

# Spirit Series

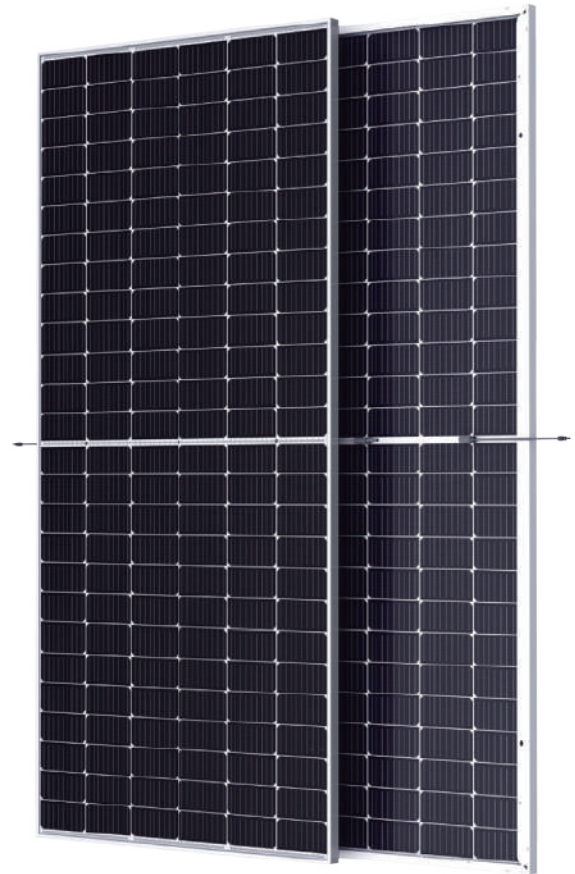
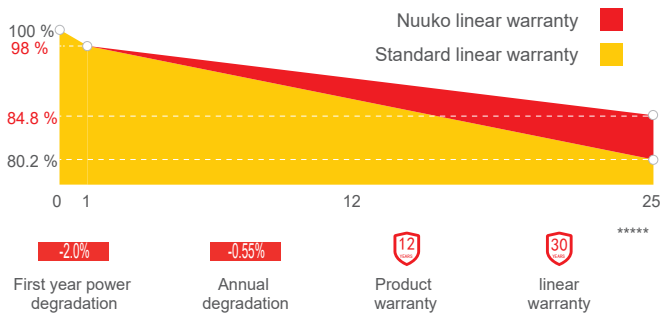
LIVE UP TO GOOD SUNSHINE

NKM-156 (182mm Cell)

## 570-590 Watt

BIFACIAL MODULE

Industry-leading Warranty based on nominal power



## Features



### High module conversion efficiency

Module efficiency up to 21.0% 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

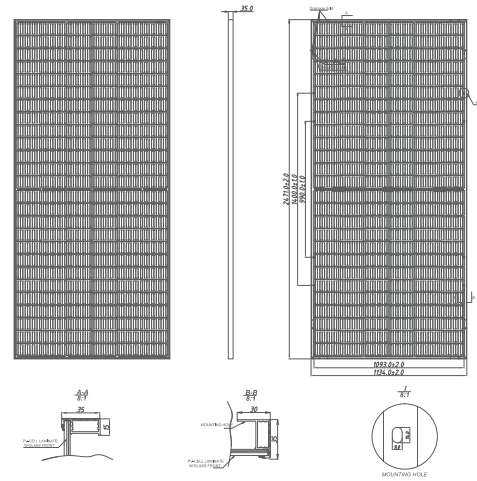


### Withstanding harsh environment

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

## MECHANICAL SPECIFICATIONS

Cell Type	Monocrystalline
Cell Dimensions	182*182mm
Cell Arrangement	156 (6*26)
Weight	35kg
Module Dimensions	2471*1134*35mm
Cable Length	Portrait 300mm/Landscape 1200mm/Customized
Cable Cross Section Size	TUV: 4mm <sup>2</sup> /UL: 12AWG
Front Glass	2.0mm AR Coating Semi-tempered Glass
Back Glass	2.0mm Glazed Semi-tempered Glass
No. of Bypass Diodes	3/6
Packing Configuration (1)	31pcs/Pallet, 558pcs/40HQ
Frame	Anodized Aluminium Alloy
Junction Box	IP68



## ELECTRICAL SPECIFICATIONS

Module Type	NKM570-156M10		NKM575-156M10		NKM580-156M10		NKM585-156M10		NKM590-156M10	
	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Rated output (Pmp/Wp)	570	420	575	424	580	427	585	431	590	435
Maximum Power Voltage(Vmpp/V)	45.1	41.9	45.2	42.0	45.3	42.1	45.4	42.2	45.5	42.3
Maximum Power Current(Imp/A)	12.65	10.03	12.73	10.10	12.81	10.16	12.89	10.22	12.97	10.28
Open Circuit Voltage(Voc/V)	53.5	50.0	53.6	50.1	53.7	50.2	53.8	50.3	53.9	50.4
Short Circuit Current(Isc/A)	13.38	10.79	13.46	10.85	13.54	10.91	13.62	10.98	13.70	11.04
Module efficiency(%)	20.1%		20.3%		20.5%		20.7%		21.0%	
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

### Electrical characteristics with different rear side power gain (refer to 580W front)

	609	638	667	696	725
Pmax/W	609	638	667	696	725
Vmpp/V	45.3	45.3	45.3	45.3	45.3
Imp/A	13.45	14.09	14.73	15.37	16.01
Voc/V	53.7	53.7	53.7	53.7	53.7
Isc/A	14.22	14.89	15.57	16.25	16.93
Pmax gain	5%	10%	15%	20%	25%

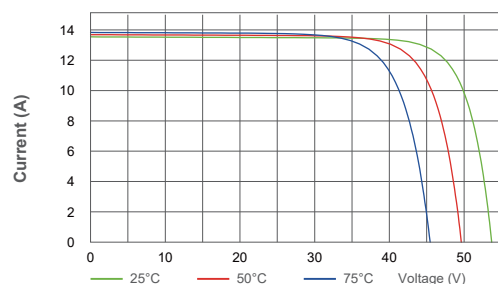
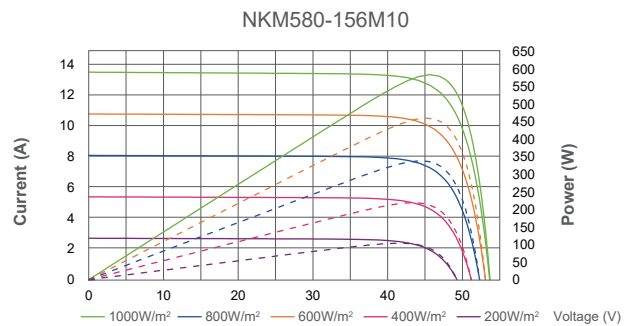
## MAXIMUM RATINGS

Maximum System Voltage	1500V DC (IEC)
Operating Temperature	-40°C ~ +85°C
Maximum Series Fuse	30A
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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