Ningbo Zhongyi New Energy Co., Ltd.
Ningbo Reneled New Energy Co., Ltd.

TOPCon Mono-crystalline PV Module

210R Cell-16BB | Non-destructive Cut | Bifacial

Module Type: ☐ ZY-G12R-48 | ☐ ZY-G12R-54

☐ ZY-G12R-60 | ☑ ZY-G12R-66



High Power High Compatibility

Outstanding performance in weak-light conditions, lower operating temperature

Different types of modules are suitable for various application scenarios

12 years Product Warranty

30 years Performance Warranty (Bifacial)

www.renepv.com

Mono-crystalline Solar PV Modules

www.renepv.com

M210R-66N TOPCon 620W

ZY620G12RNHB-132/(F)

22.9% Module efficiency

TOPCon Mono-crystalline Bifacial Module

Electrical Specifications

Module Type			ZY620G12RNHB-132/(F)
STC: AM1.5 Temperature 25°C Irradiance 1000 W/m²	Peak Power(Pmax)±3%	(W)	620
	Power Tolerance	(W)	0~+5
	Max.Power Voltage(Vmp)	(V)	40.39
	Max.Power Current(Imp)	(A)	15.35
	Open-circuit Voltage(Voc)±3%	(V)	47.98
	Short-circuit Current(Isc)+3%	(A)	16.30
NMOT: AM1.5 Temperature 20°C Wind speed 1m/s Irradiance 800 W/m²	Peak Power(Pmax)±3%	(W)	466.2
	Max.Power Voltage(Vmp)	(V)	37.56
	Max.Power Current(Imp)	(A)	12.41
	Open-circuit Voltage(Voc)	(V)	44.62
	Short-circuit Current(Isc)	(A)	13.18
Operating Temperature		(℃)	-40~+85
Max. Series Fuse Rating		(A)	30
Max. System Voltage(DC)		(V)	1500 (IEC)

Mechanical Specifications

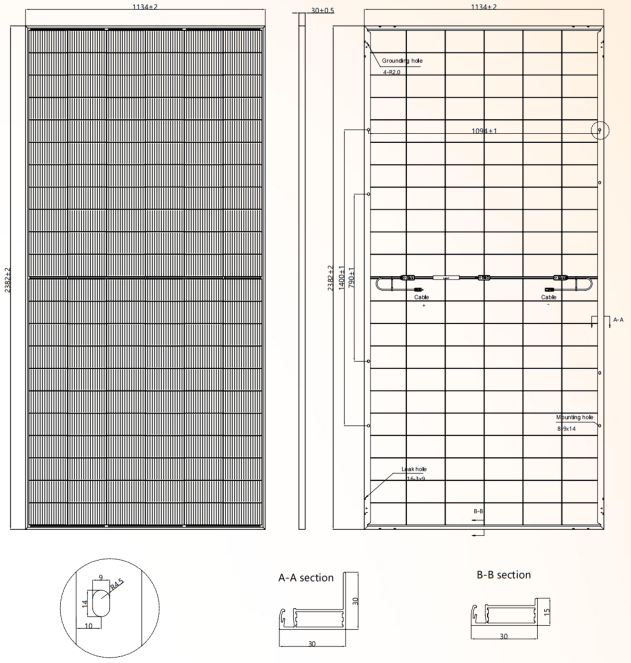
Solar Cells	N-Mono-182*105mm
Arrangement	Type-6*11*2
Front Glass	2.0mm tempered glass
Back Glass	2.0mm tempered glass
Frame	Composite frame
Junction Box	IP68, 3 diodes
Cables	4.0mm² photovoltaic cables
Connectors	MC4 compatible/IP68
Maximum Load Capacity	Snow-5400Pa/Wind-2400Pa
Safety Rate	Class II (IEC)
Fire Rate	Class C (TUV)

Packing Configuration

Package Weight & Size	1235Kg/pallet & 2395*1130*1260mm		
20'GP Container	2 pcs/carton	150 cartons/20'GP	300 pcs
40'HQ Container	37 pcs/pallet	20 pallets/40'HQ	740 pcs
13.5m Land Truck	37 pcs/pallet	22 pallets/truck	814 pcs

Dimensions of PV Module

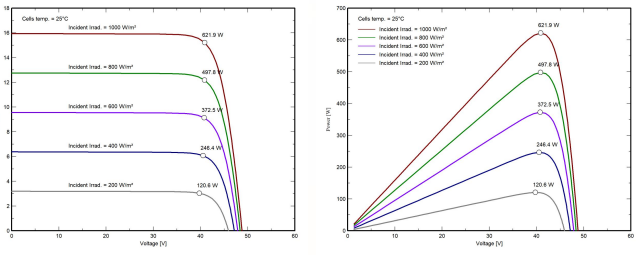
Module Dimensions	2382(±2)*1134(±2)*30mm
Module Weight	32.5 kg(±3%)



Temperature Characteristics

Temperature Coeffcient (Pmax)	δ[%/°C]	-0.30
Temperature Coefficient (Voc)	β[%/°C]	-0.25
Temperature Coefficient (Isc)	α[%/°C]	+0.05
Nominal Operating Cell Temperature	NMOT	45℃±2℃

I-V & P-V Curves



Current-Voltage Characteristic Power-Voltage Characteristic

Different Backside Power Gain

Power Gain		5%	15%	25%
Maximum Power(Pmax)	(W)	651.0	713.0	775.0
Max.Power Voltage(Vmp)	(V)	40.39	40.39	40.39
Max.Power Current(Imp)	(A)	16.12	17.65	19.19
Open-circuit Voltage(Voc)	(V)	47.98	47.98	47.98
Short-circuit Current(Isc)	(A)	17.17	18.81	20.45

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