

### Electrical Characteristics

#### Voltage In

200 – 240VAC 50/60Hz  
190 – 250VDC

#### Power

62W MP

#### IP/IK Rating

IP66 / IK09

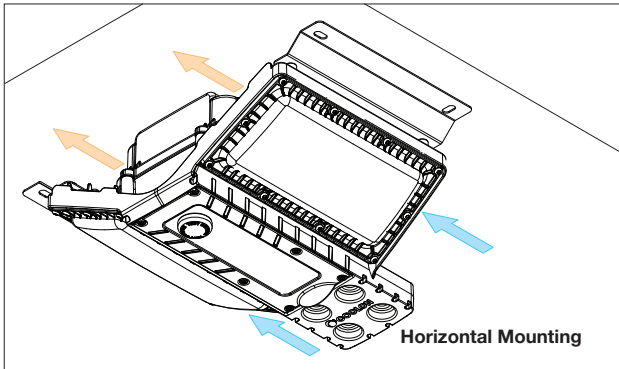
#### Operating Temperature

0 to +50°C

## INSTALLATION INSTRUCTIONS

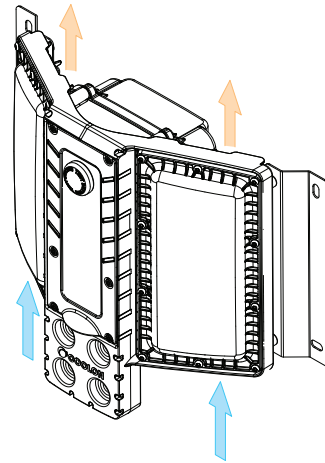
### Step 1

Choose luminaire position and orientation. When choosing the location of Tunnel Ray luminaire, please ensure that sufficient clearance is allowed for the airflow through the heatsink. Avoid blocking the air vents.



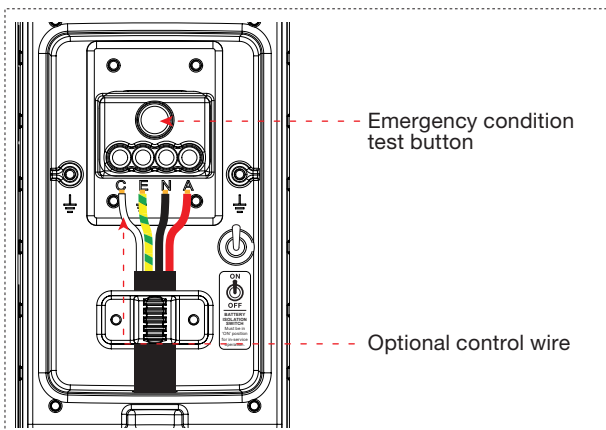
### Vertical Mounting

In a vertical mount, mount the TNR in the following orientation to maximize the airflow through the heatsink.



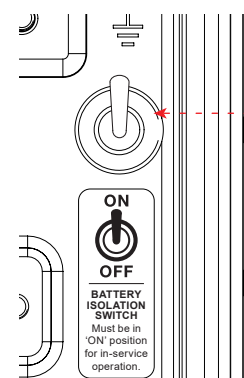
### Step 2

Remove the junction box lid (6 x TX25 Torx captive screws) proceed to connect wires as required. See EMTNR2 operating modes for wiring/operation options.  
NOTE: Housing is earthed internally.



### Step 3

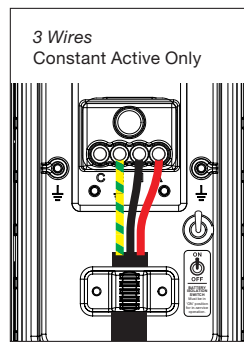
Put the battery isolation switch into the 'ON' position and reattach the connection cover. \*Ensure the cover lanyard is not caught between the internal test button and cover.



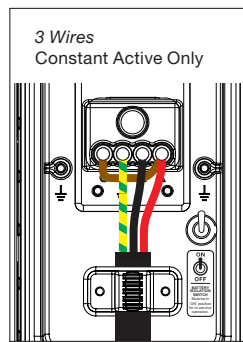
Battery isolation switch  
Must be in 'ON' position  
for in-service operation

NOTE: switching the Battery Isolation switch to the ON position without having mains connected will result in the unit operating in EM mode for 2 minutes. This prevents accidental discharge of batteries during maintenance. Once mains is connected the unit will change states to in-service operation and will operate for the full expected EM time once mains fails or is disconnected.

