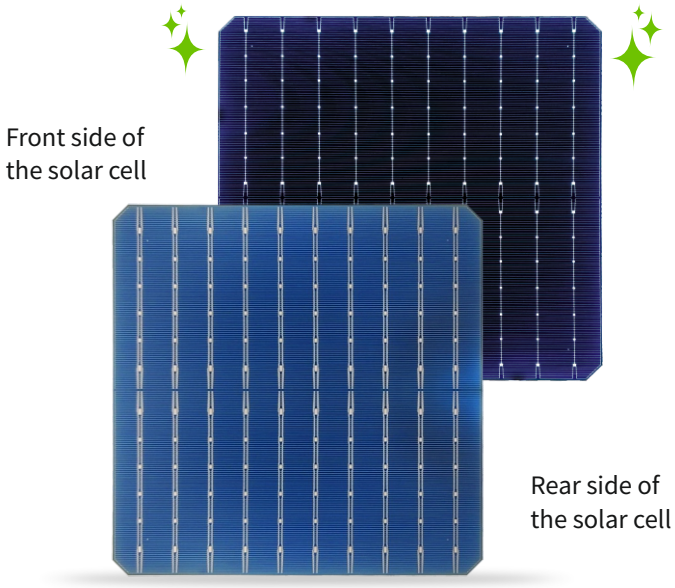
M10R MONO PERC SOLAR CELL
PIRANHA P-TYPE M10 BIFACIAL



- Ultra-efficient solar cell with anisotropically etched surface, Bi-facial light receiving structure and half cut design helps in improving the generation capacity of the module.
- The narrow design of the rear busbar reduces the shading rate and improves the double-sided rate of the module.
- Anti-PID performance to ensure the Reliability of the module power.

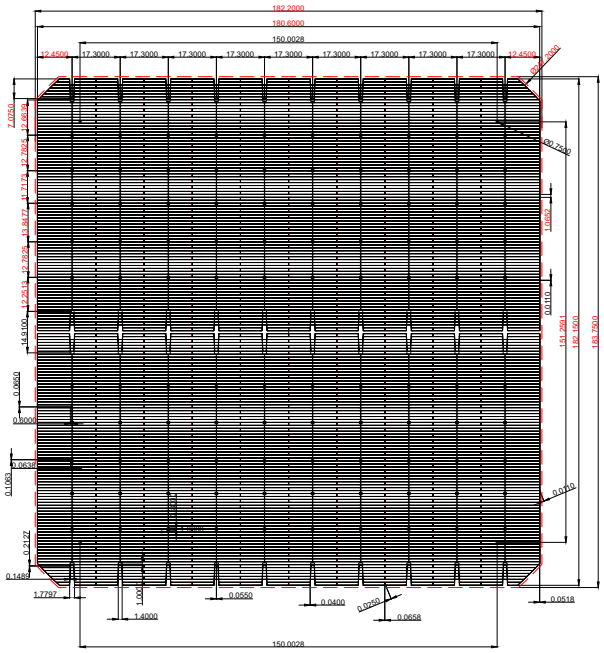
MECHANICAL DATA AND DESIGN

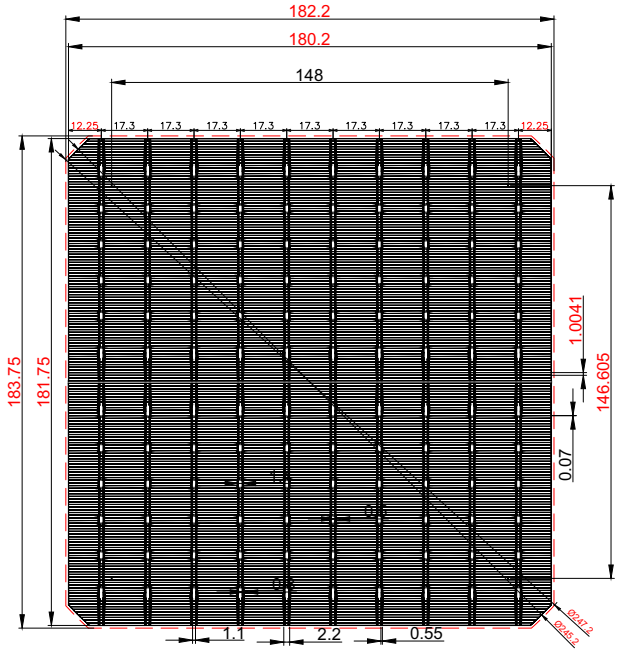
Model	PEPPL_PIRANHA_P TYPE_M10_BI-FACIAL
Product	M10_10BB_Bifacial Mono PERC Solar cell
Code	PEPPL_182.2R_10BB
Format	182.2 mm x 183.75 mm ± 0.5 mm
Thickness	150 µm ± 15 (including Matel pattern)
Diagonal	247.0 mm ± 0.5 mm

