

Solar Panel Catalog



450W~465W

Monocrystalline Silicon Multi-busbar M10
GPS-01-450W-04-465W (120) Series

Electrical parameters

Module model	GPS-01-450W(120)		GPS-02-455W(120)		GPS-03-460W(120)		GPS-04-465W(120)	
	20.79		21.02		21.25		21.48	
Module efficiency (%)	20.79		21.02		21.25		21.48	
Power tolerance (W)	0~+5		0~+5		0~+5		0~+5	
Test condition	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Max. power Pmax (W)	450	331	455	335	460	339	465	343
Open circuit voltage (Voc/V)	41.40	38.68	41.60	38.88	41.80	39.08	42.00	39.28
Short circuit current (Isc/A)	13.68	10.78	13.73	10.83	13.78	10.88	13.83	10.99
Max. operating voltage (V _m /V)	34.60	32.34	34.80	32.54	35.00	32.74	35.20	32.94
Max. operating current (I _m /A)	13.01	10.24	13.07	10.30	13.15	10.35	13.22	10.39
Cell type (mm)	MBB-182x91mm Mono Perc							
Number of cells (PCS)	120(6x20)							
Max. system voltage (V)	1500V DC	Max. temperature coefficient (%/°C)		-0.348		Nominal fuse current (A)		25
Temperature coefficient of open circuit voltage (%/°C)	-0.282	Operating temperature (°C)		-40 to 85		Front static load (Pa)		5400
Temperature coefficient of short circuit current (%/°C)	0.05	Nominal cell operating temperature (°C)		45±2		Back static load (Pa)		2400

STC (standard test condition): irradiance: 1,000 W/m²; cell temperature: 25°C; spectrum: AM1.5

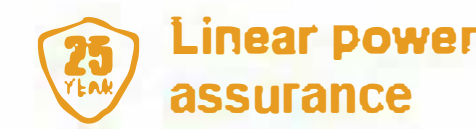
NOCT (nominal operating temperature of cell): irradiance: 800 W/m²; ambient temperature: 20°C; wind speed: 1 m/s

Auxiliary material parameters

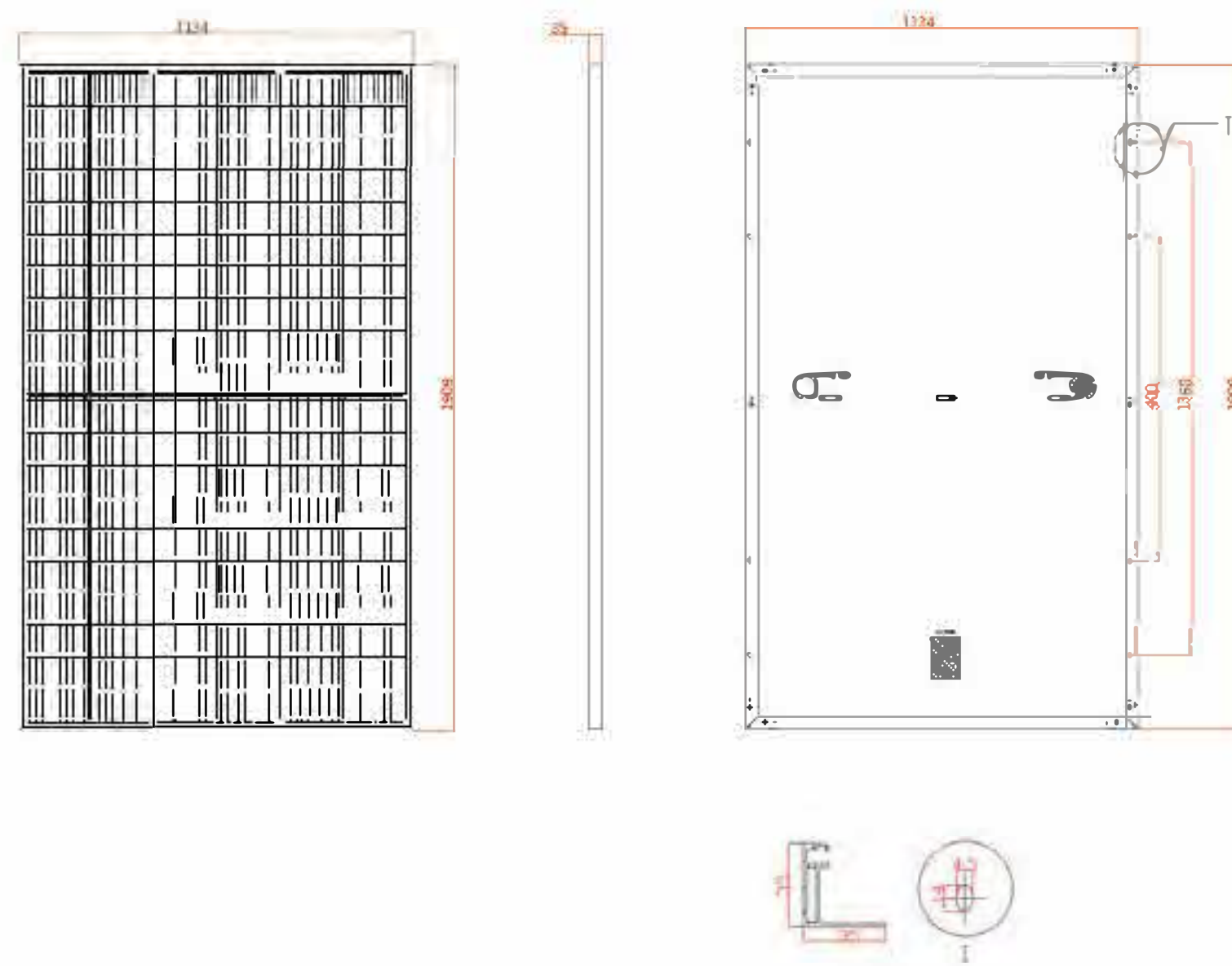
Frame	Anti-corrosion aluminum alloy (optional for black and white)
Cell	6x20 monocrystalline solar cells
Number of diodes	3
Cable length	300mm or customized according to customer requirements
Glass	3.2mm low-iron ultra-white tempered rolled glass
Junction box	IP≥68, TÜV&UL
Output wire & connector	4mm ² wire & MC4

Packaging parameters

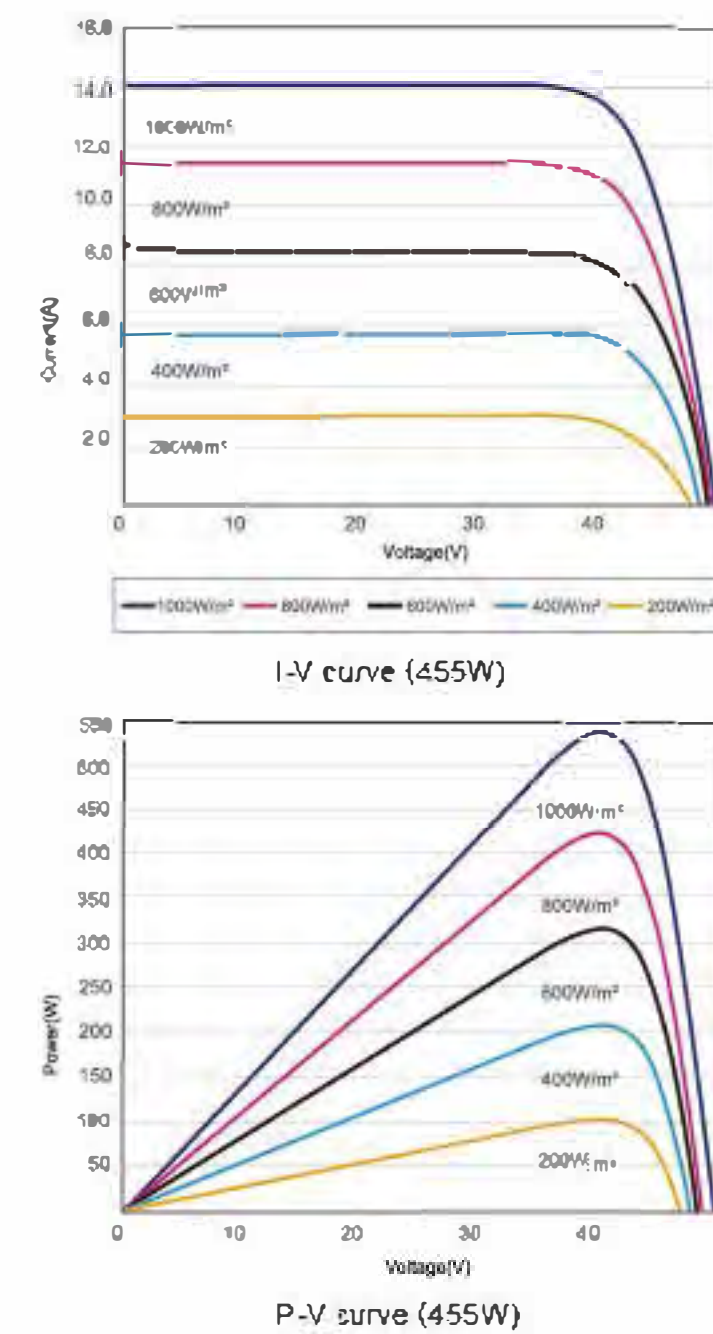
Module dimensions	1909x1134x35mm
Cargo capacity	744PCS/40HQ 1054PCS/17.5M flatbed truck
Weight	24kg
Packaging method	31PCS/Pallet



Module outline



Curve



500W~510W

Monocrystalline Silicon Multi-busbar M10
GPS-05-500W-07-510W(132) Series

Electrical parameters

Module model	GPS-05-500W(132)		GPS-06-505W(132)		GPS-07-510W(132)			
	21.06		21.31		21.51			
Module efficiency (%)	21.06		21.31		21.51			
Power tolerance (W)	0~+5		0~+5		0~+5			
Test condition	STC	NOCT	STC	NOCT	STC	NOCT		
Max. power Pmax (W)	500	368	505	372	510	375		
Open circuit voltage (Voc/V)	45.40	42.30	45.55	42.50	45.70	42.70		
Short circuit current (Isc/A)	13.83	11.17	13.88	11.22	13.94	11.27		
Max. operating voltage (V _m /V)	37.83	35.20	38.04	35.40	38.21	35.60		
Max. operating current (I _m /A)	13.22	10.45	13.28	10.51	13.35	10.53		
Cell type (mm)	MBB-182 X 91 mm Mono Perc							
Number of cells (PCS)	132(6x22)							
Max. system voltage (V)	1500V DC	Max. temperature coefficient (%/°C)		-0.348		Nominal fuse current (A)		25
Temperature coefficient of open circuit voltage (%/°C)	-0.282	Operating temperature (°C)		-40 to 85		Front static load (Pa)		5400
Temperature coefficient of short circuit current (%/°C)	0.05	Nominal cell operating temperature (°C)		45±2		Back static load (Pa)		2400

