

Thin Film CdTe PV module

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Product Manual

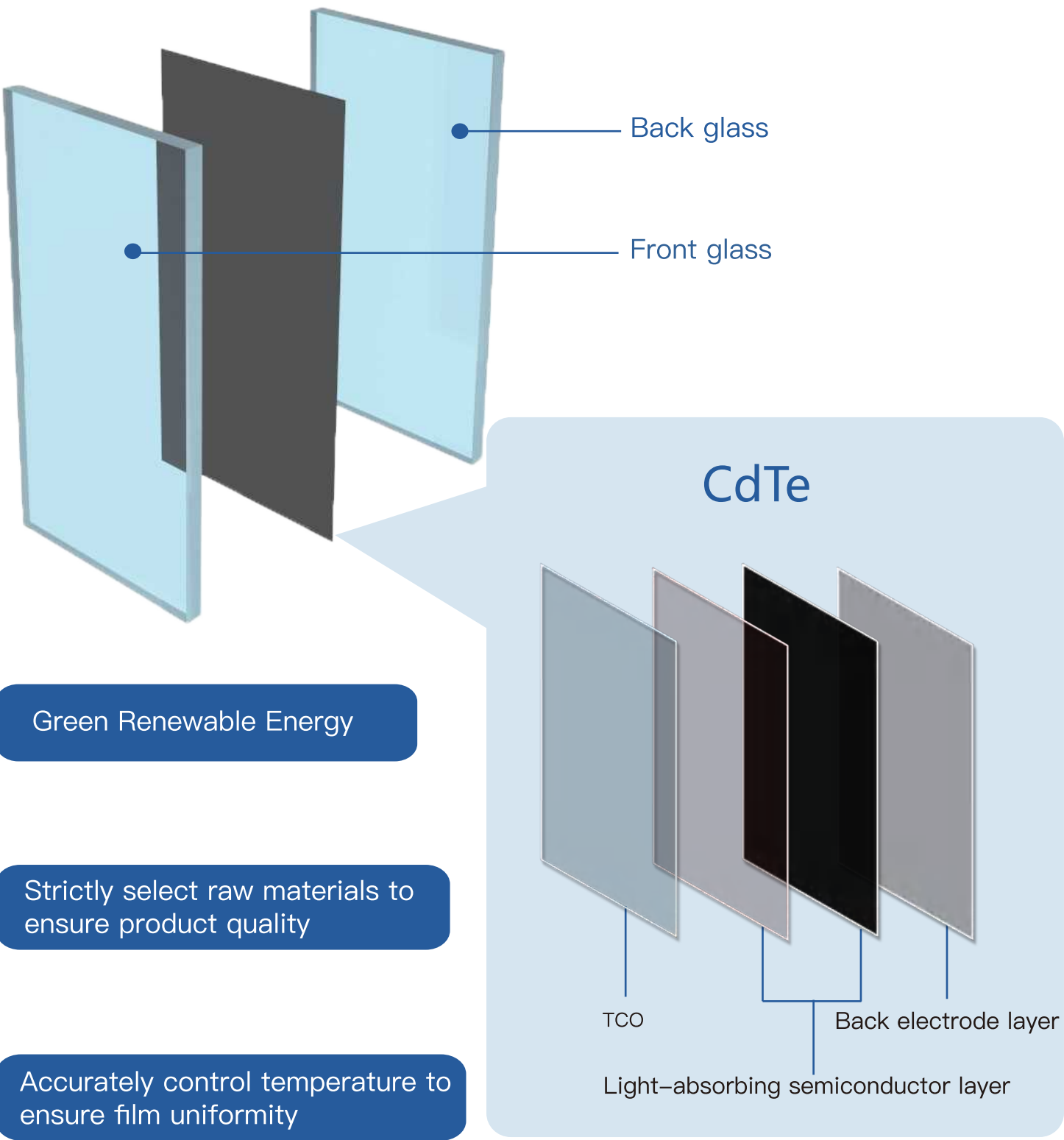
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Photovoltaic effect

Fireproof
No pollution
Radiation-Free



10-Year Limited
Product Warranty

25-Year Linear
Performance Warranty

ISO9001: 2015
ISO14001: 2015
ISO45001:2018
GB/T 21081
IEC61215, IEC61730, UL61730

- 1 Safe and Reliable
- 2 Attractive and Functional
- 3 High performance and Cost-efficient
- 4 Energy-saving and environment-friendly

