

# Star Series

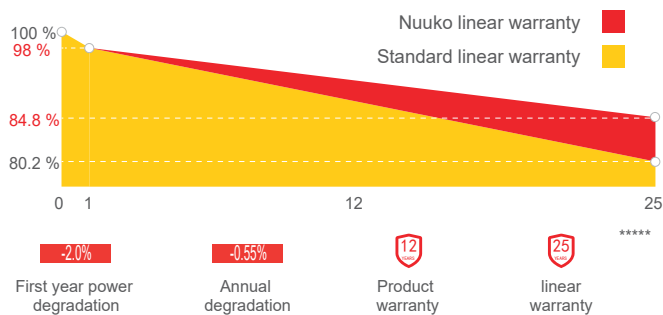
LIVE UP TO GOOD SUNSHINE

NKM-144 (166mm Cell)

## 440-460 Watt

MONOFACIAL MODULE

### Industry-leading Warranty based on nominal power



## Features



### High module conversion efficiency

Module efficiency up to 21.2% achieved through advanced cell technology and manufacturing process



### Extended wind and snow load tests

Module certified to withstand extreme wind (2400 Pascal) and snow loads (5400 Pascal) \*



### Excellent weak light performance

More power output in weak light condition, such as cloudy, morning and sunset



### Lower operating temperature

Lower operating temperature and temperature coefficient increases the power output



### Nuuko current sorting process

Up to 2 % power loss caused by current mismatch could be diminished by current sorting technique to maximize system power output

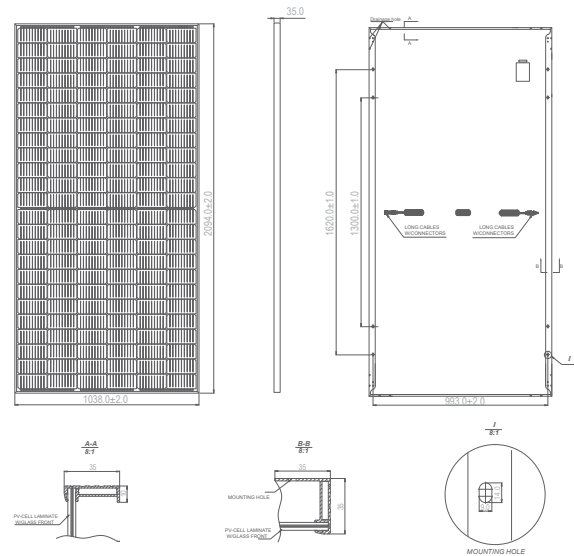


### Withstanding harsh environment

Reliable quality leads to a better sustainability even in harsh environment like desert, farm and coastline

## MECHANICAL SPECIFICATIONS

Cell Type	Monocrystalline
Cell Dimensions	166*166mm
Cell Arrangement	144 (6*24)
Weight	25.5kg
Module Dimensions	2094*1038*35mm
Cable Length	Portrait 300mm/Landscape 1200mm/Customized
Cable Cross Section Size	TUV: 4mm <sup>2</sup> /UL: 12AWG
Front Glass	3.2mm AR Coating Tempered Glass
No. of Bypass Diodes	3/6
Packing Configuration (1)	31pcs/carton, 726pcs/40hq
Frame	Anodized Aluminium Alloy
Junction Box	IP68



## ELECTRICAL SPECIFICATIONS

Module Type	NKM440-144M6		NKM445-144M6		NKM450-144M6		NKM455-144M6		NKM460-144M6	
	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Rated output (Pmp/Wp)	440	328	445	332	450	335	455	339	460	344
Maximum Power Voltage(Vmpp/V)	40.5	37.8	40.7	38.0	40.9	38.2	41.1	38.4	41.3	38.6
Maximum Power Current(Imp/A)	10.87	8.67	10.94	8.73	11.01	8.78	11.08	8.84	11.15	8.90
Open Circuit Voltage(Voc/V)	49.2	45.8	49.4	46.0	49.6	46.2	49.8	46.4	50.0	46.6
Short Circuit Current(Isc/A)	11.40	9.20	11.47	9.26	11.54	9.32	11.62	9.38	11.69	9.44
Module efficiency(%)	20.2%		20.5%		20.7%		20.9%		21.2%	
Power Tolerance (W)	0~+5		0~+5		0~+5		0~+5		0~+5	

STC: Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25°C, Air Mass AM1.5 NMOT: Irradiance at 800W/m<sup>2</sup>, Ambient Temperature 20°C, Air Mass AM1.5, Wind Speed 1m/s

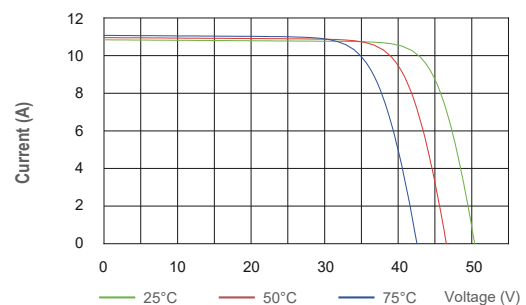
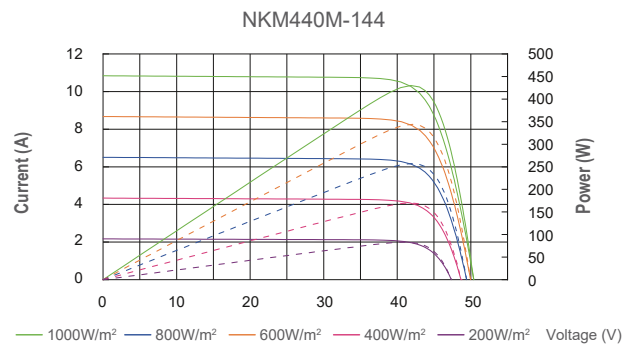
## MAXIMUM RATINGS

Maximum System Voltage	1000V/1500V DC (IEC)
Operating Temperature	-40°C ~ +85°C
Maximum Series Fuse	20A
Static Loading	Snow Loading: 5400Pa/ Wind Loading: 2400Pa
Conductivity at Ground	≤0.1Ω
Safety Class	II
Resistance	≥100MΩ

## TEMPERATURE CHARACTERISTICS

NMOT Temperature	43°C±2°C
Temperature Coefficient (Pmax)	-0.36%/°C
Temperature Coefficient (Voc)	-0.26%/°C
Temperature Coefficient (Isc)	0.043%/°C

## CURVE & TEMPERATURE DEPENDENCE



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