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DATASHEET SOLAR CELLS PERC 9BB M6 - 166x166 mm

Normative references

Document number	Title
IEC 60904-1 Ed.2.0	Photovoltaic devices – Part 1:measurements of photovoltaic current-voltage characteristics
IEC 60904-3 Ed.2.0	Photovoltaic devices – Part 3: Measurement principles for terrestrial photovoltaic (PV) solar devices with reference spectral irradiance data
IEC 60904-7 Ed.3.0	Photovoltaic devices – Part 7: Computation of spectral mismatch error introduced in the testing of a photovoltaic device
IEC 61215 Ed.2.0	Crystalline silicon terrestrial photovoltaic (PV) modules – Design qualification and type approval

Cell structure

Tab 1 Cell Structure

Substrate material	P-type mono-crystalline silicon wafer - PERC
Cell thickness	175μm±17.5μm,
Dimension	166±0.5mm
Diagonal	223mm±0.5mm
Front(-)	Alkali textured surface, blue silicon nitride AR coating
	Silver busbars for the front electrodes
Back(+)	Aluminum oxide back-surface field
	silver soldering pads for the backside electrodes

Front silver pastes：DKEM Series, SAMSUNG Series 8800, Heraeus Series, JuHe Series, GiGaSolar Series.

Aluminum pastes：Rutech Series 28DXX, T-SUN Series, HOYI Series.

Back silver pastes：HOYI Series, Rutech Series, Gonda Series,

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Electrical Data of P-type mono-Crystalline PERC silicon solar cells

Irev2：<1A @-12V Rsh>30Ω

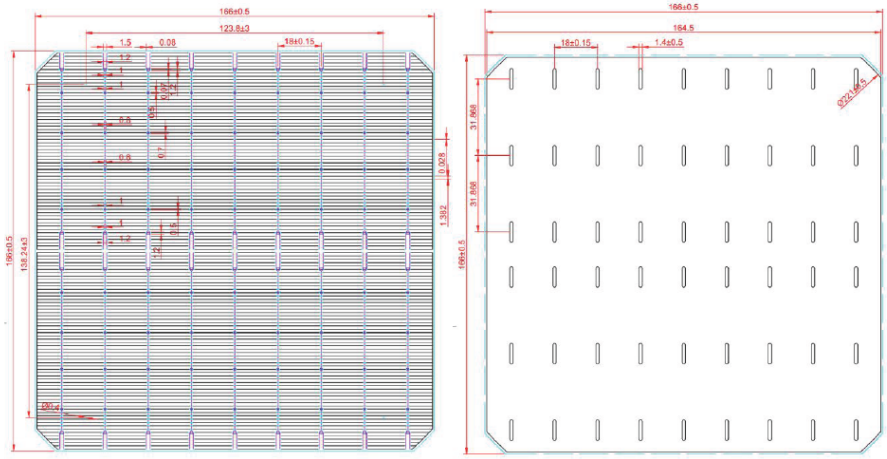
The electrical data apply to standard test conditions(STC):

Irradiance of 1000W/㎡ ,with spectrum AM 1.5 and a cell temperature of 25℃.

The above data are average figures presently measured. Reference data are calibrated by Fraunhofer ISE.

Just for reference.

3.2.2 Printing patterns and parameters



Patterns and parameters of mono-Crystalline PERC silicon solar cell

Temperature Coefficient (Typical data for reference)

Voc.Temp.Coef	-(2.244±0.005) mV/K
Isc.Temp.Coef	+(0.024±0.005) mA/cm²/K

3.3 Light induced degradation test

Using Xenon lamp (Irradiance of 1000W/m^2,with spectrum AM 1.5) to irradiate test cells, after a total irradiation of 5 kwh/m^2 ,the degradation of maximum output power of cells is ≤2%.

3.4 CTM

Lower cell to module(CTM) power loss：<4%.

3.5 Anti-PID

Potential Induced Degradation(-1000V,96Hrs):<5%