Personalized design



Various color

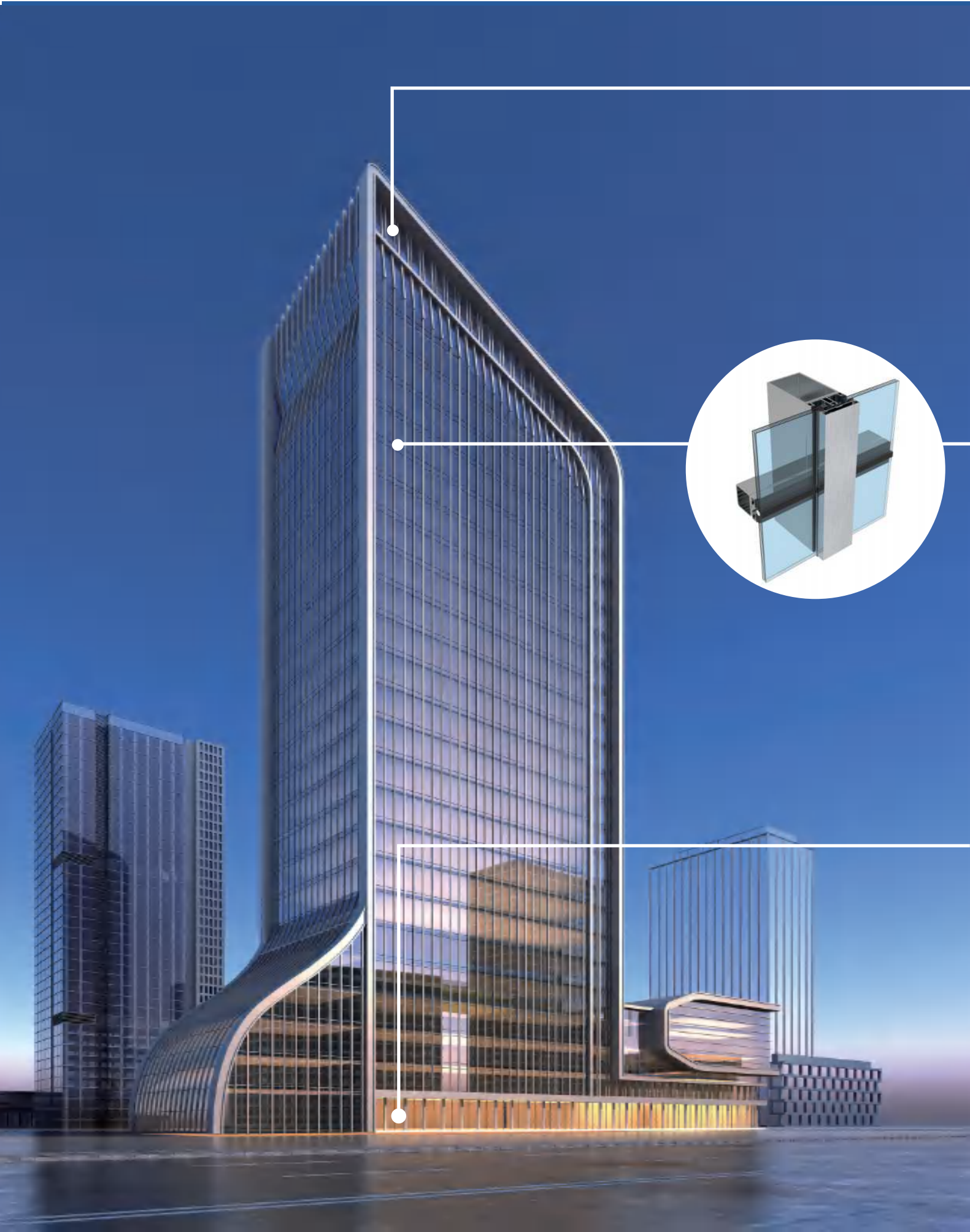


Customizable transparency

The integration of photovoltaic power generation and building materials is an innovation of traditional building materials and a revolution of photovoltaic industry.

Building **I**ntegrated **P**hotovoltaic

Beautiful **I**nvisible **P**lural **V**alue



Laminated Power Glass

Transmittance(Tr)	0%~50%
Nominal Power(Wp)	50~300
Size(mm)	1200×600/1200×1200/1200×1800
Structure	5Li+1.52PVB+3.2CdTe+1.52PVB+5C

Frameless design, better integration of architectural, wide application, easy installation, customizable size.
Suitable for building curtain walls, daylighting roofs, sun rooms, etc.



IGU Low-E Power Glass

Transmittance(Tr)	0%~50%
Nominal Power(Wp)	50~300
Size(mm)	1200×600/1200×1200/1200×1800
U-value(W/m²·k)	1~1.8
Sc	0.2~0.6
Structure	6Li+1.52PVB+3.2CdTe+1.52PVB+6Low-E+12A+6Li

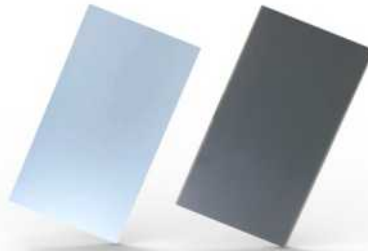
Use high-efficiency CdTe power generation glass chip.
The hollow structure effectively reduces U-value.
Combined with Low-E film, the Sc and U are even lower.
The laminated structure increases the sound insulation effect.