STC (standard test condition): irradiance: 1,000 W/m²; cell temperature: 25°C; spectrum: AM1.5

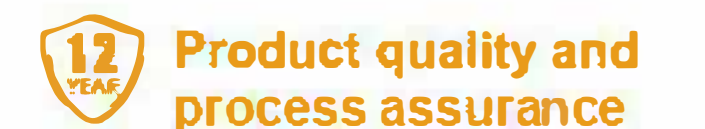
NOCT (nominal operating temperature of cell): irradiance: 800 W/m²; ambient temperature: 20°C; wind speed: 1 m/s

Auxiliary material parameters

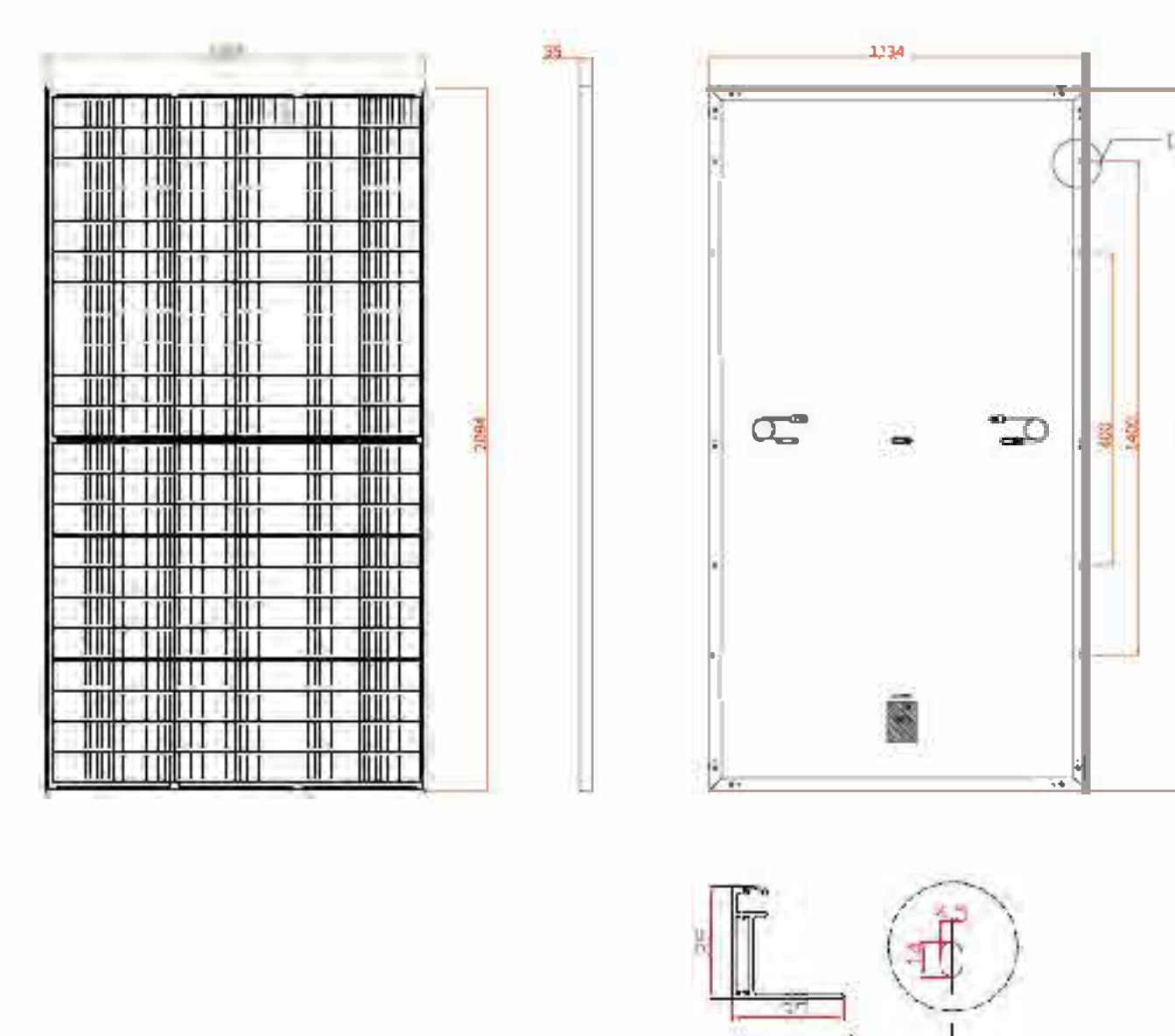
Frame	Anti-corrosion aluminum alloy (optional for black and white)
Cell	6x22 monocrystalline solar cells
Number of diodes	3
Cable length	300mm or customized according to customer requirements
Glass	3.2mm low-iron ultra-white tempered rolled glass
Junction box	IP≥68, TÜV&UL
Output wire & connector	4mm ² wire & MC4

Packaging parameters

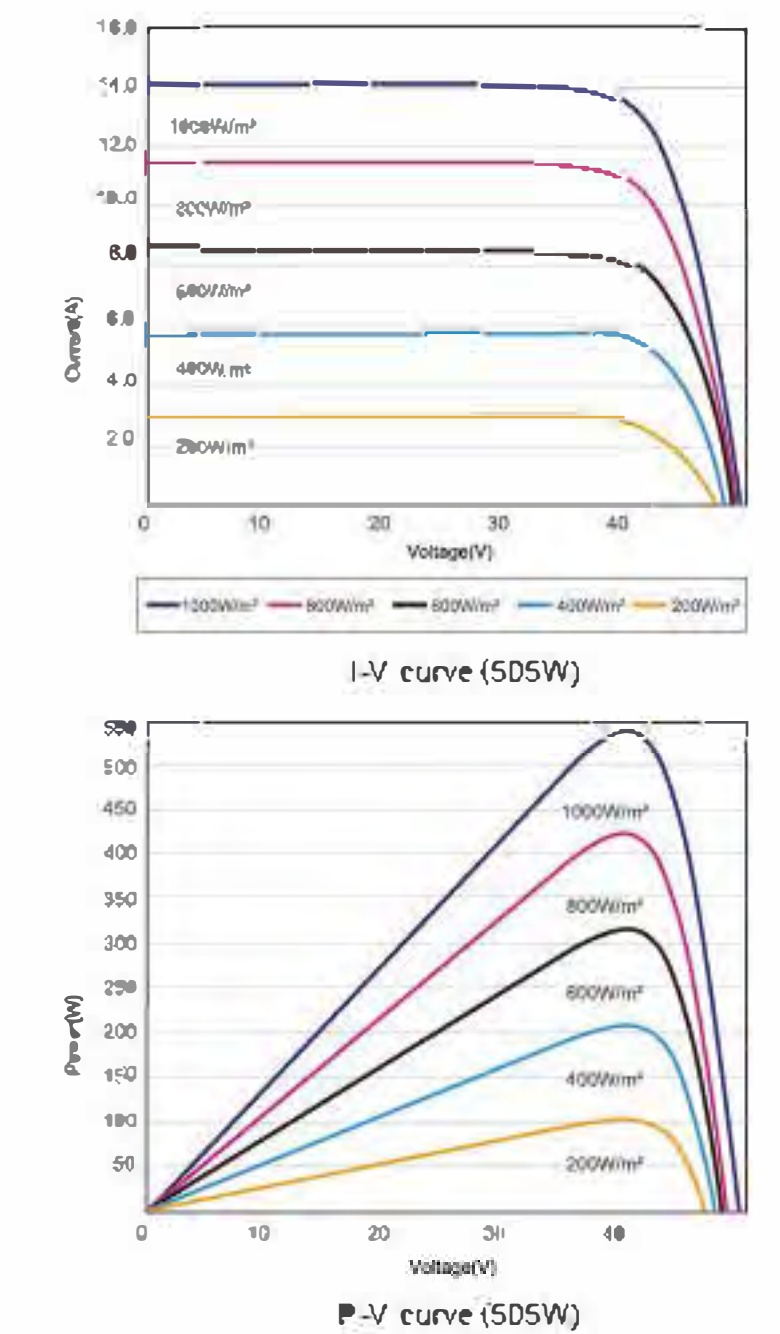
Module dimensions	2094x1134x35mm
Cargo capacity	682PCS/40HQ
Weight	26.5kg
Packaging method	31PCS/Pallet



Module outline



Curve



540W~555W

Monocrystalline Silicon Multi-busbar M10
GPS-08-540W-11-555W(144) Series

Electrical parameters

Module model	GPS-08-540W(144)		GPS-09-545W(144)		GPS-10-550W(144)		GPS-11-555W(144)		
Module efficiency (%)	20.93		21.12		21.31		21.48		
Power tolerance (W)	0~+5		0~+5		0~+5		0~+5		
Test condition	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	
Max. power Pmax (W)	540	401.88	545	405.61	550	409.33	555	413.05	
Open circuit voltage (Voc/V)	49.60	46.58	49.75	46.73	49.90	46.87	49.91	47.02	
Short circuit current (Isc/A)	13.93	11.27	14.0	11.34	14.07	11.41	14.09	11.47	
Max. operating voltage (V _m /V)	41.64	37.89	41.80	38.02	41.96	38.14	41.98	38.26	
Max. operating current (I _m /A)	12.97	10.60	13.04	10.67	13.11	10.73	13.22	10.80	
Cell type (mm)	MBB182×91 mm Mono-crystalline Silicon								
Number of cells (PCS)	144(6×24)								
Max. system voltage (V)	1500V DC		Max. temperature coefficient (%/°C)		-0.348		Nominal fuse current (A)		25
Temperature coefficient of open circuit voltage (%/°C)	-0.282		Operating temperature (°C)		-40 to 85		Front static load (Pa)		5400
Temperature coefficient of short circuit current (%/°C)	0.05		Nominal cell operating temperature (°C)		45±2		Backstatic load (Pa)		2400

STC (standard test condition): irradiance: 1,000 W/m²; cell temperature: 25°C; spectrum: AM1.5

NOCT (nominal operating temperature of cell): irradiance: 800 W/m²; ambient temperature: 20°C; wind speed: 1 m/s

Auxiliary material parameters

Frame	Anti-corrosion aluminum alloy (optional for black and white)
Cell	6×24 monocrystalline solar cells
Number of diodes	3
Cable length	300mm or customized according to customer requirements
Glass	3.2 mm low-iron ultra-white tempered rolled glass
Junction box	IP≥68, TÜV&UL
Output wire & connector	4mm ² wire & MC4

Packaging parameters

Module dimensions	2278x1134x35mm
Cargo capacity	620PCS/40HQ; 20 pallets; 930PCS/17.5M flatbed truck (30 pallets)
Weight	28.6kg
Packaging method	31PCS/Pallet

