



EW-SPPDCM-75WP

GENERIC

<p>Solar Photovoltaic lighting systems and power packs D. C. Models shall conform to MNRE specification (Off-grid Solar Applications Scheme 2016-17)</p>	<p>Yes</p>
<p>Power pack model</p>	<p>SPV Module: 75 Wp, Battery: 12V, 60 Ah, Solar charge controller: 12V, 5A</p>
<p>Loads: 3 Nos. of White Light Emitting Diode (W-LED) Luminaire (max. 3.0 Watts)</p>	<p>5 Hours per day for SOLAR POWER PACK: 75 Wp</p>

each)	
"Loads: 2 Nos. of White Light Emitting Diode (W-LED) Luminaire (max. 6.0 Watts each) for 6 Hrs. / day"	4 Hours per day for SOLAR POWER PACK: 75 Wp
Provision to Power for D.C. Fan(20Watts) or Power for a 12V DC TV (max. 25 watts) set,	" for 3-4 Hrs. / day for DC Fan OR for 3-4 hrs. / day for DC TV set for SOLAR POWER PACK: 100 Wp "
Provision for operating the radio	Yes
USB port for mobile Phone Charging	Yes

CONSTRUCTIONAL

Corrosion resistant frame structure should be provided to hold the SPV module. PV Module shall supply with module mounting structure	Yes
The frame structure should have provision to adjust its angle of inclination to the horizontal, so that it can be installed at the specified tilt angle	Yes
Mounting type of light source as per site	wall mounted

requirements.	
A vented plastic/ wooden/ metallic box with acid proof corrosion resistant paint for housing the storage battery indoors should be provided	Yes. provided
The system should have two indicators, green (charging under progress) and red (indicate the battery "Load Cut Off" condition)	Yes
Working temperature	0 deg C to 45 deg C

PV MODULE

Indigenously manufactured PV modules should be used	Yes
The PV modules should be made up of crystalline silicon solar cells and must have a certificate of testing conforming to IEC 61215 Edition II / BIS 14286 from an NABL or IECQ accredited Laboratory.	Yes
Efficiency for PV Modules	>14%

<p>The terminal box on the module should have a provision for opening, for replacing the cable, if required</p>	<p>Yes</p>
<p>"There should be a Name Plate fixed inside the module which will give: (a) Name of the Manufacturer or Distinctive Logo. (B) Model Number (c) Serial Number (d) Year of manufacture"</p>	<p>Yes</p>
<p>A distinctive serial number starting with NSM will be engraved on the frame of the module or screen printed on the tedlar sheet of the module.</p>	<p>Yes</p>

BATTERY

<p>The battery should be Lead Acid, Tubular positive plate flooded electrolyte or Gel or VRLA Type. Battery Ah at C/10 rated</p>	<p>Yes</p>
<p>75 % of the rated capacity of the battery should be between fully charged & load cut off conditions</p>	<p>Yes</p>
<p>Battery should conform to the latest BIS/ International standards</p>	<p>Yes</p>

LIGHT SOURCE

<p>The luminaries should use white LEDs</p>	<p>Yes</p>
<p>Minimum 18 Lux for 3 W LED Luminaire and Minimum 32 LUX for 16W LED Luminaire when measured from a height of 2.5 meter in an area of 2.5 meter diameter</p>	<p>Yes</p>
<p>The colour temperature of White-LED(s) used in the system</p>	<p>5500 deg K to 6500 deg K</p>
<p>3 Nos. of White Light Emitting Diode (W-LED) Luminaire (max. 3.0 Watts each) .</p>	<p>Yes. Provided</p>
<p>2 Nos. of White Light Emitting Diode (W-LED) Luminaire (max. 6.0 Watts each).</p>	<p>Yes. Provided</p>
<p>The total input power consumption by the luminaire is not more than 3 W/6W as applicable (including the LED driver consumption).</p>	<p>Yes</p>
<p>White-LED(s) should not emit ultraviolet light</p>	<p>Yes</p>

<p>The light output from the White- LED should be constant throughout the operation of lights</p>	<p>Yes</p>
<p>The lamps should be housed in an assembly suitable for indoor use with an appropriate heat sink to dissipate the heat generated by LEDs during operation</p>	<p>Yes</p>
<p>"The temperature of LED should not increase more than 10o above room temperature. This condition should be complied for 5 hours of operation of the lamp at a stretch while battery operating at any voltage between the loads disconnect and the charge regulation set point"</p>	<p>Yes</p>
<p>The luminaries must use the optics and diffuser in order to have uniform and glaze free light</p>	<p>Yes</p>
<p>The make, model number, country of origin and technical characteristics (including IESNA LM-80 report) of white LEDs used in the lighting system must be furnished to the buyer / consignee along with the system</p>	<p>Yes</p>
<p>All Luminaries should have a built in</p>	<p>Yes</p>

<p>ON/OFF switch and fuse</p>	
--------------------------------------	--

ELECTRONICS

<p>Electronics should operate at 12 V and should have adequate temperature compensation arrangement for proper charging of the battery throughout the year</p>	<p>Yes</p>
<p>Efficiency</p>	<p>$\geq 90\%$</p>
<p>The system should have separate ports for connecting each load along with a charging port for mobile and laptop</p>	<p>Yes</p>
<p>The voltage drop from module terminals to the battery terminals should not exceed 1.0 volts including the dropage across the diode and the cable when measured at maximum charging current</p>	<p>Yes</p>
<p>Idle current</p>	<p>≤ 150 mA</p>
<p>The PCB containing the electronics should be capable of solder free installation and replacement</p>	<p>Yes</p>

<p>Necessary lengths of wires/cables, switches suitable for DC use and fuses should be provided</p>	<p>Yes</p>
<p>Necessary lengths of wires/ cables, switches and fuses should be provided</p>	<p>Yes</p>
<p>No Load protection</p>	<p>Yes</p>
<p>Battery over charge and deep discharge protection</p>	<p>Yes</p>
<p>The load reconnect should be provided at 90% of the battery capacity status</p>	<p>Yes</p>
<p>Battery reverse polarity, Short circuit proection, reverse flow current protection</p>	<p>Yes</p>

WARRANTY

<p>Warranty for Solar home system including Battery from the date of supply</p>	<p>1 Years</p>
<p>Warranty for PV Modules from the date of supply as per MNRE specn.,</p>	<p>>/=25 Years</p>

<p>PV modules used in Solar Home Lighting System must be warranted for their output peak watt capacity, which should not be less than 90% at the end of Ten (10) years and 80% at the end of Twenty five (25) years</p>	<p>Yes</p>
<p>The Warranty Card to be supplied with the system must contain the details of the system. The manufacturers can also provide additional information about the system and conditions of warranty as necessary</p>	<p>Yes</p>
<p>OPERATION and MAINTENANCE MANUAL shall be furnish to the buyer / consignee as per MNRE (Off-grid Solar Applications Scheme 2016-17) (including IESNA LM-80 report of W-LEDs)</p>	<p>Yes</p>

CERTIFICATION

<p>Availability of Type Test Report from Central Govt./NABL/ILAC accredited lab to prove conformity to specification</p>	<p>Yes</p>
<p>Storage battery shall comply with Bureau of Indian Standards of CRS as on date as applicable</p>	<p>Yes</p>



<p>PV Modules shall comply with Bureau of Indian Standards of CRS as on date as applicable</p>	<p>Yes</p>
---	------------