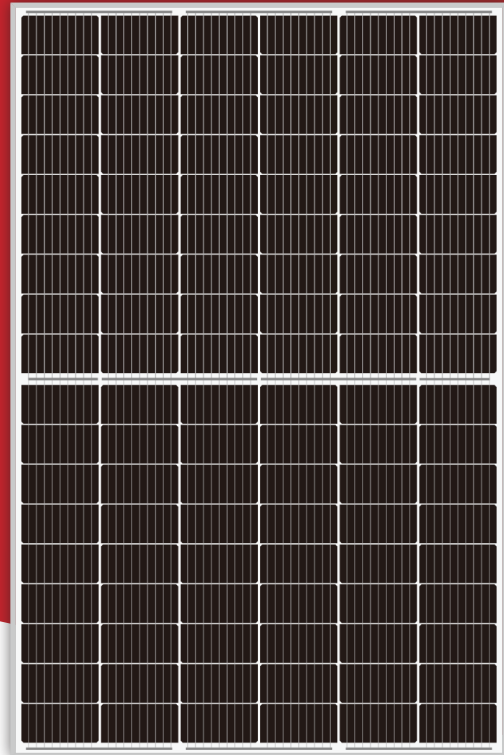# SUNOVA SOLAR
Leading one-stop PV Supplier

HI-KILO

400-415W

High Efficiency Half-Cell Mono PERC Module

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.
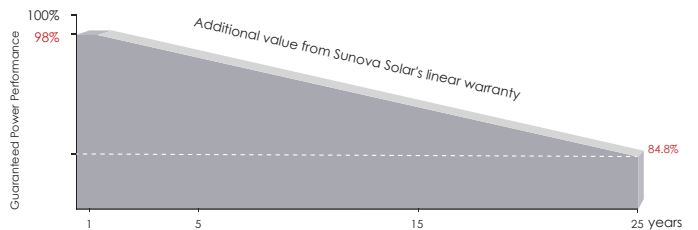
2400Pa/5400Pa
Certified to withstand: wind load (2400 Pa) and snow load (5400 Pa).

100% triple EL test enabling remarkable reduction of hidden crack rate of modules

PERFORMANCE INSURANCE

Ariel Re

LLOYD'S
Underwriters

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

LINEAR PERFORMANCE WARRANTY

Guaranteed Power Performance

100%
98%

Additional value from Sunova Solar's linear warranty

84.8%

1   5   15   25 years

15 years
Product quality & process guarantee

25 years
Linear power guarantee

0.55 %
Annual Degradation Over 25 years

COMPREHENSIVE CERTIFICATES

TÜV NORD · CE · CQC · INMETRO · SEC · MCS

ISO 9001: Quality Management System

ISO 14001: Environmental Management System Standard

ISO 45001: International Occupational Health and Safety Assessment System Standard

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

ELECTRIC CHARACTERISTICS

Model of modules	SS-400-54MDH		SS-405-54MDH		SS-410-54MDH		SS-415-54MDH	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum power — P_{mp} (W)	400	298	405	302	410	305	415	309
Open-circuit voltage — V_{oc} (V)	37.18	34.95	37.33	35.09	37.68	35.42	37.79	35.59
Short-circuit current — I_{sc} (A)	13.39	10.85	13.44	10.89	13.59	11.01	13.72	11.12
Maximum power voltage — V_{mp} (V)	31.42	29.22	31.55	29.35	31.84	29.61	31.94	29.72
Maximum power current — I_{mp} (A)	12.74	10.21	12.84	10.29	12.88	10.31	13.01	10.42
Module efficiency — η_m (%)	20.5%		20.7%		21.0%		21.3%	
Power tolerance (W)	(0,+5)							
Maximum system voltage (V)	1500							
Maximum rated fuse current (A)	25							
Current operating temperature (℃)	-40~+85 ℃							

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

STRUCTURAL CHARACTERISTICS

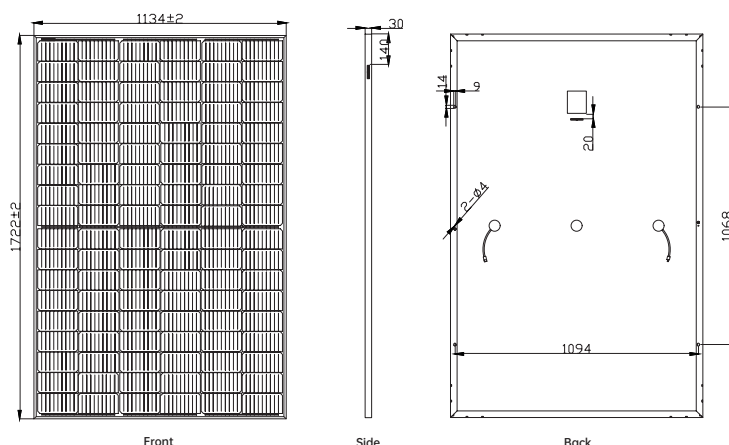|	
Module dimensions (L*W*H)	1722 x 1134 x 30 mm (67.80 x 44.65 x 1.18 inch)
Weight	21.5 kg (47.40 lbs)
Number of cells	108 cells
Cell	PERC Monocrystalline 182x91 mm (7.17 x 3.58 inch)
Glass	Tempered, 3.2 mm AR, High transmittance, Low iron
Frame	Anodized aluminum alloy
Junction box	IP68, 3 diodes
Output wire	4.0 mm^2, wire length: 300mm/customized
Connector	MC4 Compatible
Mechanical load	Snow load: 5400 Pa / Wind load: 2400 Pa

TEMPERFORMANCE RATINGS

Temperature coefficient (P_{max})	-0.35 %/°C
Temperature coefficient (V_{oc})	-0.27 %/°C
Temperature coefficient (I_{sc})	+0.05 %/°C
Nominal operating cell temperature	45±2 ℃

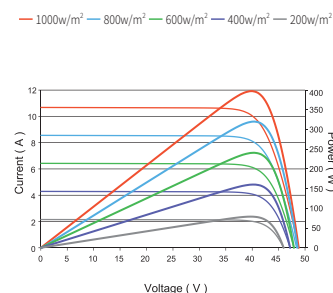## PACKAGING CONFIGURATION

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

MODULE DIMENSIONS (MM)

Front

Side

Back

Current-Voltage & Power-Voltage Curves (400W)

1000w/m^2 — 800w/m^2 — 600w/m^2 — 400w/m^2 — 200w/m^2

Temperature Dependence of Isc,Voc,Pmax

* The unmarked tolerance is ±1 mm
  Length shown in mm

Make it happen