



**TECHNICAL SPECIFICATION**

**Poly-Crystalline Solar Cell**

Code

ND9A30012A1B462

Used in

SPV Module (120 W & 125 W)

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Parameter	Specification
Solar Cell	Multi Crystalline Silicon Solar Cell
Dimension	157 mm X 157 mm $\pm$ 0.25 mm
Thickness	Over all cell 200 $\mu$ m $\pm$ 20 $\mu$ m
Colour	Light Blue/ Blue/ Dark Blue/ Indigo
Anti-reflection coating	Anti-reflecting coating (Silicon Nitride) (PID Free)
Front Contact (-ve)	5 nos., 0.7 mm +/- 0.1 mm wide Silver Bus Bar (Continuous or discrete)
Back Contacts (+ve)	5 nos., 1.9 mm +/- 0.1 mm wide Silver Bus Bars with Aluminium back surface field (continuous or discrete)
Bus Bar Distance	31.2 mm $\pm$ 0.2 mm
Solderability	Good solderability of cell front & back contacts with Copper Ribbon of Sn:Pb (60:40)
Cell Efficiency at STC	18.80% (Typical)
Cell Power (P <sub>m</sub> ) at STC	Minimum 4.62 W <sub>p</sub> (Tolerance-0%, +2%)
Short Ckt Current, I <sub>sc</sub>	8.85 A (Typical)
Current at MPP (I <sub>mp</sub> )	Better than 8.30 A
Open Ckt Voltage, Voc	0.636 V (Typical)
Voltage at MPP (V <sub>mp</sub> )	0.544 V (Typical)
Fill Factor	80 % (Typical)
Temperature Coefficient	I <sub>sc</sub> (Alpha) : 0.04%/K or better
	V <sub>oc</sub> (Beta) : -0.32%/K or better
	P <sub>mpp</sub> (Gama) : -0.39%/K or better
All cells shall be free from following visual defects- 1. Edge Chipping, Edge Broken. 2. Micro Cracks, Pin Holes. 3. Discontinuity of metal printing lines. 4. Any spot, spillage or spear of paste. 5. Colour variation of ARC. 6. Non uniform printing or spreading of fine lines.	

Prepared By	<u>Radeep Singh</u>	AM(TS)	Rev	1
Checked By	<u>[Signature]</u>	CM (TS, MKT & SB)	Issue	1
Approved By	<u>J.S. Aggarwal</u>	DGM (W, IMM, EDP & Shipping)	Date	22.05.2023
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**General Requirements**

1. Point wise Compliance statement of the Technical Specification including general terms and condition along with complete catalogue must be attached with the technical bid.
2. Specify OEM details and Part no. of the offered product (not other product).
3. Vendor to furnish customer references.

Prepared By	<u>Pradeep Singh</u>	AM(TS)	Rev	1
Checked By	<u>Home</u>	CM (TS, MKT & SB)	Issue	1
Approved By	<u>J.S. Higgins</u>	DGM (W, IMM, EDP & Shipping)	Date	22.05.2023
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## PRE-CONTRACT INTEGRITY PACT

### GENERAL

This pre-bid pre-contract agreement (hereinafter called the Integrity Pact) is made on ..... day of ..... the month of ..... , between, ITI Limited, Naini Plant, Mirzapur Road Naini, Allahabad-211010, Uttar Pradesh, India, (hereinafter called the "BUYER", which expression shall mean and include, unless the context otherwise requires, his successors in office and assigns) of the First Part and

..... (*address of the Bidder*)  
(hereinafter called the "BIDDER " which expression shall mean and include, unless the context otherwise requires, his successors and permitted assigns) of the Second Part.

WHEREAS the BUYER proposes to float a tender Ref..... for supply, installation, integration and commissioning ( ~~strik off whichever is not applicable~~ ) at its premises as per the specification in the attachments (*name of the product*) and the BIDDER is willing to participate in Bid as per the terms and conditions mentioned thereon;

WHEREAS the BIDDER is a private company/public company/Government undertaking/partnership company (~~strike off whichever is not applicable~~), constituted in accordance with the relevant law in the matter and the BUYER is a PSU under the Department of Telecommunications, Ministry of Communications & IT, Government of India.

NOW, THEREFORE,

To avoid all forms of corruption by following a system that is fair, transparent and free from any influence/prejudiced dealings prior to, during and subsequent to the currency of the contract to be entered into with a view to :-

Enable the BUYER to select a firm for supply, installation, integration and commissioning ( ~~strik off whichever is not applicable~~ ) at its premises as per the specification in the attachments (name of the product) through the tender in a transparent and corruption free manner, and