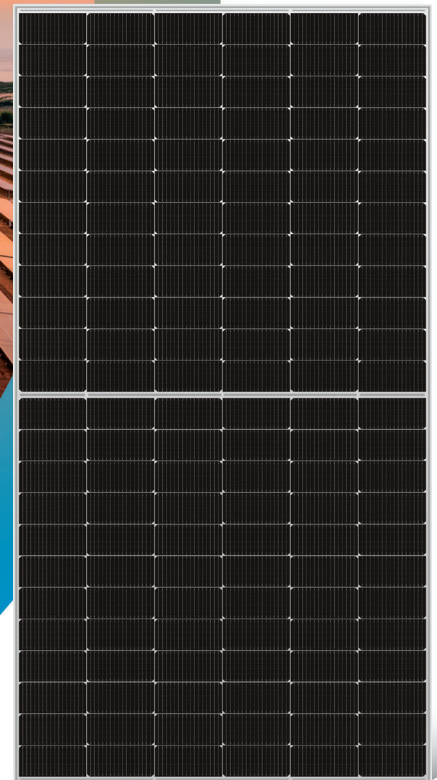




YOUR RELIABLE
PARTNER FOR
SOLAR ENERGY
SINCE 1992



EMMVEE CRAFTING SMART AND ADVANCED SOLAR ENERGY SOLUTIONS



TITANIUM DUO

N-TYPE TOPCon BIFACIAL GLASS TO GLASS MODULE



Committed to Quality,
Punctuality, and
Customer Support
since 1992.



Over 15 Years of Sustainable Power
with Photovoltaic Modules, New High
WP Modules United with Quality and
Efficiency



With presence in Green
Energy Projects Across
the Globe



Our Mission: Delivering Clean, Reliable
Energy while Reducing Carbon Footprint
through wide range of Residential and
Commercial Solar Offerings.

144 HALF CUT CELL N-TYPE TOPCON BIFACIAL GLASS TO GLASS MODULE

TECHNICAL SPECIFICATION

Electrical data at 1000W/m², 25°C and A.M1.5 (STC in accordance with IEC 60904-3)

Model Name	E560HCBG144-T	E565HCBG144-T	E570HCBG144-T	E575HCBG144-T	E580HCBG144-T
Rated Power at STC	560	565	570	575	580
Power Tolerance	+5W	+5W	+5W	+5W	+5W
Module Efficiency at STC	21.68%	21.87%	22.07%	22.26%	22.45%
Open Circuit Voltage-VOC(Volts)(±10%)	50.67	50.87	51.07	51.27	51.47
Short Circuit Current-ISC (AMPS)(±10%)	14.13	14.19	14.25	14.31	14.37
Max Power Voltage-VPM(Volts)	41.95	42.14	42.29	42.44	42.59
Max Power Current-IPM (AMPS)	13.35	13.41	13.48	13.55	13.62

At low irradiance (200W/M² 25°C and AM1.5) the module yields at least 95% of the STC efficiency.

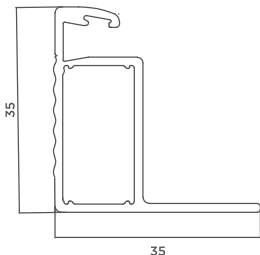
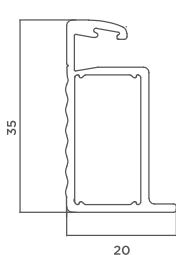
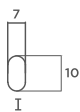
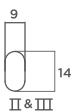
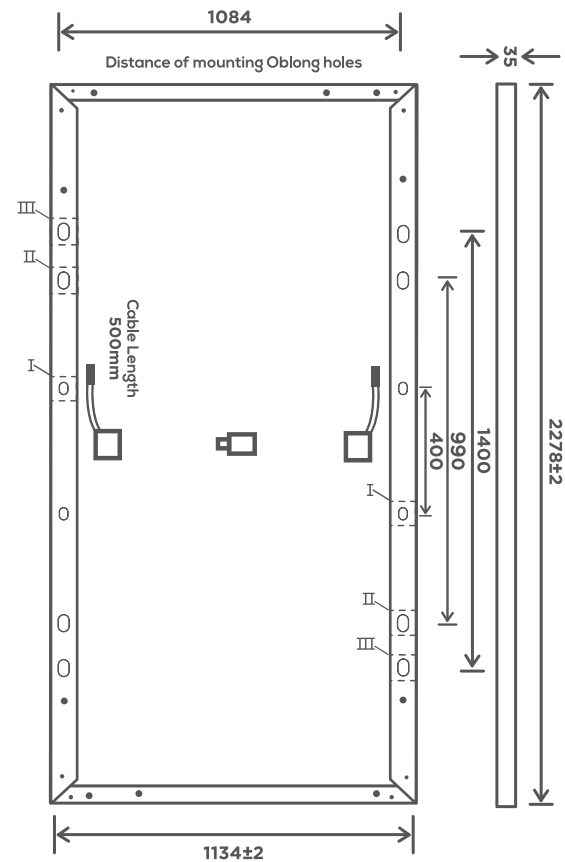
Test uncertainty for Pmax ±3%

