

# Spirit Series

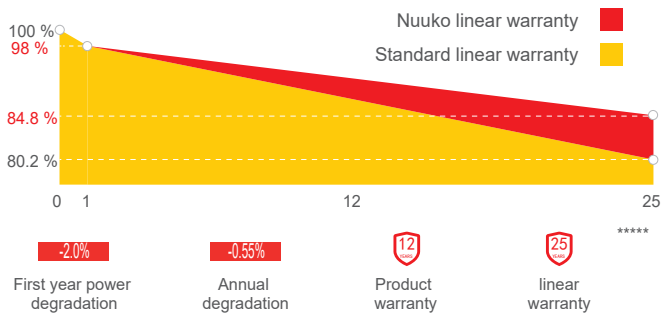
LIVE UP TO GOOD SUNSHINE

NKM-108 (182mm Cell)

## 390-415 Watt

MONOFACIAL MODULE

Industry-leading Warranty based on nominal power



## Features



### High module conversion efficiency

Module efficiency up to 21.3% achieved through advanced cell technology and manufacturing process



### Extended wind and snow load tests

Module certified to withstand extreme wind (3800 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

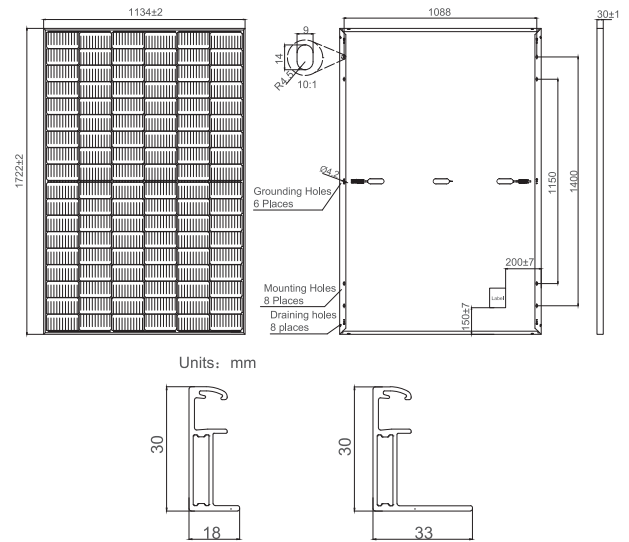


### Withstanding harsh environment

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	108 (6*18)
Weight	21.5kg
Module Dimensions	1722*1134*30mm
Cable Length	Portrait 300mm/Landscape 1200mm/Customized
Cable Cross Section Size	TUV: 4mm <sup>2</sup> (0.006inches <sup>2</sup> )/UL: 12AWG
Front Glass	3.2mm (0.13inches) AR Coating Tempered Glass
No. of Bypass Diodes	3/6
Packing Configuration (1)	36pcs/carton, 936pcs/40hq
Frame	Anodized Aluminium Alloy
Junction Box	IP68



## ELECTRICAL SPECIFICATIONS

Module Type	NKM390-108M10		NKM395-108M10		NKM400-108M10		NKM405-108M10		NKM410-108M10		NKM415-108M10	
	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Rated output (Pmp/Wp)	390	294	395	298	400	302	405	306	410	310	415	314
Maximum Power Voltage(Vmpp/V)	30.6	28.9	30.8	29.1	31.0	29.3	31.2	29.5	31.4	29.7	31.6	29.9
Maximum Power Current(Imp/A)	12.75	10.18	12.83	10.25	12.90	10.32	12.98	10.38	13.06	10.43	13.14	10.50
Open Circuit Voltage(Voc/V)	36.9	34.6	37.0	34.8	37.1	34.9	37.2	35.1	37.3	35.2	37.5	35.4
Short Circuit Current(Isc/A)	13.61	10.89	13.70	10.96	13.79	11.03	13.87	11.10	13.95	11.16	14.02	11.22
Module efficiency(%)	20.0%		20.2%		20.5%		20.7%		21.0%		21.3%	
Power Tolerance (W)	0~+5		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

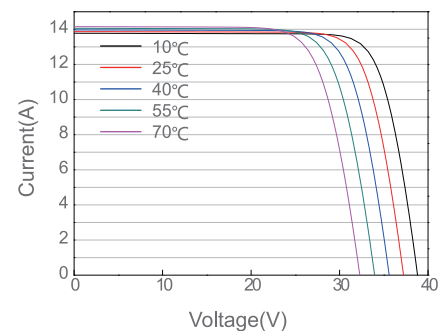
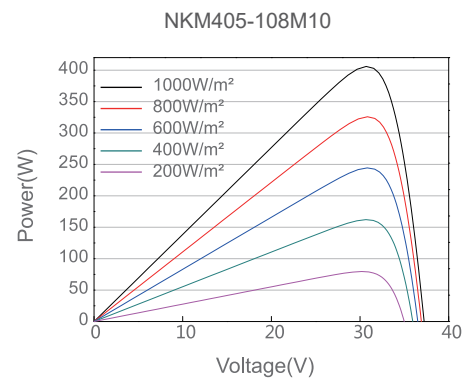
## MAXIMUM RATINGS

Maximum System Voltage	1000V/1500V DC (IEC)
Operating Temperature	-40°C ~ +85°C
Maximum Series Fuse	25A
Static Loading	Snow Loading: 5400Pa/ Wind Loading: 2400Pa
Conductivity at Ground	≤0.1Ω
Safety Class	II
Resistance	≥100MΩ
Connector	T01/LJQ-3-CSY/MC4/MC4-EVO2

## 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 DEPENDENC



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