



New Catalog

The gate to the

Energy!



Who are We ?

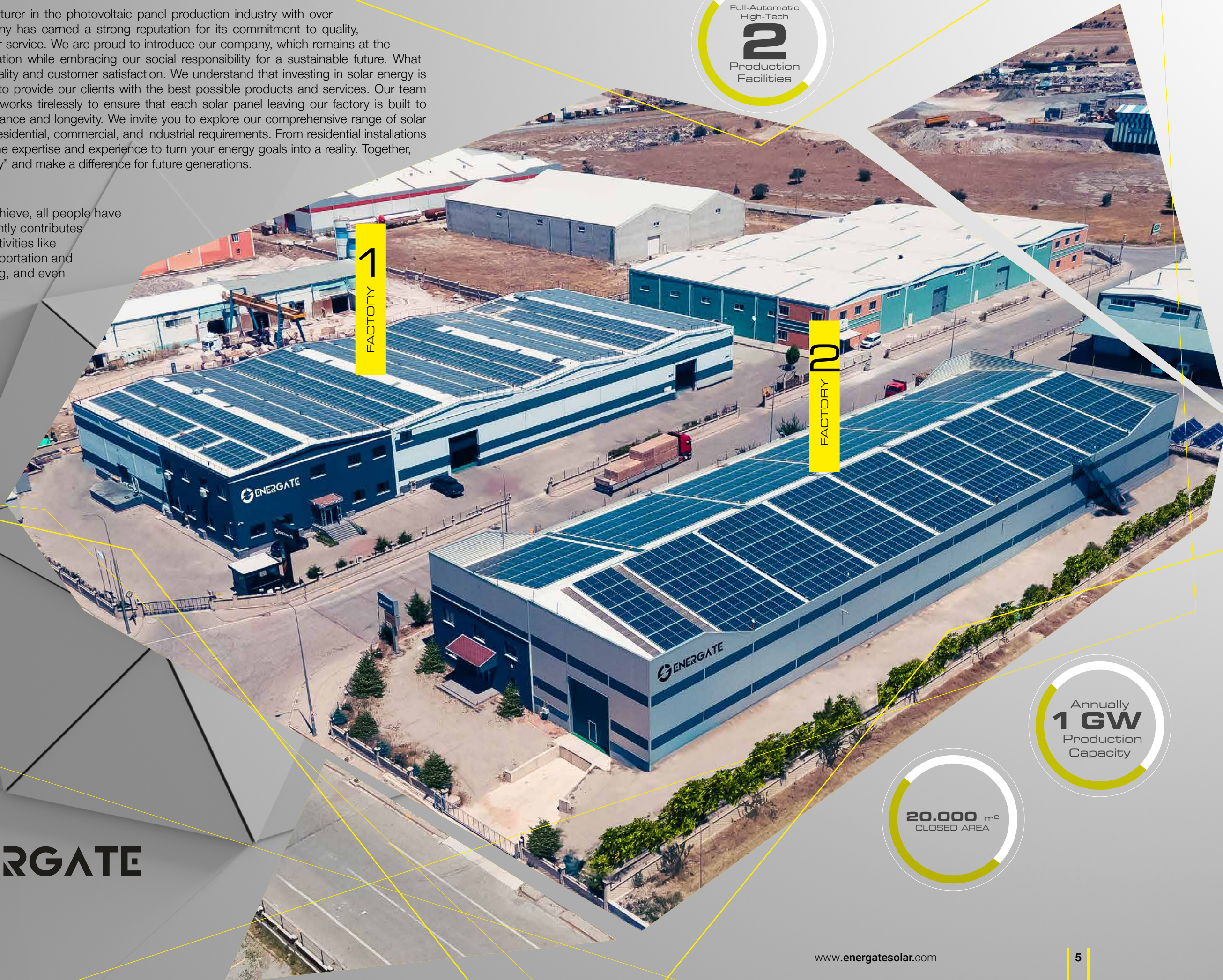
Energate Solar is a leading manufacturer in the photovoltaic panel production industry with over 10 years of experience. Our company has earned a strong reputation for its commitment to quality, innovation, and exceptional customer service. We are proud to introduce our company, which remains at the forefront of renewable energy innovation while embracing our social responsibility for a sustainable future. What sets us apart is our dedication to quality and customer satisfaction. We understand that investing in solar energy is a significant decision, and we strive to provide our clients with the best possible products and services. Our team of skilled engineers and technicians works tirelessly to ensure that each solar panel leaving our factory is built to perfection, delivering optimal performance and longevity. We invite you to explore our comprehensive range of solar products, designed to meet various residential, commercial, and industrial requirements. From residential installations to large-scale solar farms, we have the expertise and experience to turn your energy goals into a reality. Together, we can open "The Gate to The Energy" and make a difference for future generations.

Vision

In our ideal world that we want to achieve, all people have access to electricity, and it significantly contributes to meeting final energy needs for activities like communications, emissionfree transportation and mobility, efficient heating and cooling, and even the production of sustainable fuels, chemicals, and materials. Buildings will increasingly function as sites of energy generation rather than just energy consumption as solar PV is implemented. Solar PV has the potential to overtake all other energy sources in the globe due to the sun's plentiful availability, the technology's modularity, and ongoing cost and efficiency advancements.

Mision

To provide our customers clean and green energy with in the most convenient, reliable and cost-effective way.



“100% quality control at every stage of the production!”

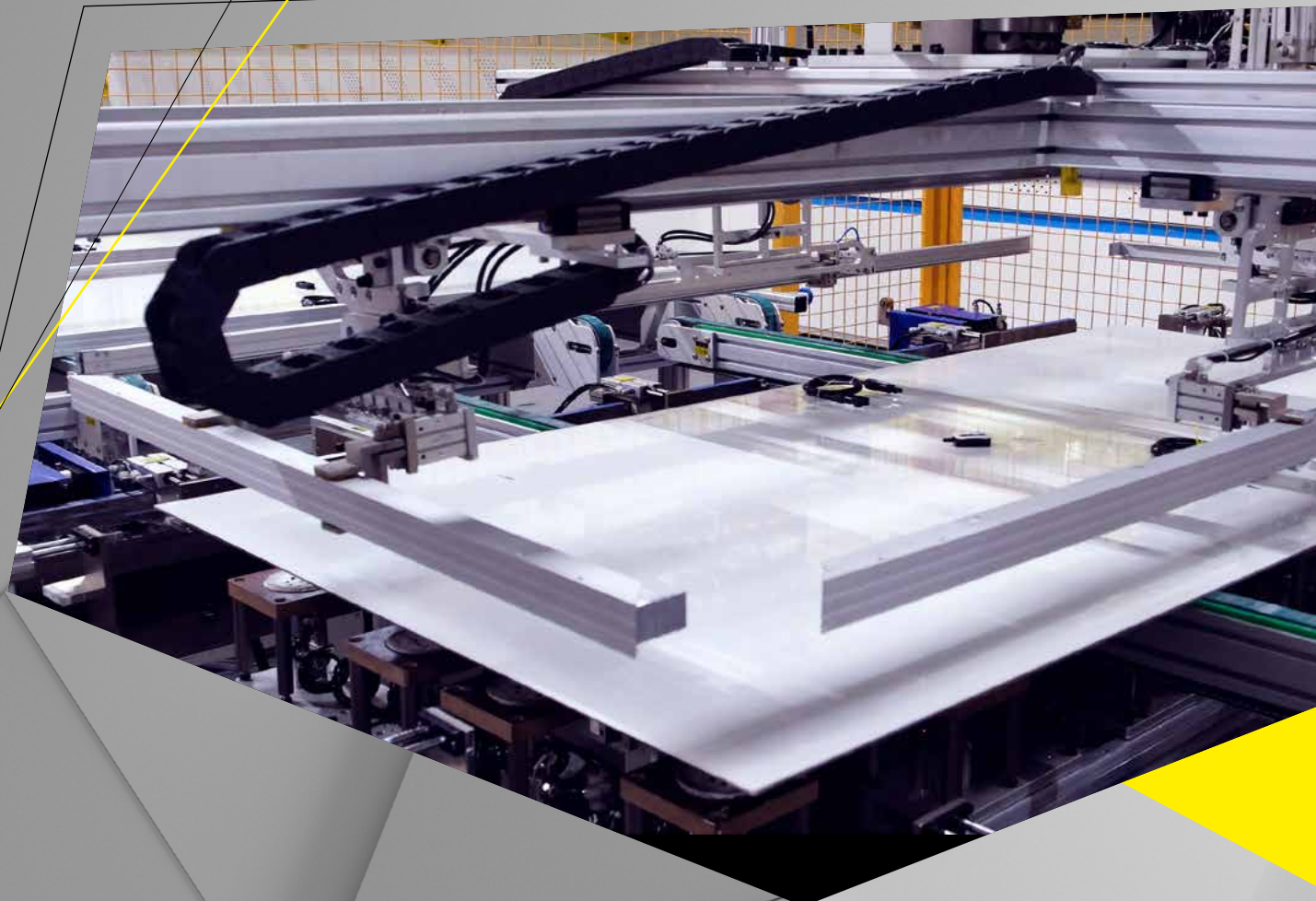
- Cell cutting with camera control
- Visual inspection in each stringer with camera and automatic cell separating
- Camera-based control in Auto-Bussing Machine
- 1st EL test before lamination
- Manual visual inspection after lamination
- Maximum Power Output determination
- 2nd EL test and Manual inspection before packaging





