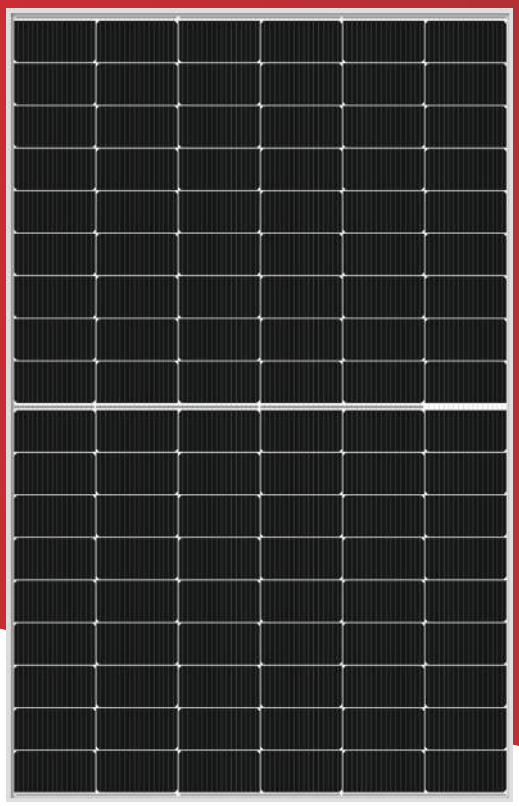
SUNOVA SOLAR

Pv Tech Expert.

Thor 4X

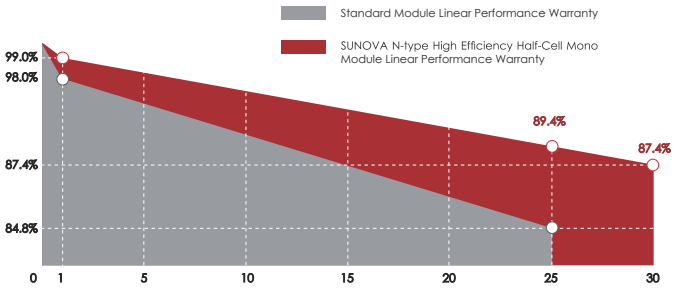
410-430W

N-type High Efficiency Half-Cell Mono Module



- 30 years lifespan brings 10-30% additional power generation comparing with conventional P-type module
- N-type solar cell has no LID naturally which can increase power generation
- Excellent low irradiance performance.
- Better light trapping and current collection to improve module power output and reliability.
- Industry leading lowest thermal co-efficient of power.
- Optimized electrical design and lower operating current for reduced hot spot loss and better temperature coefficient.
- 2400Pa/5400Pa — Certified to withstand: wind load (2400 Pa) and snow load (5400 Pa).
- 100% triple EL test enabling remarkable reduction of hidden crack rate of modules

LINEAR PERFORMANCE WARRANTY



15 years
Product quality & process guarantee

30 years
Linear power guarantee

0.40 %
Annual Degradation

COMPREHENSIVE CERTIFICATES

ISO 9001: Quality Management System

ISO 14001: Environmental Management System Standard

ISO 45001: International Occupational Health and Safety Assessment System Standard

SA 8000: 2014 Social Accountability Management System

* Different markets have different certification requirements.
Also, the products are under rapid innovation.
Please confirm the certification status with regional sales representatives.

PERFORMANCE INSURANCE

Ariel Re

LLOYD'S Underwriters

中国平安 PING AN P & C INSURANCE CO CN SZN

* Optional performance warranty insurance.
Please contact our local sales staff for more information.