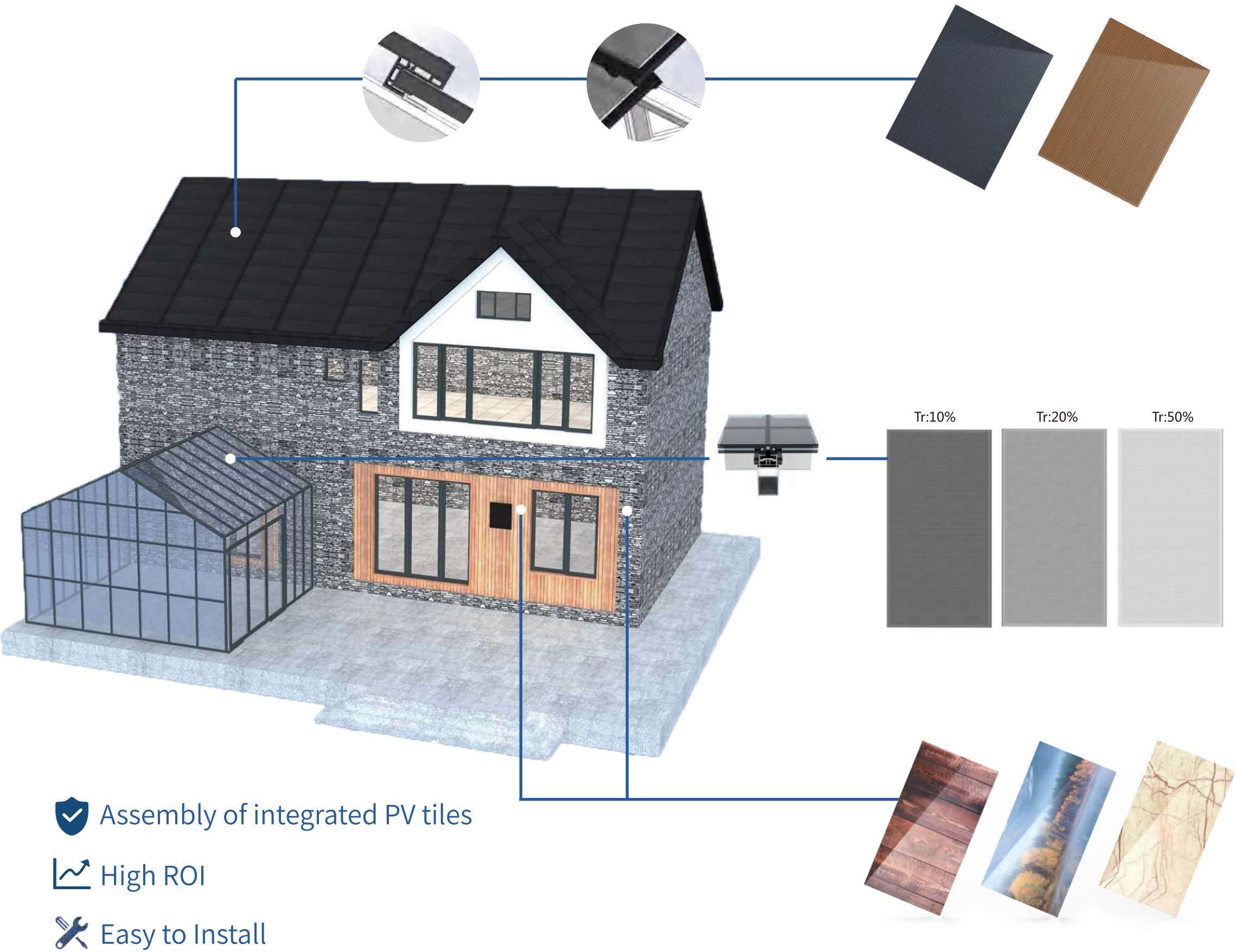


Colorful Power Glass

Nominal Power(Wp)	50~300
Size(mm)	1200×600/1200×1200/1200×1800
Structure	5Li+1.52PVB+3.2CdTe+1.52PVB+5C

Meet building facade requirements; use frosting, coating, color PVB, ceramic and other methods to cutomize;
Applied to facades, guardrails, spandrel, etc.
Perfectly matched with aluminum plates, stone, and etc.





● Household PV tile

Nominal Power(Wp)	33~105
Size(mm)	1200×600/600×400
Structure	3.2CdTe+0.4EVA+3.2C

Replace traditional roof tiles
Safe and reliable
Easy to install
Efficient and economical

● Transparent Power Glass

Transmittance(Tr)	10%~50%
Nominal Power(Wp)	50~100
Size(mm)	1200×600
Structure	3.2CdTe+0.4EVA+3.2C

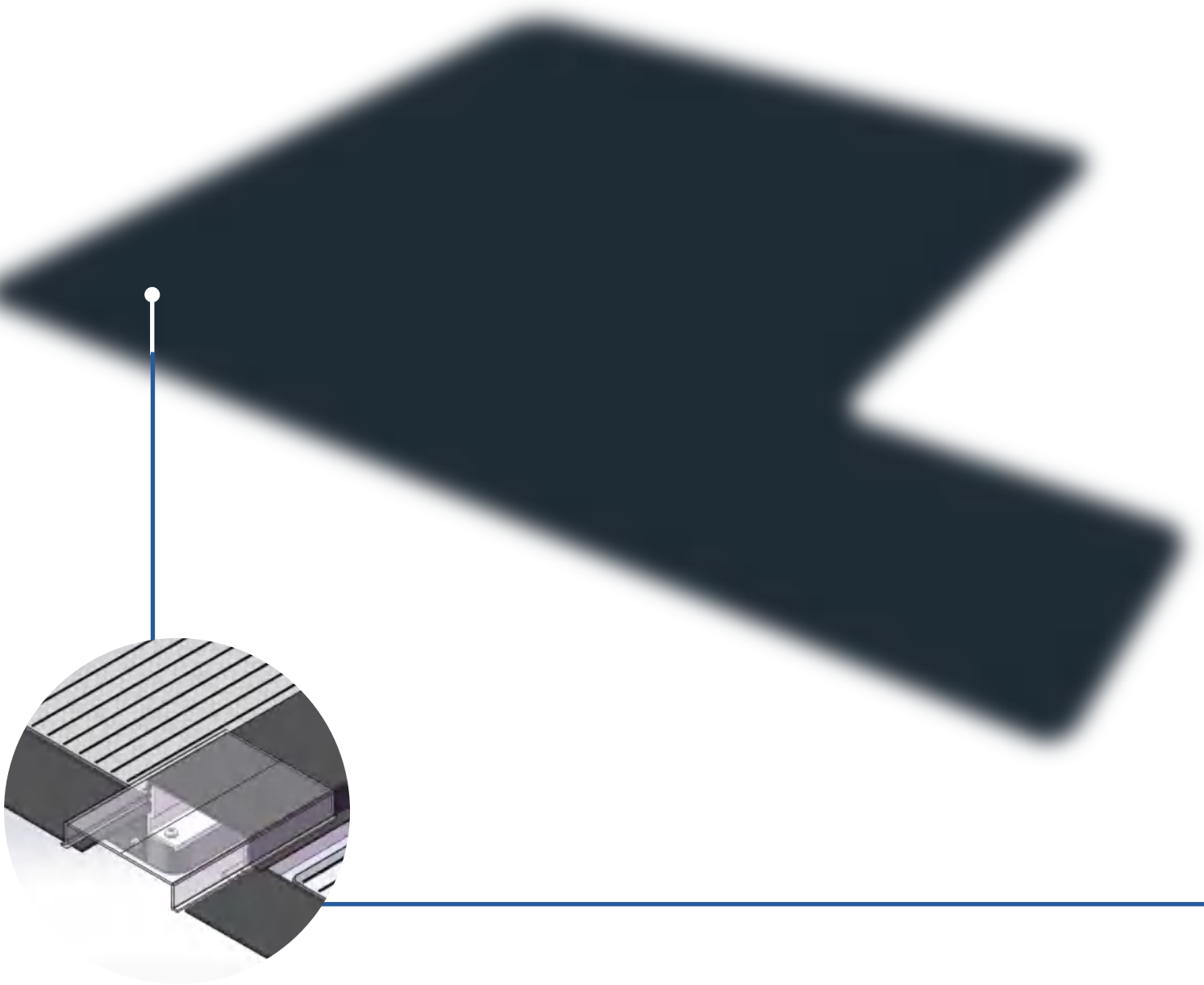
10%~50% light transmission adjustable
Efficient power generation while meet indoor lighting requirements
Free of the power outage

● Colored Power Glass

Nominal Power(Wp)	50~100
Size(mm)	1200×600
Structure	5Li+1.52PVB+3.2CdTe+1.52PVB+5Li

Color and pattern can be customized
Personalized customization
Make buildings more beautiful and unique