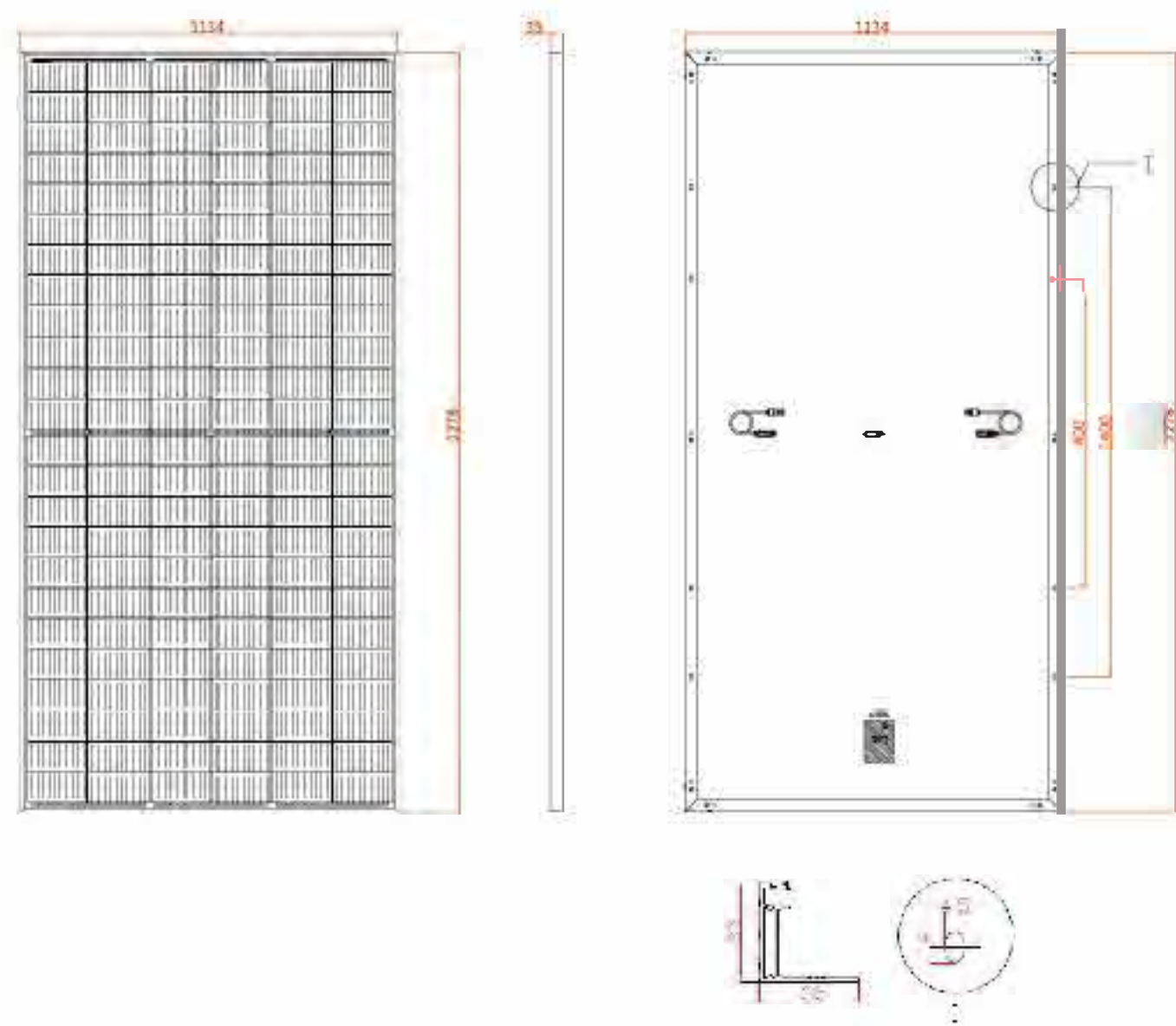


Linear power assurance

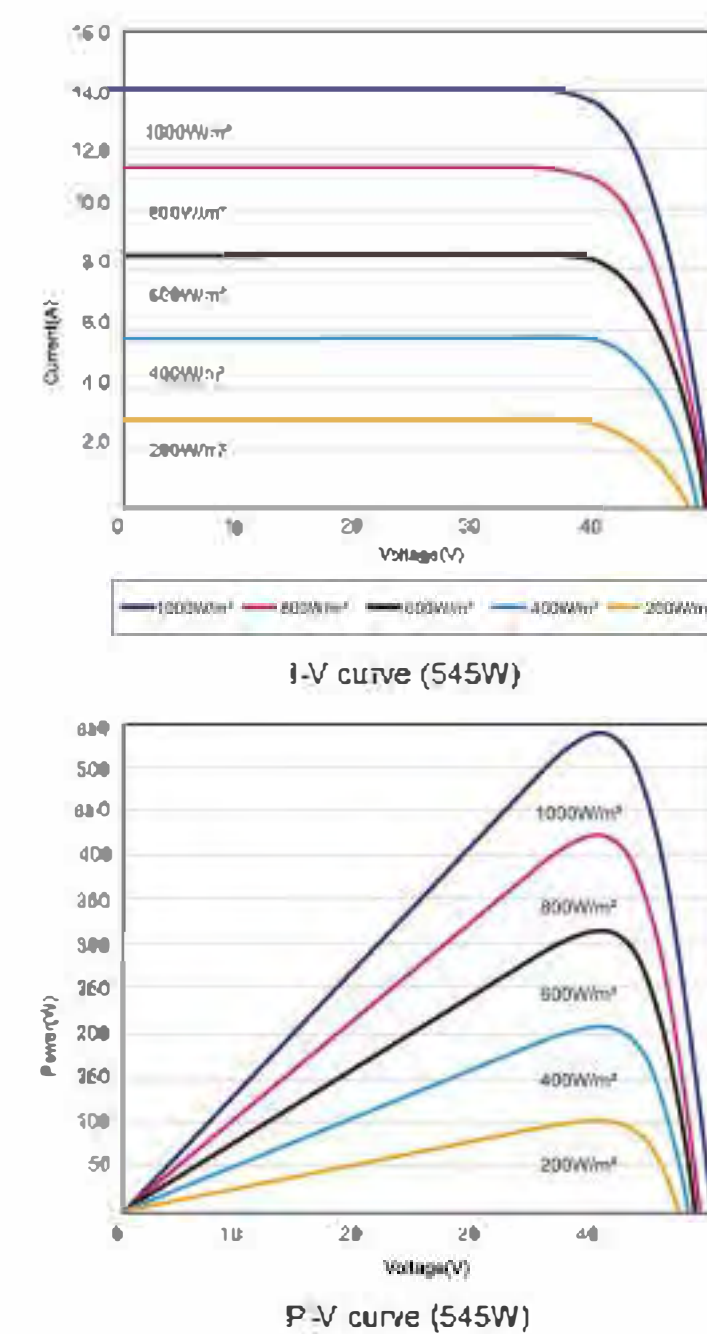


Product quality and process assurance

Module outline



Curve



540W~555W

Monocrystalline Silicon Multi-busbar G12
GPS-12-540W-15-555W (110) Series

Electrical parameters

Module model	GPS-12-540W(110)		GPS-13-545W(110)		GPS-14-550W(110)		GPS-15-555W(110)		
Module efficiency (%)	20.67		20.86		21.05		21.24		
Power tolerance (W)	0~+5		0~+5		0~+5		0~+5		
Test condition	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	
Max. power Pmax (W)	540	409	545	413	550	417	555	420	
Open circuit voltage (Voc/V)	37.50	35.13	37.70	35.32	37.90	35.51	38.10	35.69	
Short circuit current (Isc/A)	18.41	14.86	18.47	14.90	18.52	14.94	18.57	14.98	
Max. operating voltage (V _m /V)	31.20	29.26	31.40	29.44	31.60	29.63	31.80	29.81	
Max. operating current (I _m /A)	17.31	13.98	17.36	14.03	17.41	14.08	17.45	14.12	
Cell type (mm)	MBB210×105mm Mono-Crystalline Silicon								
Number of cells (PCS)	110 (5×22)								
Max. system voltage (V)	1500V DC		Max. temperature coefficient (%/°C)		-0.362		Nominal fuse current (A)		30
Temperature coefficient of open circuit voltage (%/°C)	-0.262		Operating temperature (°C)		-40 to 85		Front static load (Pa)		5400
Temperature coefficient of short circuit current (%/°C)	0.042		Nominal cell operating temperature (°C)		43±2		Back static load (Pa)		2400

STC (standard test condition): irradiance: 1,000 W/m²; cell temperature: 25°C; spectrum: AM1.5

NOCT (nominal operating temperature of cell): irradiance: 800 W/m²; ambient temperature: 20°C; wind speed: 1 m/s

Auxiliary material parameters

Frame	Anti-corrosion aluminum alloy
Cell	5×22 monocrystalline solar cells
Number of diodes	3
Cable length	300mm or customized according to customer requirements
Glass	3.2 mm low-iron ultra-white tempered rolled glass
Junction box	IP≥68, TÜV&UL
Output wire & connector	4mm ² wire & MC4

Packaging parameters

Module dimensions	2384x1096x35mm
Cargo capacity	620PCS/40HQ
Weight	29.5kg
Packaging method	31PCS/Pallet

