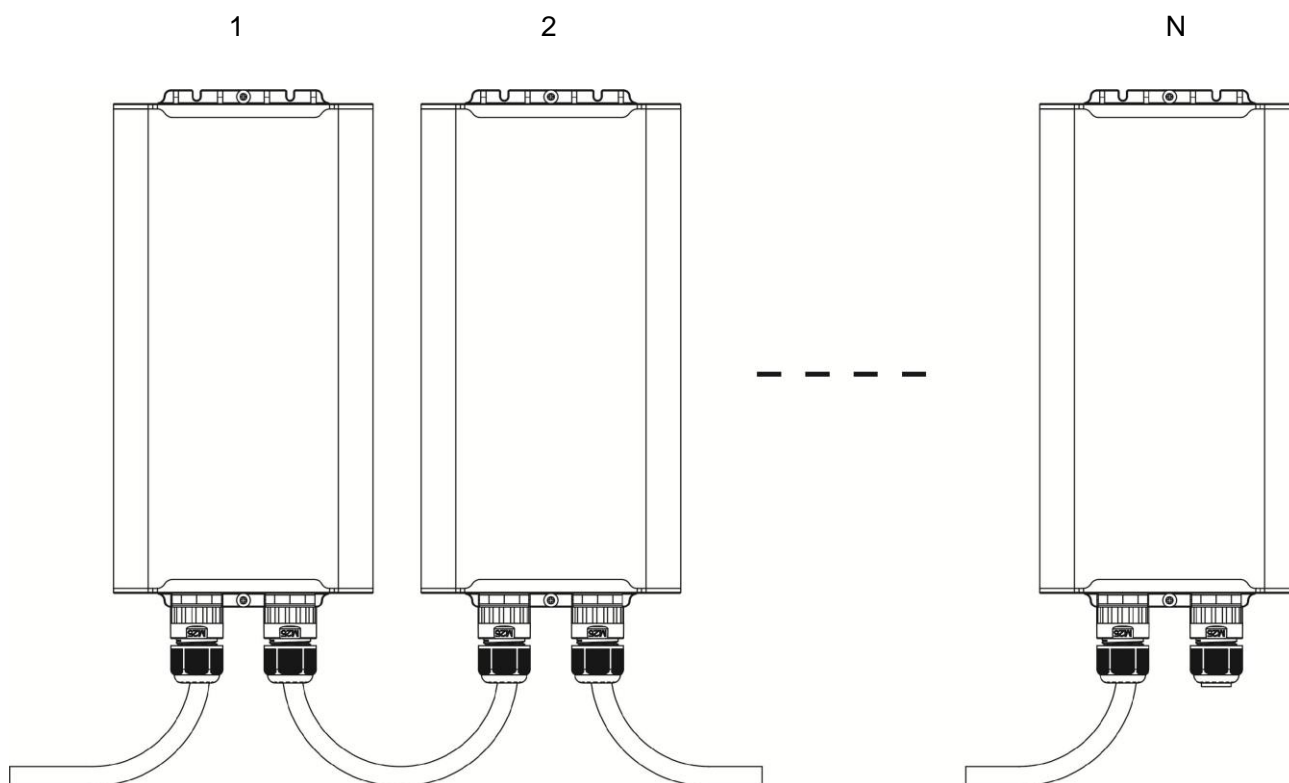
**TABLE 1**

Wire diameter	Wire type	Cable stripping length (Cs)	Wire stripping length (Ws)	Tubular insulated ferrule
2.5mm <sup>2</sup> (14AWG)	Flexible	33-35mm	17-18mm	L=15mm, hexagonal
2.5mm <sup>2</sup> (14AWG)	Solid	33-35mm	17-18mm	-
1.5mm <sup>2</sup> (16AWG)	Flexible	33-35mm	15-16mm	L=12mm, hexagonal
1.5mm <sup>2</sup> (16AWG)	Solid	33-35mm	15-16mm	-
1.0mm <sup>2</sup> (17AWG)	Flexible	33-35mm	15-16mm	L=12mm, hexagonal
1.0mm <sup>2</sup> (17AWG)	Solid	33-35mm	15-16mm	-



**N<sub>Max.</sub> = LINKABLE QUANTITY (PCS)**

Item	Input N <sub>max.</sub>	4x1.0~4x2.5mm <sup>2</sup>			
		100V AC	120 V AC	230 V AC	277 V AC
LL18H08	100	100	110	200	220
LL18J10	40	40	45	80	85



## Testing & Maintenance

Please find following proper operation and testing procedures for the LED light with emergency backup.

### OPERATION

When the AC power is switched on, the lighting is in the normal mode and powered by the mains power. Through the wall switch, you can control the lighting's ON and OFF. The LED test switch (LTS) is illuminated at one of following two states: One is slow blinking, indicating that the battery is being charged; the other is long bright, indicating that the battery has been fully charged.

In case of AC power failure, the lighting will switch to emergency mode automatically. At this time, the lighting will be powered by the battery, and the LTS is OFF. When the AC power is restored, the lighting will switch back to normal mode automatically and resume charging the battery.

### MANUAL TEST

In the normal mode, we can make following manual tests by LTS:

1. Press the LTS once to force a ten-second emergency test. After ten seconds, the lighting will return to its normal mode automatically.
2. Press the LTS twice continuously within 3 seconds to force a 60-second monthly test. After 60 seconds, the lighting will return to its normal mode automatically.
3. When the battery is fully charged, press the LTS 3 times continuously within 3 seconds to force a 90-minute annual test. After 90 minutes, the lighting will return to its normal mode automatically.

When the lighting is in test mode, the LTS will be in a gradual changing (breathing) state.

During any manual test, press and hold the LTS for over 3 seconds to terminate the manual test.

Please note: Before performing a short emergency manual test, charge the battery for at least one hour.

Before performing a long term emergency test (e.g. a 90-minute annual test), charge the battery for 24 hours.

The charging time for a full discharge is 24 hours.

### AUTO TEST

The Auto Test feature enables the lighting to conduct the initial test, monthly test and annual test automatically.

Initial Test - When the lighting is connected properly and powered on, it will perform an initial Auto Test immediately, to check if the battery is well connected.

Monthly Test - The first monthly Auto Test will be performed at 24 hours to 7 days after Initial power on. After that, the monthly Auto Test will be executed every 30 days.

Annual Test - The annual Auto Test will be performed every 52 weeks after first powered on.

### LED TEST SWITCH (LTS) CONDITIONS

LTS Slow Blinking: Normal Charging

LTS Long Bright: Battery Fully Charged - Normal Mode

LTS Off: Power Failure

LTS Gradual Change: In Testing Mode

LTS Quick Blinking: Abnormal Condition - Corrective Action Required