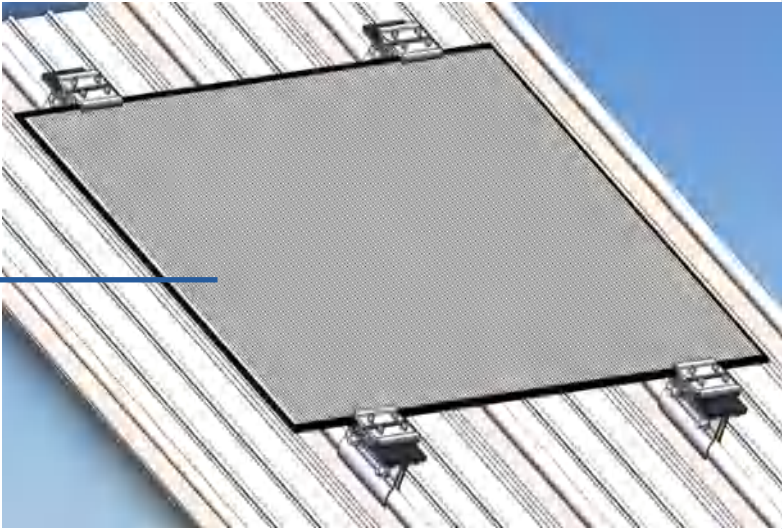
New products are newly developed for traditional industrial and commercial roofs, which are easy to install, save costs, have a high rate of return, good waterproof performance, no hot spot effect, reduce fire risks, and are safe and efficient.

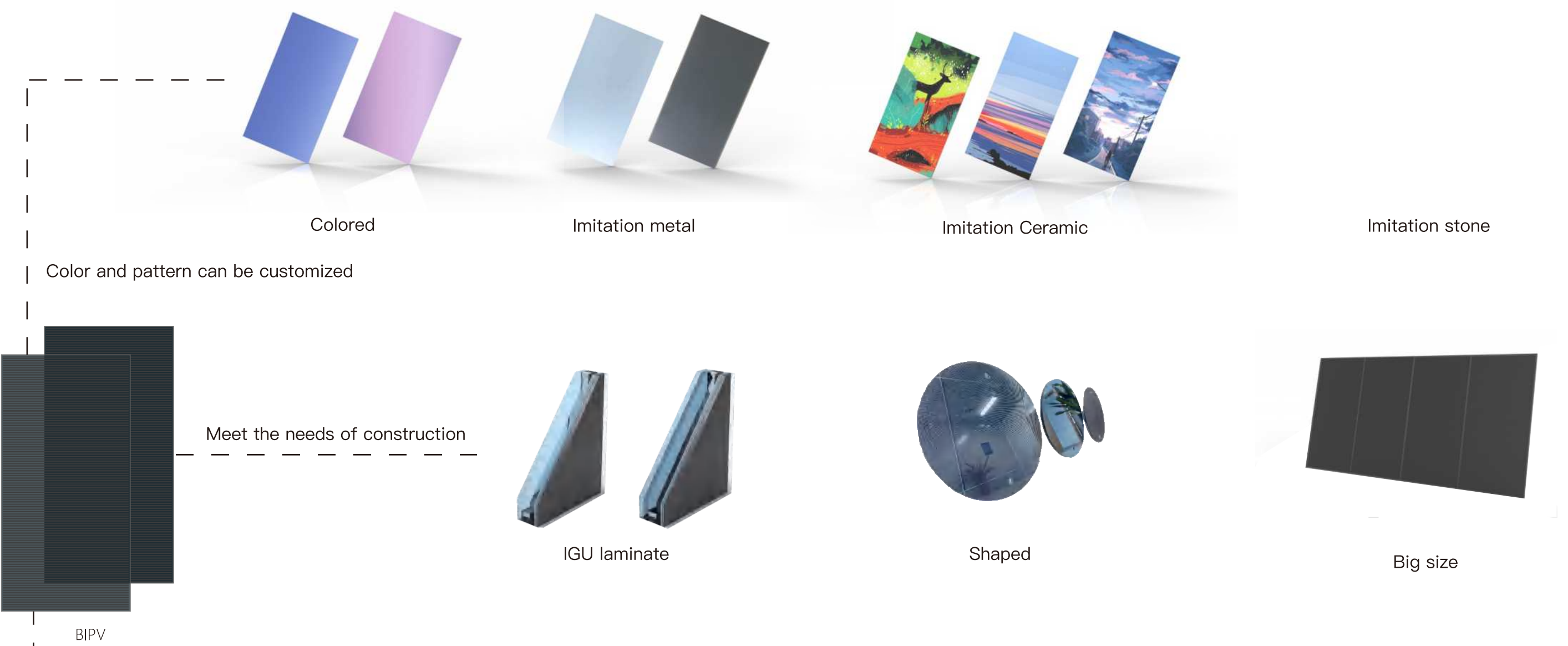


● Industrial and Commercial Roof

Nominal Power(Wp)	105~115
Size(mm)	1200×600
Structure	3.2CdTe+0.4EVA+3.2C

- One person can complete the installation,
- Save BOM cost,
- Cover the building requirement,
- Applicable to the design requirements of all color steel tiles,
- Roof structure and photovoltaic construction division,
- Convenient for acceptance and quality assurance,
- No negative impact on the roof's insulation and heat dissipation .

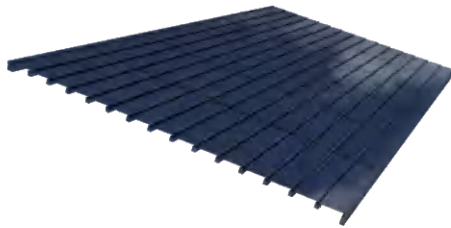




Provide multiple solutions for the roof



Industrial and commercial roof

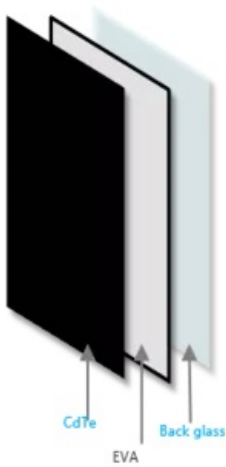


Household PV Tiles

Power Buildings and Beautify Cities

The integration of traditional photovoltaics with building materials expands the application fields of photovoltaic products. It not only has high-efficiency power generation performance but also conforms to the aesthetics of modern buildings. It has become a green building material integrated safety, practicality, environmental protection, energy saving and beauty.