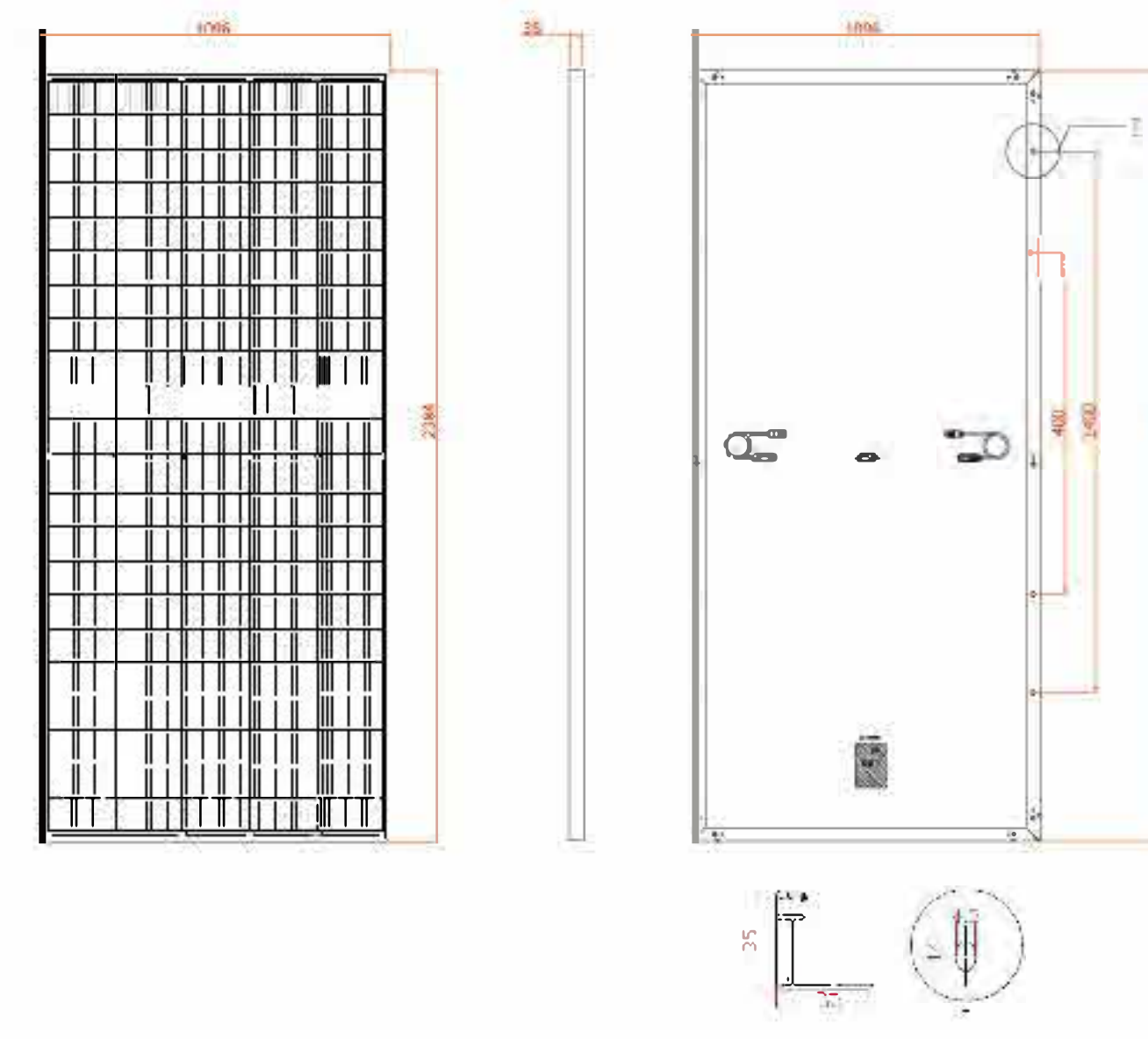


Linear power assurance

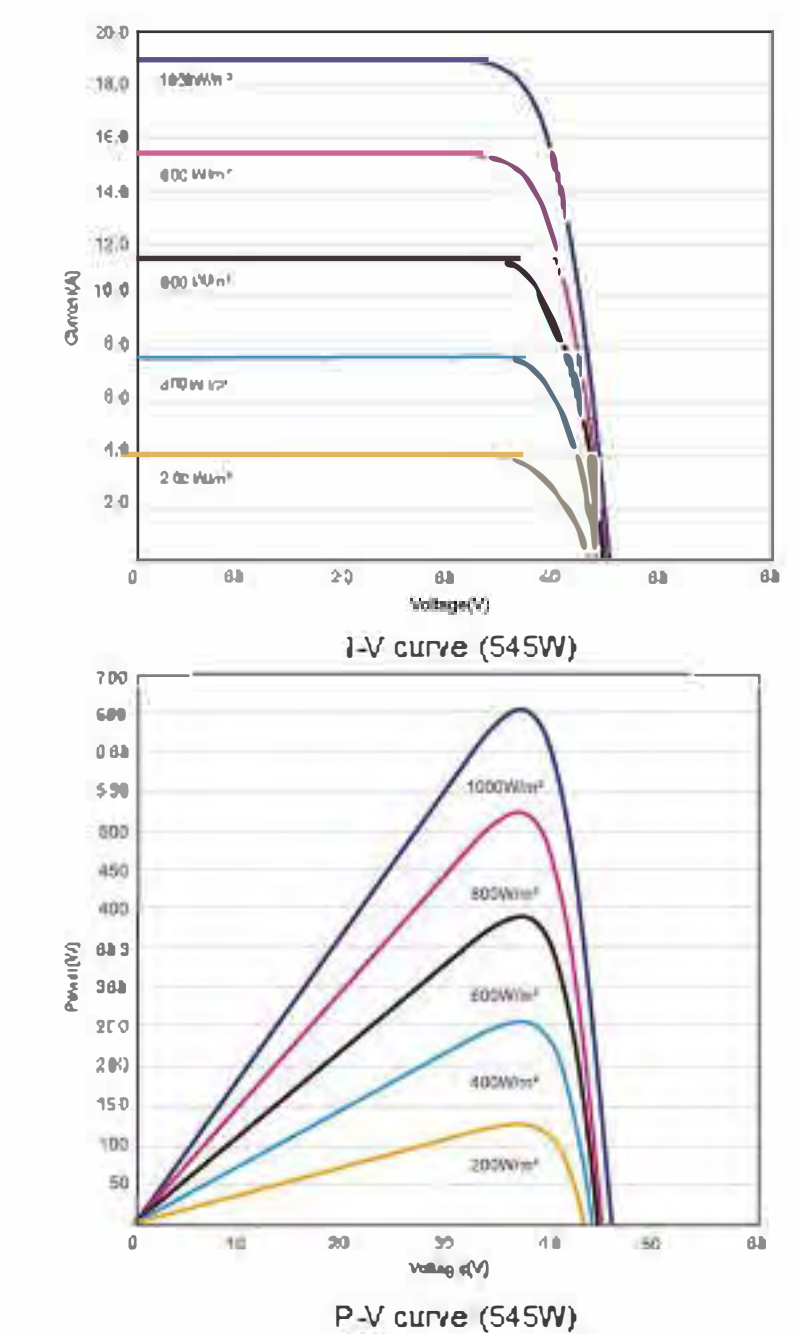


Product quality and process assurance

Module outline



Curve



590W~610W

Monocrystalline Silicon Multi-busbar G12
GPS-16-590W-20-610W (120) Series

Electrical parameters

Module model	GPS16-590W(120)		GPS17-595W(120)		GPS18-600W(120)		GPS19-605W(120)		GPS20-610W(120)	
Module efficiency (%)	21.08		21.0		21.2		21.57		21.60	
Power tolerance (W)	0~+5		0~+5		0~+5		0~+5		0~+5	
Test condition	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Max. power Pmax (W)	590	447	595	451	600	503.42	605	458	610	462.2
Open circuit voltage (Voc/V)	41.1	38.7	41.3	38.9	41.5	39.1	41.7	39.3	41.9	39.5
Short circuit current (Isc/A)	18.47	14.85	18.52	14.88	18.57	14.92	18.62	14.96	18.67	15.0
Max. operating voltage (V _m /V)	34.0	31.7	34.2	31.9	34.4	32.0	34.6	32.2	34.6	32.2
Max. operating current (I _m /A)	17.35	14.09	17.40	14.13	17.44	14.18	17.49	14.22	17.55	14.36
Cell type (mm)	MBB-210x105mm (Mono-Crystalline Silicon)									
Number of cells (PCS)	120 (6x20)									
Max. system voltage (V)	1500V DC		Max. temperature coefficient (%/°C)		-0.362		Nominal fuse current (A)		30	
Temperature coefficient of open circuit voltage (%/°C)	-0.262		Operating temperature (°C)		-40 to 85		Front static load (Pa)		5400	
Temperature coefficient of short circuit current (%/°C)	0.042		Nominal cell operating temperature (°C)		43±2		Back static load (Pa)		2400	

STC (standard test condition): irradiance: 1,000 W/m²; cell temperature: 25°C; spectrum: AM1.5

NOCT (nominal operating temperature of cell): irradiance: 800 W/m²; ambient temperature: 20°C; wind speed: 1 m/s

Auxiliary material parameters

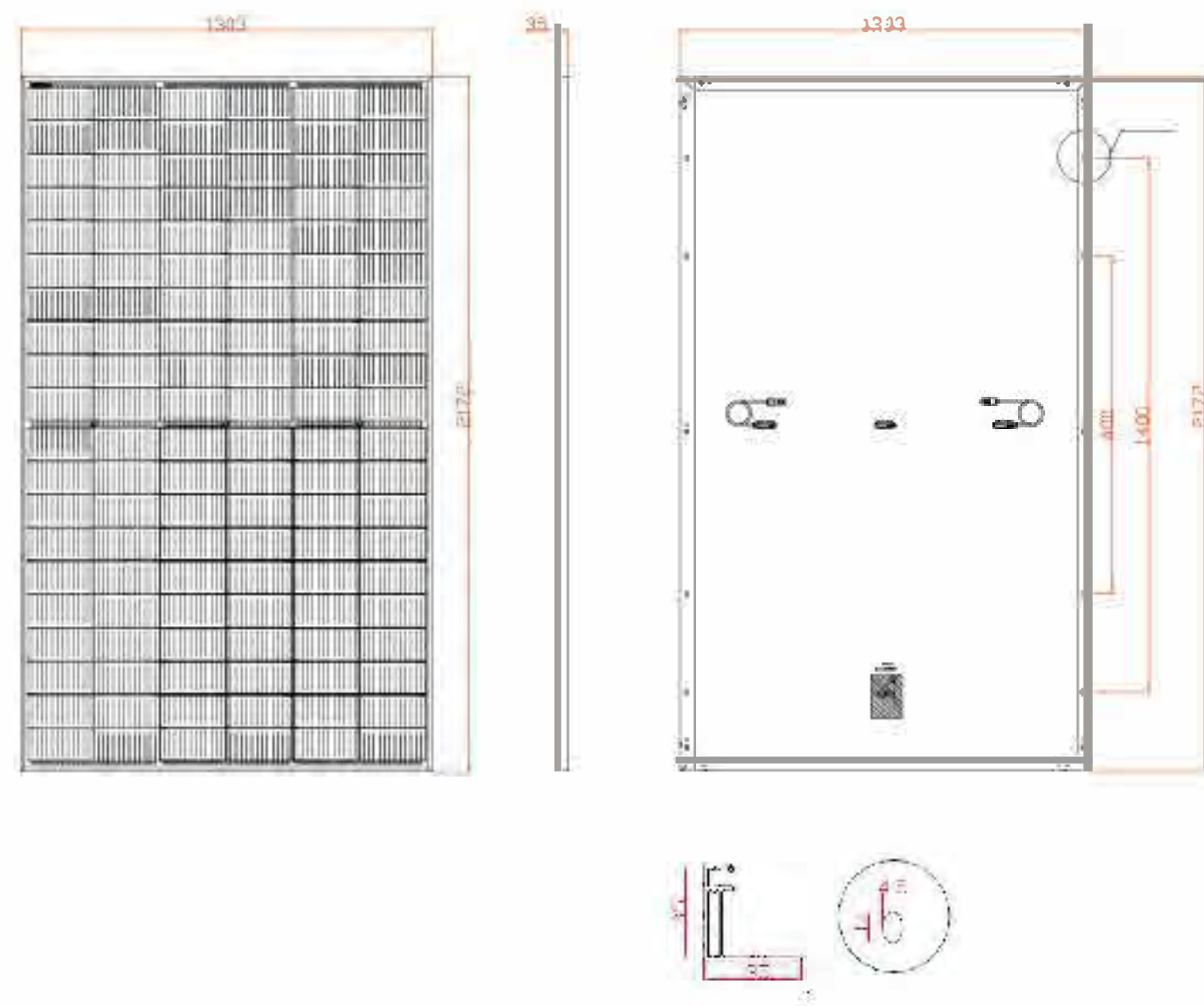
Frame	Anti-corrosion aluminum alloy (optional for black and white)
Cell	6x20 monocrystalline solar cells
Number of diodes	3
Cable length	300mm or customized according to customer requirements
Glass	3.2mm low-iron ultra-white tempered rolled glass
Junction box	IP≥68, TÜV&UL
Output wire & connector	4mm ² wire & MC4

