

Luminaire For Hazardous Locations

Installation and Maintenance Manual

Model THTH1815A

THT-EX

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1. General Information

Model THTH1815A LED Luminaires are suitable for use in the following hazardous (classified) areas as defined by the National Electrical Code (NEC) and Canadian Electrical Code (CEC):

- Class I, Division 2, Groups A, B, C, D
- Wet Locations

Refer to the luminaire nameplate for specific classification information, maximum ambient temperature suitability and corresponding operating temperature (T-Code).



Model THTH1815A LED Luminaire is designed for using in indoors and outdoors environment.

Rated Voltage: 120~277 Vac, 50 & 60 Hz
Total System Power Consumption: 60W
Ambient Temperature Range: -20°C ~ +40°C

WARNING

- ▶ To avoid the risk of fire, explosion or electric shock, this product should be installed, inspected and maintained by a qualified electrician only, in accordance with all applicable codes and regulations.
- ▶ To avoid electric shock:
 - ✓ Be certain electrical power is OFF before and during installation and maintenance.
 - ✓ Luminaire must be supplied by a wiring system with an equipment grounding conductor suitable for the specific hazardous locations in accordance with the NEC and CEC.
- ▶ To avoid explosion:
 - ✓ Make sure that the supply voltage is the same as the luminaire voltage.
 - ✓ Do not install where the marked operating temperatures exceed the ignition temperature of the hazardous atmosphere.
 - ✓ Do not operate in ambient temperatures above those indicated on the luminaire nameplate.
 - ✓ All O-rings and gasket seals must be clean and undamaged.
 - ✓ Before installation and dismantling, electrical power to the luminaire must be turned off. Keep tightly closed when in operation.
- ▶ To avoid burning hands, ensure the luminaire is cool when performing maintenance.
- ▶ Customers should install and charge within one month after receiving the lighting fixtures.

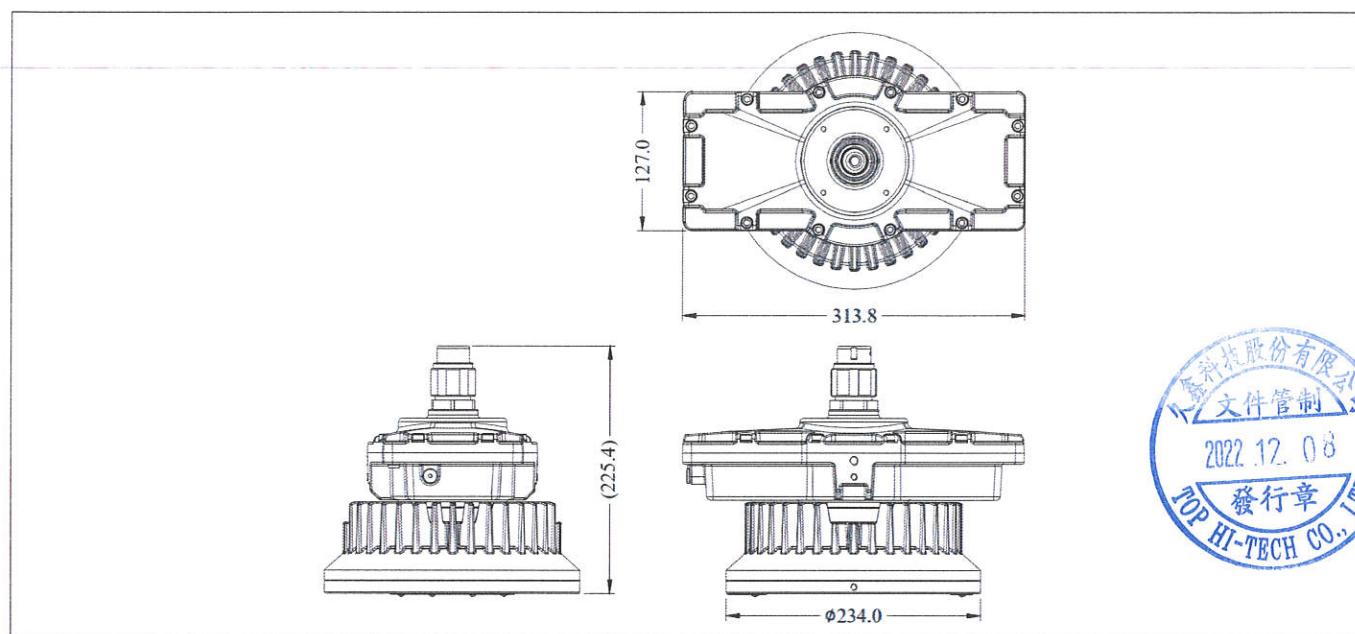
2. Model Code

THTH1815ACK①HF0

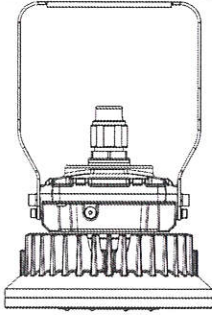
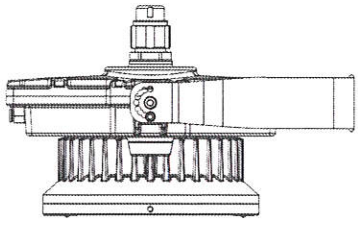
① : C= Cool white / W= Warm white