STANDARD PV MODULE



Mechanical Specification	
Size	1200*600*6.8mm
Weight	12Kg
Area	0.72m²
Structure	3.2CdTe+0.4EVA+3.2C
Type	CdTe
Junction Box	Back, Side , cable 2.5mm² , 650±10mm
Connectors	MC4

Electrical Specification			
Model	PM-105	PM-110	PM-115
Nominal Power (Pmpp)	105Wp	110Wp	115Wp
Power Tolerance	±5%	±5%	±5%
Short Circuit Current (Isc)	2.48A	2.48A	2.5A
Open Circuit Voltage (Voc)	61.9V	63.0V	64.0V
Current at Pmax (Impp)	2.16A	2.26A	2.27A
Voltage at Pmax (Vmpp)	48.6V	48.6V	50.7V
STC : 1000W/m² , AM1.5 , 25°C			

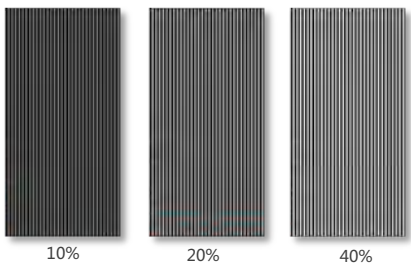
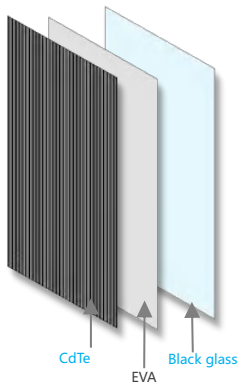
System Integration Characteristic Specification			
Max System Voltage	DC1000V(IEC)	Protection Level	IP65
Max Reverse Current	6A	Burning Class	A2
Snow Load	5400Pa (IEC)	Temperature Coefficient (Pmax)	-0.29%/ °C
Wind Load	2400Pa (IEC)	Temperature Coefficient (Voc)	-0.28%/°C
Temperature Range	-40°C~+85°C	Temperature Coefficient (Isc)	+0.04%/°C
Anti-hail Rating	IV		
A safety factor of 1.5 has been considered during the test			

Mechanical Specification		
Size	L :	730mm
	W :	1120mm
	H :	1430mm
Weight	640Kg	
Each Box	50pcs	
Standard Container- (20feet)	14 box , 750pcs	
Standard Container- (40feet)	30 box , 1500pcs	

Light and Heat Performance Data	
Transmittance (%) :	0
Reflectivity out (%) :	8
Reflectivity in (%) :	30
U-value (W/m²·K) :	5.76
Sc :	0.31
Rw (dB) :	34

5-years limited product warranty
25-years linear performance warranty

TRANSPARENT PV MODULE



Mechanical Specification	
Size	1200*600*6.8mm
Weight	12Kg
Area	0.72m²
Structure	3.2CdTe+0.4EVA+3.2C
Type	CdTe
Junction Box	Back, Side , cable 2.5mm² , 650±10mm
Connectors	MC4

Electrical Specification				
Model	PM-T0	PM-T10	PM-T20	PM-T40
Transmittance	0	10%	20%	40%
Nominal Power (Pmpp)	105	95	80	60
Power Tolerance	±5%	±5%	±5%	±5%
Short Circuit Current (Isc)	1.24	1.12	0.99	0.74
Open Circuit Voltage (Voc)	123.8	123.8	123.8	123.8
Current at Pmax (Impp)	1.08	0.97	0.86	0.65
Voltage at Pmax (Vmpp)	97.2	96.1	94.8	90.7
STC : 1000W/m² , AM1.5 , 25°C				

System Integration Characteristic Specification			
Max System Voltage	DC1000V(IEC)	Protection Level	IP65
Max Reverse Current	6A	Burning Class	A2
Snow Load	6000Pa (IEC)	Temperature Coefficient (Pmax)	-0.29%/ °C
Wind Load	6000Pa (IEC)	Temperature Coefficient (Voc)	-0.28%/°C
Temperature Range	-40℃~+85℃	Temperature Coefficient (Isc)	+0.04%/°C
Anti-hail Rating	IV		
A safety factor of 1.5 has been considered during the test			

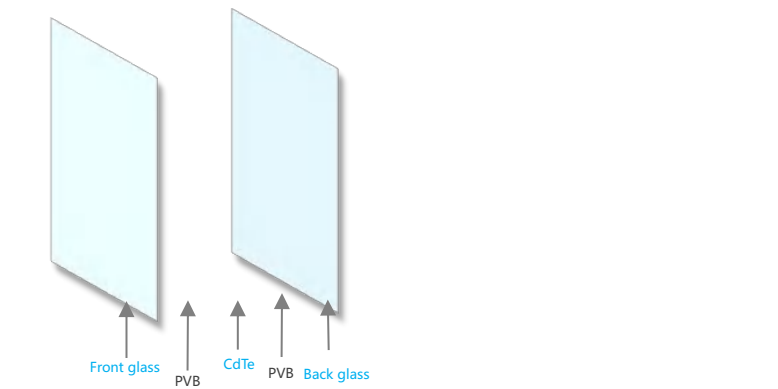
Mechanical Specification		
Size	L :	730mm
	W :	1120mm
	H :	1430mm
Weight	640Kg	
Each Box	50pcs	
Standard Container- (20feet)	14 box , 750pcs	
Standard Container- (40feet)	30 box , 1500pcs	

Light and Heat Performance Data	
Transmittance (%) :	0~50
Reflectivity out (%) :	7~15
Reflectivity in (%) :	20~30
U-value (W/m²·K) :	5.76
Sc :	0.31~0.70
Rw (dB) :	34



10-years limited product warranty
25-years linear performance warranty

LAMINATED IGU POWER GLASS



Mechanical Specification

Size	L : 690mm
	W : 1140mm
	H : 1375mm
Weight	820Kg
Each Box	30 pcs

Light and Heat Performance Data

Transmittance (%) :	0
Reflectivity out (%) :	7~8
Reflectivity in (%) :	36
U-value (W/m²·K) :	4.70
Sc :	0.27
Rw (dB) :	42

Mechanical Specification

Size	1200*600*16.2mm
Weight	26Kg
Area	0.72m²
Structure	5Li+1.52PVB+3.2CdTe+1.52PVB+5Li
Type	CdTe
Junction Box	Back, Side , cable 2.5mm² , 650±10mm
Connectors	MC4

Glass thickness can be selected according to design requirement,5mm,6mm,8mm,10mm,
Various sizes can be selected according to customer requirements

