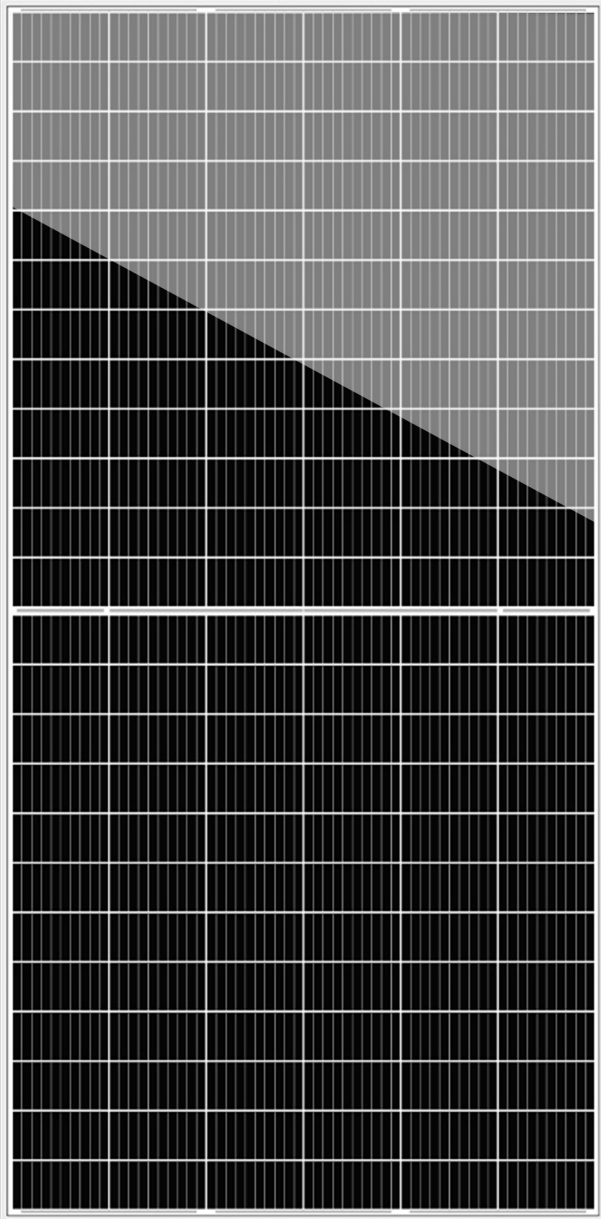
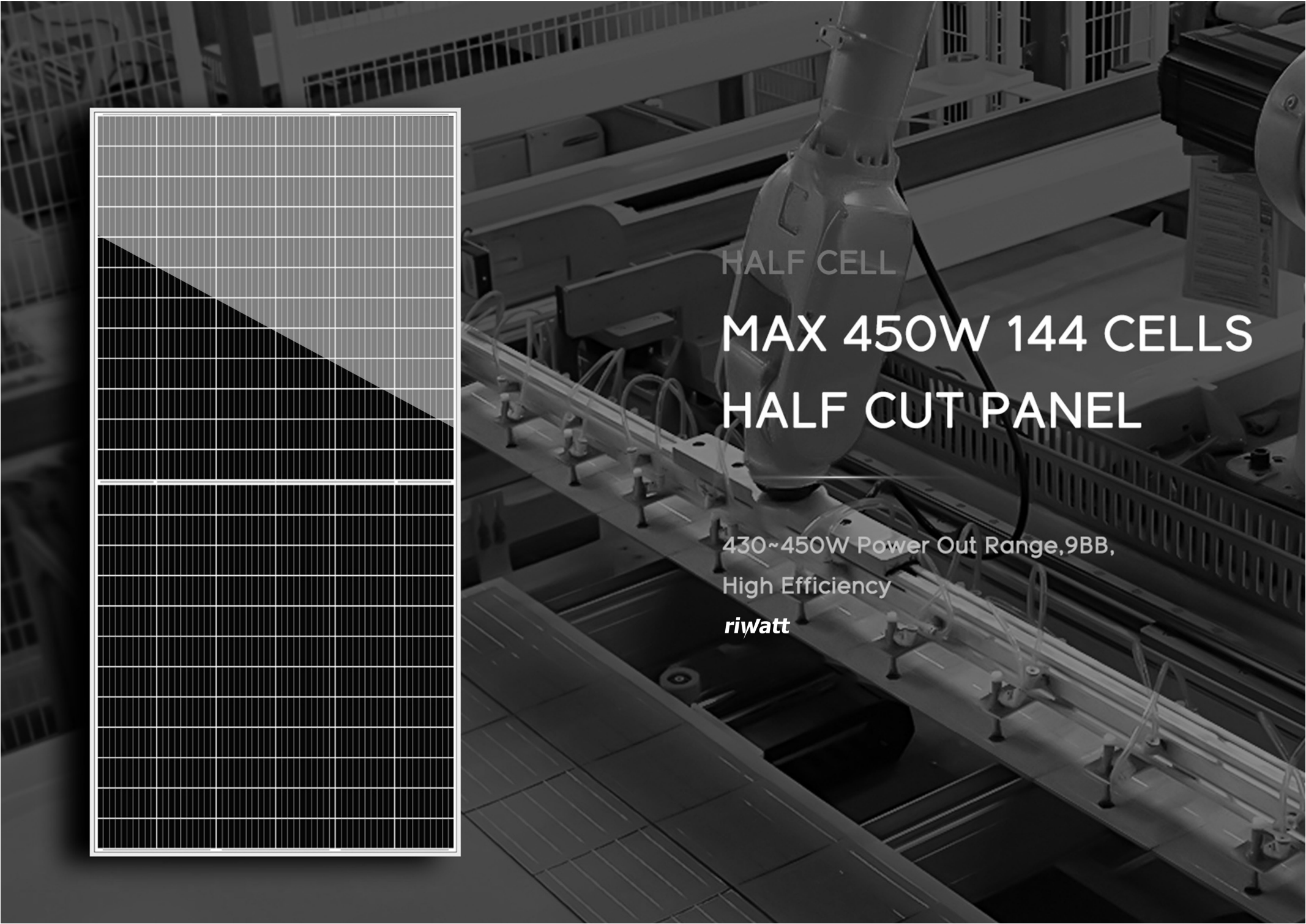


