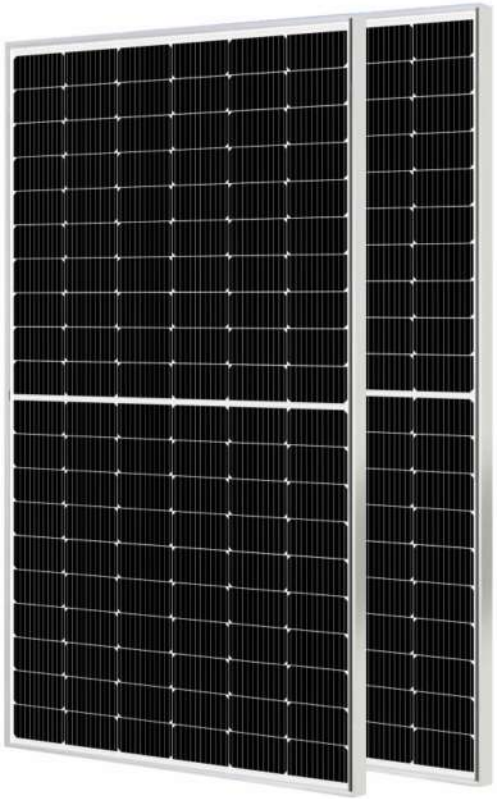
Module Picture



NGD450M-120

Mono Half-cut Single/Double Glass Module

430-455/MB Series

INTRODUCTION

MONO half-cut single / double glass module, assembled with multi-busbar PERC technique and half-cut structure, which can not only absorb the energy from the front of the module, but also absorb the reflected light and the scattered light from the back, offer the advantages of higher power output, reduce shading effect on the energy generation, enhance the mechanical load bearing capacity as well.

LCOE save 6-8%

- ↓6% Saving logistics cost
- ↓7% Saving cable cost
- ↓8% Saving bracket cost
- ↓9% Saving labor cost

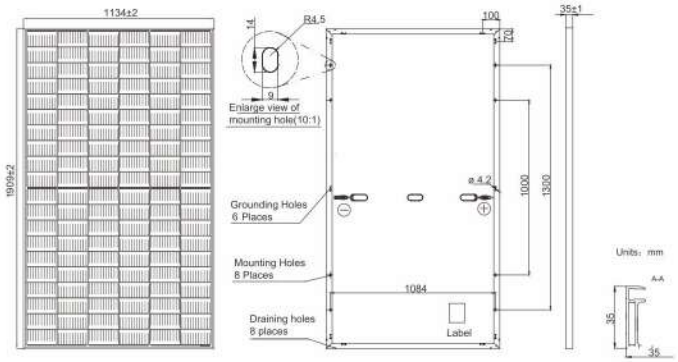
First-class Quality Assurance

- 10-year warranty for material and technology
- 25-year linear power output warranty

Comprehensive Certificates

- IEC61215, IEC61730
- ISO9001:2015 Quality management systems
- ISO45001:Environmental management systems
- ISO45001:2018 Occupational health and safety management systems

Mechanical Diagrams



PS:Frame color and cable length can be customized

Specifications

Solar Cell(Type/Size)	MONO(182mm)
Solar Cells Number	120pcs(6*10)
Dimensions	1909×1134×35mm
Weight	23.9Kg/Pcs
Structure	3.2 Glass + EVA film + Back
Frame	Anodized Aluminum Alloy
Junction Box	IP68⊠3*Bypass Diode
Cable Cross Section Size	4.0mm²,(+)300mm/(-)400mm
Mechanical Load	Front 5400Pa/Back 2400Pa
Packing Number	31Pcs/Pallet
Packing Volume	2.834Cbm/Pallet
40'HQ Container	744Pcs

Electrical Parameters at STC

Module Type	NGD430P	NGD435P	NGD440P	NGD445P	NGD450P	NGD455P
Rate Maximum Power(Pmax/W)	430	435	440	445	450	455
Module Efficiency(%)	19.90	20.10	20.30	20.60	20.80	21.10
Open Circuit Volatge(Voc/V)	40.65	40.80	40.95	41.10	41.25	41.40
Short Circuit Current(Isc/A)	13.59	13.67	13.74	13.82	13.89	13.97
Voltage at Pmax(Vmp/V)	33.89	30.09	34.28	34.48	34.67	34.87
Current at Pmax(Imp/A)	12.69	12.77	12.84	12.91	12.98	13.05
Power Tolerance	0~+5w					
Temperature Coefficent of Isc	+0.046%℃					
Temperature Coefficent of Voc	-0.276%℃					
Temperature Coefficent of Pmax	-0.350%℃					
STC	Irradiance 1000W/㎡ Cell Temperature 25℃ AM1.5					

Remark: Electrical data in this catalogue does not refer to a single module, and it's not part of the offer. It only serves for the comparison among different module types.

Electrical Parameters at NOCT

Module Type	NGD430P	NGD435P	NGD440P	NGD445P	NGD450P	NGD455P
Rate Maximum Power(Pmax/W)	327	330	333	336	340	343
Open Circuit Voltage(Voc.V)	38.15	38.28	38.40	38.53	38.65	38.77
Short Circuit Current(Isc/A))	10.91	10.95	10.99	11.03	11.08	11.12
Voltage at Pmax(Vmp/V)	31.89	32.05	32.19	32.35	32.51	32.67
Currrnt at Pmax(Imp/A)	10.26	10.30	10.35	10.40	10.46	10.51

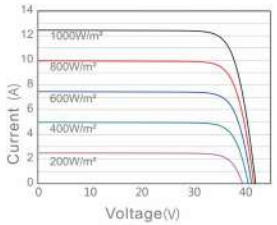
NOCT:Irradiance 800W/㎡ Ambient Temperature 20℃ Wind at 1m/S AM1.5

Operating Conditions

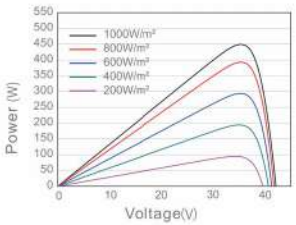
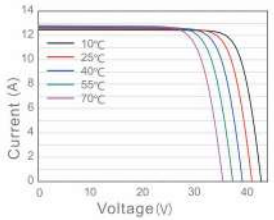
Operating Temperature	-40~+85℃
Maximum System Voltage	1500VDC
NOCT	45±2℃
Fireproof Performance	Glass C
Maximum Series Fuse	25A
Temperature Coefficient of Voc	-0.276%/K
Temperature Coefficient of Isc	+0.046%/K

Characteristics

Current Voltage Curve



Power Voltage Curve



Current Voltage Curve