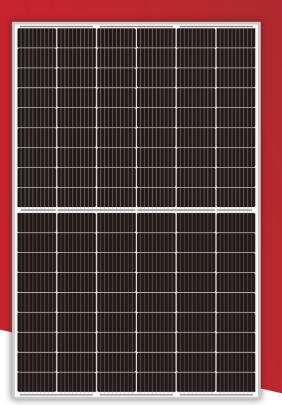


## <u>SUNOVA SOLAR</u>

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.



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



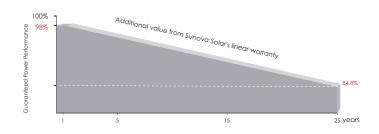
100% triple EL test enabling remarkable reduction of hidden crack rate of modules

## PERFORMANCE INSURANCE



\* Ariel Re - contact sales staff for more info

### LINEAR PERFORMANCE WARRANTY



**15** years Product quality & process guarantee

**25** years Linear power guarantee **0.55** % Annual Degradation Over 25 years

## **COMPREHENSIVE CERTIFICATES**



ISO 9001:	Quality Management System
ISO 14001:	Environmental Management System Standard
ISO 45001:	International Occupational Health and
	Safety Assessment System Standard
10.0	1977 - Charles Martin Constanting and Alexandron Constanting and Alexandron

\* 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 <sub>sc</sub> (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 $-\eta_m$ (%)	odule efficiency $-\eta_m$ (%) 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 (°C )	-40~+85 °C							

STC (Standard Testing Conditions): Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25 °C , Spectra at AM1.5

NOCT (Nominal Operating Cell Temperature): Irradiance 800W/m<sup>2</sup>, Ambient Temperature 20°C , 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 <sup>2</sup> , wire length: 300mm/customized		
Connector	MC4 Compatible		
Mechanical load	Snow load: 5400 Pa / Wind load: 2400 Pa		

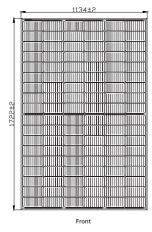
#### **TEMPERFORMANCE RATINGS**

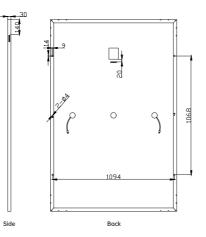
Temperature coefficient (P <sub>max</sub> )	-0.35 %/°C
Temperature coefficient ( $V_{oc}$ )	-0.27 %/°C
Temperature coefficient $(I_{sc})$	+0.05 %/°C
Nominal operating cell temperature	45±2℃

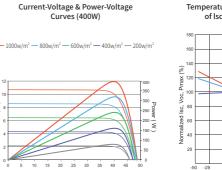
#### PACKAGING CONFIGURATION

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

#### **MODULE DIMENSIONS (MM)**

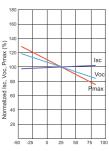






Voltage (V)

#### Temperature Dependence of lsc,Voc,Pmax





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



#### Web: www.sunova-solar.com

E-mail: info@sunova-solar.com

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Current

\* The technical parameters contained in this datasheet may deviate slightly, Sunova Solar does not guarantee that they are completely accurate. Varying optional data could be for different regions or prices. Please contact commercial people for confirmation. Due to continuous innovation, research and development and product improvement, Sunova Solar reserves the right to adjust the information in this datasheet at any time without prior notice. The customer should obtain the latest version of datasheet when signing the contract and make it an integral part of the binding contract signed by both parties. The Chinese (or other language) translation files of this datasheet are for reference only. If there is any inconsistency between the English version and the Chinese version (or other language) extensional prevail.