Factory





 **ENERGATE**

Factory

**10 YEARS OF
PV MODULE
MANUFACTURING
EXPERIENCE**



**GLOBALLY TOTAL
3 GW
IN HOUSE
CAPACITY.**

**1 GW
CURRENT
CAPACITY
IN USA.**

**2 GW PLANNED
CAPACITY IN
2 YEARS
IN USA.**

HIGH

ENERGY YIELD
RELIABILITY
DURABILITY

MONO-CRYSTALLINE PV MODULES HALF-CELLS MONO-FACIAL

395W - 415W

108
HALF
CELLS



30
Years
Performance
Guarantee

15
Years
Product
Warranty

MONO-CRYSTALLINE PV MODULES

EG-108L Series 395W-415W

Mechanical and design specification

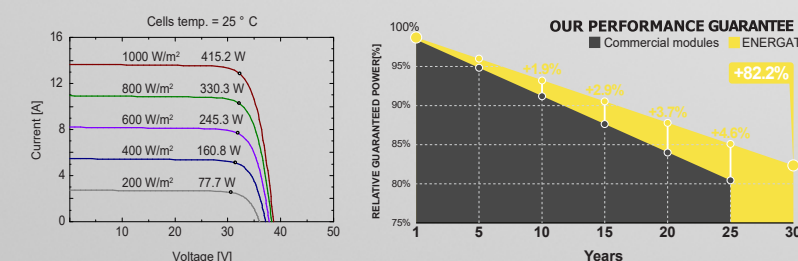
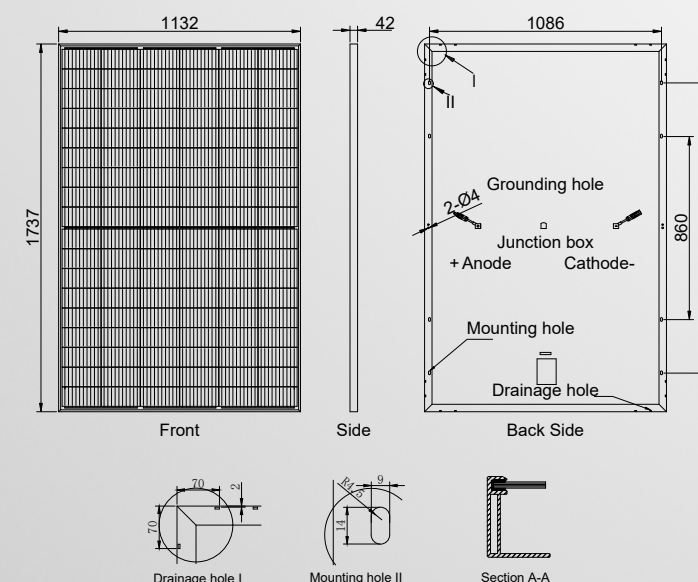
Cell type	Gallium-doped Mono c-Si PERC, Half-cut cells, 182 mm
No. of cells	108
Glass	3.2 mm, high transmission, AR coated, tempered
Encapsulation	EVA
Back cover	White backsheet
Junction box	IP 68 rated
Frame	42 mm anodized Aluminium alloy
Cable	1 x 4 mm ² , 350 mm length or customized
Connectors	MC 4 / MC 4 compatible
Dimension	1737 mm x 1132 mm x 42 mm
Weight	21.5 kg
Hail resistance	Max. Ø 25 mm at 23 m/s
Wind load	2400 Pa/ 244 kg/ m ²
Mechanical load	5400 Pa/ 550 kg/ m ²

Packaging information

Packaging configuration	26 pallets
Loading capacity	702 pcs / 40 HQ
Size / Pallet	1765 mm x 1090 mm x 1296 mm
Weight	15821 kg / 40 HQ

Temperature ratings

Operating temperature	(°C)	-40 to +85
Temp.coefficient of P_{max}	(%/°C)	-0.35
Temp.coefficient of V_{oc}	(%/°C)	-0.275
Temp.coefficient of I_{sc}	(%/°C)	0.045
Nom. operating temp. NOCT	(°C)	45 ± 2



Electrical specifications (STC*):		EG-108L 395W	EG-108L 400W	EG-108L 405W	EG-108L 410W	EG-108L 415W
Nominal Max. Power	P_{max} (Wp)	395	400	405	410	415
Maximum operating voltage	V_{MPP} (V)	31.08	31.35	31.62	31.88	32.12
Maximum operating current	I_{MPP} (A)	12.71	12.76	12.81	12.86	12.92
Open-circuit voltage	V_{oc} (V)	37.36	37.69	38.02	38.35	38.67
Short-circuit current	I_{sc} (A)	13.47	13.52	13.57	13.62	13.67
Module efficiency	η (%)	20.22	20.48	20.73	20.99	21.25
Power tolerance	(W)			0~+5		
Maximum system Voltage	(V)			1500		
Maximum series fuse rating	(A)			25		

*STC: Standard test conditions (Irradiance 1000 W/m², Cell temperature 25°C and air mass of AM1.5)

Electrical specifications (NMOT*):		EG-108L 395W	EG-108L 400W	EG-108L 405W	EG-108L 410W	EG-108L 415W
Nominal Max. Power	P_{max} (Wp)	298	301	304	308	311
Maximum operating voltage	V_{MPP} (V)	29.30	29.50	29.70	29.90	30.10
Maximum operating current	I_{MPP} (A)	10.17	10.21	10.25	10.29	10.34
Open-circuit voltage	V_{oc} (V)	35.20	35.40	35.60	35.80	36.00
Short-circuit current	I_{sc} (A)	10.78	10.82	10.86	10.90	10.94

*NMOT: Normal Module Operating Temperature (Irradiance 800 W/m², Ambient temperature 20°C, air mass of AM1.5 and wind speed of 1 m/s)

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IEC 61215
IEC 61730
Regular Production Surveillance
Type Tested and Monitored

IEC 62716 (Ammonia corrosion)
IEC 61701 (Salt mist corrosion)
IEC 60068 (Sand and dust)
IEC 62804 (PID resistance)



HIGH

ENERGY YIELD
RELIABILITY
DURABILITY

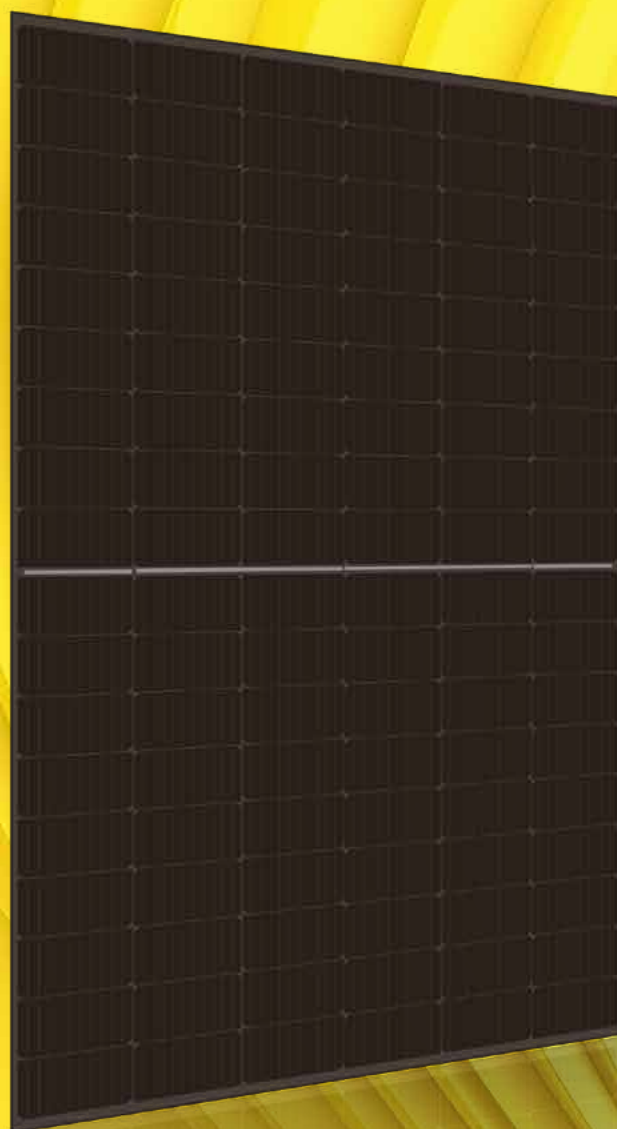
MONO-CRYSTALLINE PV MODULES

HALF-CELLS MONO-FACIAL

FULL BLACK

395W - 415W

108
HALF
CELLS



30
Years
Performance
Guarantee

15
Years
Product
Warranty

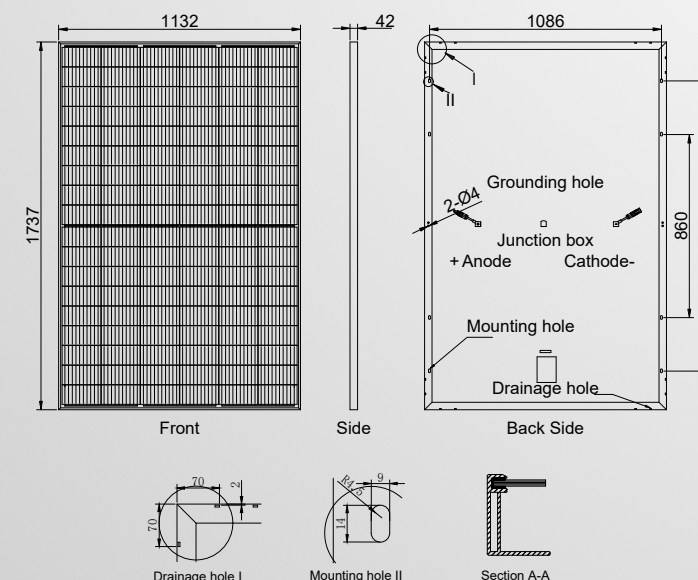
MONO-CRYSTALLINE PV MODULES

EG-108L Series

395W-415W

Mechanical and design specification

Cell type	Gallium-doped Mono c-Si PERC, Half-cut cells, 182 mm
No. of cells	108
Glass	3.2 mm, high transmission, AR coated, tempered
Encapsulation	EVA
Back cover	White backsheet
Junction box	IP 68 rated
Frame	42 mm anodized Aluminium alloy
Cable	1 x 4 mm ² , 350 mm length or customized
Connectors	MC 4 / MC 4 compatible
Dimension	1737 mm x 1132 mm x 42 mm
Weight	21.5 kg
Hail resistance	Max. Ø 25 mm at 23 m/s
Wind load	2400 Pa/ 244 kg/ m ²
Mechanical load	5400 Pa/ 550 kg/ m ²