riWatt

THE RISING POWER



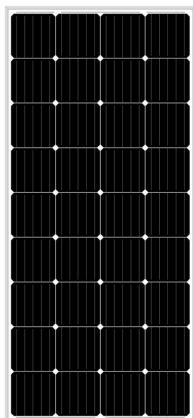
HALF CELL

MAX 450W 144 CELLS
HALF CUT PANEL

430~450W Power Out Range, 9BB,
High Efficiency

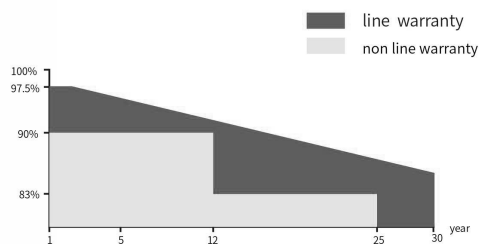
riWatt

HR150M-HR170M



Global leader

12 years material warranty 30 years line output warranty



Products characteristic

Solar cells :Multi Barsbars high efficiency cell

Excellent low irradiance performance : Using low iron tempered glass with transmittance more than 97%, enhance the penetration of sunlight, excellent performance in low-light environment condition.

Excellent output rate : higher power output

Excellent mechanical loading tolerance : pass the pressure test of 5400pa on the front and 2400pa on the back.Certified to withstand hail and heavy snow environment condition.

Excellent PID resistance : the monocrystalline solar panels can be guaranteed to pass the PID (potential-induced attenuation) test

Work in sever environment : pass three performance and safety tests certified by TUV , safety for salt mist and ammonia corrosion.

Fire safety (Class A, tested in TUA)

Warranty: material&craft quality assurance and 90% output power guarantee in 12 years.line guaranty.

Water repellency : good in hydrophobicity

Automatic production Line: 300MW production ability

Frame : Anodized aluminum alloy frame , Easy to transport.

Junction box : outstanding quality junction box and connector.

EL test :100% inspection to guarantee products quality by EL test.

Using high efficiency mono solar cells , the current is more uniform , reduce the current heat loss of the cells inside the module effectively

Electrical Characteristics(STC)

Module Type	HR150M	HR155M	HR160M	HR165M	HR170M
Maximum Power-Pmax(w)	150.00	155.00	160.00	165.00	170.00
Open Circuit Voltage-Voc(V)	22.60	22.70	22.80	23.10	23.30
Short-Circuit Current-Isc(A)	8.80	9.05	9.29	9.53	9.71
Voltage at Pmax-Vmp(V)	18.40	18.50	18.60	18.70	18.90
Current at Pmax-Imp(A)	8.15	8.38	8.60	8.82	8.99
Module Efficiency -ηm(%)	15.10	15.60	16.11	16.61	17.11
STC: Irradiance 1000W/m ² , Cell Temperature 25°C, Air Mass 1.5					
Power Tolerance(W)	(0,+4.99)				
Maximum System Voltage(V)	715				
Maximum Series Fuse Rating(A)	20				