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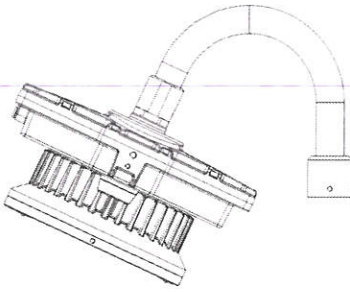
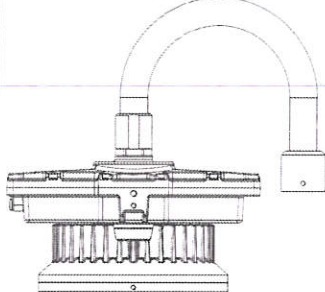
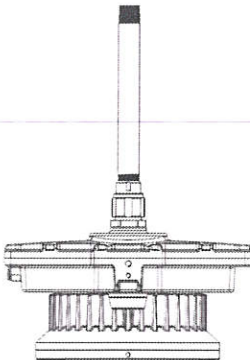
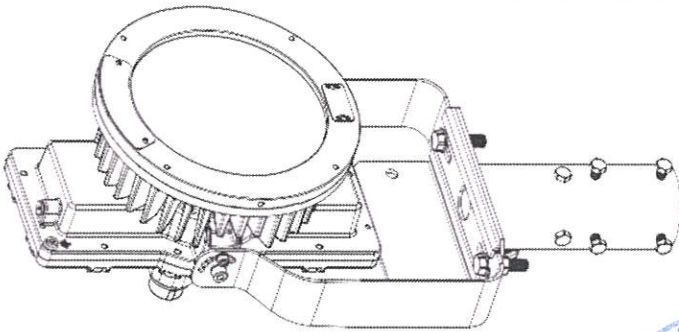
3. Dimensions (All Dimensions in mm)



4. Technical Data

Item	Description	
Rated Voltage	120 Vac~277 Vac, 50 & 60 Hz (Note information on type label)	
Total System Power Consumption	60W	
LED Wattage	40W	
Charging time	48 hr.	
Runtime of emergency mode	120 min.	
Color of LED light	3000K (Warm White) / 5000K (Cool White)	
CRI	> 80	
Power Factor	$\cos \phi \geq 0.9$	
Ambient Temperate Range	-20°C ~ +40°C	
Material	Aluminum alloy	
Enclosure	Heat and impact resistant tempered glass	
Degree of Protection	IP67	
LED Service Life	60,000 hrs	
Mounting Type / Weight	Two-position (wall/hanging) adjustable trunnion, each position with two aiming angles (25° and 90° adjustable)	
		
	10.0 kg	10.0 kg
	Hanging(Ceiling) Mounting	Wall Mounting

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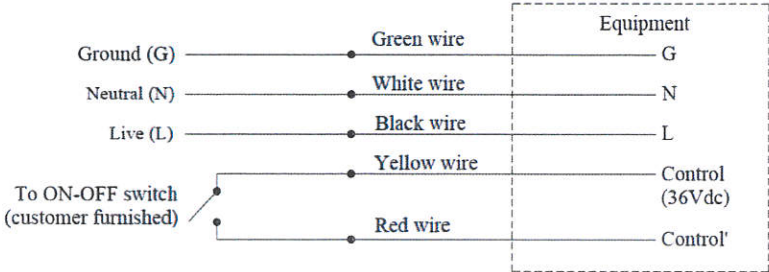
			
	10.3 kg	10.4 kg	9.5 kg
	Bending electrical tube 25°	Bending electrical tube 90°	Straight electrical tube
			