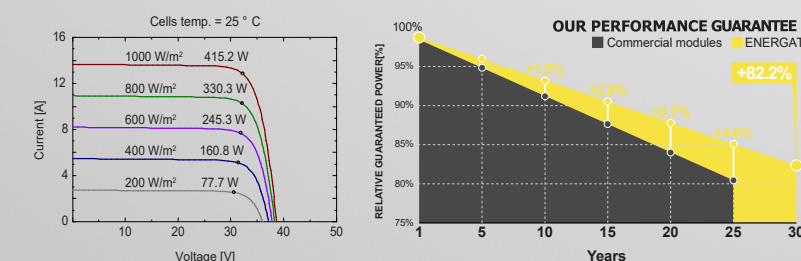


Packaging information

Packaging configuration	26 pallets
Loading capacity	702 pcs / 40 HQ
Size / Pallet	1765 mm x 1090 mm x 1296 mm
Weight	15821 kg / 40 HQ

Temperature ratings

Operating temperature	(°C)	-40 to +85
Temp.coefficient of P_{max}	(%/°C)	-0.35
Temp.coefficient of V_{oc}	(%/°C)	-0.275
Temp.coefficient of I_{sc}	(%/°C)	0.045
Nom. operating temp. NOCT	(°C)	45 ± 2



Electrical specifications (STC*):		EG-108L 395W	EG-108L 400W	EG-108L 405W	EG-108L 410W	EG-108L 415W
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Maximum operating current	I_{MPP} (A)	12.71	12.76	12.81	12.86	12.92
Open-circuit voltage	V_{oc} (V)	37.36	37.69	38.02	38.35	38.67
Short-circuit current	I_{sc} (A)	13.47	13.52	13.57	13.62	13.67
Module efficiency	η (%)	20.22	20.48	20.73	20.99	21.25
Power tolerance	(W)			0~+5		
Maximum system Voltage	(V)			1500		
Maximum series fuse rating	(A)			25		

*STC: Standard test conditions (Irradiance 1000 W/m², Cell temperature 25°C and air mass of AM1.5)

Electrical specifications (NMOT*):		EG-108L 395W	EG-108L 400W	EG-108L 405W	EG-108L 410W	EG-108L 415W
Nominal Max. Power	P_{max} (Wp)	298	301	304	308	311
Maximum operating voltage	V_{MPP} (V)	29.30	29.50	29.70	29.90	30.10
Maximum operating current	I_{MPP} (A)	10.17	10.21	10.25	10.29	10.34
Open-circuit voltage	V_{oc} (V)	35.20	35.40	35.60	35.80	36.00
Short-circuit current	I_{sc} (A)	10.78	10.82	10.86	10.90	10.94

*NMOT: Normal Module Operating Temperature (Irradiance 800 W/m², Ambient temperature 20°C, air mass of AM1.5 and wind speed of 1 m/s)

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IEC 61730
Regular Production Surveillance
Type Tested and Monitored

IEC 62716 (Ammonia corrosion)
IEC 61701 (Salt mist corrosion)
IEC 60068 (Sand and dust)
IEC 62804 (PID resistance)



HIGH

ENERGY YIELD
RELIABILITY
DURABILITY

MONO-CRYSTALLINE PV MODULES HALF-CELLS MONO-FACIAL

450W - 460W

120
HALF
CELLS



30
Years
Performance
Guarantee

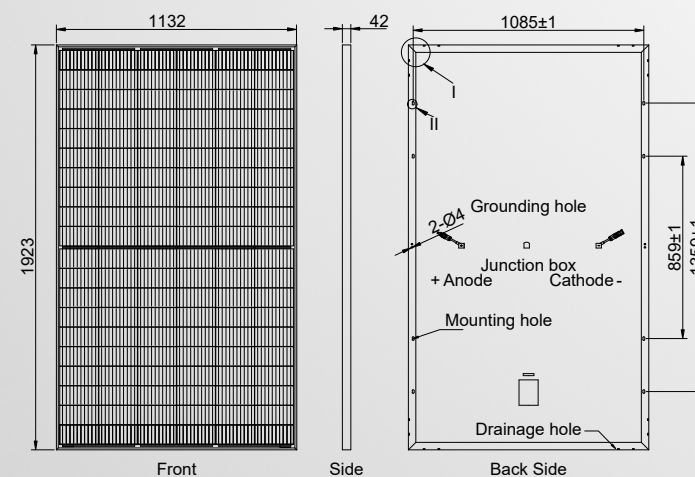
15
Years
Product
Warranty

MONO-CRYSTALLINE PV MODULES

EG-120L Series 450W-460W

Mechanical and design specification

Cell type	Gallium-doped Mono c-Si PERC, Half-cut cells, 182 mm
No. of cells	120
Glass	3.2 mm, high transmission, AR coated, tempered
Encapsulation	EVA
Back cover	White backsheet
Junction box	IP 68 rated
Frame	42 mm anodized Aluminium alloy
Cable	1 x 4 mm ² , 350 mm length or customized
Connectors	MC 4 / MC 4 compatible
Dimension	1923 mm x 1132mm x 42 mm
Weight	24 kg
Hail resistance	Max. Ø 25 mm at 23 m/s
Wind load	2400 Pa/ 244 kg/ m ²
Mechanical load	5400 Pa/ 550 kg/ m ²

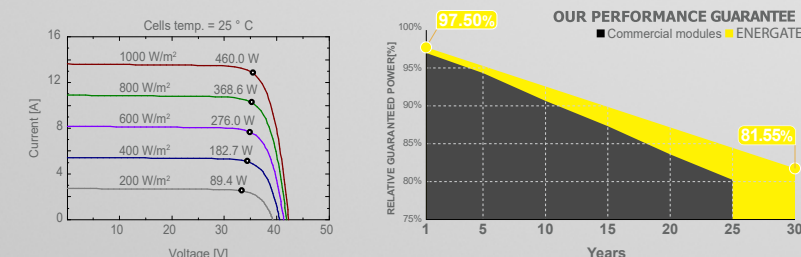


Packaging information

Packaging configuration	24 Pallets - 27 pcs per pallet
Loading capacity	648 pcs / 40 HQ
Size / Pallet	1950mm x 1140 mm x 2600 mm
Weight	16224 kg / 40 HQ

Temperature ratings

Operating temperature	(°C)	-40 to +85
Temp.coefficient of P_{max}	(%/°C)	-0.35
Temp.coefficient of V_{oc}	(%/°C)	-0.275
Temp.coefficient of I_{sc}	(%/°C)	0.045
Nom. operating temp. NOCT	(°C)	45 ± 2



Electrical specifications (STC*):		EG-120L 450W	EG120L 455W	EG-120L 460W
Nominal Max. Power	P_{max} (Wp)	450	455	460
Maximum operating voltage	V_{MPP} (V)	34.70	34.90	35.04
Maximum operating current	I_{MPP} (A)	13.00	13.05	13.154
Open-circuit voltage	V_{oc} (V)	41.21	41.51	41.65
Short-circuit current	I_{sc} (A)	13.66	13.82	13.851
Module efficiency	η (%)	20.60	20.80	21.1
Power tolerance	(W)		0~+5	
Maximum system Voltage	(V)		1500	
Maximum series fuse rating	(A)		25	

*STC: Standard test conditions (Irradiance 1000 W/m², Cell temperature 25°C and air mass of AM1.5)

Electrical specifications (NMOT*):		EG-120L 450W	EG120L 455W	EG-120L 460W
Nominal Max. Power	P_{max} (Wp)	367.3	371.2	375.4
Maximum operating voltage	V_{MPP} (V)	28.32	28.47	28.60
Maximum operating current	I_{MPP} (A)	10.61	10.65	10.73
Open-circuit voltage	V_{oc} (V)	33.63	33.86	33.99
Short-circuit current	I_{sc} (A)	11.14	11.27	11.30

*NMOT: Normal Module Operating Temperature (Irradiance 800 W/m², Ambient temperature 20°C, air mass of AM1.5 and wind speed of 1 m/s)

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IEC 61215
IEC 61730
Regular Production Surveillance
Type Tested and Monitored

IEC 62716 (Ammonia corrosion)
IEC 61701 (Salt mist corrosion)
IEC 60068 (Sand and dust)
IEC 62804 (PID resistance)



