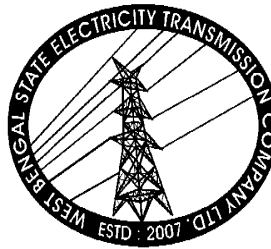


PORTABLE INFLATABLE EMERGENCY LIGHTING SYSTEM



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Engineering Department

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SPECIFICATION OF PORTABLE INFLATABLE EMERGENCY LIGHTING SYSTEM

Portable Inflatable Emergency Lighting System of the following specification:

1. Base frame: It shall consists of MS Tube frame and a base plate of aluminium sheet of 3 mm +10% to -5% thickness to support generating set and control gearbox and shall be provided with anti-vibration rubber pads. M.S. parts shall be powder coated.
2. Top cover made of module fibre glass or suitable material designed to fasten the tower balloon by suitable steel strip so that there is no air leakage at the joint. It shall provide suitable nipple for filling air into the balloon and provided support for it to resin erect at wind speed of 40 to 45 Km/H
3. Generator set recoil start portable AC generating set comprising AC generator, rated as 1200VA 230V single phase of unit power factor and petrol run air cooled 4 stroke single cylinder engine with resettable circuit breaker in the AC output. Fuel tank capacity should be for continuous running of generating set for 10+ hours. A fuel level indicator should be on display panel.
4. System should work on 220/230 V 50 HZ AC supply and for connecting to the main and shall have provision for 15 Amp 3 Pin socket and a suitable lead wire with plugs at both end.
5. Two numbers of compressor / air blower of suitable rating to be provided to insert the balloon in 60 second maximum.
6. Balloon: It shall be cylindrical shape made suitable polyester based cloth to ensure emission of light with minimum loss and shall be waterproof and strengthened flexible stiffeners to sustain inside air pressure and to remain erected against outside wind of 40 - 45 KM/Hr.
7. One 400 W High Pressure Metal Halide (HPMH) Lamp to give 40000 to 42000 lumens shall be mounted inside the balloon at the top and such that it goes up/down while inflating and deflation shall be 4.5 to 5 Mtr from base plate. The length of nylon rope required for the steps should be 5 Metre and of 3 mm Dia.
8. Control gear shall be suitable designed and fitted with MCB, lamp, ballast, igniters, capacitor, change over and on/off switch with indicating lamp for controlling one number 400 watt HPMH lamps and two air blowers.
9. Performance requirement:
 - A) Minimum lux value of 1 shall be achieved on ground at 55 Mtr radius within 5 minute of starting.
 - B) Deflection time including Re-packing shall be 2-4 minutes max.
 - C) The system shall be continuously run for 10 hours, without damaging adversely affecting the

balloon fabric and other components.

10. Overall Dimension: Total weight of complete system should be within 48 kg (Dry Weight)(Excluding Storage Box). Overall Dimension in deflected condition (nominal) 600 X 450 x 500 mm

Accessories

One set of following accessories/ spares to be part of supply with the main equipment

- a) Storage box suitable design to accommodate the tower and other spares and easy to handle with proper locking arrangement.
- b) Rain protection cover: For generating set and control gear box, made of waterproof cloth with air vent arrangement.
- c) Wind support 5 metre nylon stay wire ropes of Dia 3 mm (03Nos) which can be tied to the tower balloon and grouping hook in case of extra wind velocity.
- d) Toolkit - Necessary tools required for operation of the emergency light system viz. Screw driver, plug spanner and T-nut driver, 03 nos puncture tape 10 CM x 10 CM etc.
- e) Lamp with requisite control gear
- f) One blower.