

YES^{PV}TM BI-FACIAL SERIES

YES-NBF108-xxxW

Half-Cell N-Type 16BB Bifacial Module

425-440 Watt

Positive power tolerance of ~+3%



YES PV's Mono-Crystalline N-type modules with power up to 440Wp are produced using the state-of-the-art (automated) robotic production lines. These modules are suitable to be used for most electrical power applications and have excellent durability to prevailing weather conditions.



CERTIFICATIONS

UL 61215 / UL 61730
IEC 61215 / IEC 61730
CSA C22.2#61730:2019
HALT TEST Highly Accelerated Life And Extended Reliability Test
IEC 61853 PAN File
IEC TS 62804 PID Resistance
IEC 60068 Dust and Sand Resistance
IEC 62716 Ammonia Resistance
IEC 61701 Salt Mist Resistance
Bankability Report
EN ISO 9001: 2015
Quality Management System
EN ISO 14001: 2015
Environmental Management System
EN ISO 45001: 2018
Occupational health and safety management systems



APPLICATIONS



On-Grid Commercial/Industrial Roof-Tops Solar Power Plants Off-Grid Systems (Including Lighting Systems)

FEATURES



Produce up to 25% more power from backside cells on reflective, TPO, Modified Bitumen and Foam roof decks



Cell architecture produces lower current mismatch resulting in higher energy output



PID Resistant materials ensure decades of reliable solar cell performance



Better temperature coefficients from half-cell design

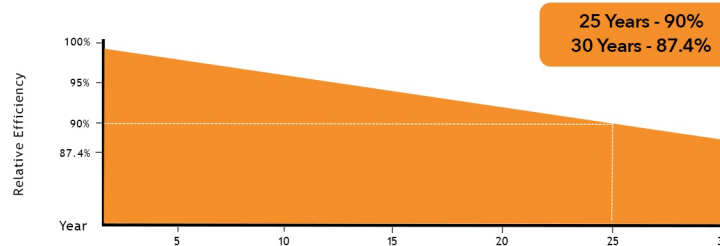


Strong mechanical load capacities of 5400Pa, both front and back of module



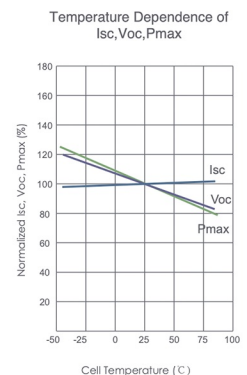
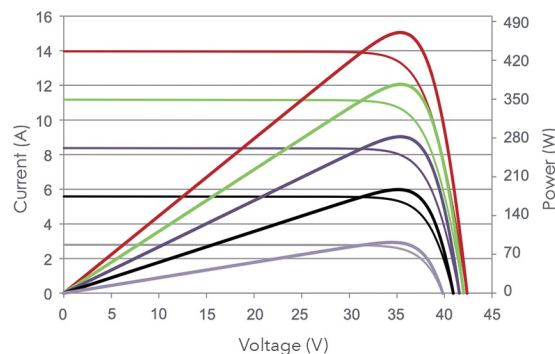
Improved light trapping and current collection technology enhance module power output.

LINEAR PERFORMANCE WARRANTY



- ✓ 30 Year Product Warranty
- ✓ 25 Year Linear Power Warranty
- ✓ Only -0.5% Annual Degredtaion

ELECTRICAL PERFORMANCE & TEMPERATURE DEPENDENCE



ELECTRICAL DATA

Power at STC	425W	430W	435W	440W
Short Circuit Current - Isc (A)	14.05	14.13	14.22	14.30
Maximum Power Current - Impp (A)	13.23	13.28	13.32	13.36
Open Circuit Voltage - Voc (V)	38.29	38.42	38.50	38.63
Maximum Power Voltage - Vmpp (V)	32.23	32.49	32.76	32.98
Module Efficiency - n' (%)	21.80%	22.05%	22.31%	22.57%
Bifaciality Ratio (%)	80% ± 5			
Power tolerance (%)	0~+3%			

Values at Standard Test Conditions STC (Air Mass AM 1.5 , Irradiance 1000 W/m2 , Cell Temperature 25o C).