	12.6 kg		
	Pole Adapter mounting assembly		



5. Assembly and Installation

5.1 Electrical Connection

- For luminaire model with Adjustable Trunnion (Wall/Hanging) Mounting Bracket: Insert the leads through the conduit (not shown, provide in the field) into the Junction Box (provide in the field).
- For luminaire model with Angle/Straight Bending Electrical Tube Mounting Brackets and Straight Pendant Electrical Tube Mounting Bracket and Pole Adapter Mounting Bracket: Insert the leads through the integral mounting bracket and then through the conduit (not shown, provide in the field) into the Junction Box (provide in the field).
- Connect the wires of luminaire to the terminal block of Junction Box.
- White-wire connects to Neutral;
- Black-wire connects to Live;
- Green-wire connects to Ground;
- Red-wire and Yellow-wire connect to ON-OFF switch.
- The luminaire could be controlled to turn ON or OFF when the Red-wire and Yellow-wire connecting to the external switch, the battery will also keep charging for the emergency purpose.
- The ON-OFF function of the lighting fixture needs to be charged for 48 hours before it can be used.
- The voltage of the connecting switch needs to above 220V.
- Warning: If interchange the wire connection may cause the damage to the luminaire.



THT-EX

5.2 Mounting Bracket Installation

5.2.1 Two Position (Wall /Ceiling) Adjustable Trunnion Mounting Bracket

- The mount bracket is for the use of both ceiling mount (Figure 1) and wall mount (Figure 2).
- Position the bracket holders and fix it by means of the provided M8 and M6 screws, 61.0 kgf-cm(M8), 24.5kgf-cm(M6).
- Secure the wall/ceiling mounting bracket to the structure by using two fasteners (not provided).
- The angle of lighting fixture can be adjusted.

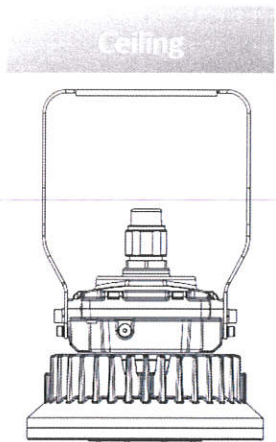


Figure 1

5.2.2 Straight electrical tube mounting

- The mounting type is for the use of straight electrical tube mounting (Figure 3).
- Straight electrical tube mounting thread is NPT 3/4".
- Thread the tube mounting on conduit and torque until wrench-tight as requirement, 1500 kgf-cm.

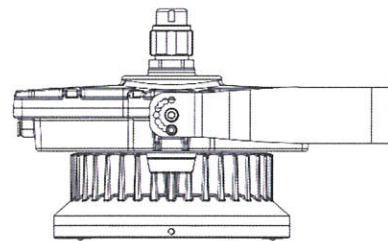


Figure 2

5.2.3 Pole Adapter mounting

- The mounting type is for the use of 2 inch straight electrical tube mounting (Figure 4).
- The assembly of the bracket onto the conduit must be secured with the use of M8 threaded screws and by applying 122.0 kgf-cm torque

5.2.4 Bending electrical tube mounting

- The bending electrical tube, one end secured to Cable Gland by integral M35 female threads and with a setscrew; the other end provided with 1-1/2" NPT female threads for connecting with conduit.
- Thread the tube mounting on conduit and torque until wrench-tight with 6600 kgf-cm.
- Tighten tube locking setscrew to conduit, 1.0 N-m. (Figures 5 and 6)

