eterbright®

CIGS-3000A1 Series

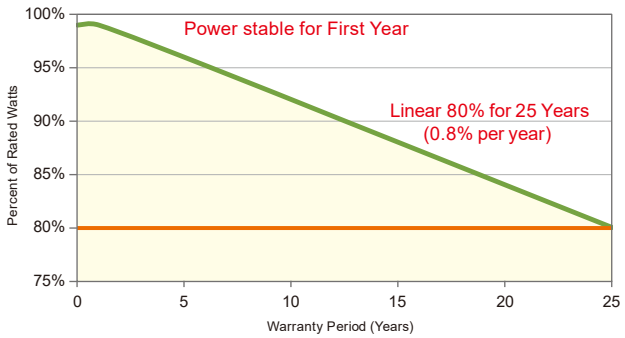
High Performance CIGS Thin Film Modules

MAX SYSTEM 1000V CIGS MODULES

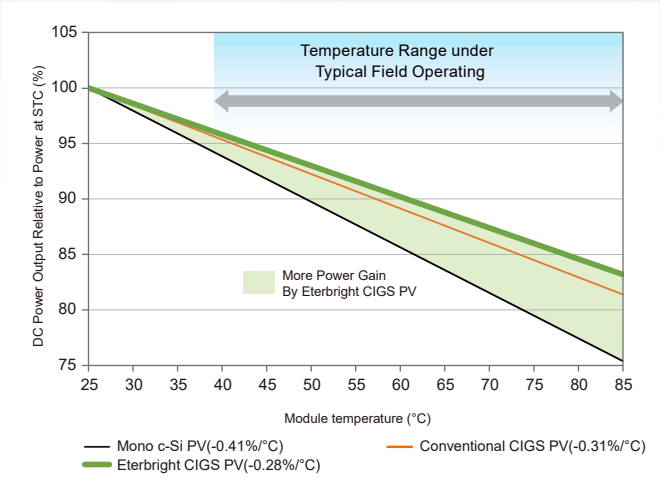
CIGS Competitive Advantages

- PID-free, LID-free
- No microcrack problem
- Less solder joints than c-Si
- No glint/glare problem
- Low shadow impact
- RoHS compliant
- Free of Lead, Cadmium, Tellurium, Arsenic

Linear Pmax. Performance Warranty

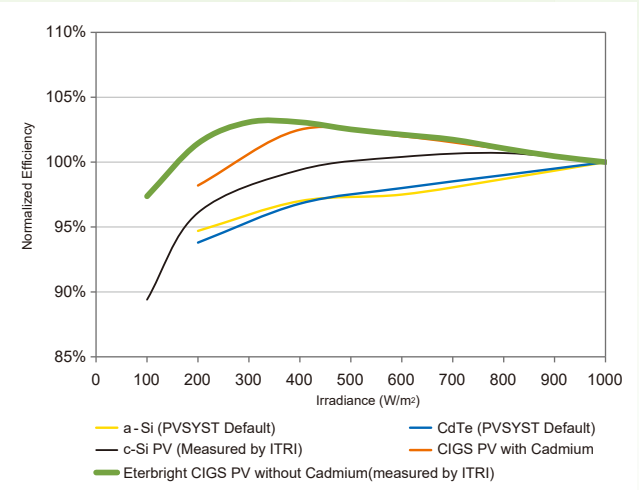


Lowest Temperature Coefficient (-0.28%/°C)



In tropical areas i.e. desert regions, equatorial regions, subtropical regions or high temperature areas, CIGS module will be the only choice.

The Comparison of Normalized Efficiency between Eterbright CIGS and Others

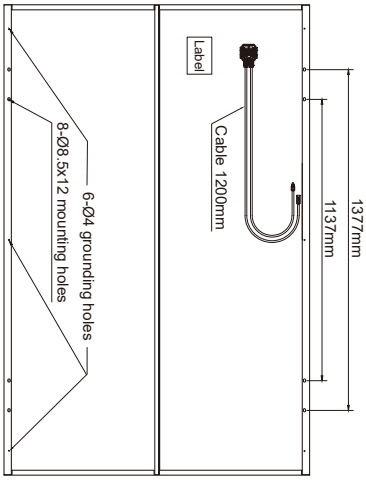


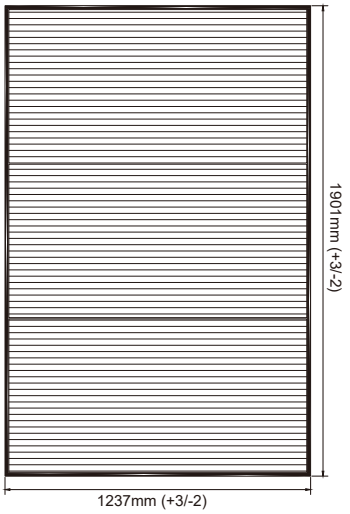
Eterbright CIGS PV performs better normalized efficiency under lower irradiance.