Electrical Specification

Model	PM-JN-RTN	PM-JN-HTN
Nominal Power (Pmpp)	100	100
Power Tolerance	±5%	±5%
Short Circuit Current (Isc)	1.16	2.33
Open Circuit Voltage(Voc)	119.4	59.7
Current at Pmax (Impp)	1.01	2.02
Voltage at Pmax(Vmpp)	96.6	48.3

STC : 1000W/m² , AM1.5 , 25°C

System Integration Characteristic Specification

Max System Voltage	DC1000V(IEC)	Protection Level	IP65
Max Reverse Current	6A	Burning Class	A2
Snow Load	6000Pa (IEC)	Temperature Coefficient (Pmax)	-0.29%/ °C
Wind Load	6000Pa (IEC)	Temperature Coefficient (Voc)	-0.28%/°C
Temperature Range	-40°C~+85°C	Temperature Coefficient (Isc)	+0.04%/°C
Anti-hail Rating	IV		

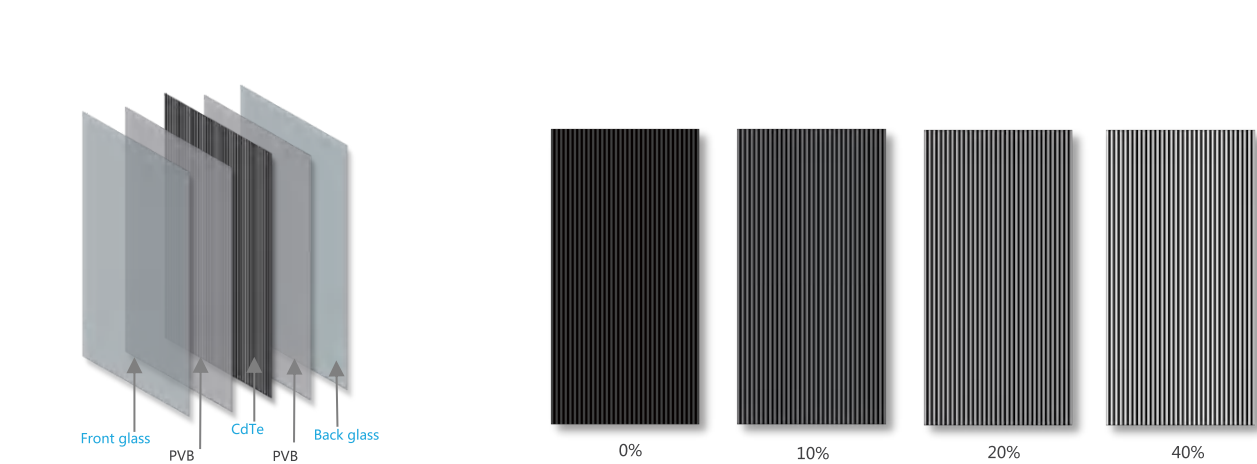
A safety factor of 1.5 has been considered during the test



10-years limited product warranty

25-years linear performance warranty

TRANSPARENT SERIES



Mechanical Specification

Size	1200*600*16.2mm
Weight	26Kg
Area	0.72m²
Structure	5Li+1.52PVB+3.2CdTe+1.52PVB+5Li
Type	CdTe
Junction Box	Side, cable 2.5mm² , 650±10mm
Connectors	MC4

Glass thickness can be selected according to design requirements , 5mm, 6mm, 8mm, 10mm
Various sizes can be selected according to customer requirements

Electrical Specification

Model	PM-JN-RTN-T10	PM-JN-RTN-T20	PM-JN-RTN-T40
Transmittance	10%	20%	40%
Nominal Power (Pmpp)	90	80	60
Power Tolerance	±5%	±5%	±5%
Short Circuit Current (Isc)	1.21	1.06	0.72
Open Circuit Voltage (Voc)	117	117	117
Current at Pmax (Impp)	1.03	0.92	0.69
Voltage at Pmax (Vmpp)	87	87	87

STC : 1000W/m² , AM1.5 , 25°C

System Integration Characteristic Specification

Max System Voltage	DC1000V(IEC)	Protection Level	IP65
Max Reverse Current	6A	Burning Class	A2
Snow Load	6000Pa (IEC)	Temperature Coefficient (Pmpp)	-0.29%/ °C
Wind Load	6000Pa (IEC)	Temperature Coefficient (Voc)	-0.28%/°C
Temperature Range	-40°C~+85°C	Temperature Coefficient (Isc)	+0.04%/°C
Anti-hail Rating	IV		

A safety factor of 1.5 has been considered during the test

Light and Heat Performance Data

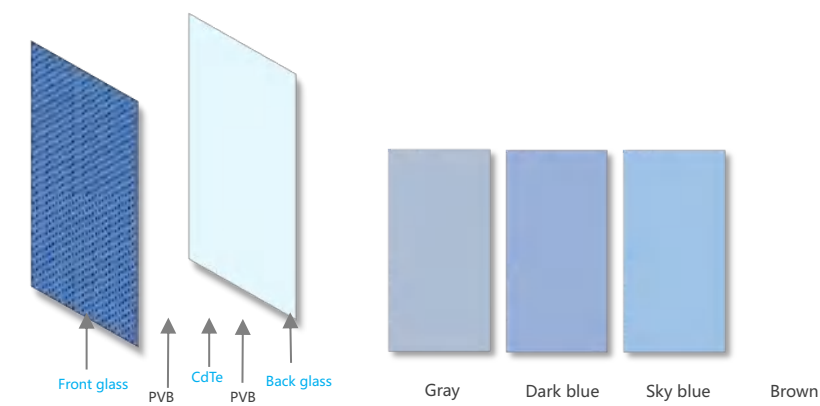
Transmittance (%) :	0~42
Reflectivity out (%) :	7-8
Reflectivity in (%) :	22~36
U-value (W/m²·K) :	4.70
Sc :	0.27~0.56
Rw (dB) :	42



10-years limited product warranty

25-years linear performance warranty

COLOR SERIES



Mechanical Specification

Size	L : 690mm
	W : 1140mm
	H : 1375mm
Weight	820Kg
Each Box	30 pcs

METAL IMITATION SERIES



Mechanical Specification

Size	1200*600*16.2mm
Weight	26Kg
Area	0.72m²
Structure	5Li +1.52PVB+3.2CdTe+1.52PVB+5Li
Type	CdTe
Junction Box	Back, Side , cable 2.5mm² , 650±10mm
Connectors	MC4
Glass thickness can be selected according to design requirement,5mm,6mm,8mm,10mm Various sizes can be selected according to customer requirements	

