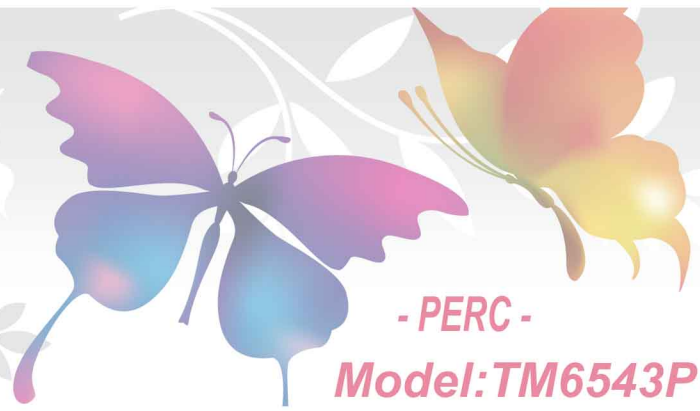


Tamrons
www.tamrons.com

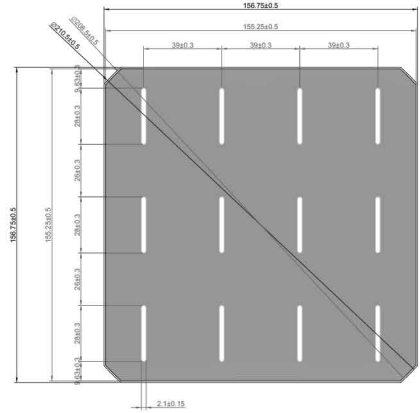
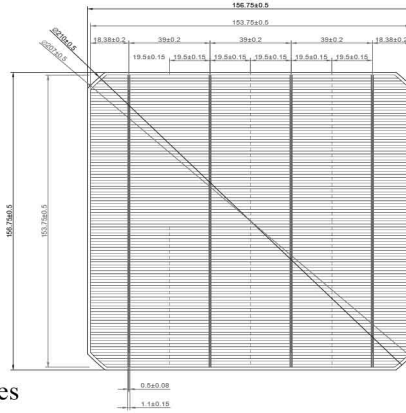


- PERC -
Model: TM6543P

Monocrystalline Solar Cells

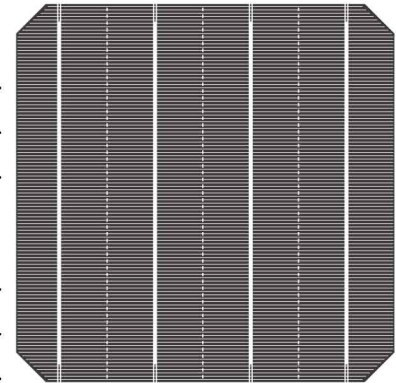
Features

- Color Uniformity, Low Breakage rate
- 100% in-line optical and electrical inspection
- Long-term stability, reliability and performance
- Outstanding power output even in low light or high
- Optimized design for ease of soldering and lamination
- High conversion efficiencies resulting in superior power
- Compatible with present module manufacturing process
- 100% inspected for shunt resistance and reverse current
- regularly monitor product performance and soldering properties
- PID resistant confirmed by all major customers and testing labs



Physical Characteristics

Dimension	156.75mm X 156.75mm ± 0.25mm
Thickness	180 μm ± 30 μm, 200 μm ± 30 μm
Front (-)	Acid texturized surface with Silicon nitride anti-reflecting coating
	Color: Dark Blue, Blue, Sky Blue & Light Blue 4 X 1.1 mm ± 0.15 mm wide bus bars, Distance between bus bars : 39 mm
Back (+)	aluminum back surface field
	4 X 3 soldering pads, 2.1 mm ± 0.15 mm wide bus bars Distance between bus bars : 39 mm



Electrical Characteristics

Efficiency Code		196	194	192	190	188	186	184	182
Efficiency	Eff(%)	19.60	19.40	19.20	19.00	18.80	18.60	18.40	18.20
Power	Pmpp(W)	4.82	4.77	4.72	4.67	4.62	4.57	4.52	4.47
Max. Power Current	Impp(A)	8.655	8.627	8.599	8.563	8.530	8.475	8.470	8.446
Short Circuit Current	Isc(A)	9.189	9.153	9.117	9.079	9.040	9.001	8.970	8.969
Max Power Voltage	Vmpp(V)	0.556	0.553	0.549	0.545	0.542	0.539	0.527	0.526
Open Circuit Voltage	Voc(V)	0.664	0.659	0.655	0.650	0.646	0.643	0.629	0.628

Standard test condition: AM1.5, 1000W/m², 25°C

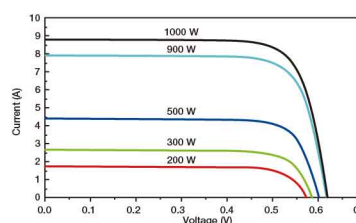
Average accuracy of all tests is +/-1.5% rel.

Temperature Coefficients

Current Temperature Coefficient	α (ISC)	0.05%/K
Voltage Temperature Coefficient	β (VOC)	-0.30%/K
Power Temperature Coefficient	γ (Pmax)	-0.37%/K

Standard test condition: AM1.5, 1000W/m², 25°C

Typical Current-Voltage Curve



Typical Spectral Response