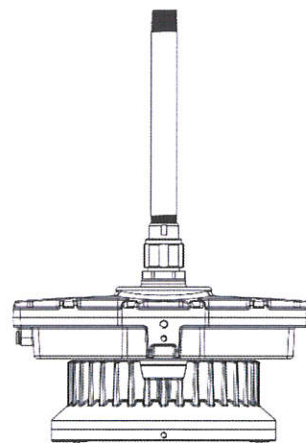


Figure 3

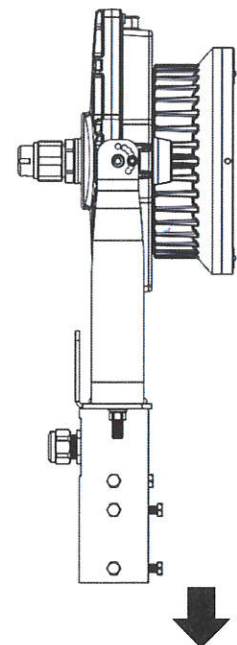


Figure 4

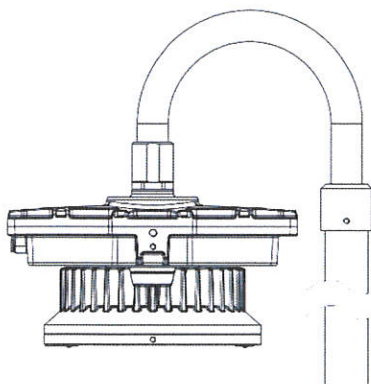


Figure 5

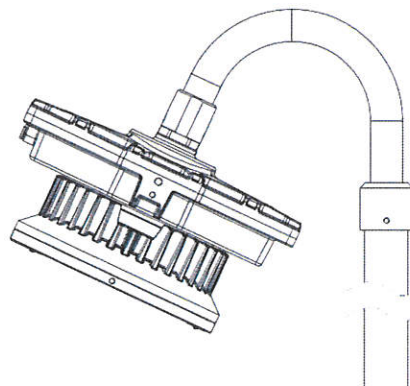


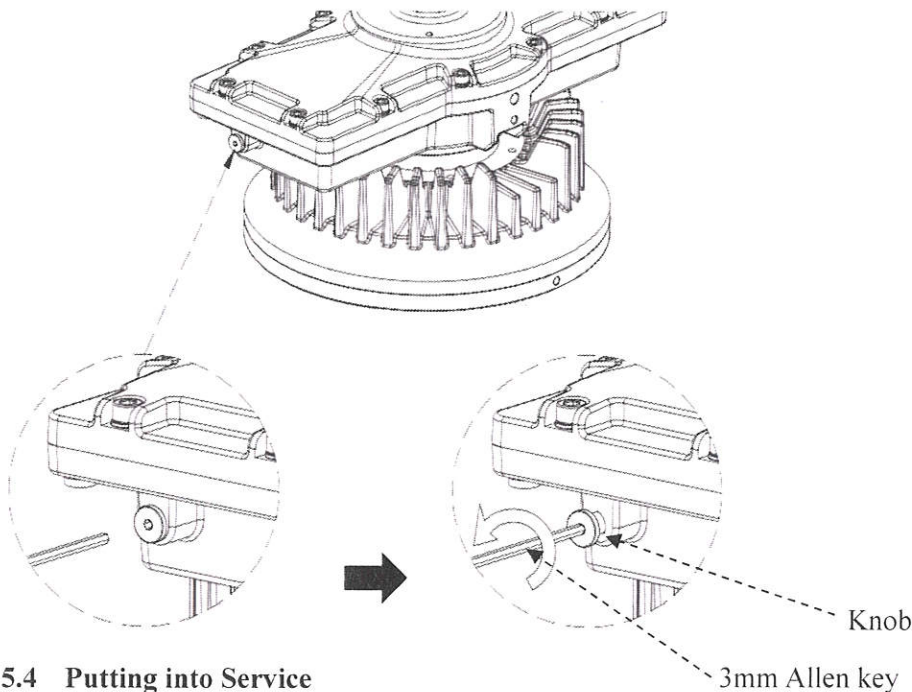
Figure 6

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5.3 Wake up the lighting fixtures

- Before put the lighting into operation; please turn the knob to the left with a tool for two turns so as to turn off sleep mode.

Attention: Please do not turn the knob for more than two turns; otherwise the knob might be damaged.



5.4 Putting into Service

Before putting into operating, it's necessary to ensure that:

- The lighting is correctly installed.
- The connection has been correctly made.
- The cable has been inserted correctly.
- The voltage is correctly.
- The lighting fixture needs to be charged for 48 hours and it can provide 120 minutes illumination after fully charged.
- Continuously charge the Product for 48 hours before first time installation.
- It may result damage and/or inactive to the battery in case the Product continuously discharges over 30 days. Continuously charge the Product for 48 hours when the Product has continuously discharged for 30 days.

6. Maintenance

- To avoid personal injury, disconnect power to the light and allow the unit to cool down before performing maintenance.
- Perform visual, electrical, and mechanical inspections on a regular basis. The environment and frequency of use should determine this. However, it is recommended that checks be made at least once a year. Frequency of use and environment should determine this. It is recommended to follow an Electrical Preventive Maintenance Program as described in the National Fire Protection Association Bulletin NFPA No. 70B: Recommended Practice for Electrical Equipment Maintenance.
- The lens should be cleaned periodically to ensure continued lighting performance. Clean the lens with a clean, damp, non-abrasive, lint-free cloth. If this is not sufficient, use a mild soap or a liquid cleaner. Do not use an abrasive, strong alkaline or acid cleaner as damage may occur.
- Inspect the cooling fins on the luminaire to ensure that they are free of any contamination (i.e. excessive dust build-up). Clean with a non-abrasive cloth if needed.
- Electrically check to make sure that all connections are clean and tight.
- Mechanically check that all parts are properly assembled.
- Do not attempt to service the battery. The unit uses a sealed, Li-ion battery which requires no maintenance. For replacement, contact the factory.

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7. Transport, Storage and Disposal

- ✎ Transport and storage is only allowed in the original packaging, on the way pointed out on the carton box.
- ✎ Transport – Shock-free in its original carton, do not drop, and handle carefully.
- ✎ Store – Store in a dry place in its original packaging.
- ✎ Disposal – Ensure environmentally friendly disposal of all components according to the legal regulations.