Packaging parameters

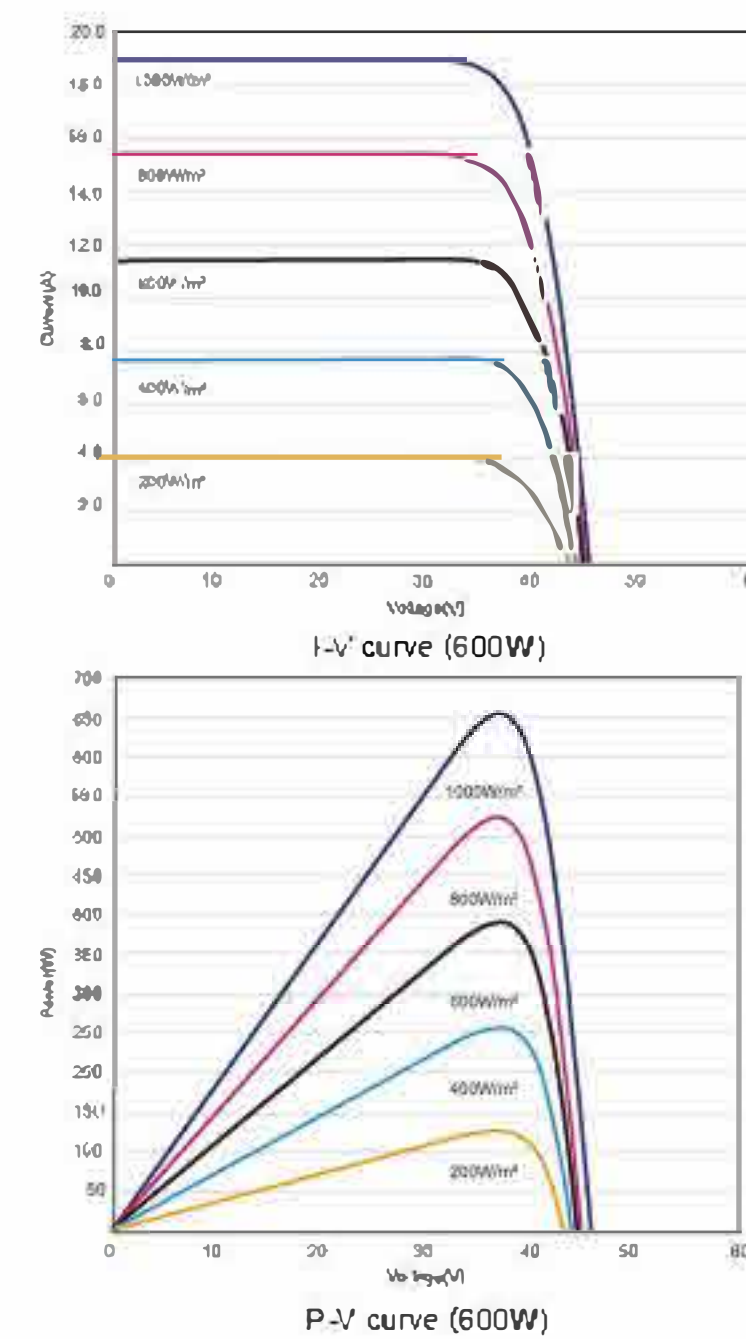
Module dimensions	2172x1303x35mm
Cargo capacity	558PCS/40HQ
Weight	31kg
Packaging method	31PCS/Pallet



Module outline



Curve



650W~670W

Monocrystalline Silicon Multi-busbar G12
GPS-21-650W-25-670W (132) Series

Electrical parameters

Module model	GPS21-650W(132)		GPS22-655W(132)		GPS23-660W(132)		GPS24-665W(132)		GPS25-670W(132)	
Module efficiency (%)	20.93		21.09		21.25		21.41		21.57	
Power tolerance (W)	0~+5		0~+5		0~+5		0~+5		0~+5	
Test condition	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Max. power Pmax (W)	650	492.07	655	495.85	660	499.64	665	503.42	670	507.21
Open circuit voltage (Voc/V)	45.50	41.79	45.70	42.03	45.90	42.26	46.10	42.50	46.32	42.74
Short circuit current (Isc/A)	18.45	15.11	18.5	15.15	18.55	15.17	18.6	15.21	18.65	15.23
Max. operating voltage (V _m /V)	37.88	34.24	38.06	34.43	38.24	34.63	38.42	34.82	38.59	34.82
Max. operating current (I _m /A)	17.16	14.37	17.21	14.40	17.26	14.42	17.31	14.46	17.36	14.48
Cell type (mm)	MBB-210x105mm (Mono-Crystalline Silicon)									
Number of cells (PCS)	132 (6x22)									
Max. system voltage (V)	1500V DC		Max. temperature coefficient (%/°C)		-0.362		Nominal fuse current (A)		30	
Temperature coefficient of open circuit voltage (%/°C)	-0.262		Operating temperature (°C)		-40 to 85		Front static load (Pa)		5400	
Temperature coefficient of short circuit current (%/°C)	0.042		Nominal cell operating temperature (°C)		43±2		Back static load (Pa)		2400	

STC (standard test condition): irradiance: 1,000 W/m²; cell temperature: 25°C; spectrum: AM1.5

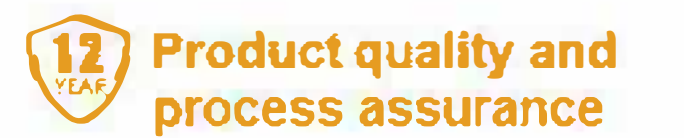
NOCT (nominal operating temperature of cell): irradiance: 800 W/m²; ambient temperature: 20°C; wind speed: 1 m/s

Auxiliary material parameters

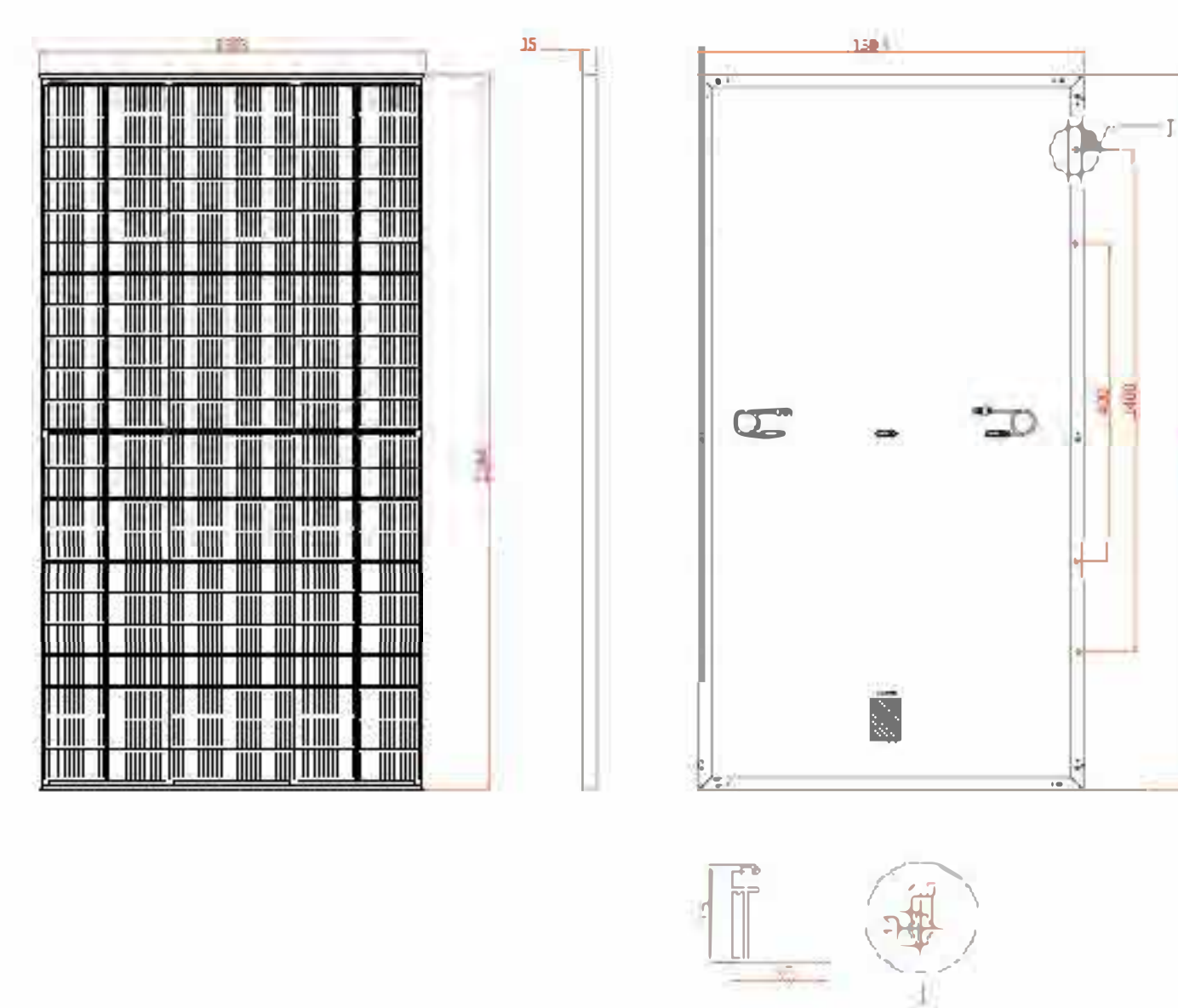
Frame	Anti-corrosion aluminum alloy (optional for black and white)
Cell	6x22 monocrystalline solar cells
Number of diodes	3
Cable length	300mm or customized according to customer requirements
Glass	3.2mm low-iron ultra-white tempered rolled glass
Junction box	IP≥68, TÜV&UL
Output wire & connector	4mm ² wire & MC4