HIGH

ENERGY YIELD
RELIABILITY
DURABILITY

MONO-CRYSTALLINE PV MODULES

HALF-CELLS MONO-FACIAL

FULL BLACK

450W - 460W

MONO-CRYSTALLINE PV MODULES

EG-120L Series

450W-460W

120
HALF
CELLS



30
Years
Performance
Guarantee

15
Years
Product
Warranty

Mechanical and design specification

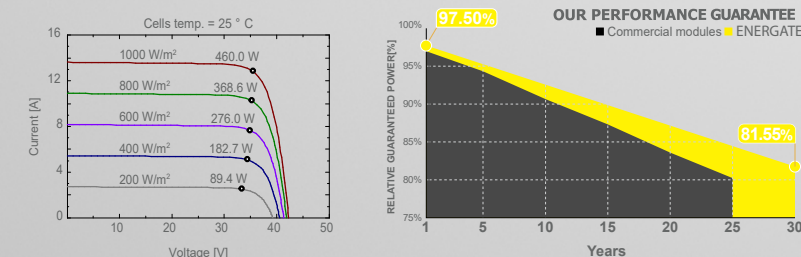
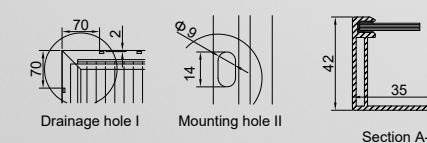
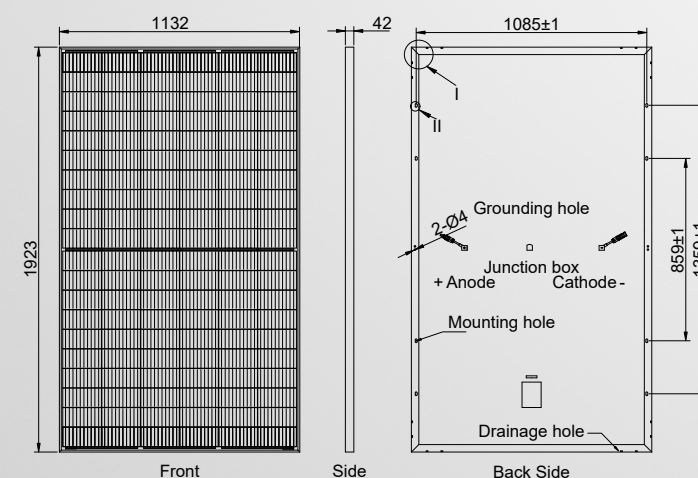
Cell type	Gallium-doped Mono c-Si PERC, Half-cut cells, 182 mm
No. of cells	120
Glass	3.2 mm, high transmission, AR coated, tempered
Encapsulation	EVA
Back cover	White backsheet
Junction box	IP 68 rated
Frame	42 mm anodized Aluminium alloy
Cable	1 x 4 mm ² , 350 mm length or customized
Connectors	MC 4 / MC 4 compatible
Dimension	1923 mm x 1132mm x 42 mm
Weight	24 kg
Hail resistance	Max. Ø 25 mm at 23 m/s
Wind load	2400 Pa/ 244 kg/ m ²
Mechanical load	5400 Pa/ 550 kg/ m ²

Packaging information

Packaging configuration	24 Pallets - 27 pcs per pallet
Loading capacity	648 pcs / 40 HQ
Size / Pallet	1950mm x 1140 mm x 2600 mm
Weight	16224 kg / 40 HQ

Temperature ratings

Operating temperature	(°C)	-40 to +85
Temp.coefficient of P_{max}	(%/°C)	-0.35
Temp.coefficient of V_{oc}	(%/°C)	-0.275
Temp.coefficient of I_{sc}	(%/°C)	0.045
Nom. operating temp. NOCT	(°C)	45 ± 2



Electrical specifications (STC*):		EG-120L 450W	EG120L 455W	EG-120L 460W
Nominal Max. Power	P_{max} (Wp)	450	455	460
Maximum operating voltage	V_{MPP} (V)	34.70	34.90	35.04
Maximum operating current	I_{MPP} (A)	13.00	13.05	13.154
Open-circuit voltage	V_{oc} (V)	41.21	41.51	41.65
Short-circuit current	I_{sc} (A)	13.66	13.82	13.851
Module efficiency	η (%)	20.60	20.80	21.1
Power tolerance	(W)		0~+5	
Maximum system Voltage	(V)		1500	
Maximum series fuse rating	(A)		25	

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Maximum operating voltage	V_{MPP} (V)	28.32	28.47	28.60
Maximum operating current	I_{MPP} (A)	10.61	10.65	10.73
Open-circuit voltage	V_{oc} (V)	33.63	33.86	33.99
Short-circuit current	I_{sc} (A)	11.14	11.27	11.30

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IEC 61215
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Regular Production Surveillance
Type Tested and Monitored

IEC 62716 (Ammonia corrosion)
IEC 61701 (Salt mist corrosion)
IEC 60068 (Sand and dust)
IEC 62804 (PID resistance)



HIGH

ENERGY YIELD
RELIABILITY
DURABILITY

MONO-CRYSTALLINE PV MODULES

HALF-CELLS MONO-FACIAL

FULL BLACK

450W - 460W

MONO-CRYSTALLINE PV MODULES

450W-460W

120
HALF
CELLSLID
RESISTANTPID
RESISTANTSALT CORROSION
RESISTANTSAND
RESISTANTNH₃
S
AMMONIA
RESISTANTHIGHLY STABLE
AND TOUGH30^{Years}
Performance
Guarantee15^{Years}
Product
Warranty50% LESS
EFFICIENCY LOSS THAN
FULL BLACK**Mechanical and design specification**

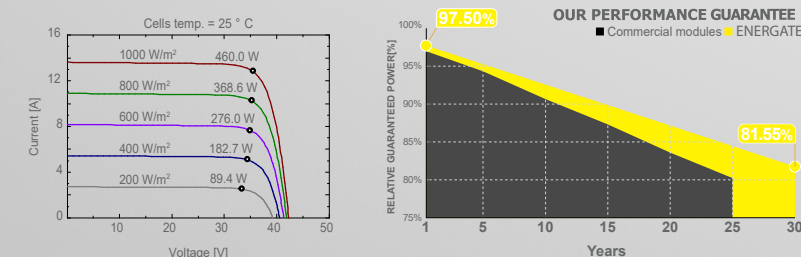
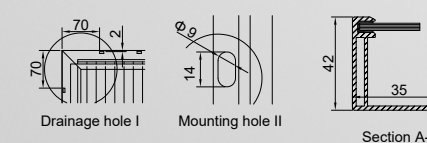
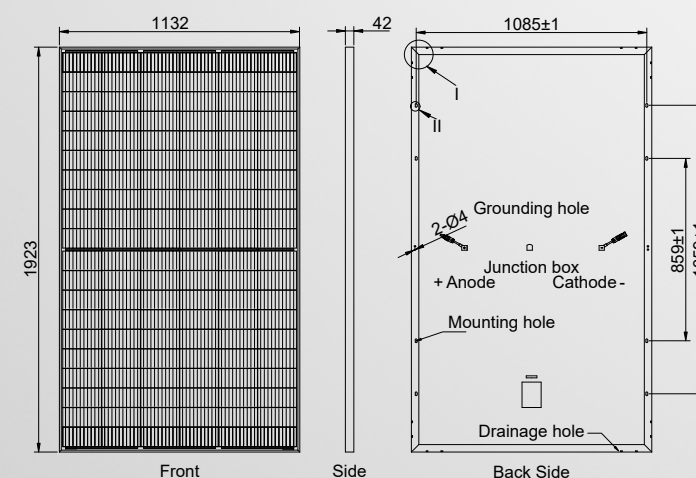
Cell type	Gallium-doped Mono c-Si PERC, Half-cut cells, 182 mm
No. of cells	120
Glass	3.2 mm, high transmission, AR coated, tempered
Encapsulation	EVA
Back cover	Zebra backsheet
Junction box	IP 68 rated
Frame	42 mm anodized Aluminium alloy
Cable	1 x 4 mm ² , 350 mm length or customized
Connectors	MC 4 / MC 4 compatible
Dimension	1923 mm x 1132mm x 42 mm
Weight	24 kg
Hail resistance	Max. Ø 25 mm at 23 m/s
Wind load	2400 Pa/ 244 kg/ m ²
Mechanical load	5400 Pa/ 550 kg/ m ²

Packaging information

Packaging configuration	24 Pallets - 27 pcs per pallet
Loading capacity	648 pcs / 40 HQ
Size / Pallet	1950mm x 1140 mm x 2600 mm
Weight	16224 kg / 40 HQ

Temperature ratings

Operating temperature	(°C)	-40 to +85
Temp.coefficient of P _{max}	(%/°C)	-0.35
Temp.coefficient of V _{oc}	(%/°C)	-0.275
Temp.coefficient of I _{sc}	(%/°C)	0.045
Nom. operating temp. NOCT	(°C)	45 ± 2

**Electrical specifications (STC*):**

		EG-120L 450W	EG120L 455W	EG-120L 460W
Nominal Max. Power	P _{max} (Wp)	450	455	460
Maximum operating voltage	V _{MPP} (V)	34.70	34.90	35.04
Maximum operating current	I _{MPP} (A)	13.00	13.05	13.154
Open-circuit voltage	V _{oc} (V)	41.21	41.51	41.65
Short-circuit current	I _{sc} (A)	13.66	13.82	13.851
Module efficiency	η (%)	20.60	20.80	21.1
Power tolerance	(W)		0~+5	
Maximum system Voltage	(V)		1500	
Maximum series fuse rating	(A)		25	

*STC: Standard test conditions (Irradiance 1000 W/m², Cell temperature 25°C and air mass of AM1.5)**Electrical specifications (NMOT*):**