Temperature Characteristics

Pmax Temperature Coefficient	-0.004
Voc Temperature Coefficient	-0.0032
Isc Temperature Coefficient	0.0005
Operating Temperature	-40~+85°C
Nominal Operating Cell Temperature(NOCT)	45±2°C

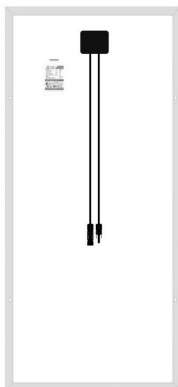
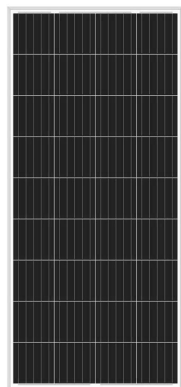
Mechanical Specifications

External Dimensions	1480*670*35mm
Weight	11kg
Mono Solar Cells	156.75x156.75mm (36pcs)
Front Glass	3.2 mm tempered glass, low iron
Frame	Anodized aluminum alloy
Junction Box	IP67
Mechanical Load	5400Pa

Packing List

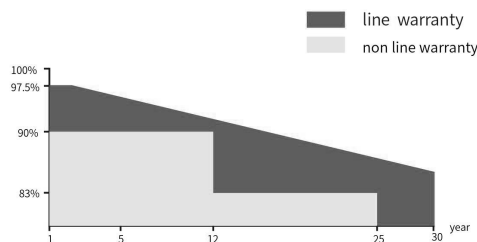
Carton Dimensions	1515×1110×689mm
Pallet Dimensions	1525×1120×830mm
Pallet Weight	380kg
Pieces per Pallet	30 (5pcs/carton)

HR150P-HR160P



Global leader

12 years material warranty 30 years line output warranty



Products characteristic

Solar cells :Multi Barsbars high efficiency cell

Excellent low irradiance performance: Using low iron tempered glass with transmittance more than 97%, enhance the penetration of sunlight, excellent performance in low-light environment condition.

Excellent output rate: higher power output

Excellent mechanical loading tolerance: pass the pressure test of 5400pa on the front and 2400pa on the back.Certified to withstand hail and heavy snow environment condition.

Excellent PID resistance: the monocrystalline solar panels can be guaranteed to pass the PID (potential-induced attenuation) test

Work in sever environment: pass three performance and safety tests certified by TUV, safety for salt mist and ammonia corrosion.

Fire safety (Class A, tested in TUA)

Warranty: material&craft quality assurance and 90% output power guarantee in 12 years.line guaranty.

Water repelency: good in hydrophobicity

Automatic production Line: 300MW production ability

Frame: Anodized aluminum alloy frame, Easy to transport.

Junction box: outstanding quality junction box and connector.

EL test: 100% inspection to guarantee products quality by EL test.

Using high efficiency mono solar cells, the current is more uniform, reduce the current heat loss of the cells inside the module effectivly

Electrical Characteristics(STC)

Module Type	HR150P	HR155P	HR160P
Maximum Power-Pmax(w)	150.00	155.00	160.00
Open Circuit Voltage-Voc(V)	22.40	22.50	22.60
Short-Circuit Current-Isc(A)	8.80	9.05	9.60
Voltage at Pmax-Vmp(V)	18.40	18.50	18.60
Current at Pmax-Imp(A)	8.15	8.38	8.60
Module Efficiency -ηm(%)	15.10	15.60	16.10
STC: Irradiance 1000W/m ² , Cell Temperature 25°C, Air Mass 1.5			
Power Tolerance(W)	(0,+4.99)		
Maximum System Voltage(V)	715		
Maximum Series Fuse Rating(A)	20		

Temperature Characteristics

Pmax Temperature Coefficient	-0.40%/C
Voc Temperature COfficient	-0.32%/C
Isc Temperature COfficient	+0.05%/C
Operating Temperature	-40~+85°C
Nominal Operating Cell Temperature(NOCT)	45±2°C

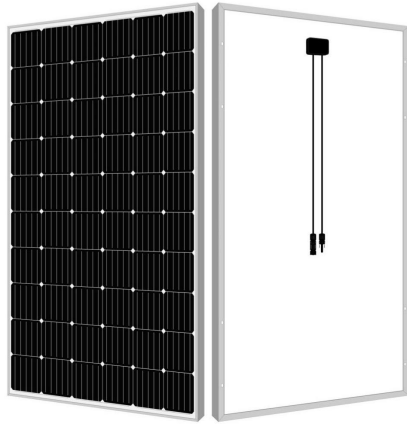
Mechanical Specifications

External Dimensions	1480*670*35mm
Weight	11kg
Mono Solar Cells	156.75x156.75mm (36pcs)
Front Glass	3.2 mm tempered glass, low iron
Frame	Anodized aluminum alloy
Junction Box	IP67
Mechanical Load	5400Pa