Front side (+)	0.8x1.0 mm ± 0.03 mm pads, 10 busbars (Silver), Silicon Oxide + Silicon Nitride compound anti-reflection coating (PID-free)
Back side (-)	Passivated Layer (AlOx, SiON & SiNx) The rear electrode is composed of 10 busbar, 1.7 ± 0.03 mm wide soldering pads
Center to center Bus-bar distance	17.30 ± 0.02 mm

COPY CONTROLLED PREMIER ENERGIES

Front and back Patterns

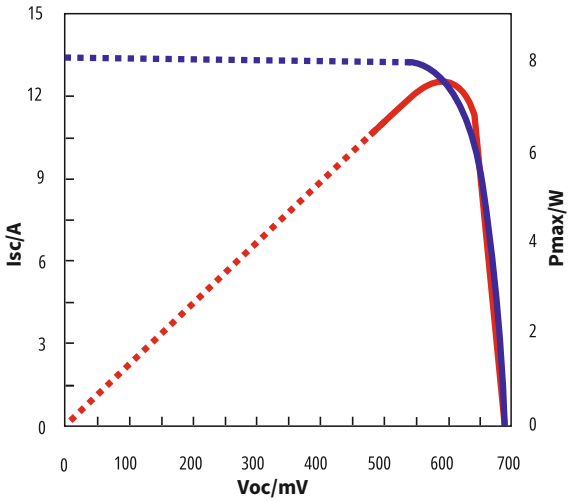




ELECTRICAL CHARACTERISTICS (STC*)

EFF. CLASS %	EFF. RANGE	PMPP(W)	IMPP(A)	ISC(A)	VMPP(V)	VOC(V)	FF(%)
23.6	23.60-23.70	7.87	12.900	13.64	0.609	0.700	82.35
23.5	23.50-23.60	7.83	12.890	13.60	0.607	0.699	82.31
23.4	23.40-23.50	7.80	12.880	13.59	0.605	0.697	82.29
23.3	23.30-23.40	7.77	12.850	13.58	0.604	0.695	82.27
23.2	23.20-23.30	7.73	12.840	13.56	0.601	0.693	82.19
23.1	23.10-23.20	7.70	12.830	13.54	0.599	0.691	82.15
23.4	23.00-23.10	7.67	12.826	13.53	0.597	0.689	82.12
22.9	22.90-23.00	7.63	12.822	13.51	0.594	0.687	82.09
22.8	22.80-22.90	7.60	12.818	13.49	0.592	0.686	82.06
22.7	22.70-22.80	7.57	12.808	13.47	0.596	0.684	82.03
22.6	22.60-22.70	7.53	12.793	13.45	0.588	0.682	82.00
22.5	22.50-22.60	7.50	12.783	13.43	0.586	0.686	81.97

IV-Curve



***Standard Testing Condition**

Light Intensity: -1000 ±5 W/m², Light Spectrum: AM1.5, Temperature: 25± 2º C

Temperature Coefficients of Pmax	-0.325%/°C
Temperature Coefficients of Voc	-0.266%/°C
Temperature Coefficients of Isc	+0.044%/°C

Color Classification:

3Color shades, Denim Blue, Medium Blue & Navy Blue

PROCESS RECOMMENDATION	
Solder joint	Copper ribbons coated with 60%Sn and 40%Pb
Solderability	Peel strength Min> 1.0N/mm

LIGHT INTENSITY DEPENDENCE

Ratio of Vmpp (Impp) at reduced intensity to Impp (Vmpp) at 1000 W/m²

INTENSITY(W/M²)	VMPP	IMPP
1000	1.00	1.00
800	0.99	0.80
600	0.98	0.60
200	0.92	0.20

For more details, please contact:

PREMIER ENERGIES

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The specification and key features contained in this datasheet may deviate slightly from our actual products due to the on-going innovation and product enhancement, Premier Energies reserves the right to make necessary adjustment to the information described herein at any time without further notice.

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