Permissible Operating Conditions	
Operating Temperature Range	-40° C TO 85° C
Max.system Voltage	1500V DC
Maximum Snow Load Capacity	5400PA
Resistance Against Hail	MaxØ24mm With Impact Speed of 83km/h
Protection Class Against Electrical Shock	II
Maximum Reverse Current	30A
Bifaciality	80±5%

Mechanical Data	
Number of Cells and Cell Type	144 TOPCon Solar Cells
Dimensions: (L X W X H)	2278 mm X 1134 mm X 35 mm
Weight	32 kg
Front Glass	2 mm High Transmission, Solar Glass
Embedding	EVA/POE/EPE
Back Glass	2 mm High Transmission Solar Glass
Junction Box	3 Split Junction Box IP68
Number of Bypass Diodes	3
Cables	4mm² Solar Cables, Length 500±10mm
Connectors	MC4 Compatible

Warranty	
Product Warranty	12 years
Performance Warranty	30 years

Thermal Data	
Temp. Coefficient Open-circuit Voltage	-0.25%/°C
Temp. Coefficient Short Circuit Current	0.045%/°C
Temp. Coefficient Rated Power	-0.29%/°C
NOCT (Normal operating cell temperature)	45°C ±2°C



1ST YEAR DEGRADATION 1.0%

YEAR 2-30 POWER DEGRADATION 0.40%

END OF 30 YEARS 87.40%

144 HALF CUT CELL N-TYPE TOPCON BIFACIAL GLASS TO GLASS MODULE

TECHNICAL SPECIFICATION

Electrical data at 1000W/m², 25°C and A.M1.5 (STC in accordance with IEC 60904-3)

Model Name	E585HCBG144-T	E590HCBG144-T	E595HCBG144-T	E600HCBG144-T	E605HCBG144-T
Rated Power at STC	585	590	595	600	605
Power Tolerance	+5W	+5W	+5W	+5W	+5W
Module Efficiency at STC	22.65%	22.84%	23.03%	23.23%	23.42%
Open Circuit Voltage-VOC(Volts)(±10%)	51.67	51.87	52.07	52.27	52.47
Short Circuit Current-ISC (AMPS)(±10%)	14.43	14.49	14.55	14.61	14.67
Max Power Voltage-VPM(Volts)	42.78	42.93	43.08	43.23	43.42
Max Power Current-IPM (AMPS)	13.68	13.75	13.82	13.89	13.95

At low irradiance (200W/M² 25°C and AM1.5) the module yields at least 95% of the STC efficiency.