Packing List

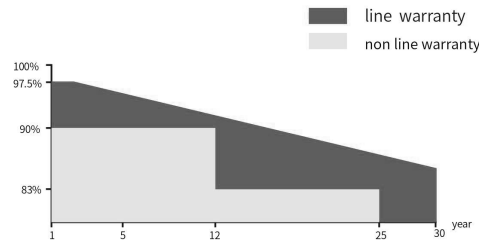
Carton Dimensions	1515×1110×689mm
Pallet Dimensions	1525×1120×830mm
Pallet Weight	380kg
Pieces per Pallet	30 (5pcs/carton)

280M-320M



Global leader

12 years material warranty 30 years line output warranty



Electrical Characteristics(STC)

Module Type	HR280M	HR285M	HR290M	HR295M	HR300M	HR305M	HR310M	HR320M
Maximum Power-Pmax(w)	280	285	290	295	300	305	310	320
Open Circuit Voltage-Voc(V)	39.3	39.8	40.2	40.6	41	41.4	41.8	42.6
Short-Circuit Current-Isc(A)	9.5	9.55	9.62	9.75	9.83	9.87	9.92	10.01
Voltage at Pmax-Vmp(V)	32.3	32.7	33.1	33.5	33.9	34.3	34.7	35.5
Current at Pmax-Imp(A)	8.67	8.72	8.76	8.81	8.86	8.9	8.94	9.02
Module Efficiency -ηm(%)	17.1	17.5	17.8	18	18.3	18.6	19	19.8
STC: Irradiance 1000W/m ² , Cell Temperature 25°C, Air Mass 1.5								
Power Tolerance(W)	(0,+4.99)							
Maximum System Voltage(V)	1000							
Maximum Series Fuse Rating(A)	20							

Temperature Characteristics

Pmax Temperature Coefficient	-0.40%/C
Voc Temperature Coefficient	-0.32%/C
Isc Temperature Coefficient	+0.05%/C
Operating Temperature	-40~+85°C
Nominal Operating Cell Temperature(NOCT)	45±2°C

Mechanical Specifications

Dimensions	1640×992×35mm
Weight	18.5kg
Solar Cells	Monocrystalline 156.75x156.75mm (60pcs)
Front Glass	3.2 mm tempered glass, low iron
Frame	Anodized aluminum alloy
Junction Box	IP67
Mechanical Load	5400Pa
Output Cables	4.0mm ² , cable length:900mm
Connector	MC4 Compatible

Packing List

Container	20'GP	40'GP
Pieces per Pallet	30	30
Pallets per Container	12	28
Pieces per Container	360	840

Products characteristic

Solar cells :Multi Barsbarshigh efficiency cell

Excellent output rate: higher power output

Excellent PID resistance: the monocrystalline solar panels can be guaranteed to pass the PID (potential-induced attenuation) test

Fire safety (Class A, tested in TUA)

Water repellency: good in hydrophobicity

Frame: Anodized aluminum alloy frame, Easy to transport.

EL test: 100% inspection to guarantee products quality by EL test.

Excellent low irradiance performance: Using low iron tempered glass with transmittance more than 97%, enhance the penetration of sunlight, excellent performance in low-light environment condition.

Excellent mechanical loading tolerance: pass the pressure test of 5400pa on the front and 2400pa on the back.Certified to withstand hail and heavy snow environment condition.

Work in sever environment: pass three performance and safety tests certified by TUV, safety for salt mist and ammonia corrosion.

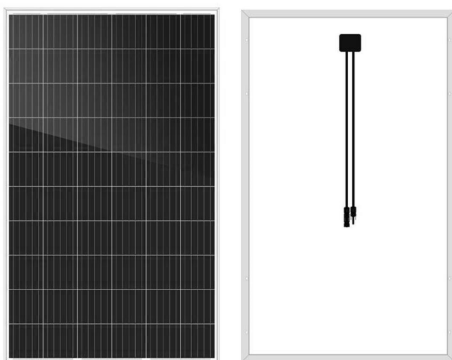
Warranty: material&craft quality assurance and 90% output power guarantee in 12 years.line guaranty.

Automatic production Line: 300MW production ability

Junction box: outstanding quality junction box and connector.

