

OS N 25

N-type High Efficiency Module

435~450Wp

RN1-24S440M54N16B

- 100 % EL Test to Ensure Error Free Module
- High Conversion Efficiency With High Reliability
- Uniform Electrical Performance
- Excellent Power Generation
- Excellent Anti-PID Performance
- Low Hot Spot Effect
- High Salt Mist Resistance



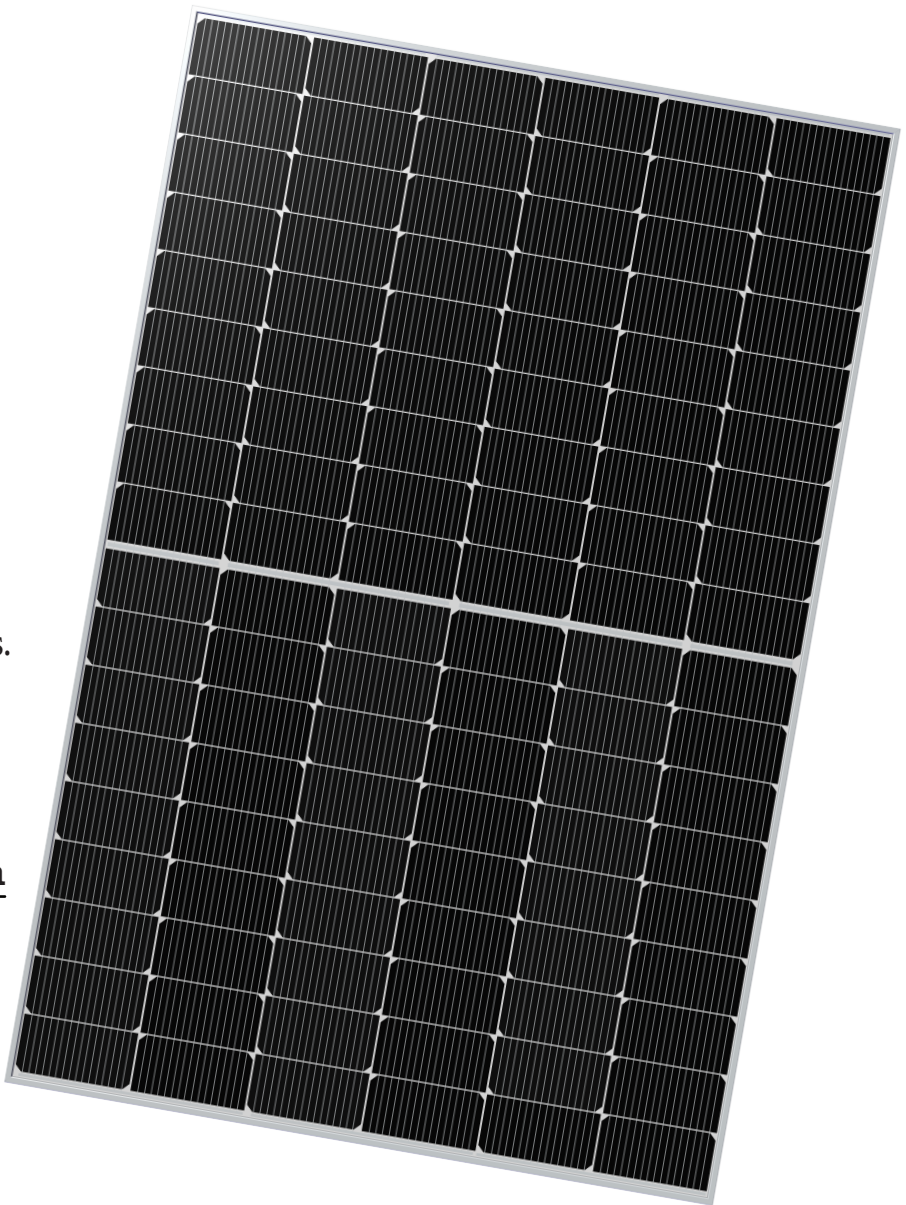
12 Years Product Warranty



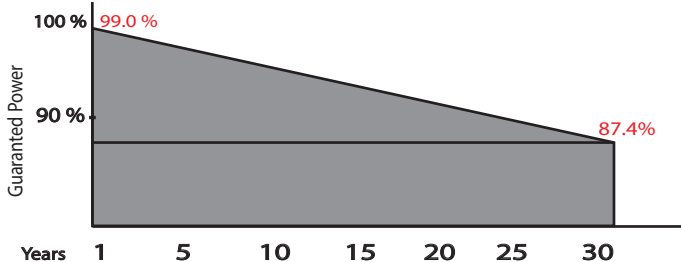
30 Years Linear Power Warranty



1% Degradation for 1st year
 0.40% Annual Degradation Over 30 years.