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HIGH

ENERGY YIELD
RELIABILITY
DURABILITY

MONO-CRYSTALLINE PV MODULES
HALF CELLS-BIFACIAL-DOUBLE GLASS

440W - 460W

MONO-CRYSTALLINE PV MODULES

EG-120L Series
440W-460W

120
HALF
CELLS



30
Years
Performance
Guarantee

15
Years
Product
Warranty

Mechanical and design specification

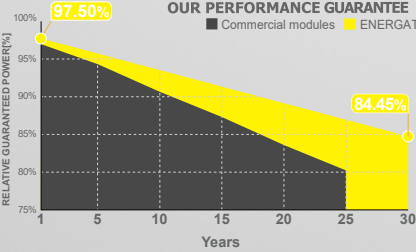
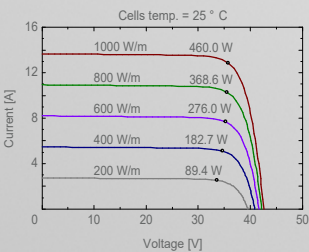
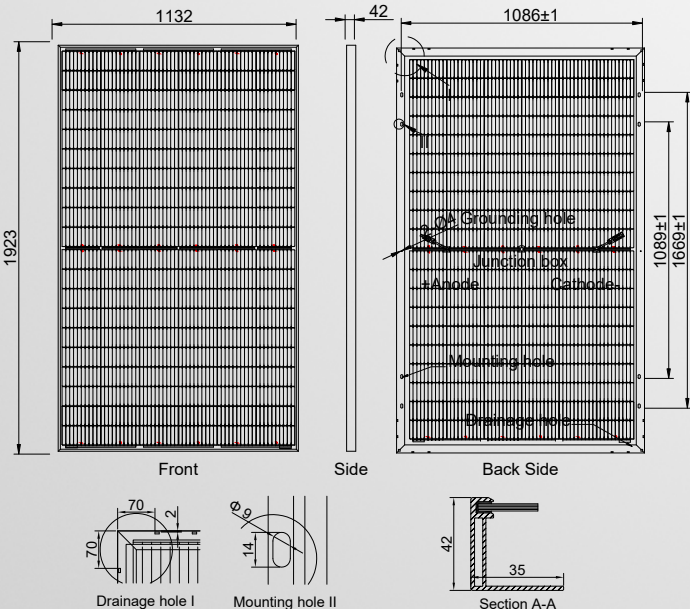
Cell type	Gallium-doped Mono c-Si PERC, Half-cut cells, 182 mm
No. of cells	120
Bifaciality	70±5%
Glass	3.2 mm, high transmission, AR coated, tempered
Encapsulation	POE
Back cover	2.0 mm, high transmission solar glass, tempered
Junction box	IP 68 rated
Frame	42 mm anodized Aluminium alloy
Cable	1 x 4 mm ² , 1300 mm length or customized
Connectors	MC 4 / MC 4 compatible
Dimension	1923 mm x 1132 mm x 42 mm
Weight	28 kg
Hail resistance	Max. Ø 25 mm at 23 m/s
Wind load	2400 Pa/ 244 kg/ m ²
Mechanical load	5400 Pa/ 550 kg/ m ²

Packaging information

Packaging configuration	27 pcs per pallet
Loading capacity	648 pcs / 40 HQ
Size / Pallet	1945 mm x 1140 mm x 2490 mm
Weight	17000 kg / 40 HQ

Temperature ratings

Operating temperature	(°C)	-40 to +85
Temp.coefficient of P _{max}	(%/°C)	-0.35
Temp.coefficient of V _{oc}	(%/°C)	-0.275
Temp.coefficient of I _{sc}	(%/°C)	0.045
Nom. operating temp. NOCT	(°C)	45 ± 2



Electrical specifications (STC*):

		EG-120DG 440W	EG-120DG 445W	EG-120DG 450W	EG-120DG 455W	EG-120DG 460W
Nominal Max. Power	P _{max} (Wp)	440	445	450	455	460
Maximum operating voltage	V _{MPP} (V)	34.62	34.87	35.13	35.38	35.60
Maximum operating current	I _{MPP} (A)	12.71	12.76	12.81	12.86	12.92
Open-circuit voltage	V _{oc} (V)	41.35	41.66	41.98	42.29	42.60
Short-circuit current	I _{sc} (A)	13.47	13.52	13.57	13.62	13.67
Module efficiency	η (%)	20.42	20.65	20.88	21.11	21.35
Power tolerance	(W)	0~+5				
Maximum system Voltage	(V)	1500				
Maximum series fuse rating	(A)	25				

*STC: Standard test conditions (Irradiance 1000 W/m², Cell temperature 25°C and air mass of AM1.5)

Electrical specifications (NMOT*):

		EG-120DG 440W	EG-120DG 445W	EG-120DG 450W	EG-120DG 455W	EG-120DG 460W
Nominal Max. Power	P _{max} (Wp)	331	335	338	342	345
Maximum operating voltage	V _{MPP} (V)	32.60	32.80	33.00	33.20	33.40
Maximum operating current	I _{MPP} (A)	10.17	10.21	10.25	10.29	10.34
Open-circuit voltage	V _{oc} (V)	38.80	39.00	39.20	39.40	39.60
Short-circuit current	I _{sc} (A)	10.78	10.82	10.86	10.90	10.94

*NMOT: Normal Module Operating Temperature (Irradiance 800 W/m², Ambient temperature 20°C, air mass of AM1.5 and wind speed of 1 m/s)

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The specifications included in the datasheet are subject to change without prior notice.



IEC 61215
IEC 61730
Regular Production Surveillance
Type Tested and Monitored

IEC 62716 (Ammonia corrosion)
IEC 61701 (Salt mist corrosion)
IEC 60068 (Sand and dust)
IEC 62804 (PID resistance)



HIGH

ENERGY YIELD
RELIABILITY
DURABILITY

MONO-CRYSTALLINE PV MODULES HALF CELLS MONO-FACIAL

530W - 550W

144
HALF
CELLS

LID
RESISTANT

PID
RESISTANT

SALT CORROSION
RESISTANT

SAND
RESISTANT

NH₃
S
AMMONIA
RESISTANT

HIGHLY STABLE
AND TOUGH

30
Years
Performance
Guarantee

15
Years
Product
Warranty

MONO-CRYSTALLINE PV MODULES

EG-144L Series 530W-550W

Mechanical and design specification

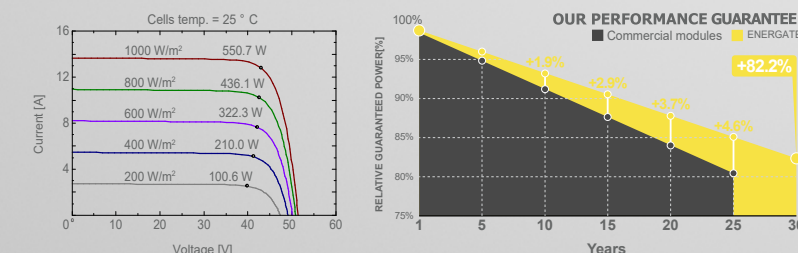
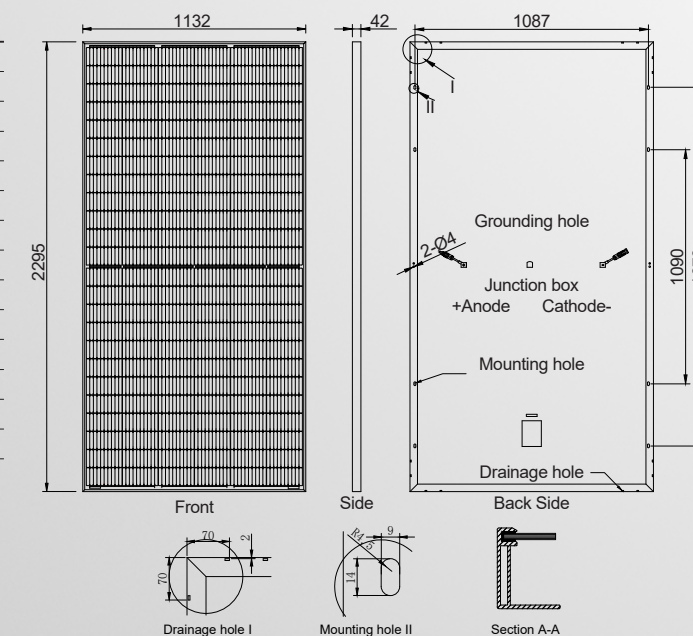
Cell type	Gallium-doped Mono c-Si PERC, Half-cut cells, 182 mm
No. of cells	144
Glass	3.2 mm, high transmission, AR coated, tempered
Encapsulation	EVA
Back cover	White backsheet
Junction box	IP 68 rated
Frame	42 mm anodized Aluminium alloy
Cable	1 x 4 mm ² , 350 mm length or customized
Connectors	MC 4 / MC 4 compatible
Dimension	2295 mm x 1132 mm x 42 mm
Weight	27 kg
Hail resistance	Max. Ø 25 mm at 23 m/s
Wind load	2400 Pa/ 244 kg/ m ²
Mechanical load	5400 Pa/ 550 kg/ m ²

Packaging information

Packaging configuration	20 Pallets - 27 pcs per pallet
Loading capacity	540 pcs / 40 HQ
Size / Pallet	2323 mm x 1100 mm x 1296 mm
Weight	15700 kg / 40 HQ

