

# Mono PERC 10BB - 550Wp

N550M10144 – 520 | 525 | 530 | 535 | 540 | 545 | 550  
**Maximum Module Efficiency - 21.28%**

### Durability Against Extreme Environmental Conditions

Severe salt mist & blown sand resistance for seaside, farm and desert.  
 Anti-reflective & Anti-soiling surface minimize power loss from dirt and dust.



### PID Resistance

Excellent Anti-PID performance guarantee limited power degradation for Mass production.(Potential Induced Degradation) under test conditions.



### High Efficiency

Higher module conversion efficiency(up to 21.28%) benefit from half cell structure(low resistance characteristic).



### Low-light Performance

Advanced glass and cell surface textured design ensure Excellent performance in low-light environment.



### Severe Weather Resilience

Excellent Snow load 5400Pa resistance.  
 Excellent Wind load 2400Pa resistance.



### Certifications :



ISO 9001:2015  
 ISO 14001:2015  
 ISO 45001:2018



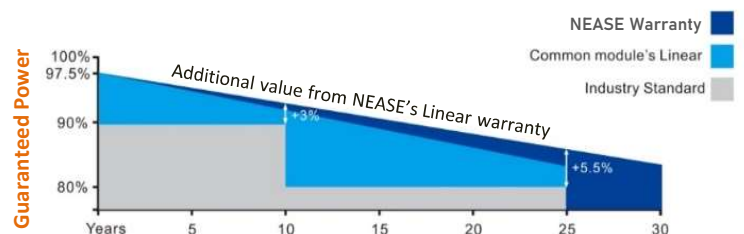
IS 14286:2010/IEC 61215 : 2005  
 IS/IEC 61730 (Part 1) : 2004  
 IS / IEC 61730 (Part 1) : 2004



R-72004740

## LINEAR PERFORMANCE WARRANTY

**12 years Product Warranty / 25 year Linear Power Warranty**



NEASE product warranty is 12 years instead of 10 years given by many competitors.

• NEASE established in 2008, is Hi-tech corporation with its core business in R&D manufacturing, and sale of high efficiency silicon based solar modules.

• As one of the leading PV enterprises in the world, NEASE has delivered more than 400MW Solar Photo Voltaic Modules to residential, commercial, utility and off-grid projects all around the world.

• Through strict selection of raw materials, stringent quality control and rigorous test in state of the art facilities in Gandhinagar and Ahmedabad, INDIA. NEASE has always committed to higher efficiency, more stable and better cost performance products.

## Electrical characteristics at Standard Test Conditions (STC)

MODEL	N520M10144	N525M10144	N530M10144	N535M10144	N540M10144	N545M10144	N550M10144
Maximum Power - Pmax	520	525	530	535	540	545	550
Open Circuit Voltage – Voc (V)	49.06	49.15	49.30	49.45	49.60	49.75	49.76
Short Circuit Current – Isc (A)	13.60	13.65	13.72	13.79	13.86	13.93	13.96
Voltage at Maximum Power – Vmp (V)	41.06	41.15	41.31	41.47	41.64	41.70	41.72
Current at Maximum Power – Imp (A)	12.66	12.76	12.83	12.90	12.97	13.07	13.19
Cell Efficiency	22.20	22.40	22.60	22.80	23.00	23.20	23.50
Module Efficiency	20.12	20.31	20.50	20.70	20.89	21.08	21.28

\*Standard Test Conditions(STC) : irradiance 1000W/m<sup>2</sup> ; cell temperature 25°C, AM 1.5G. The mentioned Power output is measured and determined by NEASE at its sole and absolute discretion.

## Electrical Characteristics at Nominal Module Operating Temperature (NMOT)

MODEL	N520M10144	N525M10144	N530M10144	N535M10144	N540M10144	N545M10144	N550M10144
Maximum Power - Pmax	392.13	395.50	399.20	403.0	406.80	410.50	414.80
Open Circuit Voltage – Voc (V)	45.82	45.98	46.12	46.26	46.40	46.54	46.68
Short Circuit Current – Isc (A)	11.01	11.02	11.07	11.13	11.19	11.24	11.30
Voltage at Maximum Power – Vmp (V)	37.77	37.87	38.03	38.20	38.36	38.52	38.68
Current at Maximum Power – Imp (A)	10.39	10.45	10.50	10.55	10.61	10.66	10.72

\* Nominal Operating Module temperature (NOCT) : irradiance 800W /m<sup>2</sup>; Wind speed 1 m/s, Ambient temperature 20°C.