Packaging parameters

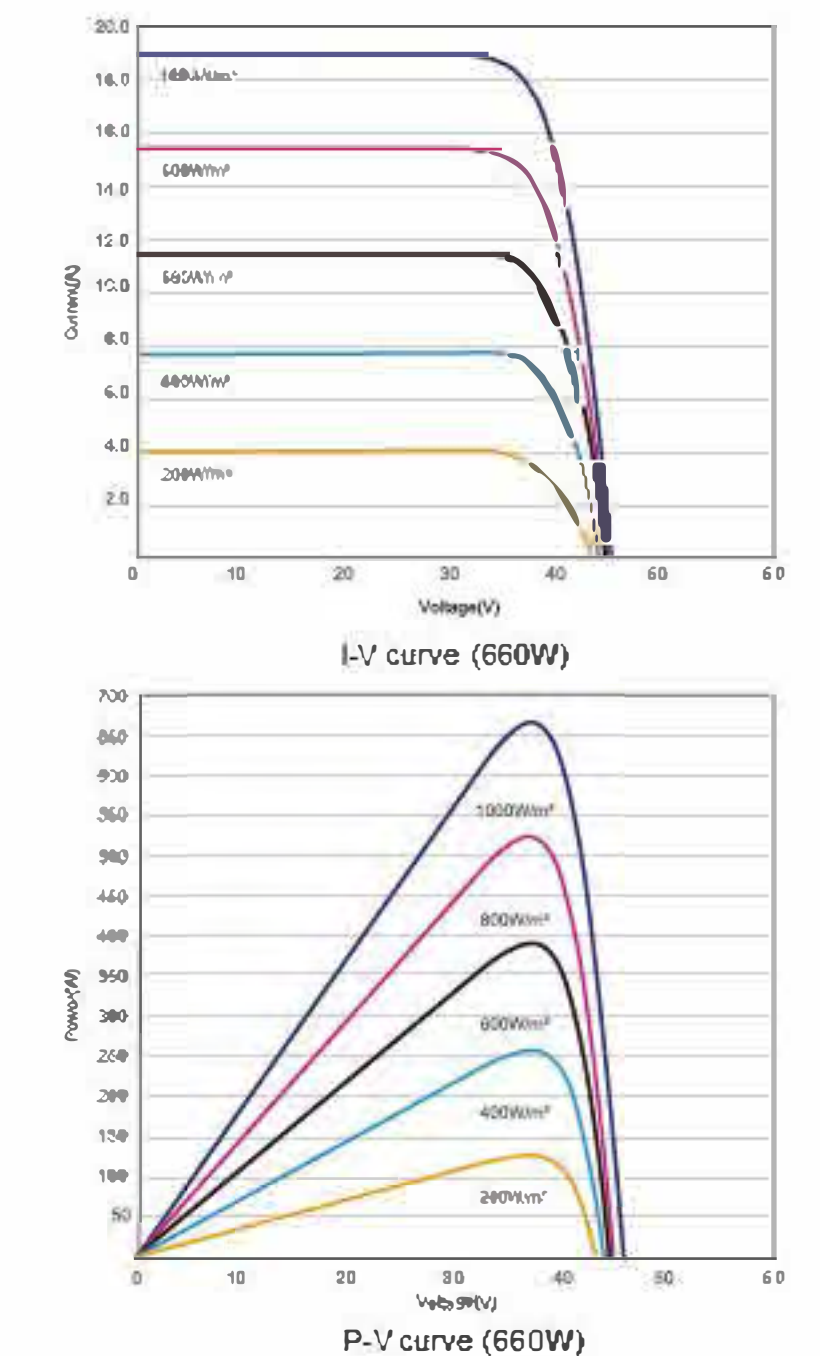
Module dimensions	2384x1303x35mm
Cargo capacity	806PCS/17.5M flatbed truck
Weight	33.5kg
Packaging method	31PCS/Pallet



Module outline



Curve



Double-sided Double glass Module

Backside power generation with additional gains up to 25%



540W~555W

Monocrystalline Silicon Multi-busbar M10 Double-glass Module
GPS26-540W-29-555W(144) Series

Electrical parameters

Module model	GPS-26 540W(144)		GPS-27 545W(144)		GPS-28 550W(144)		GPS-29 555W(144)		
	20.93		21.12		21.31		21.48		
Module efficiency (%)	20.93		21.12		21.31		21.48		
Power tolerance (W)	0~+5		0~+5		0~+5		0~+5		
Test condition	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	
Max. power Pmax (W)	540	401.88	545	405.61	550	409.33	555	413.05	
Open circuit voltage (Voc/V)	49.60	46.58	49.75	46.73	49.90	46.87	49.91	47.02	
Short circuit current (Isc/A)	13.93	11.27	14.0	11.34	14.07	11.41	14.09	11.47	
Max. operating voltage (Vm/V)	41.63	37.89	41.79	38.02	41.95	38.14	41.98	38.26	
Max. operating current (Im/A)	12.97	10.60	13.04	10.67	13.11	10.73	13.22	10.80	
Cell type (mm)	M10-182x91 mm Mono-crystalline Silicon								
Number of cells (PCS)	144(6x24)								
Max. system voltage (V)	1500V DC	Max. temperature coefficient (%/°C)		-0.348		Nominal fuse current (A)		25	
Temperature coefficient of open circuit voltage (%/°C)	-0.282		Operating temperature (°C)		-40 to 85		Front static load (Pa)		5400
Temperature coefficient of short circuit current (%/°C)	0.05		Nominal cell operating temperature (°C)		45±2		Back static load (Pa)		2400

STC (standard test condition): irradiance: 1,000 W/m²; cell temperature: 25°C; spectrum: AM1.5

NOCT (nominal operating temperature of cell): irradiance: 800 W/m²; ambient temperature: 20°C; wind speed: 1 m/s

Auxiliary material parameters

Frame	Anodized aluminum alloy
Cell	6x24 monocrystalline solar cells
Number of diodes	3
Cable length	300 mm or customized according to customer requirements
Glass	2.0 semi-tempered coated glass for front side; 2.0 glass coated glass for back side
Junction box	IP68, TÜV&UL
Output wire & connector	4mm² wire & MC4

Packaging parameters

Module dimension s	2278x1134x35mm
Cargo capacity	620PCS/40HQ (20 pallets) 930PCS/17.5M flatbed truck (30 pallets)
Weight	31.6kg
Packaging method	31PCS/Pallet

25 YEARS Linear power assurance

12 YEARS Product quality and process assurance

Features



High power

The double-sided power generation is designed to realize additional gain up to 25%. The multi-busbar half-cell technology improves energy density and output power.



High reliability

It passes TUV certification, salt spray and ammonia corrosion test, and 2400 Pa wind load and 5400 Pa snow load certification, so it has high reliability.



High profit

The BOS cost is reduced to lower electricity cost per kWh and improve project benefit.



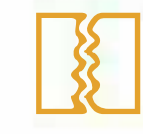
Low attenuation

The decay is less than 2.0% in the first year and 0.45% linear per year within 30 years.



Low hot spot

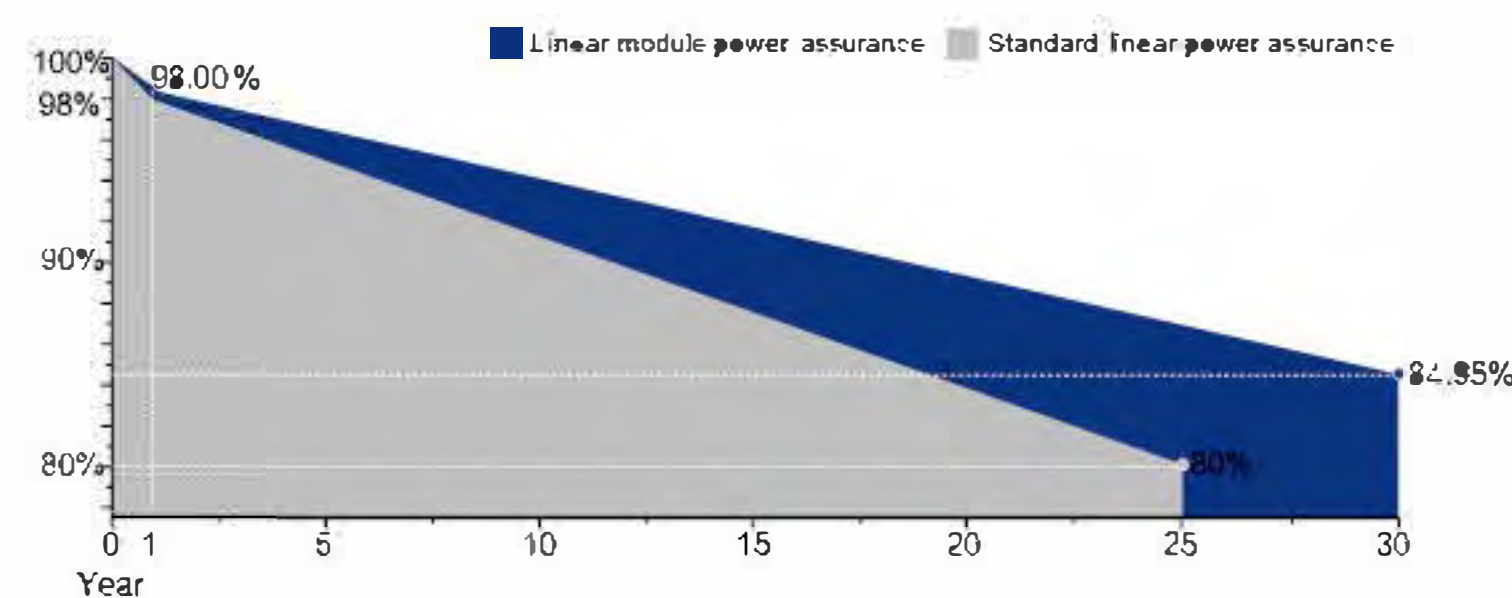
The new cell technology and optimized circuit design are used to obtain better temperature coefficient and hot spot resistance.



Less crack

The multi-busbar technology is applied, which is featured with stronger anti-crack ability and anti-busbar breaking ability.