Temperature ratings

Operating temperature	(°C)	-40 to +85
Temp.coefficient of P _{max}	(%/°C)	-0.35
Temp.coefficient of V _{oc}	(%/°C)	-0.275
Temp.coefficient of I _{sc}	(%/°C)	0.045
Nom. operating temp. NOCT	(°C)	45 ± 2



Electrical specifications (STC*):		EG-144L 530W	EG-144L 535W	EG-144L 540W	EG-144L 545W	EG-144L 550W
Nominal Max. Power	P _{max} (Wp)	530	535	540	545	550
Maximum operating voltage	V _{MPP} (V)	41.70	41.93	42.15	42.38	42.57
Maximum operating current	I _{MPP} (A)	12.71	12.76	12.81	12.86	12.92
Open-circuit voltage	V _{oc} (V)	49.65	49.78	49.90	50.01	51.44
Short-circuit current	I _{sc} (A)	13.47	13.52	13.57	13.62	13.67
Module efficiency	η (%)	20.40	20.60	20.80	21.00	21.20
Power tolerance	(W)	0~+5				
Maximum system Voltage	(V)	1500				
Maximum series fuse rating	(A)	25				

*STC: Standard test conditions (Irradiance 1000 W/m², Cell temperature 25°C and air mass of AM1.5)

Electrical specifications (NMOT*):		EG-144L 530W	EG-144L 535W	EG-144L 540W	EG-144L 545W	EG-144L 550W
Nominal Max. Power	P _{max} (Wp)	400	403	407	410	414
Maximum operating voltage	V _{MPP} (V)	39.30	39.50	39.70	39.90	40.10
Maximum operating current	I _{MPP} (A)	10.17	10.21	10.25	10.29	10.34
Open-circuit voltage	V _{oc} (V)	47.00	47.20	47.40	47.60	47.80
Short-circuit current	I _{sc} (A)	10.78	10.82	10.86	10.90	10.94

*NMOT: Normal Module Operating Temperature (Irradiance 800 W/m², Ambient temperature 20°C, air mass of AM1.5 and wind speed of 1 m/s)

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IEC 61215
IEC 61730
Regular Production Surveillance
Type Tested and Monitored

IEC 62716 (Ammonia corrosion)
IEC 61701 (Salt mist corrosion)
IEC 60068 (Sand and dust)
IEC 62804 (PID resistance)



HIGH

ENERGY YIELD
RELIABILITY
DURABILITY

MONO-CRYSTALLINE PV MODULES
HALF CELLS BIFACIAL

530W - 550W

144
HALF
CELLS

LID
RESISTANT

PID
RESISTANT

SALT CORROSION
RESISTANT

SAND
RESISTANT

NH₃
S
AMMONIA
RESISTANT

HIGHLY STABLE
AND TOUGH

30
Years
Performance
Guarantee

15
Years
Product
Warranty

MONO-CRYSTALLINE PV MODULES

EG-144L Series
530W-550W

Mechanical and design specification

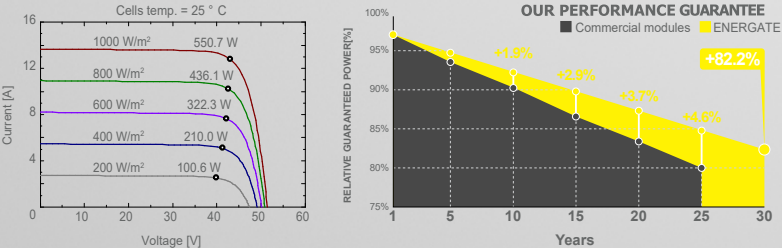
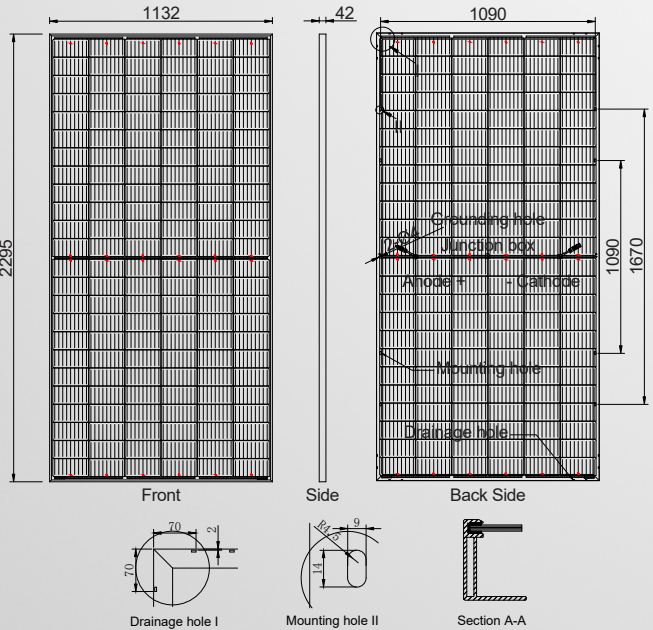
Cell type	Gallium-doped Mono c-Si PERC, Half-cut cells, 182 mm
No. of cells	144
Bifaciality	70±5%
Glass	3.2 mm, high transmission, AR coated, tempered
Encapsulation	EVA
Back cover	Transparent Backsheet
Junction box	IP 68 rated
Frame	42 mm anodized Aluminium alloy
Cable	1 x 4 mm ² , 1300 mm length or customized
Connectors	MC 4 / MC 4 compatible
Dimension	2295 mm x 1132 mm x 42 mm
Weight	27 kg
Hail resistance	Max. Ø 25 mm at 23 m/s
Wind load	2400 Pa/ 244 kg/ m ²
Mechanical load	5400 Pa/ 550 kg/ m ²

Packaging information

Packaging configuration	20 pallets
Loading capacity	560 pcs / 40 HQ
Size / Pallet	2323 mm x 1100 mm x 1296 mm
Weight	757 kg / pallets

Temperature ratings

Operating temperature	(°C)	-40 to +85
Temp.coefficient of P _{max}	(%/°C)	-0.35
Temp.coefficient of V _{oc}	(%/°C)	-0.275
Temp.coefficient of I _{sc}	(%/°C)	0.045
Nom. operating temp. NOCT	(°C)	45 ± 2



Electrical specifications (STC*):		EG-144BF 530W	EG-144BF 535W	EG-144BF 540W	EG-144BF 545W	EG-144BF 550W
Nominal Max. Power	P _{max} (Wp)	530	535	540	545	550
Maximum operating voltage	V _{MPP} (V)	41.70	41.93	42.15	42.38	42.57
Maximum operating current	I _{MPP} (A)	12.71	12.76	12.81	12.86	12.92
Open-circuit voltage	V _{oc} (V)	49.65	50.07	50.49	50.91	51.44
Short-circuit current	I _{sc} (A)	13.47	13.52	13.57	13.62	13.67
Module efficiency	η (%)	20.40	20.60	20.80	21.00	21.20
Power tolerance	(W)	0~+5				
Maximum system Voltage	(V)	1500				
Maximum series fuse rating	(A)	25				

*STC: Standard test conditions (Irradiance 1000 W/m², Cell temperature 25°C and air mass of AM1.5)

Electrical specifications (NMOT*):		EG-144BF 530W	EG-144BF 535W	EG-144BF 540W	EG-144BF 545W	EG-144BF 550W
Nominal Max. Power	P _{max} (Wp)	400	403	407	410	414
Maximum operating voltage	V _{MPP} (V)	39.30	39.50	39.70	39.90	40.10
Maximum operating current	I _{MPP} (A)	10.17	10.21	10.25	10.29	10.34
Open-circuit voltage	V _{oc} (V)	47.00	47.20	47.40	47.60	47.80
Short-circuit current	I _{sc} (A)	10.78	10.82	10.86	10.90	10.94

*NMOT: Normal Module Operating Temperature (Irradiance 800 W/m², Ambient temperature 20°C, air mass of AM1.5 and wind speed of 1 m/s)