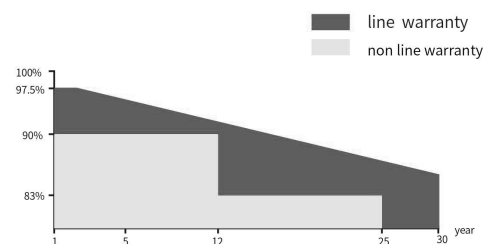
Using high efficiency mono solar cells, the current is more uniform, reduce the current heat loss of the cells inside the module effectively

HR250P-HR285P



Global leader

12 years material warranty 30 years line output warranty



Products characteristic



Solar cells: Multi Barsbars high efficiency cell



Excellent output rate: higher power output



Excellent PID resistance: the monocrystalline solar panels can be guaranteed to pass the PID (potential-induced attenuation) test



Fire safety (Class A, tested in TUA)



Water repellency: good in hydrophobicity



Frame: Anodized aluminum alloy frame, Easy to transport.



EL test: 100% inspection to guarantee products quality by EL test.



LOW LIGHT

Excellent low irradiance performance: Using low iron tempered glass with transmittance more than 97%, enhance the penetration of sunlight, excellent performance in low-light environment condition.

2400 Pa
5400 Pa

Excellent mechanical loading tolerance: pass the pressure test of 5400pa on the front and 2400pa on the back. Certified to withstand hail and heavy snow environment condition.



Work in sever environment: pass three performance and safety tests certified by TUV, safety for salt mist and ammonia corrosion.



Warranty: material&craft quality assurance and 90% output power guarantee in 12 years. line guaranty.



Automatic production Line: 300MW production ability



Junction box: outstanding quality junction box and connector.



Using high efficiency mono solar cells. the current is more uniform, reduce the current heat loss of the cells inside the module effectively

Electrical Characteristics(STC)

Module Type	HR250P	HR260P	HR265P	HR270P	HR275P	HR280P	HR285P
Maximum Power-Pmax(w)	250	260	265	270	275	280	285
Open Circuit Voltage-Voc(V)	37.5	37.8	38.0	38.2	38.3	38.5	38.9
Short-Circuit Current-Isc(A)	8.73	8.85	8.96	9.09	9.17	9.23	9.28
Voltage at Pmax-Vmp(V)	30.1	30.8	31.0	31.1	31.5	31.8	32.2
Current at Pmax-Imp(A)	8.32	8.44	8.55	8.68	8.73	8.81	8.86
Module Efficiency - η m(%)	15.4	16.0	16.2	16.5	16.9	17.2	17.5
STC: Irradiance 1000W/m ² , Cell Temperature 25°C, Air Mass 1.5							
Power Tolerance(W)	(0,+4.99)						
Maximum System Voltage(V)	1000						
Maximum Series Fuse Rating(A)	20						

Temperature Characteristics

Pmax Temperature Coefficient	-0.40%/C
Voc Temperature Coefficient	-0.32%/C
Isc Temperature Coefficient	+0.05%/C
Operating Temperature	-40~+85°C
Nominal Operating Cell Temperature(NOCT)	45±2°C

Mechanical Specifications

Dimensions	1640×992×35mm
Weight	18.5kg
Solar Cells	Monocrystalline 156.75x156.75mm (60pcs)
Front Glass	3.2 mm tempered glass, low iron
Frame	Anodized aluminum alloy
Junction Box	IP67
Mechanical Load	5400Pa
Output Cables	4.0mm ² , cable length:900mm
Connector	MC4 Connecto

Packing List

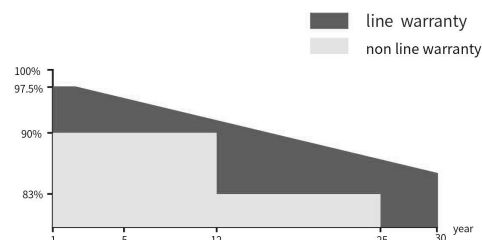
Container	20'GP	40'HQ
Pieces per Pallet	30	30
Pallets per Container	12	28
Pieces per Container	360	840

HR340M-HR380M



Global leader

12 years material warranty 30 years line output warranty



Products characteristic



Solar cells: Multi Barsbars high efficiency cell



Excellent output rate: higher power output



Excellent PID resistance: the monocrystalline solar panels can be guaranteed to pass the PID (potential-induced attenuation) test



Fire safety (Class A, tested in TUA)



Water repellency: good in hydrophobicity



Frame: Anodized aluminum alloy frame, Easy to transport.



EL test: 100% inspection to guarantee products quality by EL test.



LOW LIGHT

Excellent low irradiance performance: Using low iron tempered glass with transmittance more than 97%, enhance the penetration of sunlight, excellent performance in low-light environment condition.



2400 Pa
5400 Pa

Excellent mechanical loading tolerance: pass the pressure test of 5400pa on the front and 2400pa on the back. Certified to withstand hail and heavy snow environment condition.



Work in sever environment: pass three performance and safety tests certified by TUV, safety for salt mist and ammonia corrosion.



Warranty: material&craft quality assurance and 90% output power guarantee in 12 years. line guaranty.



