



TP7F54M  
 TP7F54M(H) **108-cel**  
 395 - 415W  
 10BB Half-cut Mono Perc



**SYSTEM & PRODUCT CERTIFICATES**

- IEC 61215 / IEC 61730 / UL 61730
- ISO 9001: 2015 Quality Management System
- ISO 14001: 2015 Environment Management System
- ISO 45001: 2018 Occupational Health and Safety Management Systems



**PERFORMANCE WARRANTY**

**12** Years  
Quality Assurance

**2** Years  
Power Output Guarantee

Linear Performance Warranty

**KEY FEATURES**



**10BB Half-cut Cell Technology**  
 New circuit design, lower internal current, lower Rs loss  
 Ga doped wafer, attenuation < 2% (1st year) / 0.55% (Linear)



**Higher Power Generation**  
 2% more power generation, lower LCOE



**Anti-PID Performance**  
 2 times of industry standard Anti-PID test



**High Waterproof Level**  
 IP68 Junction Box

## ELECTRICAL CHARACTERISTICS

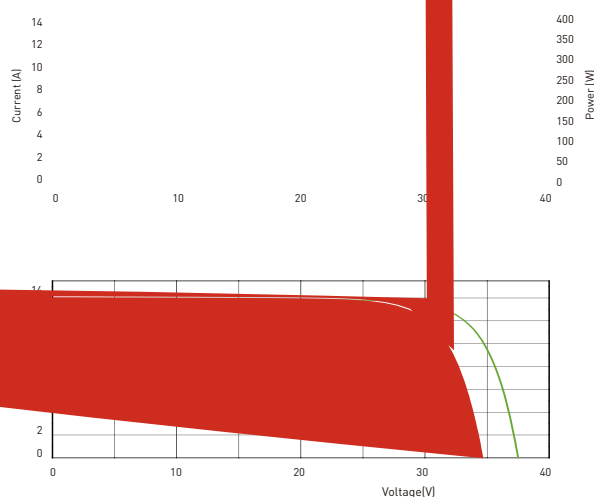
Testing Condition	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Maximum Power (Pmax/W)	395	294	400	298	405	302	410	306	415	310
Operating Voltage (Vmpp/V)	30.85	28.8	31.05	29.0	31.24	29.2	31.43	29.3	31.62	29.6
Operating Current (Impp/A)	12.81	10.23	12.89	10.30	12.97	10.36	13.05	10.42	13.13	10.48
Open-Circuit Voltage (Voc/V)	36.75	34.6	37.00	34.8	37.25	35.1	37.50	35.3	37.75	35.5
Short-Circuit Current (Isc/A)	13.69	11.04	13.78	11.11	13.86	11.17	13.94	11.24	14.02	11.30
Module Efficiency (%)	20.20		20.50		20.70		21.00		21.30	

STC: Irradiance 1000W/m<sup>2</sup>, Spectra at AM1.5, Module Temperature 25 °C. Power output tolerance: 0~+5W, Test uncertainty for Pmax ±3%  
 NMOT : Irradiance 800W/m<sup>2</sup>, Spectra at AM1.5, Ambient Temperature 20 °C, Wind speed 1m/s

## MECHANICAL CHARACTERISTICS

Cell Type	Monocrystalline Silicon (10Busbar)
No. of Cells	108pcs in series (6*18)
Module Dimensions	1722*1134*30mm (67.80*44.65*1.18inches)
Weight	21.5kg (47.4lbs.)
Front Glass	3.2mm AR Coating Tempered Glass
Frame	Anodized Aluminium Alloy
Junction Box	IP68, 3 Bypass Diodes
Output Cables	4mm <sup>2</sup> (IEC), 12AWG(UL) 350mm(+),250mm(-) or Customized Length
Connectors	

## I-V CURVE



## APPLICATION CONDITIONS

Maximum System Voltage	1000V/1500V/DC
Operating Temperature	-40°C~+85°C
Maximum Series Fuse	25A
Safety Protection Class	Class

## TECHNICAL DRAWINGS

## TEMPERATURE CHARACTERISTICS

Temperature Coefficient of Pmax	-0.35%/°C
Temperature Coefficient of Voc	-0.26%/°C
Temperature Coefficient of Isc	+0.048%/°C
Nominal Module Operating Temperature(NMOT)	43±2°C

## PACKING CONFIGURATION

Pieces Per Pallet	36	36(USA)
Pieces Per Container(40'HQ)	936	828



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