Leading linear power warranty



Comprehensive product and system certification

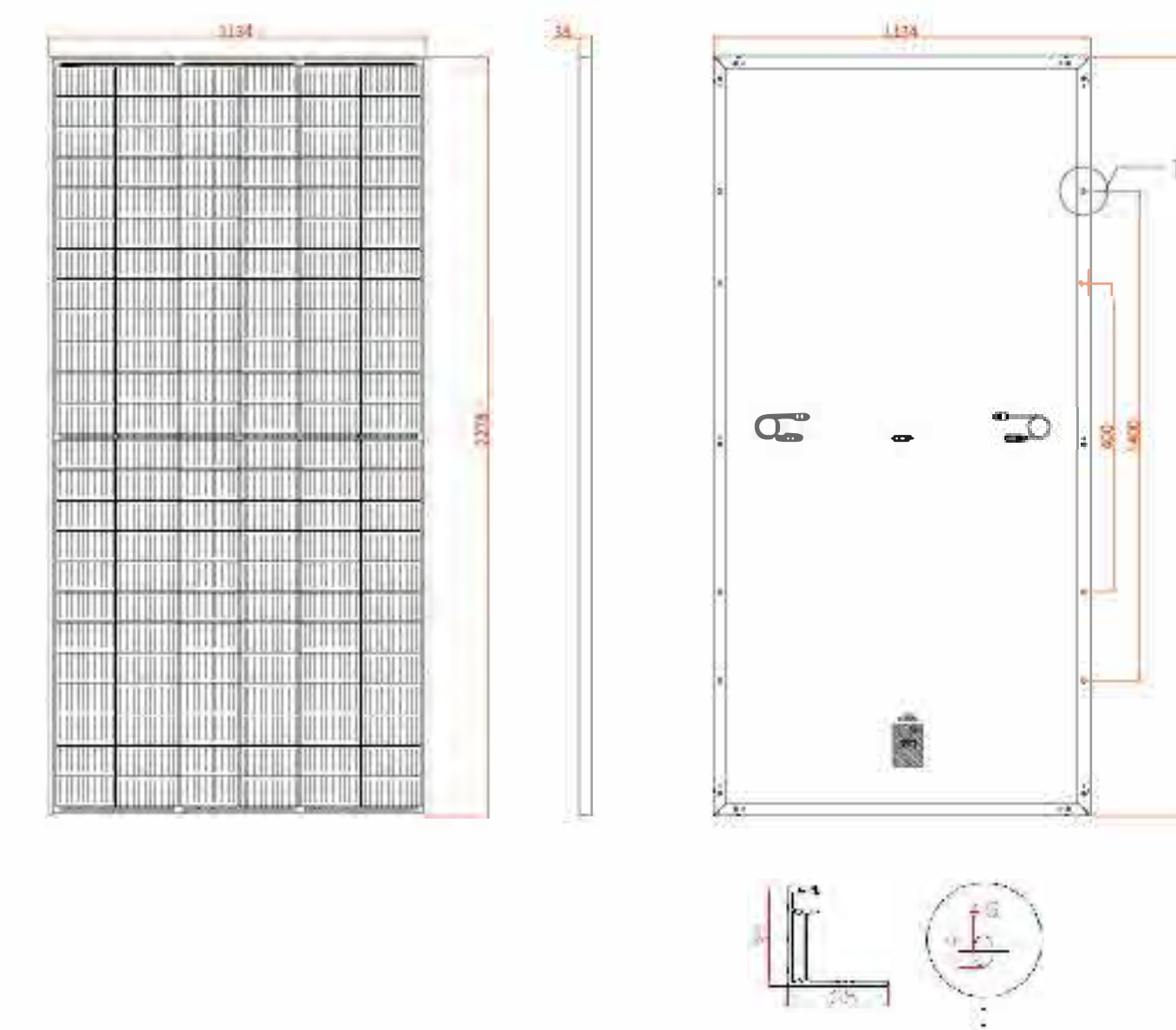
- IEC 61215, IEC 61730
- ISO9001:2005 Quality Management System
- ISO14001:2015 Environmental Management System
- ISO45001:2018 Occupational Health and Safety Management System

12 YEARS Material & process warranty

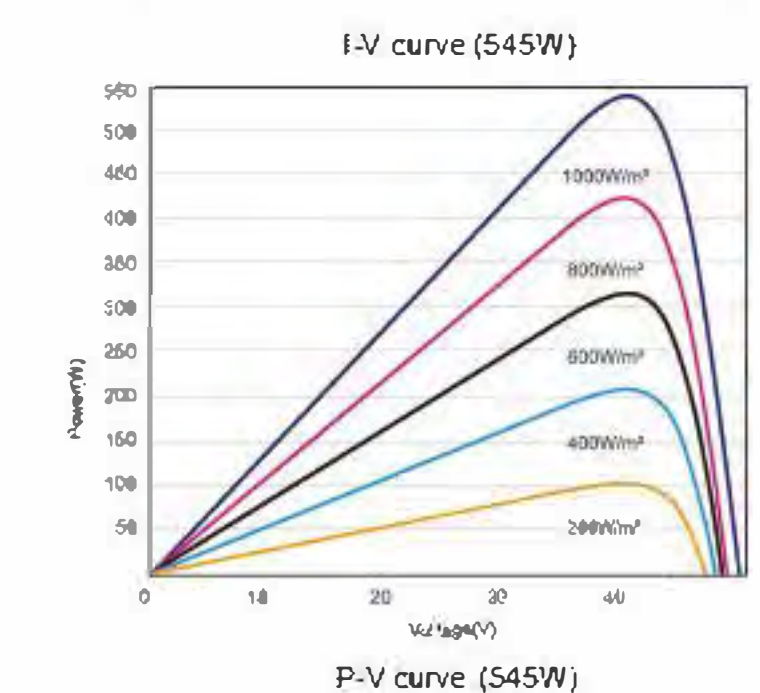
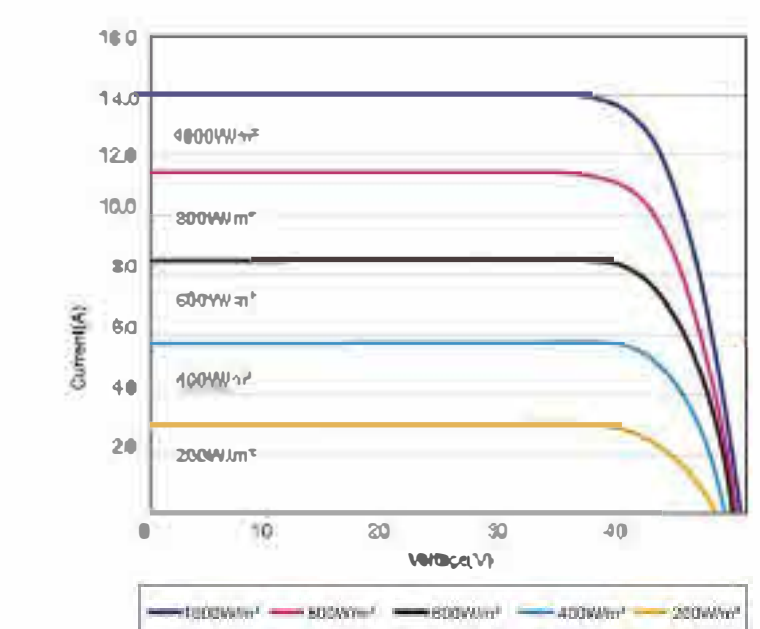
30 YEARS Linear power warranty

0.45% Linear decay of 0.45% per year within 30 years

Module outline



Curve



590W~610W Monocrystalline Silicon Multi-busbar G12 Double-glass Module

GPS-30-590W-34-610W(120) Series

650W~670W Monocrystalline Silicon Multi-busbar G12 Double-glass Module

GPS-35-650W-39-670W(132) Series

Electrical parameters

Module model	GPS-30 590W(120)		GPS-31 595W(120)		GPS-32 600W(120)		GPS-33 605W(120)		GPS-34 610W(120)	
	Module efficiency (%)	21.08		21.00		21.20		21.57		21.60
Power tolerance (W)	0~+5		0~+5		0~+5		0~+5		0~+5	
Test condition	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Max. power Pmax (W)	590	447	595	451	600	503.42	605	458	610	462.2
Open circuit voltage (Voc/V)	41.1	38.7	41.3	38.9	41.5	39.1	41.7	39.3	41.9	39.5
Short circuit current (Isc/A)	18.47	14.85	18.52	14.88	18.57	14.92	18.62	14.96	18.67	15
Max. operating voltage (V _m /V)	33.8	31.7	34.0	31.9	34.2	32	34.4	32.2	34.6	32.2
Max. operating current (I _m /A)	17.31	14.09	17.35	14.13	17.4	14.18	17.44	14.22	17.49	14.36
Cell type (mm)	MBB-210X105mm (Mono-Crystalline Silicon)									
Number of cells (PCS)	120 (6X20)									
Max. system voltage (V)	1500V DC		Max. temperature coefficient (%/°C)		-0.362		Nominal fuse current (A)		30	
Temperature coefficient of open circuit voltage (%/°C)	-0.262		Operating temperature (°C)		-40 to 85		Front static load (Pa)		5400	
Temperature coefficient of short circuit current (%/°C)	0.042		Nominal cell operating temperature (°C)		43±2		Backstatic load (Pa)		2400	

STC (standard test condition): irradiance: 1,000 W/m²; cell temperature: 25°C; spectrum: AM1.5
 NOCT (nominal operating temperature of cell): irradiance: 800 W/m²; ambient temperature: 20°C; wind speed: 1 m/s

Electrical parameters

Module model	GPS-35 650W(132)		GPS-36 655W(132)		GPS-37 660W(132)		GPS-38 665W(132)		GPS-39 670W(132)	
	Module efficiency (%)	20.93		21.09		21.25		21.41		21.57
Power tolerance (W)	0~+5		0~+5		0~+5		0~+5		0~+5	
Test condition	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Max. power Pmax (W)	650	492.07	655	495.85	660	499.64	665	503.42	670	507.21
Open circuit voltage (Voc/V)	45.50	41.79	45.70	42.03	45.90	42.26	46.10	42.50	46.32	42.74
Short circuit current (Isc/A)	18.45	15.11	18.5	15.15	18.55	15.17	18.6	15.21	18.65	15.23
Max. operating voltage (V _m /V)	37.88	34.24	38.06	34.43	38.24	34.63	38.42	34.82	38.59	25.02
Max. operating current (I _m /A)	17.16	14.37	17.21	14.40	17.26	14.42	17.31	14.46	17.36	14.48
Cell type (mm)	MBB-210X105mm (Mono-Crystalline Silicon)									
Number of cells (PCS)	132 (6X22)									
Max. system voltage (V)	1500V DC		Max. temperature coefficient (%/°C)		-0.362		Nominal fuse current (A)		30	
Temperature coefficient of open circuit voltage (%/°C)	-0.262		Operating temperature (°C)		-40 to 85		Front static load (Pa)		5400	
Temperature coefficient of short circuit current (%/°C)	0.042		Nominal cell operating temperature (°C)		43±2		Backstatic load (Pa)		2400	

STC (standard test condition): irradiance: 1,000 W/m²; cell temperature: 25°C; spectrum: AM1.5
 NOCT (nominal operating temperature of cell): irradiance: 800 W/m²; ambient temperature: 20°C; wind speed: 1 m/s