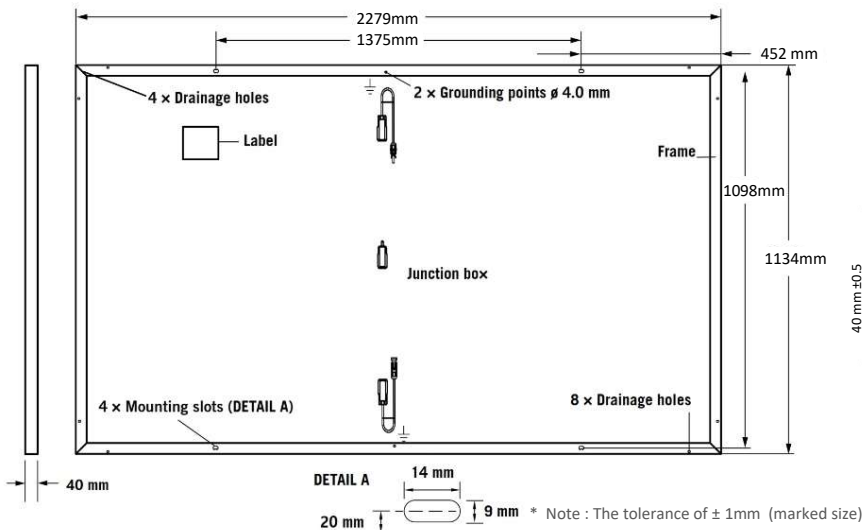
Temperature Characteristics		Maximum Ratings	
Voltage Temperature Coefficient β	- 0.2730 %/°C	Maximum system voltage (VDC)	1500VDC
Current Temperature Coefficient α	+ 0.0437 %/°C	Series fuse rating (A)	25 A
Power Temperature Coefficient γ	- 0.3348 %/°C	Reverse Current overload (A)	40 A

Mechanical characteristics	
Dimensions (mm)	2279 X 1134 X 40 mm
Weight (Kgs)	28.60 Kgs
Front Glass	High Transmittance , Low Iron toughened Glass – 3.2mm Thickness
Cell Encapsulation	EVA ( Ethylene – Vinyl-Acetate)
Back Sheet	Composite Film Tedlar White Back sheet (Optional Transparent Back sheet / Black Back sheet )
Number of Cells	MONO PERC Solar Cells 10-BUSBAR, 91 X 182 mm, 144 Cells , (6X12 Matrix – 2 nos)
Junction Box	IP68, 3 By Pass Diodes, IEC 60529 and Safety Class II
Cable & Connector	2 X 4mm <sup>2</sup> , Compatible with MC4, Positive (+) 400mm / Negative (-)400mm
Frame	Silver Mat Anodized aluminum, Alloy Type 6063 T5

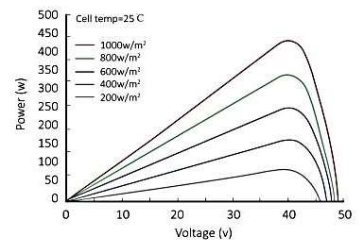
System Design		PACKING CONFIGURATION	
Temperature Range	-40°C to 85°C	Pieces per Pallet	26 No's
Wind / Snow load Capacity	2400Pa / 5400 Pa	Container 20' GP	208 No's
Application Class	Class A	Container 40' HC	572 No's
Safety Class	Class II	Packaging box dimensions ( L X W X H )	2300X1180X1100mm

Note: Please refer the instruction manual in this entirely before handling, installing and operating NEASE Solar Modules.

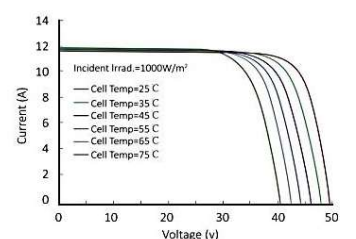
## PHYSICAL CHARACTERISTICS



Power-Voltage Curve (550Wp)



Current-Voltage Curve (550Wp)



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