MADE IN CHINA / VIETNAM

www.sunova-solar.com

ELECTRIC CHARACTERISTICS

108 cells

Model of modules	SS-410-54MDH(T)		SS-415-54MDH(T)		SS-420-54MDH(T)		SS-425-54MDH(T)		SS-430-54MDH(T)	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum power — P_{mp} (W)	410	305	415	309	420	313	425	317	430	320
Open-circuit voltage — V_{oc} (V)	37.31	35.22	37.42	35.32	37.58	35.48	37.75	35.63	38.07	35.94
Short-circuit current — I_{sc} (A)	13.80	11.15	13.87	11.20	13.93	11.25	13.99	11.30	14.00	11.31
Maximum power voltage — V_{mp} (V)	31.38	29.38	31.59	29.57	31.91	29.87	32.22	30.16	32.49	30.41
Maximum power current — I_{mp} (A)	13.07	10.40	13.14	10.45	13.16	10.48	13.19	10.50	13.24	10.53
Module efficiency — η_m (%)	21.0%		21.3%		21.5%		21.8%		22.0%	
Power tolerance (W)	(0,+5)									
Tolerance of rated Pmpp (%)	±3									
Maximum system voltage (V)	1500									
Maximum rated fuse current (A)	25									
Current operating temperature (°C)	-40~+85 °C									

STC (Standard Testing Conditions): Irradiance 1000W/m^2, Cell Temperature 25 °C , Spectra at AM1.5
NOCT (Nominal Operating Cell Temperature): Irradiance 800W/m^2, Ambient Temperature 20°C , Spectra at AM1.5, Wind at 1m/s

STRUCTURAL CHARACTERISTICS

Module size (L*W*H)	1722 x 1134 x 30 mm
Weight	21.5 kg
Number of cells	108 cells
Cell	N-type Monocrystalline 182 x 91 mm
Glass	Tempered, 3.2 mm AR, High transmittance, Low iron
Frame	Anodized aluminum alloy
Junction box	IP68
Output wire	4.0 mm^2
Wire length	300mm/1200mm/customized
Connector	PV-KST4-EVO 2/xy_UR,PV-KBT4-EVO 2/xy_UR
Mechanical load	5400 Pa / 2400 Pa

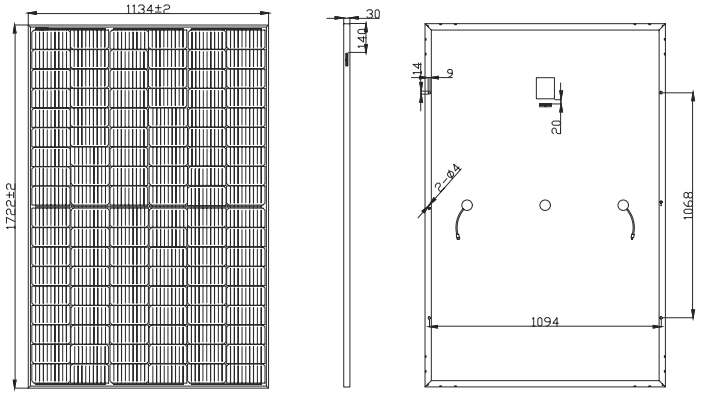
TEMPERATURE RATINGS

Temperature coefficient (P_{max})	-0.32%/°C
Temperature coefficient (V_{oc})	-0.26 %/°C
Temperature coefficient (I_{sc})	+0.046 %/°C
Nominal operating cell temperature	43±2 °C
Fire safety class	C

PACKAGING CONFIGURATION

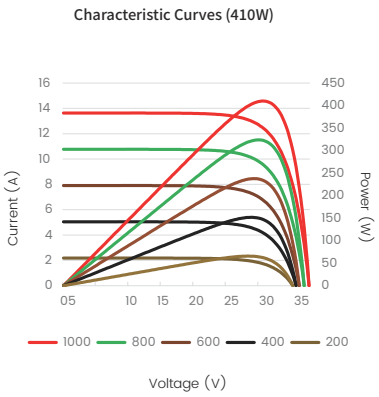
Container	40HQ
Quantity/pallet	36
Pallets/container	26
Quantity/container	936

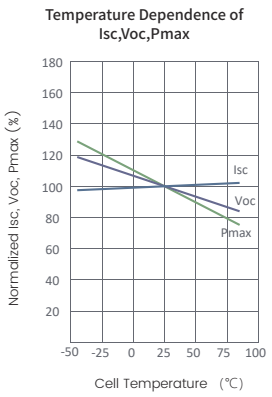
MODULE DIMENSIONS (MM)



Front Side Back

* The tolerance is ±1 mm
Length shown in mm





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