

### 3.3. Requirements of Monitored Type Self-contained Emergency Lighting

**3.3.1.** The requirements of Monitored Type Self contained emergency lighting shall be as per **Table 6.3.**

**Table 6.3: Specifications of Monitored Type Self-contained Emergency Lighting**

ITEMS	REQUIREMENTS
<b>1. TYPE OF POWER</b>	<ul style="list-style-type: none"> <li>i. The type of power systems for Monitored type Self contained shall be at least Type 10, Class 3, Level 1 in accordance with <b>NFPA 111, Standard on Stored Electrical Energy Emergency and Standby Power Systems.</b></li> <li>ii. The power System of the monitored type self contained system shall be of Type 10 which cut-in within 10 seconds of the failure of the mains.</li> <li>iii. The duration of the back-up of self contained battery power shall be of Class 3, that is for 3 hours (180 Minutes)</li> <li>iv. Power supply shall be of level 1 category which is installed where failure of the equipment to perform could result in loss of life. (Threat to building Life Safety)</li> </ul>
<b>2. SELF CONTAINED LUMINAIRES</b>	<p><b><u>1. BATTERIES</u></b></p> <ul style="list-style-type: none"> <li>i. Batteries shall be integral part of the luminaire, as 'self contained unit'.</li> <li>ii. The luminaire, internal ECE and internal Battery Unit shall be certified by the manufacturer with test certificates, stating the compliance with required output voltages and operating temperature range etc.</li> <li>iii. Operating temperature for indoor unit shall be 10°C TO 40°C.</li> <li>iv. For outdoor units, operating temperature shall be -34°C to 50°C. (or the maximum forecast outdoor temperature)</li> <li>v. The self contained unit shall be designed to function at humidity from 5% to 95%.</li> <li>vi. The self contained emergency lighting unit shall have the capacity to supply energy for 180 minutes, uninterrupted.</li> <li>vii. Following a full discharge after 90 minutes of full rated operation, the self contained unit shall be capable of automatically resupplying the full rated load and full duration within 48 hours and of resupplying 60% of duration at full rated load within 24 hours.</li> <li>viii. Batteries shall be tested and approved for self contained emergency lighting system.</li> </ul> <p><b><u>2. BATTERY REPLACEMENT</u></b></p> <ul style="list-style-type: none"> <li>i. Batteries shall be replaced as per manufacturer's recommendation but shall not exceed 4 years.</li> </ul> <p><b><u>3. LUMINAIRES</u></b></p> <ul style="list-style-type: none"> <li>i. Luminaires shall be addressable.</li> <li>ii. Luminaire shall be tested and certified by the manufacturer for serving as a unit in monitored type self contained emergency lighting system.</li> <li>iii. Convertible light fittings shall not be permitted, unless approved and listed with test certification.</li> <li>iv. All emergency lighting luminaires (fixtures) shall be dedicated, marked with the maximum lamp wattage or electrical rating, manufacturer's name, trade-mark, or other suitable means of identification.</li> </ul>