

# SPECIFICATION OF NATURE SWITCH-GSM FOR OUTDOOR LIGHTING

**APPLICATION:** Compound / Yard Lighting, **Street Lighting**, Elevation Lighting, **Landscape Lighting**, Gardens, **Aviation Lighting etc.**

- 1) The switch must be suitable for direct installation in single-phase AC supply.
- 2) The operation voltage range must be 180 to 290VAC. It should be able to withstand a fault voltage of upto 440 VAC.
- 3) **OPTICAL SENSOR:**
  - a) The sensor used should be reliable for calibration stability
  - b) The sensing circuit should be sealed in a container meeting IP 65
  - c) The sensor should be located behind a vertical wall to avoid accumulation of dust etc.

## 4) **COMMUNICATION UNIT ( GSM MODULE):**

Module – SIM 900  
Quad-Band 850/ 900/ 1800/ 1900 MHz  
Operation temperature: -30 °C to +80 °C

## 5) **OPERATIONAL SPECIFICATIONS:**

|                                       |   |                         |
|---------------------------------------|---|-------------------------|
| Operating Voltage                     | - | 230VAC $\pm$ 10% 50 Hz  |
| Recommended Lighting Load             | - | Up to 3000 watts        |
| Maximum Continuous Current            | - | 16A                     |
| <b>Illuminance for Switching ON</b>   | - | <60 lux for >30 seconds |
| <b>Illuminance for Switching OFF:</b> |   |                         |
| a) In Field                           | - | >10 lux for >30 seconds |
| b) In Lab                             | - | >60 lux for >30 seconds |

## 6) **OPERATIONAL OPTIONS:**

- ❖ Manual ON/OFF
- ❖ Automatic Options
  - Sun based operation (On at Sunset, Off at Sunrise)
  - Time based operation
    - Single On/Off Cycle
    - Double On/Off Cycle
    - Triple On/Off Cycle
  - Combination of Sun and Time based operation
    - On at Sunset-Off at Time
    - On at Time-Off at Sunrise
    - On at Sunset-Off at Time- On at Time off at Sunrise

**7) AUTO OVER/LOW VOLTAGE TRIP AND RESET:**

|                         |   |           |
|-------------------------|---|-----------|
| Auto Over Voltage Trip  | - | >280 VAC  |
| Auto Over Voltage Reset | - | < 265 VAC |
| Auto Low Voltage Trip   | - | <150 VAC  |
| Auto Low Voltage Reset  | - | >165 VAC  |

**8) TERMINAL CONSTRUCTION:**

The terminals provision for connection to LIVE IN, NEUTRAL and LIVE OUT should be properly enclosed in such a way that no live part is open.

- 9) The switch must have an endurance of atleast 5,000 cycles at full rated load
- 10) The switch must perform in an ambient temperature range of  $-10^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$
- 11) The switch must perform in open air with RH upto 95% at  $25^{\circ}\text{C}$
- 12) It must meet the drop and topple test from a height of 3 feet on any side at least for 5 Drops.
- 13) Product should conform to IP65.