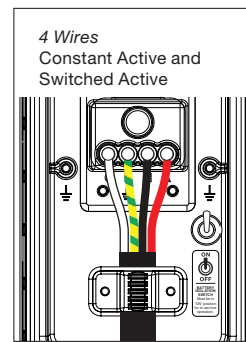
## EMTNR2 Operating Modes



**NON-MAINTAINED**  
Emergency use only



**MAINTAINED**  
Always ON



**SWITCHED**  
Conventional luminaire use  
with emergency backup

OPERATION STATE	ACTIVE	CONTROL	LUMINAIRE STATE	DESCRIPTION
Non-Maintained	ON	N/A	OFF	Luminaire light OFF. Red LED indicator will indicate mains presence with Red Indicator LED ON.
Non-Maintained	OFF	N/A	ON-EM	Luminaire light ON in EM mode (power supplied from battery). Red LED indicator will not be visible.
Maintained	ON	ON (Link)	ON	Luminaire light ON. Red LED indicator will indicate mains presence with Red Indicator LED ON.
Maintained	OFF	OFF (Link)	ON-EM	Luminaire light ON in EM mode (power supplied from battery). Red LED indicator will not be visible.
Switched	ON	ON	ON	Luminaire light ON. Red LED indicator will indicate mains presence with Red Indicator LED ON.
Switched	ON	OFF	OFF	Luminaire light OFF. Red LED indicator will indicate mains presence with Red Indicator LED ON.
Switched	OFF	ON or OFF	ON-EM	Luminaire light ON in EM mode (power supplied from battery). Red LED indicator will not be visible.

## Emergency Pack Operation

- Initial installation is performed with mains line de-energized. Active, Neutral, Earth and Control (optional) wires are to be wired and secured in their respective terminals. If no Control wire is present and a Maintained Mode is required, "C" (Control) and "A" (Active) terminals should be bridged by a link (not included). For a non-maintained mode leave "C" terminal unconnected.
- Once mains wires connected, the battery switch must be set to "ON" position. This forces EMTNR2 to enter a "TEST" mode, where it would enable Battery Module to supply power to LEDs for a duration of 2 minutes. This indicates that the battery is functional and is in working order. After 2 minutes the light switches itself OFF. Installer completes the installation by closing the lid and securing it using provided captive screws.
- Once mains power is applied, the RED indicator light is switched ON, indicating a presence of mains power. The unit must be energized for more than 2 minutes before the final commissioning power cycle test. NOTE: that even if the unit is in maintained mode, it still requires power cycle test to be complete before its intended operation.
- Power Cycle Test is done by removing mains power after more than 2 minutes being energized and having a battery switch in a correct "ON" position. Once mains power is removed, EMTNR2 will enter Emergency Mode, and the light will turn ON. Apply the mains power again, and the unit will enter its intended operational mode:
  - If it is wired as "maintained", the light will stay ON and become brighter. RED Indicator Light will come ON, indicating the presence of mains voltage.
  - If EMTNR2 is in non-maintained mode, Red indicator light will come ON and the light will turn OFF.
  - If the battery isolation switch is left in "OFF" position when mains power is applied, the Red Indicator LED will flash.
- Pressing the "TEST BUTTON" on the lid will disconnect the mains simulating a power outage. The Red Indicator LED will stop illuminating and the EMP will operate in emergency mode if the battery isolation switch is in the "ON" position.
- If a Battery Switch is in ON position and mains power is present, the Red Indicator LED will stay ON. Flashing Red light in this case would indicate a problem with emergency luminaire. Contact Coolon if this situation occurs.

## Commissioning Test

Once energized allow up to 10 seconds for the EM controller to go through the self-test procedure.

After 16 hours of uninterrupted mains power Coolon Emergency Luminaire is ready for commissioning test. In the absence of mains power the EMTNR2 emergency LED luminaire will operate for a minimum of 2 hours during the commissioning test and 1.5 hours during its service life.

## Battery Replacement Procedure

The EMTNR2 emergency LED luminaire is designed to operate providing specified emergency operating time using the in-built battery for the life of the product. As a result there is no field battery replacement capability.

## Coolon App

Coming soon Bluetooth/Coolon App allows to significantly shorten inspection and testing time by providing the information on the battery state of charge and its health. It would also provide an estimated operation time of EMTNR2 in the event of power failure and keep track of such events.