Automatic production Line: 300MW production ability



Junction box: outstanding quality junction box and connector.



Using high efficiency mono solar cells, the current is more uniform, reduce the current heat loss of the cells inside the module effectively

Electrical Characteristics(STC)

Module Type	HR340M	HR345M	HR350M	HR355M	HR360M	HR365M	HR370M	HR380M
Maximum Power-Pmax(w)	340	345	350	355	360	365	370	380
Open Circuit Voltage-Voc(V)	47.4	47.8	48.2	48.7	48.2	48.2	48.5	48.9
Short-Circuit Current-Isc(A)	9.56	9.62	9.66	9.72	9.5	9.57	9.61	9.75
Voltage at Pmax-Vmp(V)	38.6	38.9	39.3	39.6	39.7	39.7	39.9	40.5
Current at Pmax-Imp(A)	8.81	8.87	8.91	8.97	9.07	9.2	9.28	9.39
Module Efficiency - η m(%)	17.5	17.8	18.1	18.4	18.7	18.8	19.1	19.58
STC: Irradiance 1000W/m ² , Cell Temperature 25°C, Air Mass 1.5								
Power Tolerance(W)	(0,+4.99)							
Maximum System Voltage(V)	1000							
Maximum Series Fuse Rating(A)	20							

Temperature Characteristics

Pmax Temperature Coefficient	-0.40%/C
Voc Temperature Coefficient	-0.32%/C
Isc Temperature Coefficient	+0.05%/C
Operating Temperature	-40~+85°C
Nominal Operating Cell Temperature(NOCT)	45±2°C

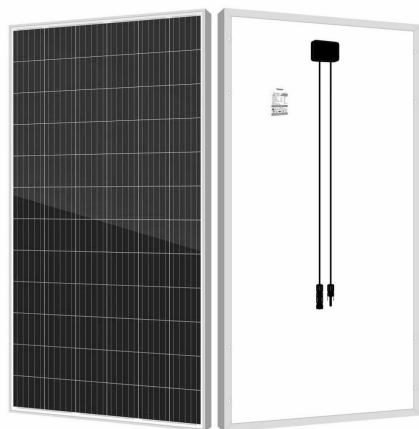
Mechanical Specifications

Dimensions	1956*992*40mm
Weight	22.5kg
Solar Cells	Mono crystalline 156.75*156.75mm (72pcs)
Front Glass	3.2 mm tempered glass, low iron
Frame	Anodized aluminum alloy
Junction Box	IP67
Mechanical Load	5400Pa
Output Cables	4.0mm ² , cable length:900mm
Connector	MC4 Connector

Packing List

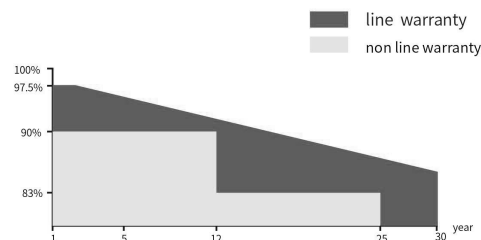
Container	20'GP	40'GP
Pieces per Pallet	26	26
Pallets per Container	10	22
Pieces per Container	260	572

HR310P-HR340P



Global leader

12 years material warranty 30 years line output warranty



Products characteristic



Solar cells: Multi Barsbars high efficiency cell



Excellent output rate: higher power output



Excellent PID resistance: the monocrystalline solar panels can be guaranteed to pass the PID (potential-induced attenuation) test



Fire safety (Class A, tested in TUA)



Water repellency: good in hydrophobicity



Frame: Anodized aluminum alloy frame, Easy to transport.



EL test: 100% inspection to guarantee products quality by EL test.



Excellent low irradiance performance: Using low iron tempered glass with transmittance more than 97%, enhance the penetration of sunlight, excellent performance in low-light environment condition.



Excellent mechanical loading tolerance: pass the pressure test of 5400pa on the front and 2400pa on the back. Certified to withstand hail and heavy snow environment condition.



Work in sever environment: pass three performance and safety tests certified by TUV, safety for salt mist and ammonia corrosion.



Warranty: material&craft quality assurance and 90% output power guarantee in 12 years. line guaranty.



Automatic production Line: 300MW production ability



Junction box: outstanding quality junction box and connector.