Linear power performance graph



Complete System and Product Certifications

Made in Bangladesh

TUVNORD



IEC 61215, IEC 61730, IEC 61701, IEC 62804, UL 61730
 ISO9001:2015: Quality Management System
 ISO14001:2015: Environmental Management System
 ISO45001:2018: Occupational Health and Safety

Mechanical Characteristics

Cell Type	Mono-crystalline N-type TOPCon, 182x182mm
No. of Cells	108 (6*18)
Junction Box	IP68, 3 Diodes
Cable Cross-section size	4mm ²
Cable Length	± 300mm (Cable length can be customized)
Front Glass	3.2mm (High transmission, low iron tempered glass)
Backsheet	TPT
Encapsulant Material	POE/EVA
Protection Class	Class II
Fire Performance	Class C
Frame	Anodized Aluminium Alloy
Weight	20 kg
Module Dimensions	1722 x 1134 x 30mm

Packaging Configuration

Pallet Dimensions (L*W*H)	1740 x 1115 x 1275 mm
Packaging Configuration	36pcs/pallet, 432pcs/20' & 936pcs/40'HQ Container

Specifications (STC)

Maximum Power - Pmax [Wp]	435	440	445	450
Maximum Power Voltage - Vmp [V]	32.63	32.82	33.01	33.22
Maximum Power Current - Imp [A]	13.34	13.41	13.48	13.55
Open-circuit Voltage - Voc [V]	39.15	39.35	39.56	39.78
Short-circuit Current - Isc [A]	13.91	13.97	14.04	14.11
Module Efficiency STC (%)	22.28	22.54	22.80	23.05
Power Tolerance	±3%			
Temperature Coefficient of Pmax	-0.29%/°C			
Temperature Coefficient of Voc	-0.25%/°C			
Temperature Coefficient of Isc	0.045%/°C			

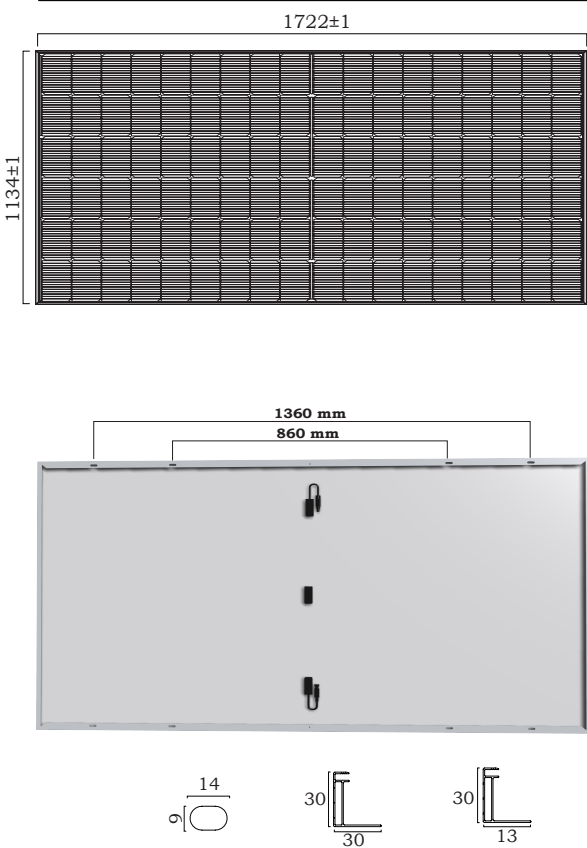
Specifications (NOCT)

Maximum Power - Pmax [Wp]	328	332	336	340
Maximum Power Voltage - Vmp [V]	30.55	30.73	30.92	31.12
Maximum Power Current - Imp [A]	10.74	10.80	10.86	10.92
Open-circuit Voltage - Voc [V]	36.65	36.84	37.03	37.24
Short-circuit Current - Isc [A]	11.16	11.22	11.28	11.33

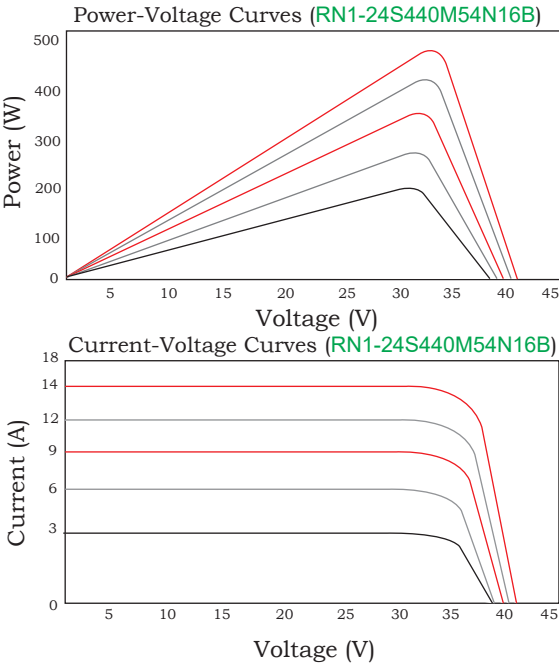
Operating Conditions

Maximum System Voltage	1500 VDC (IEC)
Maximum Series Fuse Rating	25 A
Operating Temperature	- 40°C~+85°C
Voc and Isc Tolerance	±3%
Front Side Maximum Static Load	5400 Pa
Back Side Maximum Static Load	2400 Pa
NOCT	45±2°C

Engineering Drawings



Electrical Performance



STC: Irradiance 1000W/m²
 Cell Temperature 25°C
 AM=1.5

NOCT: Irradiance 800W/m²
 Ambient Temperature 20°C
 AM=1.5
 Wind Speed 1m/s