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HIGH

ENERGY YIELD
RELIABILITY
DURABILITY

N-TYPE TOPCON TECHNOLOGY PV MODULES
HALF CELLS MONO-FACIAL

410W-430W

108
HALF
CELLS

LID
RESISTANT

PID
RESISTANT

SALT CORROSION
RESISTANT

SAND
RESISTANT

NH₃
S
AMMONIA
RESISTANT

HIGHLY STABLE
AND TOUGH

30
years
Performance
Guarantee

15
years
Product
Warranty

N-TYPE TOPCON TECHNOLOGY PV MODULES

EG TC-108 Series
410W-430W

Mechanical and design specification

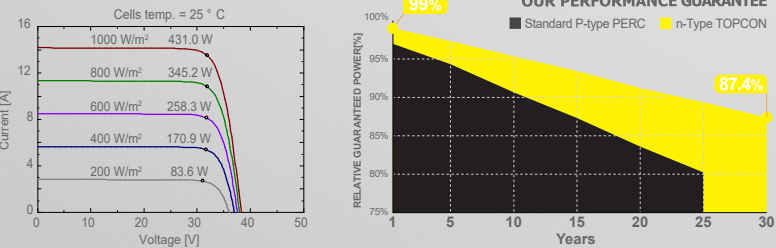
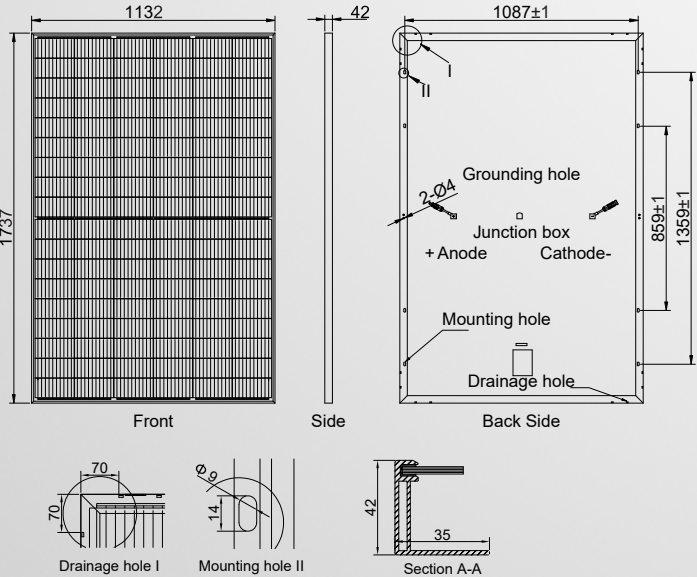
Cell type	N-type TOPCon Technology, Half-cut cells, 182 mm
No. of cells	108
Glass	3.2 mm, high transmission, AR coated, tempered
Encapsulation	EVA
Back cover	White Backsheet
Junction box	IP68, 3 Bypass Diodes
Frame	42 mm anodized Aluminium alloy
Cable	1 x 4 mm ² , 350 mm lenght or customized
Connectors	MC 4 / MC 4 compatible
Dimension	1737 mm x 1132 mm x 42 mm
Weight	21 kg
Hail resistance	Max. Ø 25 mm at 23 m/s
Wind load	2400 Pa/ 244 kg/ m ²
Mechanical load	5400 Pa/ 550 kg/ m ²

Packaging information

Packaging configuration	54 pcs / double palets
Loading capacity	702 pcs / 40 HQ
Size / Double palets	1755 mm x 1140 mm x 2490 mm
Weight	1572 kg / double palets

Temperature ratings

Operating temperature	(°C)	-40 to +85
Temp.coefficient of P _{max}	(%/°C)	-0.3
Temp.coefficient of V _{oc}	(%/°C)	-0.25
Temp.coefficient of I _{sc}	(%/°C)	0.045
Nom. operating temp. NOCT	(°C)	42 ± 2



Electrical specifications (STC*):		EG-108TC 410W	EG-108TC 415W	EG-108TC 420W	EG-108TC 425W	EG-108TC 430W
Nominal Max. Power	P _{max} (Wp)	410	415	420	425	430
Maximum operating voltage	V _{MPP} (V)	31.61	31.83	32.07	32.24	32.44
Maximum operating current	I _{MPP} (A)	12.99	13.06	13.12	13.20	13.28
Open-circuit voltage	V _{oc} (V)	37.49	37.71	37.91	38.11	38.29
Short-circuit current	I _{sc} (A)	13.87	13.94	14.01	14.08	14.15
Module efficiency	η (%)	21.03	21.28	21.54	21.80	22.05
Power tolerance	(W)	0~+5				
Maximum system Voltage	(V)	1500				
Maximum series fuse rating	(A)	25				

*STC: Standard test conditions (Irradiance 1000 W/m², Cell temperature 25°C and air mass of AM1.5)

Electrical specifications (NMOT*):		EG-108TC 410W	EG-108TC 415W	EG-108TC 420W	EG-108TC 425W	EG-108TC 430W
Nominal Max. Power	P _{max} (Wp)	312.2	316.0	320.0	323.5	327.1
Maximum operating voltage	V _{MPP} (V)	29.65	29.73	29.79	29.89	30.13
Maximum operating current	I _{MPP} (A)	10.53	10.63	10.75	10.83	10.86
Open-circuit voltage	V _{oc} (V)	35.11	35.41	35.44	36.04	36.49
Short-circuit current	I _{sc} (A)	11.28	11.32	11.42	11.26	11.34

*NMOT: Normal Module Operating Temperature (Irradiance 800 W/m², Ambient temperature 20°C, air mass of AM1.5 and wind speed of 1 m/s)

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IEC 61215
IEC 61730
Regular Production Surveillance
Type Tested and Monitored

IEC 62716 (Ammonia corrosion)
IEC 61701 (Salt mist corrosion)
IEC 60068 (Sand and dust)
IEC 62804 (PID resistance)



HIGH

ENERGY YIELD
RELIABILITY
DURABILITY

N-TYPE TOPCON TECHNOLOGY PV MODULES
HALF CELLS MONO-FACIAL

460W - 480W

N-TYPE TOPCON TECHNOLOGY PV MODULES

EG TC -120 Series 460W-480W

120
HALF
CELLS

LID
RESISTANT

PID
RESISTANT

SALT CORROSION
RESISTANT

SAND
RESISTANT

NH₃
S
AMMONIA
RESISTANT

HIGHLY STABLE
AND TOUGH

30
years
Performance
Guarantee

15
years
Product
Warranty

Mechanical and design specification

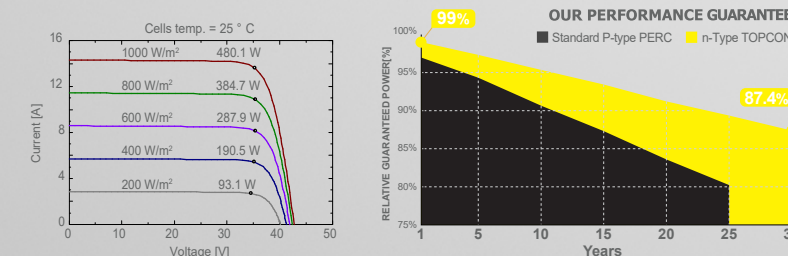
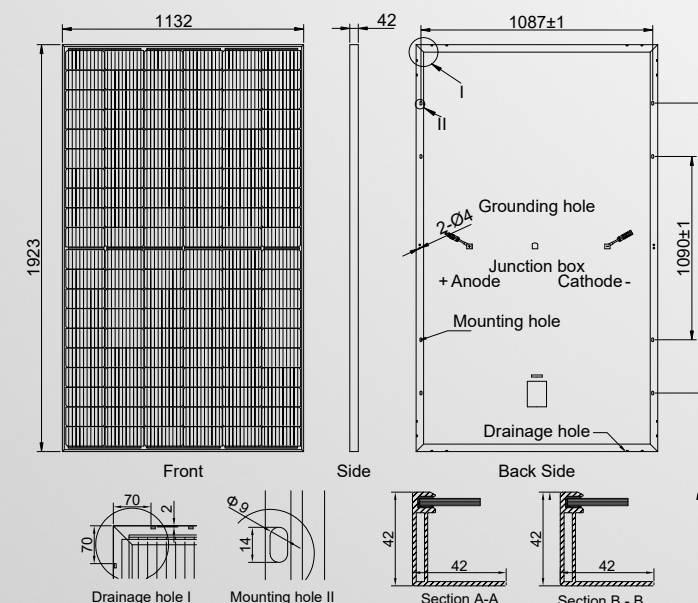
Cell type	N-type TOPCon Technology, Half-cut cells, 182 mm
No. of cells	120
Glass	3.2 mm, high transmission, AR coated, tempered
Encapsulation	EVA
Back cover	White Backsheet
Junction box	IP68, 3 Bypass Diodes
Frame	30 mm anodized Aluminium alloy
Cable	1 x 4 mm ² , 350 mm length or customized
Connectors	MC 4 / MC 4 compatible
Dimension	1923 mm x 1132 mm x 42 mm
Weight	23.5 kg
Hail resistance	Max. Ø 25 mm at 23 m/s
Wind load	2400 Pa/ 244 kg/ m ²
Mechanical load	5400 Pa/ 550 kg/ m ²

Packaging information

Packaging configuration	27 pcs per one pallet
Loading capacity	648 pcs / 40 HQ
Size per pallet	1950 mm x 1150 mm x 1150 mm
Weight	15600 kg for 40 HQ

Temperature ratings

Operating temperature	(°C)	-40 to +85
Temp.coefficient of P _{max}	(%/°C)	-0.3
Temp.coefficient of V _{oc}	(%/°C)	-0.25
Temp.coefficient of I _{sc}	(%/°C)	0.045
Nom. operating temp. NOCT	(°C)	42 ± 2



Electrical specifications (STC*):		EG-120TC 460W	EG-120TC 465W	EG-120TC 470W	EG-120TC 475W	EG-120TC 480W
Nominal Max. Power	P _{max} (Wp)	460	465	470	475	480
Maximum operating voltage	V _{MPP} (V)	34.69	34.85	35.03	35.21	35.36
Maximum operating current	I _{MPP} (A)	13.27	13.35	13.42	13.50	13.59
Open-circuit voltage	V _{oc} (V)	41.99	42.16	42.32	42.50	42.67
Short-circuit current	I _{sc} (A)	14.01	14.09	14.17	14.25	14.33
Module efficiency	η (%)	21.35	21.58	21.81	22.04	22.27
Power tolerance	(W)			0~+5		
Maximum system Voltage	(V)			1500		
Maximum series fuse rating	(A)			25		

*STC: Standard test conditions (Irradiance 1000 W/m², Cell temperature 25°C and air mass of AM1.5)

Electrical specifications (NMOT*):		EG-120TC 460W	EG-120TC 465W	EG-120TC 470W	EG-120TC 475W	EG-120TC 480W
Nominal Max. Power	P _{max} (Wp)	346	350	353	357	361
Maximum operating voltage	V _{MPP} (V)	32.28	32.59	32.61	33.45	33.59
Maximum operating current	I _{MPP} (A)	10.72	10.74	10.85	10.68	10.75
Open-circuit voltage	V _{oc} (V)	39.32	40.38	40.13	40.82	40.77
Short-circuit current	I _{sc} (A)	11.47	11.28	11.46	11.38	11.49