Using high efficiency mono solar cells, the current is more uniform, reduce the current heat loss of the cells inside the module effectively

Electrical Characteristics(STC)

Module Type	HR310P-24	HR315P-24	HR320P-24	HR325P-24	HR330P-24	HR335P-24	HR340P-24
Maximum Power-Pmax(w)	310	315	320	325	330	335	340
Open Circuit Voltage-Voc(V)	45.3	45.4	45.7	46.1	46.3	46.5	46.6
Short-Circuit Current-Isc(A)	8.86	9.15	9.24	9.34	9.45	9.55	9.64
Voltage at Pmax-Vmp(V)	36.9	37.2	37.5	37.6	37.7	37.9	38.1
Current at Pmax-Imp(A)	8.40	8.47	8.53	8.64	8.75	8.86	8.92
Module Efficiency -ηm(%)	16.0	16.2	16.5	16.7	17.0	17.3	17.5
STC: Irradiance 1000W/m ² , Cell Temperature 25°C, Air Mass 1.5							
Power Tolerance(W)	(0,+4.99)						
Maximum System Voltage(V)	1000						
Maximum Series Fuse Rating(A)	20						

Temperature Characteristics

Pmax Temperature Coefficient	-0.40%/C
Voc Temperature Coefficient	-0.32%/C
Isc Temperature Coefficient	+0.05%/C
Operating Temperature	-40~+85°C
Nominal Operating Cell Temperature(NOCT)	45±2°C

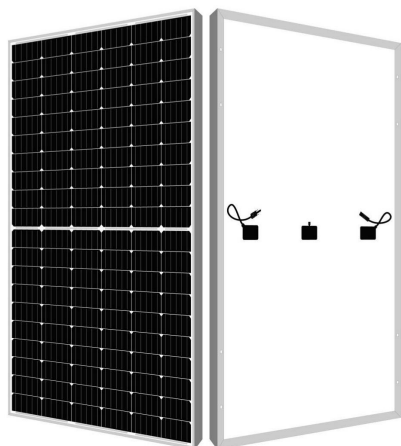
Mechanical Specifications

Dimensions	1956*992*40mm
Weight	22.5kg
Solar Cells	Mono crystalline 156.75*156.75mm (72pcs)
Front Glass	3.2 mm tempered glass, low iron
Frame	Anodized aluminum alloy
Junction Box	IP67
Mechanical Load	5400Pa
Output Cables	4.0mm ² , cable length: 900mm
Connector	MC4 Connector

Packing List

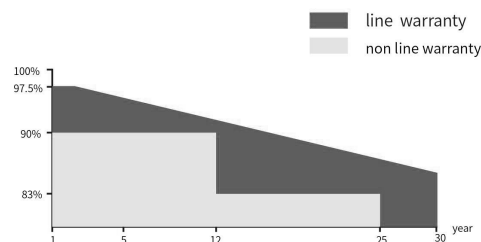
Container	20'GP	40'GP
Pieces per Pallet	26	26
Pallets per Container	10	22
Pieces per Container	260	572

HR-HALF-350-HR-HALF-370



Global leader

12 years material warranty 30 years line output warranty



Products characteristic

Solar cells: Multi Barsbars high efficiency cell

Excellent low irradiance performance: Using low iron tempered glass with transmittance more than 97%, enhance the penetration of sunlight, excellent performance in low-light environment condition.

Excellent output rate: higher power output

Excellent mechanical loading tolerance: pass the pressure test of 5400pa on the front and 2400pa on the back. Certified to withstand hail and heavy snow environment condition.

Excellent PID resistance: the monocrystalline solar panels can be guaranteed to pass the PID (potential-induced attenuation) test

Work in sever environment: pass three performance and safety tests certified by TUV, safety for salt mist and ammonia corrosion.

Fire safety (Class A, tested in TUA)

Warranty: material&craft quality assurance and 90% output power guarantee in 12 years. line guaranty.

Water repellency: good in hydrophobicity

Automatic production Line: 300MW production ability

Frame: Anodized aluminum alloy frame, Easy to transport.

Junction box: outstanding quality junction box and connector.

EL test: 100% inspection to guarantee products quality by EL test.

Using high efficiency mono solar cells, the current is more uniform, reduce the current heat loss of the cells inside the module effectively

Electrical Characteristics(STC)

Module Type	HR-HALF-350	HR-HALF-355	HR-HALF-360	HR-HALF-365	HR-HALF-370
Maximum Power-Pmax(w)	350.00	355.00	360.00	365.00	370.00
Open Circuit Voltage-Voc(V)	40.50	40.70	40.90	41.10	41.30
Short-Circuit Current-Isc(A)	11.02	11.10	11.20	11.28	11.37
Voltage at Pmax-Vmp(V)	33.30	33.50	33.70	33.90	34.10
Current at Pmax-Imp(A)	10.52	10.60	10.69	10.77	10.86
Module Efficiency -ηm(%)	18.70	19.00	19.30	19.50	19.80
Power Tolerance(W)	(0,+5.00)				
Maximum System Voltage(V)	1500				
Maximum Series Fuse Rating(A)	20				

