


 <b>MEHRIZ TEJARAT CIMAN CO.</b>	 <b>EBTEKAR ENERGY ISATIS ENGINEERING COUNSLTING CO.</b>	Project: <b>Consultancy and Engineering Service for Solar plants</b>	Document No: ---
		Document Title: <b>PV Panel Technical Specification</b>	Date: <b>07/10/2025</b>

## PV Panel Technical Data Sheet



### (To be filled by Contractor)

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Rev	Description	DES	CHK	APP	Date	Rev	Description	DES	CHK	APP	Date

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## Contents

1 General.....	3
2 General Specifications.....	3
1 Operating Parameters .....	4
2 Electrical Characteristics at STC .....	5
3 Temperature Rating at STC.....	5
4 Mechanical Loading .....	5
5 Mechanical Parameters.....	6

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## 1 General



This document should be provided for each proposed solar panels.

General data	
Brand:	
Tire 1, Top Brands, or Mana Energy	
Model:	
Number of Provided Panels: (Main and Spare)	
Accumulative Capacity: (Main and spare)	

Data Sheet, TUV test results and project reference list to be attached.

## 2 General Specifications



General Specifications	
Facial type	Bi
Cut type (Full Cut/Half Cut)	
Silicon type (Mono/Poly)	
Topcon	Yes
HJT (Yes/No)	
Wafer technology (N Type,P Type)	N Type

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Number of cells	
Wafer size (M10/M12)	M12
Fire rating	
First year power degradation (%)	
Year 2 - 25 degradation (%)	
Total power degradation in 25 <sup>th</sup> year (%)	
Production date	
Number of spare panels for following PV plant capacities (in DC)	2%
Note: In calculation of spare, always round up the value.	
E.g. For a 3 MW plant, approximately 4,839 modules with capacity of 620 W is required, so 2% for 4,839 modules is 96.77 and therefore 97 spare panels must be purchased.	
Bifaciality Factor	

## 1 Operating Parameters

Operating Parameters	
Power output warranty (year)	
Material and process warranty (year)	
Operational temperature (°C)	
Voc and Isc tolerance (%)	
Maximum system voltage	
Maximum series fuse rating (A)	
Nominal operating cell temperature (°C)	
Protection class	

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## 2 Electrical Characteristics at STC



Electrical Characteristics at STC	
STC: AM1.5 1000 W/m <sup>2</sup> 25°C	
Maximum power (P <sub>max</sub> /W)	
PV Module Efficiency (%)	
Power output tolerance (W)	
Number of bus bar	

## 3 Temperature Rating at STC

Temperature Rating at STC	
STC: AM1.5 1000 W/m <sup>2</sup> 25°C	
Temp coefficient of I <sub>sc</sub> (%/°C)	
Temp coefficient of V <sub>oc</sub> (%/°C)	
Temp coefficient of P <sub>max</sub> (%/°C)	

## 4 Mechanical Loading

Mechanical Loading	
Front side maximum mechanical loading (Pa)	
Rear side maximum mechanical loading (Pa)	
Hail stone test	

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## 5 Mechanical Parameters

Mechanical Parameters	
Junction box	
Minimum DC cable cross section (mm <sup>2</sup> )	
Installation method	
Junction box minimum cable Length (cm)	
Frame	
Glass specifications	
Number of grounding holes	
Connector Type and Model	