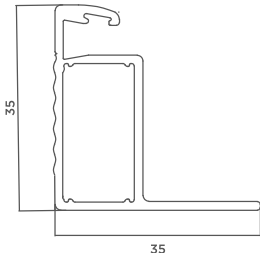
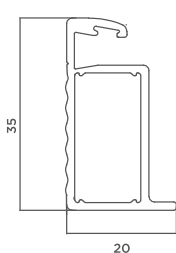
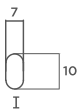
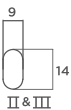
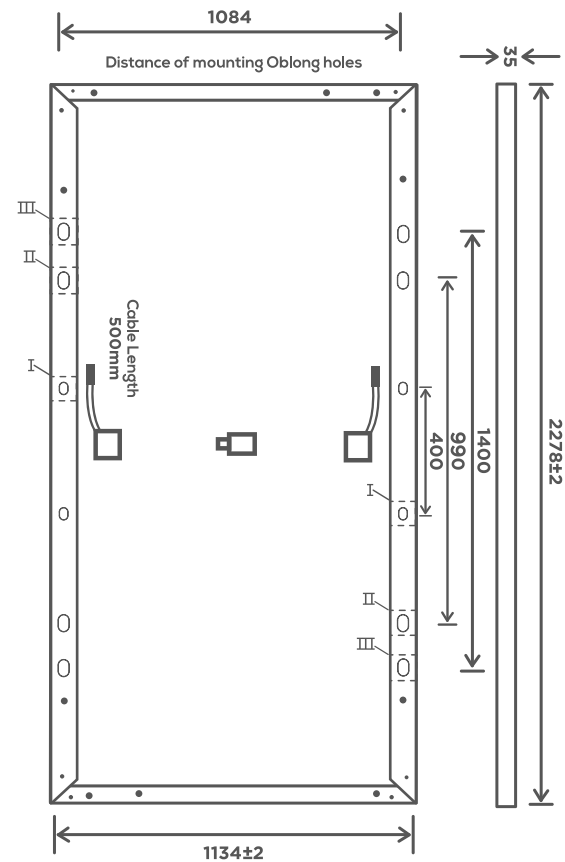
Test uncertainty for Pmax ±3%

Permissible Operating Conditions	
Operating Temperature Range	-40° C TO 85° C
Max.system Voltage	1500V DC
Maximum Snow Load Capacity	5400PA
Resistance Against Hail	MaxØ24mm With Impact Speed of 83km/h
Protection Class Against Electrical Shock	II
Maximum Reverse Current	30A
Bifaciality	80±5%

Mechanical Data	
Number of Cells and Cell Type	144 TOPCon Solar Cells
Dimensions: (L X W X H)	2278 mm X 1134 mm X 35 mm
Weight	32 kg
Front Glass	2 mm High Transmission, Solar Glass
Embedding	EVA/POE/EPE
Back Glass	2 mm High Transmission Solar Glass
Junction Box	3 Split Junction Box IP68
Number of Bypass Diodes	3
Cables	4mm² Solar Cables, Length 500±10mm
Connectors	MC4 Compatible

Warranty	
Product Warranty	12 years
Performance Warranty	30 years

Thermal Data	
Temp. Coefficient Open-circuit Voltage	-0.25%/°C
Temp. Coefficient Short Circuit Current	0.045%/°C
Temp. Coefficient Rated Power	-0.29%/°C
NOCT (Normal operating cell temperature)	45°C ±2°C



1ST YEAR DEGRADATION 1.0%

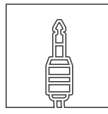
YEAR 2-30 POWER DEGRADATION 0.40%

END OF 30 YEARS 87.40%

FEATURES



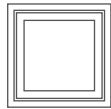
AR Coated High
Transmission
Glass



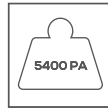
MC4
Compatible
Connectors



PID
Resistance



Anodised
Aluminium
Frame

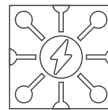


Snow Load
Resistance
upto 5400 Pa

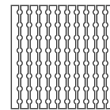
BENEFITS



Low LCOE,
Faster Payback
Period



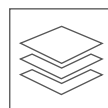
Best In Class
Efficiency
upto 23%



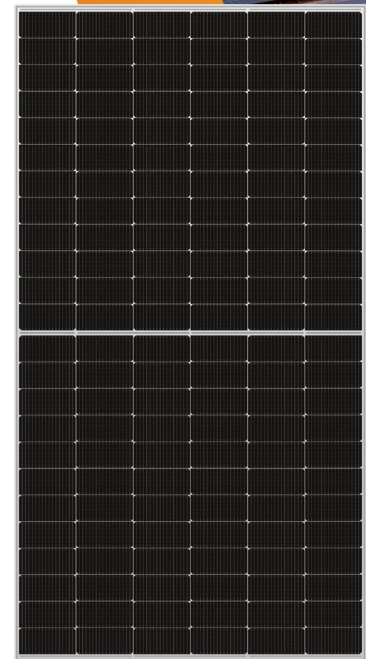
Multi-Bus Bar
Technology for
Better Current
Collection



Lowest
Guaranteed First
Year and Annual
Degradation



Well-Composed
Components
Stress to Reduce
Micro Cracks



*Product under testing at TUV for IEC standards.



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