Temperature Characteristics

Pmax Temperature Coefficient	-0.370%/C
Voc Temperature Coefficient	-0.286%/C
Isc Temperature Coefficient	+0.057%/C
Operating Temperature	-40~+85C
Nominal Operating Cell Temperature(NOCT)	45±2°C

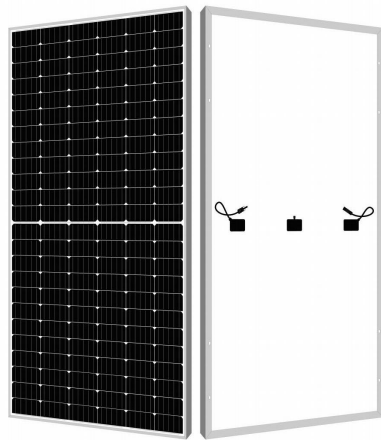
Mechanical Specifications

Dimensions	1776X1052X35mm
Weight	20kg
Solar Cells	166*83mm,120pcs (6*20)
Front Glass	3.2 mm tempered glass, low iron
Frame	Anodized aluminum alloy
Junction Box	IP68
Mechanical Load	5400Pa
Output Cables	4,0mm ²
Connector	MC4 Compatible

Packing List

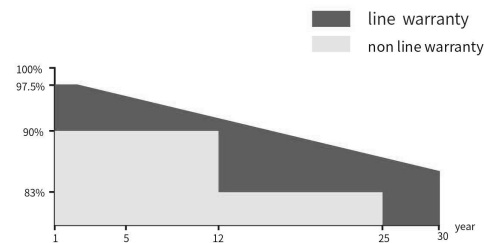
Container	20'HQ	40'HQ
Pieces per Pallet	30	30
Pallets per Container	6	26
Pieces per Container	180	780

HR420M6-HR440M6



Global leader

12 years material warranty 30 years line output warranty



Products characteristic

Solar cells: Multi Barsbars high efficiency cell

Excellent output rate: higher power output

Excellent PID resistance: the monocrystalline solar panels can be guaranteed to pass the PID (potential-induced attenuation) test

Fire safety (Class A, tested in TUA)

Water repellency: good in hydrophobicity

Frame: Anodized aluminum alloy frame, Easy to transport.

EL test: 100% inspection to guarantee products quality by EL test.

Excellent low irradiance performance: Using low iron tempered glass with transmittance more than 97%, enhance the penetration of sunlight, excellent performance in low-light environment condition.

Excellent mechanical loading tolerance: pass the pressure test of 5400pa on the front and 2400pa on the back. Certified to withstand hail and heavy snow environment condition.

Work in sever environment: pass three performance and safety tests certified by TUV, safety for salt mist and ammonia corrosion.

Warranty: material&craft quality assurance and 90% output power guarantee in 12years.line guaranty.

Automatic production Line: 300MW production ability

Junction box: outstanding quality junction box and connector.

Using high efficiency mono solar cells, the current is more uniform, reduce the current heat loss of the cells inside the module effectively

Electrical Characteristics(STC)

Module Type	HR420M6	HR425M6	HR430M6	HR435M6	HR440M6
Maximum Power-Pmax(w)	420.00	425.00	430.00	435.00	440.00
Open Circuit Voltage-Voc(V)	48.8	49.0	49.2	49.4	49.6
Short-Circuit Current-Isc(A)	11.04	11.11	11.19	11.26	11.33
Voltage at Pmax-Vmp(V)	40.2	40.4	40.6	40.8	41.0
Current at Pmax-Imp(A)	10.45	10.52	10.60	10.67	10.74
Module Efficiency -ηm(%)	18.90	19.10	19.30	19.60	19.80
Power Tolerance(W)	(0,+5.00)				
Maximum System Voltage(V)	1000/1500				
Maximum Series Fuse Rating(A)	20				

Temperature Characteristics

Pmax Temperature Coefficient	-0.370%/C
Voc Temperature Coefficient	-0.286%/C
Isc Temperature Coefficient	+0.057%/C
Operating Temperature	-40~+85C
Nominal Operating Cell Temperature(NOCT)	45±2°C

Mechanical Specifications

Dimensions	2115*1052*35mm
Weight	24kg
Solar Cells	Mono crystalline 166*83mm (2*72pcs)
Front Glass	3.2 mm tempered glass, low iron
Frame	Anodized aluminum alloy
Junction Box	IP67
Mechanical Load	5400Pa
Output Cables	4.0mm ²
Connector	MC4 Compatible

Packing List

Container	20'GP	40'GP
Pieces per Pallet	30	30
Pallets per Container	6	22
Pieces per Container	180	660



PROFESSIONAL / INNOVATION / QUALITY

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