



# IM54 SERIES PHOTOVOLTAIC MODULES

PEAK POWER: 225-235 Wp

## FEATURES INCLUDE:

- 54 MOTTECH multicrystalline solar cells connected in series
- Positive power tolerance of 0~3% improves system performance
- Industry-leading module efficiency
- For grid-tied applications
- Tested up to 5400Pa for maximum load resistance
- Progressive Power Warranty guarantees 80.2% of rated power at 25 years
- Manufactured globally with world-class quality standards

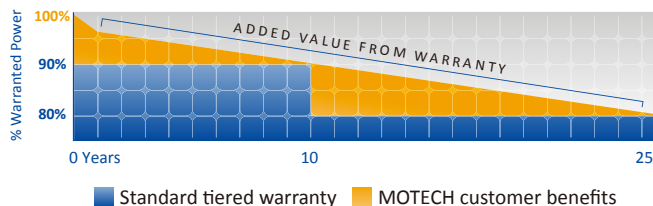


## QUALITY, RELIABILITY, AND KWH YIELD

MOTTECH modules are powered by industry acknowledged high performance, reliable MOTTECH silicon cells. 20 years of experience in solar module engineering and design, along with rigorous durability and performance tests, ensure reliable lifetime performance and maximum kWh yield.

## 25-YEAR PROGRESSIVE WARRANTY\*

- 25-year progressive power warranty
- 10-year warranty on materials and workmanship

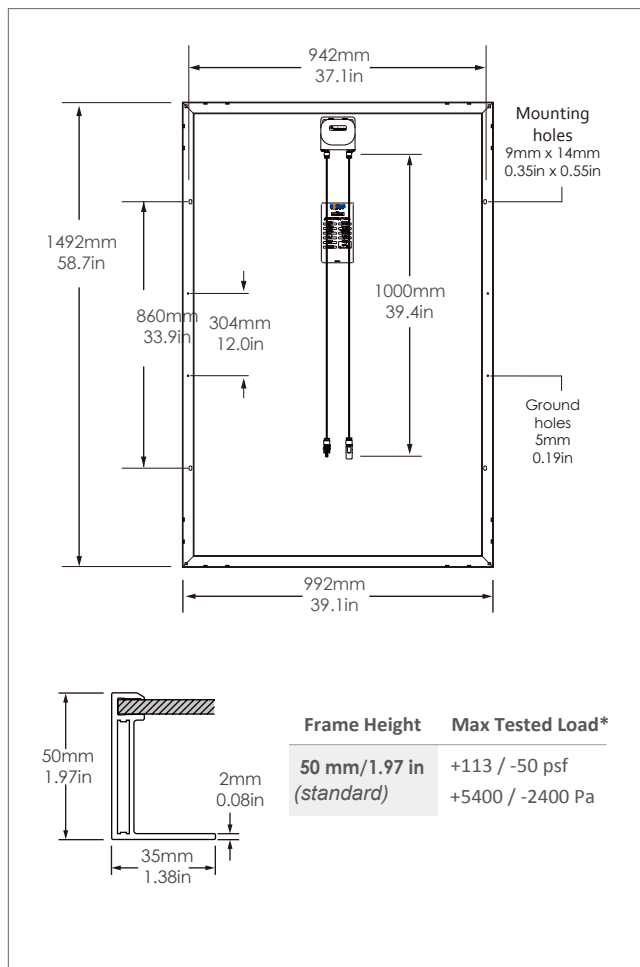


## CERTIFICATIONS & STANDARDS\*

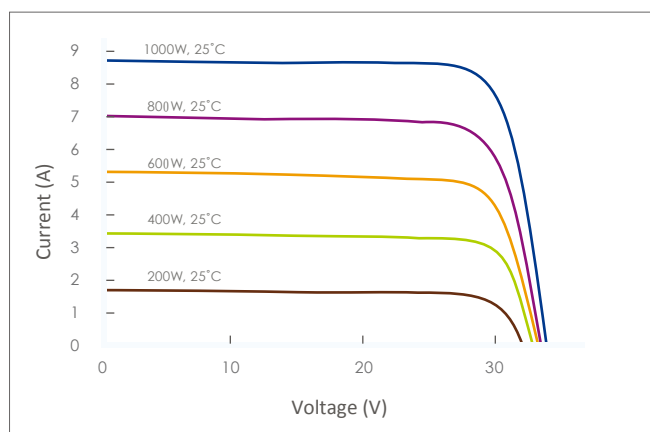


Intertek  
UL1703  
IEC61215  
IEC61730-1,2

\* Please refer to our website at [www.mottechsolar.com](http://www.mottechsolar.com) for certification and warranty details

**PHYSICAL CHARACTERISTICS**

**PHYSICAL DESIGN PROPERTIES**

Weight	40.1 lb [18.2 kg]
Glass	3.2mm low iron tempered glass with anti-reflective coating
Hailstone Impact Resistance	1" @ 50 mph [25 mm @ 80 kph]
Junction Box	IP65 rated
Output Cables	4.0mm <sup>2</sup> Universal PVWire, 1000mm[39.4in]

**IV CURVE**

**ELECTRICAL PERFORMANCE**

	IM54C3-225	IM54C3-230	IM54C3-235			
STC Peak Power (W)	225	230	235			
NOCT Peak Power (W)	165	169	174			
Efficiency (%)	15.2%	15.5%	15.9%			
<b>Test Conditions</b>	<b>STC</b>	<b>NOCT</b>	<b>STC</b>	<b>NOCT</b>	<b>STC</b>	<b>NOCT</b>
Max. Power Voltage V <sub>mpp</sub> (V)	27.82	25.46	27.69	25.29	27.98	25.71
Max. Power Current I <sub>mpp</sub> (A)	8.09	6.50	8.31	6.68	8.40	6.76
Open Circuit Voltage V <sub>oc</sub> (V)	33.91	31.42	33.81	31.33	34.03	31.53
Short Circuit Current I <sub>sc</sub> (A)	8.63	6.99	8.86	7.18	8.95	7.25

**ELECTRICAL PERFORMANCE PARAMETERS**

I <sub>sc</sub> Temperature Coefficient	α (%/°C)	+0.07 ±0.02	Max. Series Fuse	15A
V <sub>oc</sub> Temperature Coefficient	β (%/°C)	-0.34 ±0.01	Max. System Voltage	IEC 1000V
P <sub>max</sub> Temperature Coefficient	γ (%/°C)	-0.46 ±0.02		UL 600V/ 1000V
Efficiency Reduction at 200W/m <sup>2</sup> , 25°C		<5%	Normal Operating Cell Temp. (NOCT)	46°C ± 2°C
			Limiting Reverse Current (I <sub>r</sub> )	9.0A

IV parameters are rated at Standard Test Conditions (Irradiance of 1000 W/m<sup>2</sup>, AM 1.5, cell temperature 25°C). All measurements are guaranteed at the laminate leads. NOCT is measured at 800 W/m<sup>2</sup>, 20°C ambient, and 1 m/s windspeed. Specifications are subject to change without notice. Motech reserves the rights of final interpretation and revision on this datasheet.

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