

Neo N-type 54HL4-(V) 410-430 Watt MONO-FACIAL MODULE

N-Type

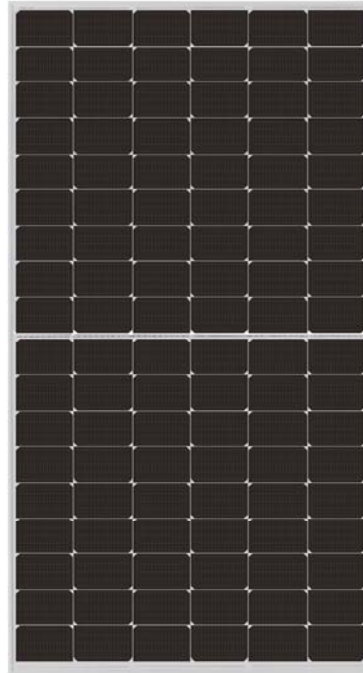
Positive power tolerance of 0~+3%

IEC61215(2016), IEC61730(2016)

ISO9001:2015: Quality Management System

ISO14001:2015: Environment Management System

ISO45001:2018: Occupational health and safety management systems



Key Features



SMBB Technology

Better light trapping and current collection to improve module power output and reliability.



PID Resistance

Excellent Anti-PID performance guarantee via optimized mass-production process and materials control.



Hot 2.0 Technology

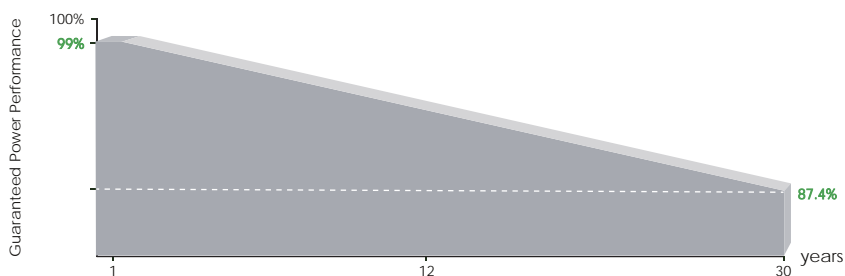
The N-type module with Hot 2.0 technology has better reliability and lower LID/LETID.



Enhanced Mechanical Load

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

LINEAR PERFORMANCE WARRANTY



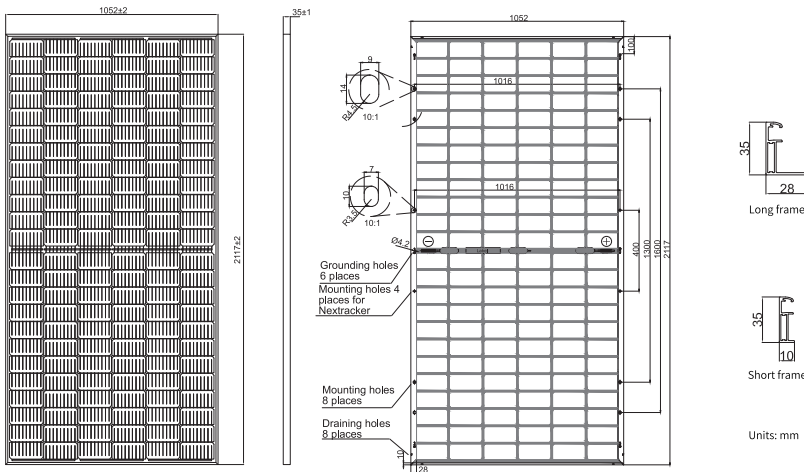
12 Year Product Warranty

30 Year Linear Power Warranty

0.40% Annual Degradation Over 30 years

Engineering Drawings

Specifications



Cell	Mono
Weight	27.3kg
Dimensions	2117±2mm×1052±2mm×35±1mm
Cable Cross Section Size	4mm ² (IEC), 12 AWG(UL)
No. of cells	144(6×24)
Junction Box	IP68, 3 diodes
Connector	MC4-EVO2/ QC 4.10-35
Cable Length (Including Connector)	Portrait:300mm(+)/400mm(-); Landscape:1200mm(+)/1200mm(-)
Front Glass/Back Glass	2.0mm/2.0mm
Packaging Configuration	30pcs/pallet, 660pcs/40HQ Container

ELECTRICAL PARAMETERS AT STC

TYPE	CSP-J440W	CSP-J445W	CSP-J450W	CSP-J455W	CSP-J460W	CSP-J465W
Rated Maximum Power(Pmax) [W]	440	445	450	455	460	465
Open Circuit Voltage(Voc) [V]	49.30	49.45	49.61	49.75	49.91	50.05
Maximum Power Voltage(Vmp) [V]	40.60	40.91	41.21	41.52	41.79	42.09
Short Circuit Current(Isc) [A]	11.33	11.38	11.42	11.46	11.50	11.55
Maximum Power Current(Imp) [A]	10.84	10.88	10.92	10.96	11.01	11.05
Module Efficiency [%]	19.8	20.0	20.2	20.4	20.7	20.9
Power Tolerance	0~+5W					
Temperature Coefficient of Isc(α_{Isc})	+0.044%/°C					
Temperature Coefficient of Voc(β_{Voc})	-0.272%/°C					
Temperature Coefficient of Pmax(γ_{Pmp})	-0.350%/°C					
STC	Irradiance 1000W/m ² , cell temperature 25°C, AM1.5G					

Remark: Electrical data in this catalog do not refer to a single module and they are not part of the offer. They only serve for comparison among different module types.

ELECTRICAL CHARACTERISTICS WITH 10% SOLAR IRRADIATION RATIO

OPERATING CONDITIONS

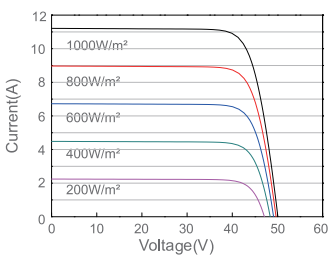
TYPE	CSP-J440W	CSP-J445W	CSP-J450W	CSP-J455W	CSP-J460W	CSP-J465W	Maximum System Voltage	1500V DC
Rated Max Power(Pmax) [W]	471	476	482	487	492	498	Operating Temperature	-40°C~+85°C
Open Circuit Voltage(Voc) [V]	49.40	49.55	49.71	49.85	50.01	50.15	Maximum Series Fuse	25A
Max Power Voltage(Vmp) [V]	40.59	40.90	41.21	41.51	41.78	42.08	Maximum Static Load,Front* Maximum Static Load,Back*	5400Pa(112 lb/ft ²) 2400Pa(50 lb/ft ²)
Short Circuit Current(Isc) [A]	12.12	12.18	12.22	12.26	12.31	12.36	NOCT	45±2°C
Max Power Current(Imp) [A]	11.60	11.64	11.68	11.73	11.78	11.82	Bifaciality**	70%±10%
Irradiation Ratio (rear/front)	10%						Fire Performance	UL Type 29

*For NexTracker installations static loading performance: front load measure 2400Pa, while back load measures 2400Pa.

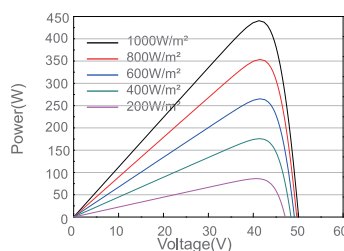
**Bifaciality=Pmax,rear/Rated Pmax,front

CHARACTERISTICS

Current-Voltage Curve CSP-J440W



Power-Voltage Curve CSP-J440W



Current-Voltage Curve CSP-J440W