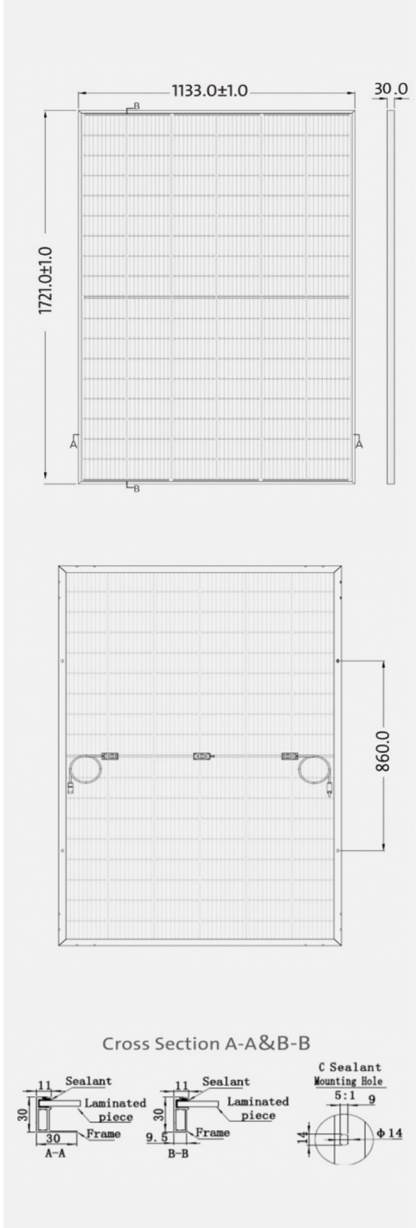
ELECTRICAL CHARACTERISTICS WITH DIFFERENT REAR SIDE POWER GAIN (REFER TO 530W FRONT)

	425W				430W				435W				440W			
	5%	10%	15%	20%	5%	10%	15%	20%	5%	10%	15%	20%	5%	10%	15%	20%
Pmax	446	468	489	510	452	473	495	516	457	479	500	522	462	484	506	528
Impp/A	13.89	14.55	15.21	15.88	13.94	14.61	15.27	15.94	13.99	14.65	15.32	15.98	14.03	14.70	15.36	16.03
Isc/A	14.75	15.46	16.16	16.86	14.84	15.54	16.25	16.96	14.93	15.64	16.35	17.06	15.02	15.73	16.45	17.16
Vmpp/V	32.23	32.23	32.23	32.23	32.49	32.49	32.49	32.49	32.76	32.76	32.76	32.76	32.98	32.98	32.98	32.98
Voc/V	38.29	38.29	38.29	38.29	38.42	38.42	38.42	38.42	38.50	38.50	38.50	38.50	38.63	38.63	38.63	38.63

MATERIAL DATA

Characteristics	Value
Cells per Module	108 (54 x 2)
Cell Type	N Type (TopCon) Mono-Crystalline
Front Surface	3.2mm Tempered AR Coated Glass
Back Cover	Transparent Backsheet
Frame	Anodized Aluminium (Black/Silver)
Junction Box	IP 68 With original MC4
Cable Length	1200mm Cable length could be customized
Fire Classification	Type 1

MODULE DRAWINGS



TEMPERATURE RATINGS

Characteristics	Value
Open Voltage Temperature Coefficient VOC (%/C°)	-0.25
Short Circuit Current Temperature Coefficient ISC (%/C°)	+0.046
Power Temperature Coefficient PMP (%/C°)	-0.30
NOCT (C°)	45±2

GENERAL DATA

Characteristics	Value
Module Dimensions (mm)	1721±1 x 1133 x 30
Module Weight (kg)	20.5±1kg
Packaging	Value
Modules per Pallet	37
40 Ft High Cube Container	962 Modules

MAXIMUM RATINGS

Characteristics	Value	Mechanical Load**	Value
Maximum System Voltage - Vmax (V)	1500	Max Static Load (front) *	5400 Pa
Maximim Series Fuse (A)	30	Max Static Load (back) *	2400 Pa
Operating Temperature Range (°C)	IEC: -40 to +85 UL: -40 to +90	Dynamic Load *	1000 Pa

Tolerance of power Current and Voltage (ISC,VOC) ±3%
*Caution: For professional use only, the installation and handling of PV modules and cleaning modules require professional skills and should only be performed by qualified professionals, please read the Installation and Operation Manual and Cleaning Guidelines before using the modules.
**Specifications subject to change without notice.