*NMOT: Normal Module Operating Temperature (Irradiance 800 W/m², Ambient temperature 20°C, air mass of AM1.5 and wind speed of 1 m/s)

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IEC 61215
IEC 61730
Regular Production Surveillance
Type Tested and Monitored

IEC 62716 (Ammonia corrosion)
IEC 61701 (Salt mist corrosion)
IEC 60068 (Sand and dust)
IEC 62804 (PID resistance)



HIGH

ENERGY YIELD
RELIABILITY
DURABILITY

MONO-CRYSTALLINE PV MODULES
HALF-CELLS MONO-FACIAL

450W - 460W

120
HALF
CELLS

LID
RESISTANT

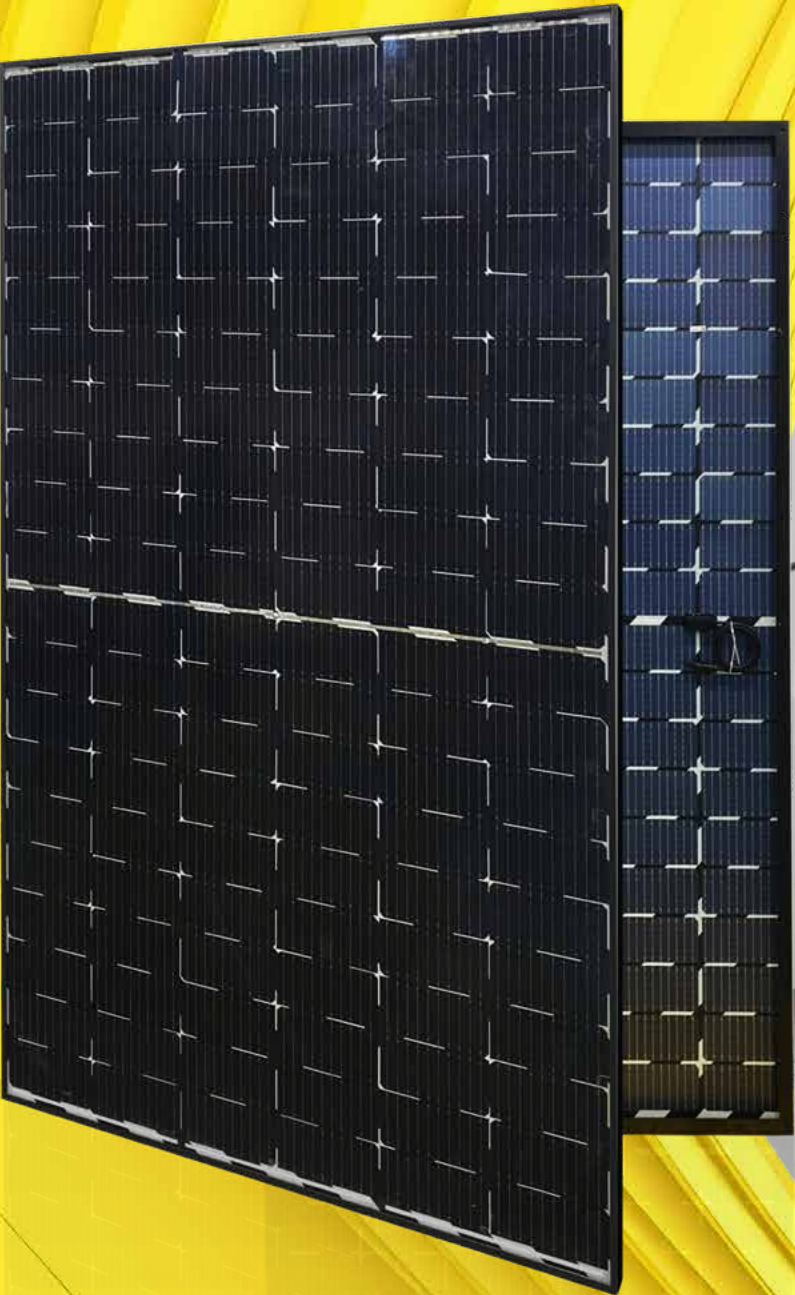
PID
RESISTANT

SALT CORROSION
RESISTANT

SAND
RESISTANT

NH₃
AMMONIA
RESISTANT

HIGHLY STABLE
AND TOUGH



30
years
Performance
Guarantee

15
years
Product
Warranty

MONO-CRYSTALLINE PV MODULES

EG-120L ZEBRA Series
450W-460W

Mechanical and design specification

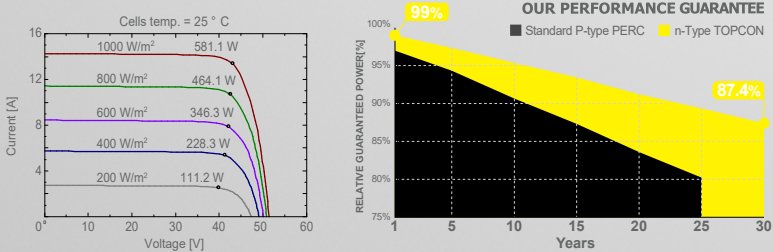
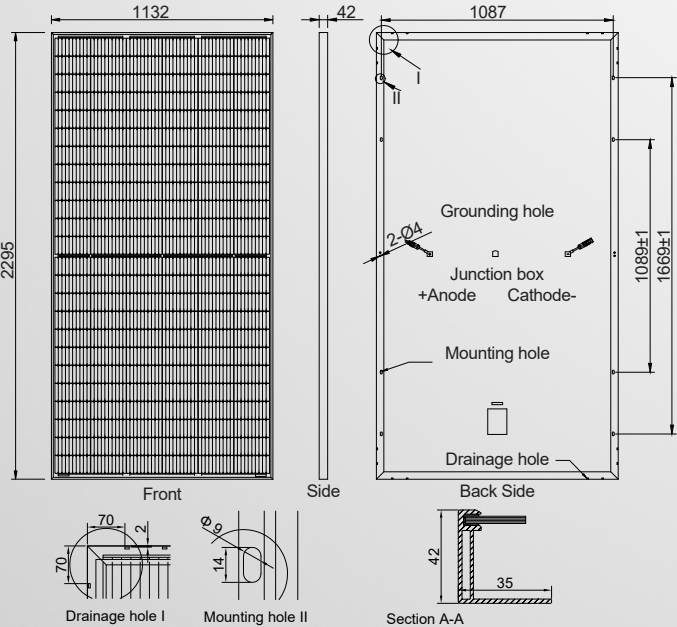
Cell type	Gallium-doped Mono c-Si PERC, Half-cut cells, 182 mm
No. of cells	120
Glass	3.2 mm, high transmission, AR coated, tempered
Encapsulation	EVA
Back cover	Zebra Backsheet
Junction box	IP 68 rated
Frame	42 mm anodized Aluminium alloy
Cable	1 × 4 mm ² , 350 mm length or customized
Connectors	MC 4 / MC 4 compatible
Dimension	1923 mm x 1132mm x 42
Weight	24 kg
Hail resistance	Max. Ø 25 mm at 23 m/s
Wind load	2400 Pa/ 244 kg/ m ²
Mechanical load	5400 Pa/ 550 kg/ m ²

Packaging information

Packaging configuration	24 Pallets - 27 pcs per pallet
Loading capacity	648 pcs / 40 HQ
Size / Pallet	1950mm x 1140 mm x 2600 mm
Weight	16224 kg / 40 HQ

Temperature ratings

Operating temperature	(°C)	-40 to +85
Temp.coefficient of P _{max}	(%/°C)	-0.3
Temp.coefficient of V _{oc}	(%/°C)	-0.25
Temp.coefficient of I _{sc}	(%/°C)	0.045
Nom. operating temp. NOCT	(°C)	42 ± 2



Electrical specifications (STC*):

		EG-120L 450W	EG120L 455W	EG-120L 460W
Nominal Max. Power	P _{max} (Wp)	450	455	460
Maximum operating voltage	V _{MPP} (V)	34.70	34.90	35.04
Maximum operating current	I _{MPP} (A)	13.00	13.05	13.10
Open-circuit voltage	V _{oc} (V)	41.21	41.51	50.86
Short-circuit current	I _{sc} (A)	13.66	13.82	13.851
Module efficiency	η (%)	20.60	20.80	21.1
Power tolerance	(W)	0~+5		
Maximum system Voltage	(V)	1500		
Maximum series fuse rating	(A)	25		

*STC: Standard test conditions (Irradiance 1000 W/m², Cell temperature 25°C and air mass of AM1.5)

Electrical specifications (NMOT*):

		EG-120L 450W	EG120L 455W	EG-120L 460W
Nominal Max. Power	P _{max} (Wp)	367.3	371.2	375.4
Maximum operating voltage	V _{MPP} (V)	28.32	28.47	28.60
Maximum operating current	I _{MPP} (A)	10.61	10.65	10.73
Open-circuit voltage	V _{oc} (V)	33.63	33.86	33.99
Short-circuit current	I _{sc} (A)	11.14	11.27	11.30

*NMOT: Normal Module Operating Temperature (Irradiance 800 W/m², Ambient temperature 20°C, air mass of AM1.5 and wind speed of 1 m/s)

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IEC 61215
IEC 61730
Regular Production Surveillance
Type Tested and Monitored

IEC 62716 (Ammonia corrosion)
IEC 61701 (Salt mist corrosion)
IEC 60068 (Sand and dust)
IEC 62804 (PID resistance)





 **ENERGATE**
The gate to the Energy!



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Mail: info@energatesolar.com
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