

- Use only additional cables which are qualified for the expected maximum current, maximum voltage and environmental conditions. Minimum cross section 4 mm² (#12 AWG) (5,2 mm diameter with insulation layers cable). Conductor have to withstand temperature variations from -40 to +90°C.
- The PV-DC-connectors must never be disconnected under load! Stick to the first rule of chapter 3.2.
- Refer to the relevant standards in your country to determine over current, conductor ampacity and size requirements.
- For best performance, ensure that positive and negative DC wires run closely together avoiding loops, which will also reduce the strength of inductive impacts of nearby lightning strikes.
- Following the installation of a module string, its performance is checked to ensure proper functioning. At least, ISC and VOC need to be checked with appropriate equipment and circuit breakers.

6. Lightning protection

- For safe operation of PV modules proper lightning protection equipment has to be installed.
- Lightning protection has to be achieved by passive Franklin grounding rods installed in a location of solar power plant.
- Please make sure that lightning sphere will not reach PV modules, mounting system, inverters or other parts. Radius of sphere has to be selected according to local regulations, Eurocodes or other legal normative references.
- Lightening protection equipment has to be directly connected to grounding structure. Grounding resistance of grounding structure shall be reached according to local regulations, Eurocodes or other legal normative references.

7. Maintenance

JSC “Soli Tek Cells” recommends the following maintenance items to ensure optimum performance of the module:

- Clean the glass surface of the modules as necessary. Use water and a soft sponge or cloth for cleaning. A mild, non-abrasive cleaning agent can be used if necessary. Do not use dishwasher detergent.
- Electrical and mechanical connections and the general condition of an installed PV-system should be checked periodically by qualified personnel to verify that they are clean, secure and undamaged.
- Eventually occurring problems must only be investigated by qualified personnel.
- Observe also the maintenance instructions for all other components used in the system.

8. Shutting down the system

- Disconnect system from all power sources in accordance with instructions for all other components used in the system.

- The PV-DC-connectors must never be disconnected under load! Use switches designed for being disconnected under the prevailing DC-load or stick to the first rule of chapter 3.2.
- The system should now be out of operation and can be dismantled. In doing so, observe all safety instructions as applicable to installation.

9. Typical electrical ratings of the concerned modules:

Parameters	Standard 285W P.60	Standard 300W M.60
Maximum Power at STC (P_{MPP})	285 Wp	300 Wp
Maximum power at NMOT (P_{MPP})	213.65 W	-
Maximum power point voltage at STC (V_{MPP})	32.94 V	32.15 V
Maximum power point voltage at NMOT (V_{MPP})	30.39 V	-
Maximum power point current at STC (I_{MPP})	8.73 A	9.35 A
Maximum power point current at NMOT (I_{MPP})	7.03 A	-
Open Circuit voltage at STC (V_{OC})	39.24 V	39.45 V
Open Circuit voltage at NMOT (V_{OC})	36.99 V	-
Short Circuit current at STC (I_{SC})	9.26 A	9.9 A
Short Circuit current at NMOT (I_{SC})	7,6 A	-
Maximum System Voltage	1'000 V	1'000 V
Fire Class (IEC 61730)	C	C
NMOT, °C	41,19	-
Maximum reverse current	12 A	12 A
Current temperature coefficient α [%/°C]	0,03	-
Voltage temperature coefficient β [%/°C]	-0,22	-
Power temperature coefficient δ [%/°C]	-0,32	-
Low irradiance (200 w/m ²) power, W	53,11	-

The electrical characteristics are within $\pm 5\%$ of the indicated values of ISC, VOC, and PMPP under Standard Test Conditions (irradiance of 1000 W/m², AM 1.5 spectrum, and a cell temperature of 25°C / 77°F).

10. Disclaimer of liability

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Please consult your dealer or the manufacturer concerning the warranty of your modules. If you have any further questions, your dealer will gladly assist you.