Electrical Specification

Model	PM-JC-RTN	PM-JC-RTN	PM-JC-RTN	PM-JC-RTN
Color	Gray	Dark blue	Sky blue	Brown
Nominal Power (Pmax)	85Wp	90Wp	85Wp	80Wp
Power Tolerance	±5%	±5%	±5%	±5%
Short Circuit Current (Isc)	1.07A	1.13A	1.08A	1.06A
Open Circuit Voltage(Voc)	117.2V	118.4V	118V	117.2V
Current at Pmax (Imp)	0.93A	0.97A	0.91A	0.92A
Voltage at Pmax (Vm)	92.0V	91.1V	94.7V	90.1V
STC : 1000W/m² , AM1.5 , 25°C Cover the color of Low-E glass: PM-LowE-01、PM-LowE-02、PM-LowE-03、PM-LowE-04				

System Integration Characteristic Specification

Max System Voltage	DC1000V(IEC)	Protection Level	IP65
Max Reverse Current	6A	Burning Class	A2
Snow Load	6000Pa (IEC)	Temperature Coefficient (Pmax)	-0.29%/ °C
Wind Load	6000Pa (IEC)	Temperature Coefficient (Voc)	-0.28%/°C
Temperature Range	-40℃~+85℃	Temperature Coefficient (Isc)	+0.04%/°C
Anti-hail Rating	IV		
A safety factor of 1.5 has been considered during the test			

Light and Heat Performance Data

Transmittance (%) :	0
Reflectivity out (%) :	7~15
Reflectivity in (%) :	22~36
U-value (W/m²·K) :	4.70
Sc	0.27~0.56
Rw (dB) :	42

Mechanical Specification

Size	1200*600*16.2mm
Weight	26Kg
Area	0.72m²
Structure	5Li+1.52PVB+3.2CdTe+1.52PVB+5Li
Type	CdTe
Junction Box	Back, Side , cable 2.5mm² , 650±10mm
Connectors	MC4
Glass thickness can be selected according to design requirements , 5mm, 6mm, 8mm, 10mm Various sizes can be selected according to customer requirements	

Electrical Specification

Model	PM-JM-RTN	PM-JM-HTN	PM-JM-RTN	PM-JM-HTN
Color	Silver gray		Silver white/red copper	
Nominal Power (Pmax)	80Wp	80Wp	60Wp	60Wp
Power Tolerance	±5%	±5%	±5%	±5%
Short Circuit Current (Isc)	1.21A	2.42A	0.72A	1.44A
Open Circuit Voltage(Voc)	117V	58.5V	117V	58.5V
Current at Pmax (Imp)	0.92A	1.84A	0.69A	1.38A
Voltage at Pmax (Vm)	87V	43.5V	87V	43.5V
STC : 1000W/m² , AM1.5 , 25°C				

System Integration Characteristic Specification

Max System Voltage	DC1000V(IEC)	Protection Level	IP65
Max Reverse Current	6A	Burning Class	A2
Snow Load	5000Pa (IEC)	Temperature Coefficient (Pmpp)	-0.29%/ °C
Wind Load	5000Pa (IEC)	Temperature Coefficient (Voc)	-0.28%/°C
Temperature Range	-40°C~+85°C	Temperature Coefficient (Isc)	+0.04%/°C
Anti-hail Rating	IV		
A safety factor of 1.5 has been considered during the test			

Light and Heat Performance Data

Transmittance (%) :	0
Reflectivity out (%) :	7~15
Reflectivity in (%) :	22~36
U-value (W/m²·K) :	4.70
Sc	0.27~0.56
Rw (dB) :	42



10-years limited product warranty

25-years linear performance warranty



10-years limited product warranty

25-years linear performance warranty

STONE IMITATION SERIES



Mechanical Specification	
Size	1200*600*16.2mm
Weight	26Kg
Area	0.72m²
Structure	5Li+1.52PVB+3.2CdTe+1.52PVB+5Li
Type	CdTe
Junction Box	Back, Side , cable 2.5mm² , 650±10mm
Connectors	MC4
Glass thickness can be selected according to design requirements , 5mm, 6mm, 8mm, 10mm Various sizes can be selected according to customer requirements	

Electrical Specification				
Model	PM-JS-RTN-01	PM-JS-HTN-01	PM-JS-RTN-02	PM-JS-HTN-02
Design	Marble		Wood grain	
Nominal Power (Pmax)	60Wp	60Wp	60Wp	60Wp
Power Tolerance	±5%	±5%	±5%	±5%
Short Circuit Current (Isc)	0.72A	1.44A	0.72A	1.44A
Open Circuit Voltage(Voc)	117V	58.5V	117V	58.5V
Current at Pmax (Imp)	0.69A	1.38A	0.69A	1.38A
Voltage at Pmax (Vmpp)	87V	43.5V	87V	43.5V
STC : 1000W/m² , AM1.5 , 25°C				

System Integration Characteristic Specification			
Max System Voltage	DC1000V(IEC)	Protection Level	IP65
Max Reverse Current	6A	Burning Class	A2
Snow Load	6000Pa (IEC)	Temperature Coefficient (Pmpp)	-0.29%/°C
Wind Load	6000Pa (IEC)	Temperature Coefficient (Voc)	-0.28%/°C
Temperature Range	-40°C~+85°C	Temperature Coefficient (Isc)	+0.04%/°C
Anti-hail Rating	IV		
A safety factor of 1.5 has been considered during the test			

Light and Heat Performance Data	
Transmittance (%) :	0
Reflectivity out (%) :	7~15
Reflectivity in (%) :	20~30
U-value (W/m²·K) :	5.20
Sc :	0.35~0.40
Rw (dB) :	38



10 -years limited product warranty
25-years linear performance warranty

IGU LOW-E POWER GLASS



Mechanical Specification	
Size	1200*1800*36.2mm
Weight	121Kg
Area	2.16m²
Structure	6Li+1.52PVB+3.2CdTe+1.52PVB+6Low-E+12A+6Li
Hollow Layer	12A
Type	CdTe
Junction Box	Back, Side , cable 2.5mm² , 650±10mm
Connectors	MC4
Glass thickness can be selected according to design requirement,5mm,6mm The hollow layer can be 12A,16A,12Ar,16Ar Various sizes can be selected according to customer requirements	