Mechanical Specification

Dimensions	1901mm x 1237mm x 45mm (74.8 inches x 48.7 inches x 1.77 inches)
Weight	33.3 kg (73.41lbs)
Cell type	CIGS thin film
Front cover	2.5mm tempered glass with ARC
Cell substrates	1.8mm ultra-thin soda lime glass x 3
Back cover	Al back sheet
Encapsulant	EVA
Frame	Anodized Al frame (black) with screw mounting
Junction Box	IP67 rated with bypass diode
Connectors	MC4 compatible
Cable length	1200mm (47.2 inches)

Module Drawing





Electrical Specification

*Power performance at STC (STC: 1000W/m², 25°C/77°F, AM 1.5)**

Module Models	CIGS-	3350A1	3400A1	3450A1	3500A1	3550A1	3600A1	3650A1
Nominal power	P_{MPP} [W]	335	340	345	350	355	360	365
Open circuit voltage	V_{OC} [V]	73.5	73.6	73.8	73.9	74.0	74.1	74.3
Short circuit current	I_{SC} [A]	6.71	6.73	6.75	6.95	6.96	6.96	6.96
Voltage at P_{max}	V_{MPP} [V]	56.5	56.9	57.1	55.6	56.3	57.0	57.5
Current at P_{max}	I_{MPP} [A]	5.93	5.98	6.04	6.30	6.31	6.32	6.35
Module efficiency	[%]	≧ 14.2	≧ 14.5	≧ 14.7	≧ 14.9	≧ 15.1	≧ 15.3	≧ 15.5

*Power performance at NMOT (NMOT: 800W/m². 20°C/68°F, AM1.5)**

Module Models	CIGS-	3350A1	3400A1	3450A1	3500A1	3550A1	3600A1	3650A1
Nominal power	P_{MPP} [W]	247.3	251.2	254.9	258.0	262.0	266.0	269.9
Open circuit voltage	V_{OC} [V]	69.1	69.2	69.4	69.5	69.6	69.7	69.9
Short circuit current	I_{SC} [A]	5.37	5.38	5.40	5.56	5.57	5.57	5.57
Voltage at P_{max}	V_{MPP} [V]	52.1	52.5	52.8	51.2	51.9	52.6	53.1
Current at P_{max}	I_{MPP} [A]	4.74	4.78	4.83	5.04	5.05	5.06	5.08

*All STC characteristics are measured after pre-treatment of 43kWh/m² light soaking. The nominal power is based on the measurement value of stabilized product. The value applies to measurement uncertainty: Pmax : +5%/-3% ; Isc, Voc, Imax, Vmax : ±10%.

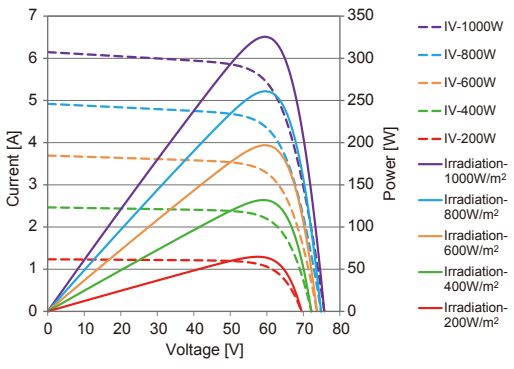
Temperature coefficients

NMOT	TC I_{SC} (α)	TC V_{OC} (β)	TC P_{MPP}(δ)
46°C	+0.01%/°C	-0.27%/°C	-0.28%/°C

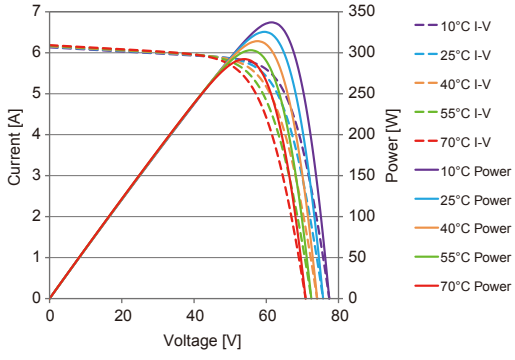
Properties for solar system construction design

Max. system voltage (V_{SYS})	Max. series overcurrent protective devices	Mechanical load	Safety class	Fire rating	Operating temperature
1000V	8A	2400Pa	II	Class C(IEC) Type 1(UL)	-40 ~ 85°C

I-V curves at various irradiation



I-V curves at various temperature



*This datasheet is for informational purposes only. No rights can be derived from the information contained herein.
*The color of each individual product might be slightly different but does not affect the output power performance.

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