Auxiliary material parameters

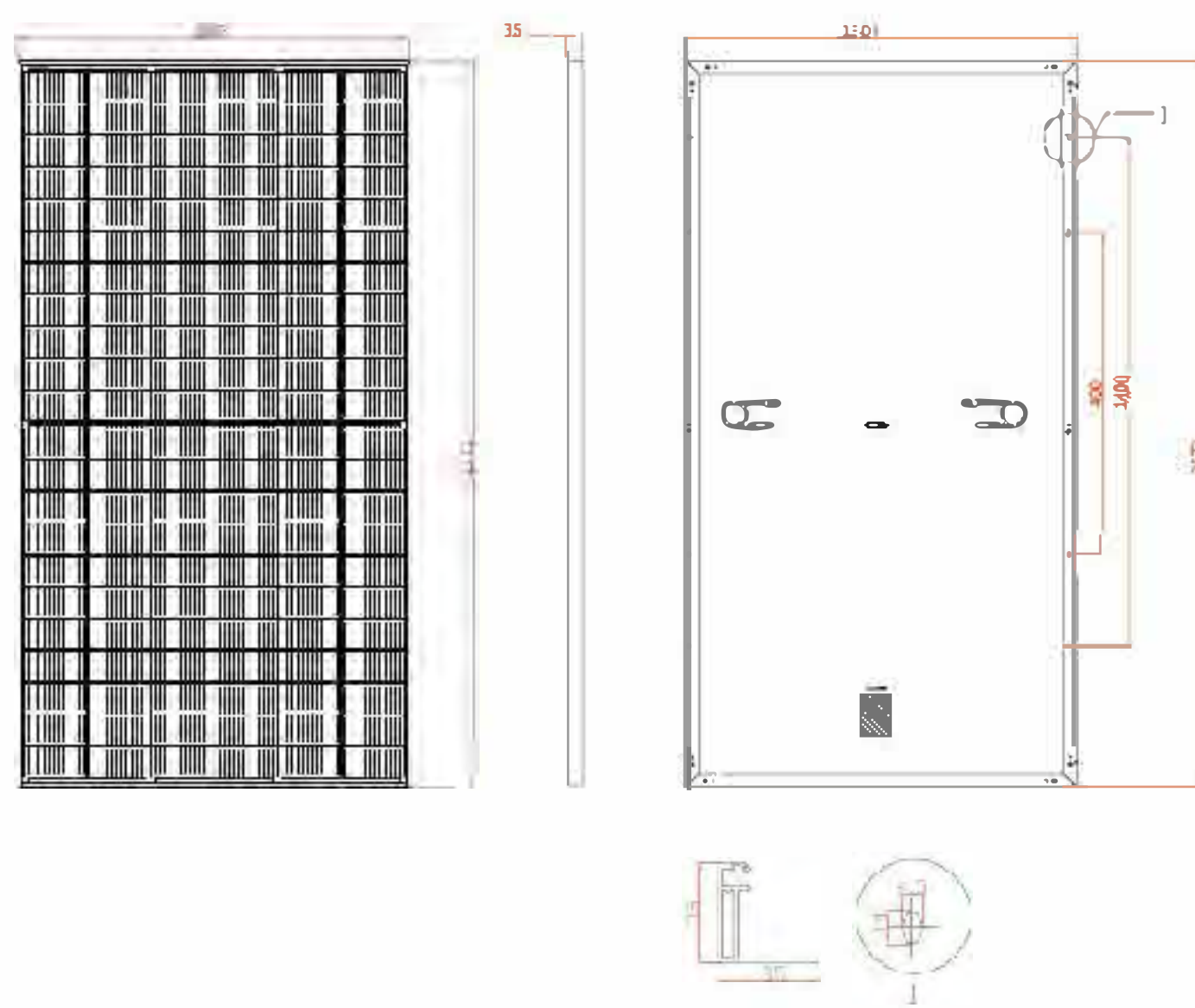
Frame	Anodized aluminum alloy
Cell	6x20 monocrystalline solar cells
Number of diodes	3
Cable length	300mm or customized according to customer requirements
Glass	2.0 semi-tempered coated glass for front side; 2.0 glass coated glass for back side
Junction box	IP≥68, TÜV&UL
Output wire & connector	4mm ² wire & MC4

Packaging parameters

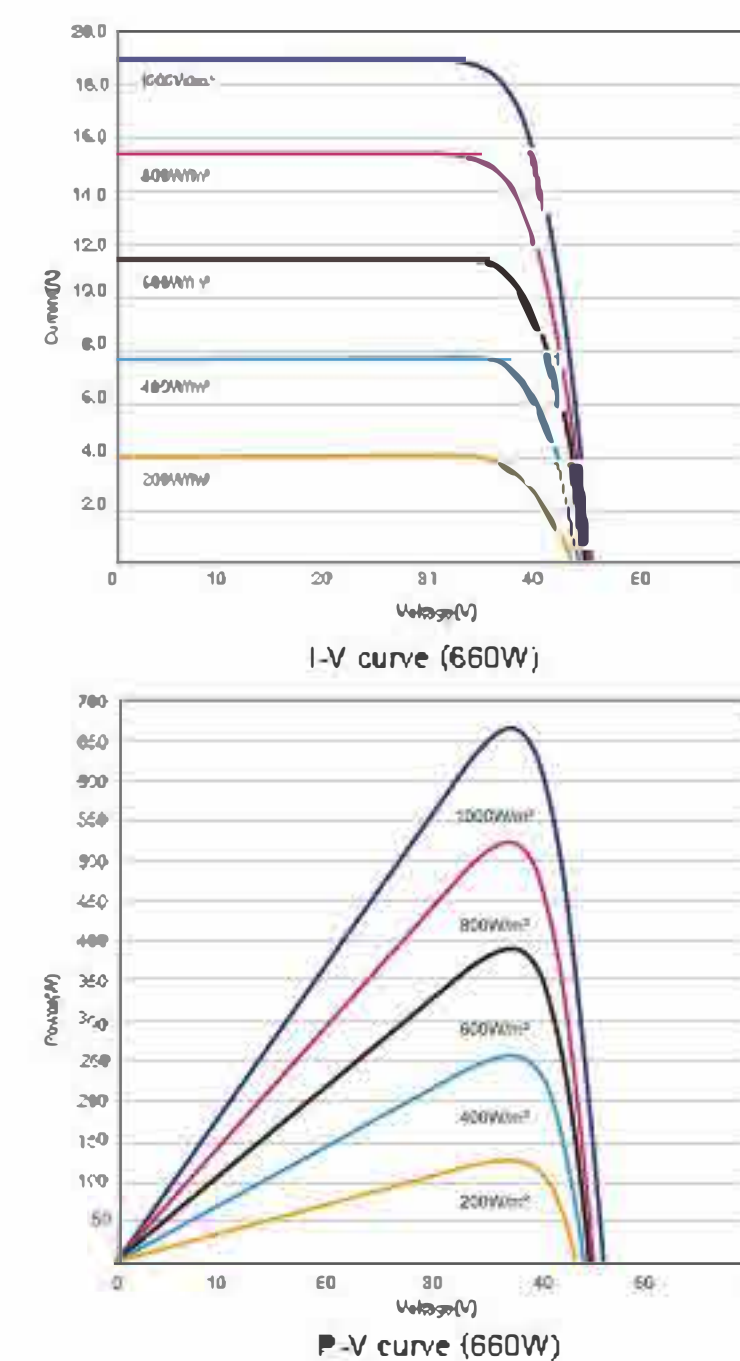
Module dimensions	2172x1303x35mm
Cargo capacity	558PCS/40HQ
Weight	31kg
Packaging method	31PCS/Pallet



Module outline



Curve



Auxiliary material parameters

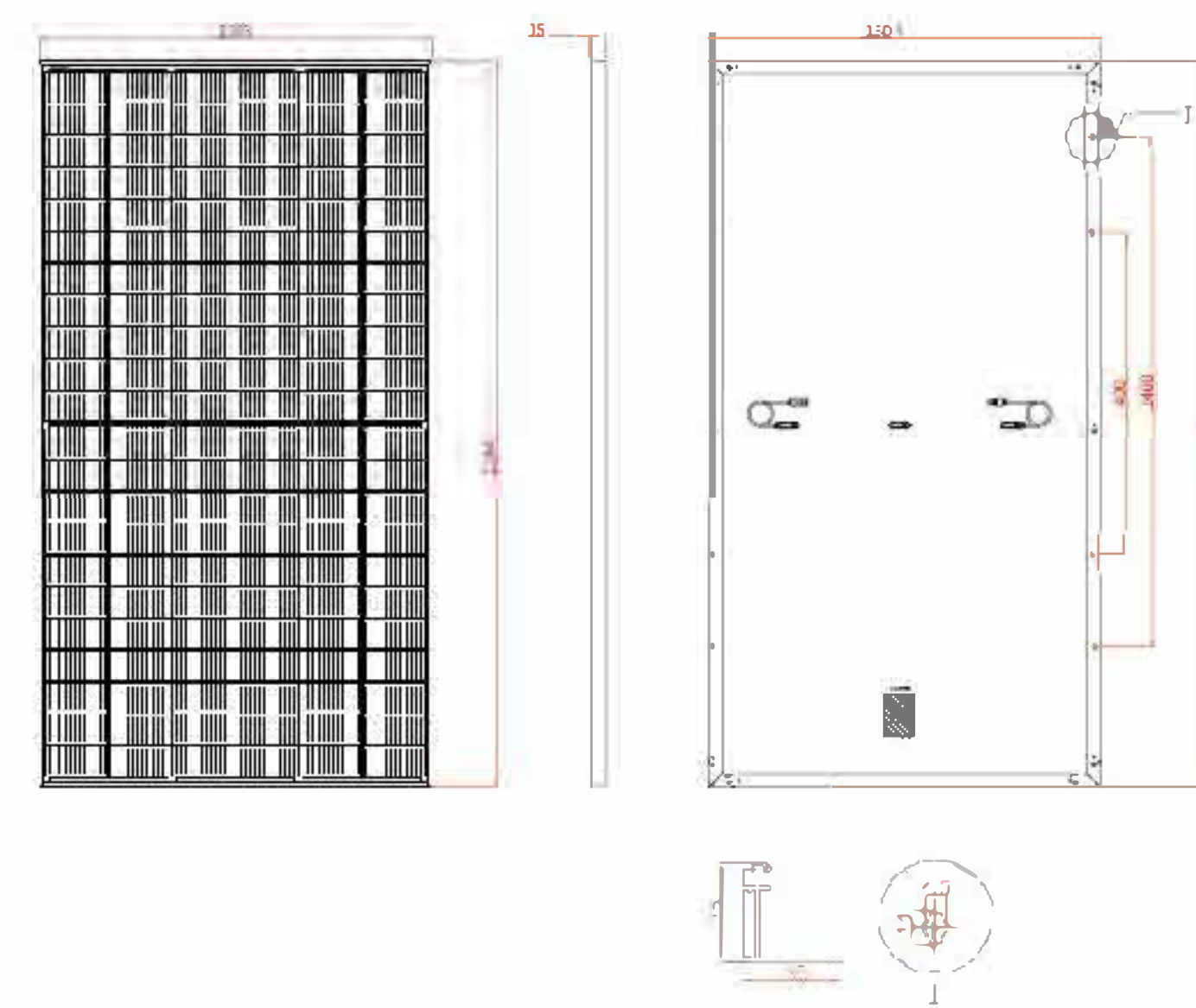
Frame	Anodized aluminum alloy
Cell	6x22 monocrystalline solar cells
Number of diodes	3
Cable length	300mm or customized according to customer requirements
Glass	2.0 semi-tempered coated glass for front side; 2.0 glass coated glass for back side
Junction box	IP≥68, TÜV&UL
Output wire & connector	4mm ² wire & MC4

Packaging parameters

Module dimensions	2384x1303x35mm
Cargo capacity	806PCS/17.5M flatbed truck
Weight	39.16kg
Packaging method	31PCS/Pallet



Module outline



Curve