Electrical Specification		
Model	PM-JN-RTI	PM-JN-RTI-T20
Transmittance	0%	20%
Nominal Power (Pmax)	300Wp	240Wp
Power Tolerance	±5%	±5%
Short Circuit Current (Isc)	3.69A	3.18A
Open Circuit Voltage(Voc)	121.7V	117V
Current at Pmax (Imp)	3.18A	2.76A
Voltage at Pmax (Vmpp)	94.1V	87V
STC : 1000W/m² , AM1.5 , 25°C		

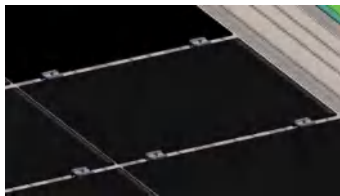
System Integration Characteristic Specification			
Max System Voltage	DC1000V(IEC)	Protection Level	IP65
Max Reverse Current	6A	Burning Class	A2
Snow Load	6000Pa (IEC)	Temperature Coefficient (Pmpp)	-0.29%/°C
Wind Load	6000Pa (IEC)	Temperature Coefficient (Voc)	-0.28%/°C
Temperature Range	-40°C~+85°C	Temperature Coefficient (Isc)	+0.04%/°C
Anti-hail Rating	IV		
A safety factor of 1.5 has been considered during the test			

Light and Heat Performance Data	
Transmittance (%) :	0~35
Reflectivity out (%) :	8~10
Reflectivity in (%) :	26~38
U-value (W/m²·K) :	1.8~2.5
Sc	0.12~0.42
Rw (dB) :	46



10-years limited product warranty
25-years linear performance warranty

Industrial and Commercial Roof



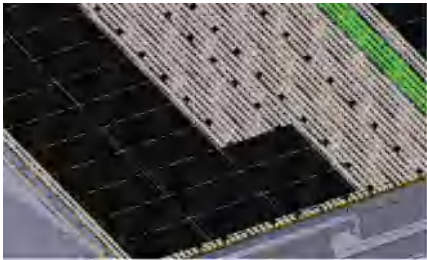
Mechanical Specification	
Size	1200*600*6.8mm
Weight	12Kg
Area	0.72m²
Structure	3.2CdTe+0.4EVA+3.2C
Type	CdTe
Junction Box	Back, Side , cable 2.5mm² , 650±10mm
Connectors	MC4

Electrical Specification						
Model	PM-105R		PM-110R		PM-115R	
Nominal Power (Pmax)	105		110		115	
Power Tolerance	±5%		±5%		±5%	
Short Circuit Current (Isc)	1.24	2.48	1.24	2.48	1.25	2.5
Open Circuit Voltage(Voc)	123.8	61.9	126.1	63.1	126.5	63.3
Current at Pmax (Imp)	1.08	2.16	1.11	2.22	1.14	2.28
Voltage at Pmax (Vmpp)	97.2	48.6	99.8	49.9	100.8	50.4
STC : 1000W/m² , AM1.5 , 25°C						

System Integration Characteristic Specification			
Max System Voltage	DC1000V(IEC)	Protection Level	IP65
Max Reverse Current	6A	Burning Class	A2
Snow Load	5400Pa (IEC)	Temperature Coefficient (Pmax)	-0.29%/ °C
Wind Load	2400Pa (IEC)	Temperature Coefficient (Voc)	-0.28%/°C
Temperature Range	-40°C~+85°C	Temperature Coefficient (Isc)	+0.04%/°C
Anti-hail Rating	IV		
A safety factor of 1.5 has been considered during the test			

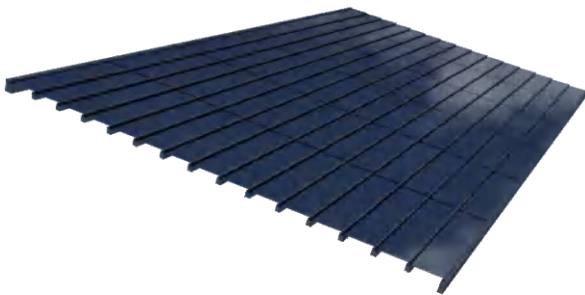
Mechanical Specification	
Size	L : 730mm
	W : 1120mm
	H : 1430mm
Weight	640Kg
Each Box	50 pcs
Standard Container- (20feet)	14Box ,750pcs
Standard Container- (40feet)	30Box ,1500pcs

Light and Heat Performance Data	
Transmittance (%) :	0
Reflectivity out (%) :	8
Reflectivity in (%) :	30
U-value (W/m²·K) :	5.76
Sc :	0.31
Rw (dB) :	34



5-years limited product warranty
25-years linear performance warranty

Household PV Tiles



Mechanical Specification			
Model	PM-WN-RDN-K24	PM-WN-RDN-K36	PM-WN-RDN-K72
Size(+Attached frame)	434*608*22	1234*308*22	1234*608*22
Size	400*600*6.8	1200*300*6.8	1200*600*6.8
Weight	0.24m²	0.36m²	0.72m²
Area	4.3Kg	6.5Kg	12.6kg
Structure	3.2CdTe+0.4EVA+3.2C		
Attached frame	Anodized aluminum frame , black		
Type	CdTe		
Junction Box	Back, Side , cable 2.5mm² , 650±10mm		
Connectors	MC4		

Electrical Specification			
Model	PM-WN-RDN-K24	PM-WN-HDN-K36	PM-WN-HDN-K72
Nominal Power (Pmax)	33	51	105
Power Tolerance	±5%	±5%	±5%
Short Circuit Current (Isc)	1.24	1.21	2.48
Open Circuit Voltage(Voc)	39.0	61.9	61.9
Current at Pmax (Imp)	1.08	1.05	2.16
Voltage at Pmax (Vmpp)	30.6	48.6	48.6
STC : 1000W/m² , AM1.5 , 25°C			

System Integration Characteristic Specification			
Max System Voltage	DC1000V(IEC)	Protection Level	IP65
Max Reverse Current	6A	Burning Class	A2
Snow Load	5400Pa (IEC)	Temperature Coefficient (Pmax)	-0.29%/ °C
Wind Load	2400Pa (IEC)	Temperature Coefficient (Voc)	-0.28%/°C
Temperature Range	-40°C~+85°C	Temperature Coefficient (Isc)	+0.04%/°C
Anti-hail Rating	IV		
A safety factor of 1.5 has been considered during the test			



5-years limited product warranty
25-years linear performance warranty