

ECO DELTA 12BB Monocrystalline Half-cut Cell PV Module
ECO-310-325/M-60HC(12BB)



Higher Module Efficiency
Brings 0-+3W Power gain due to half-cut production system



INNOVATIONAL HALF-CELL TECHNOLOGY
Improves the module output, decreases the risk of mirco-crack, enhances the module reliability.



INNOVATIVE PERC CELL TECHNOLOGY
Excellent cell efficiency and output.



REDUCE SHADOW LOSS
Effectively reduces the effect of shadow on the module surface.



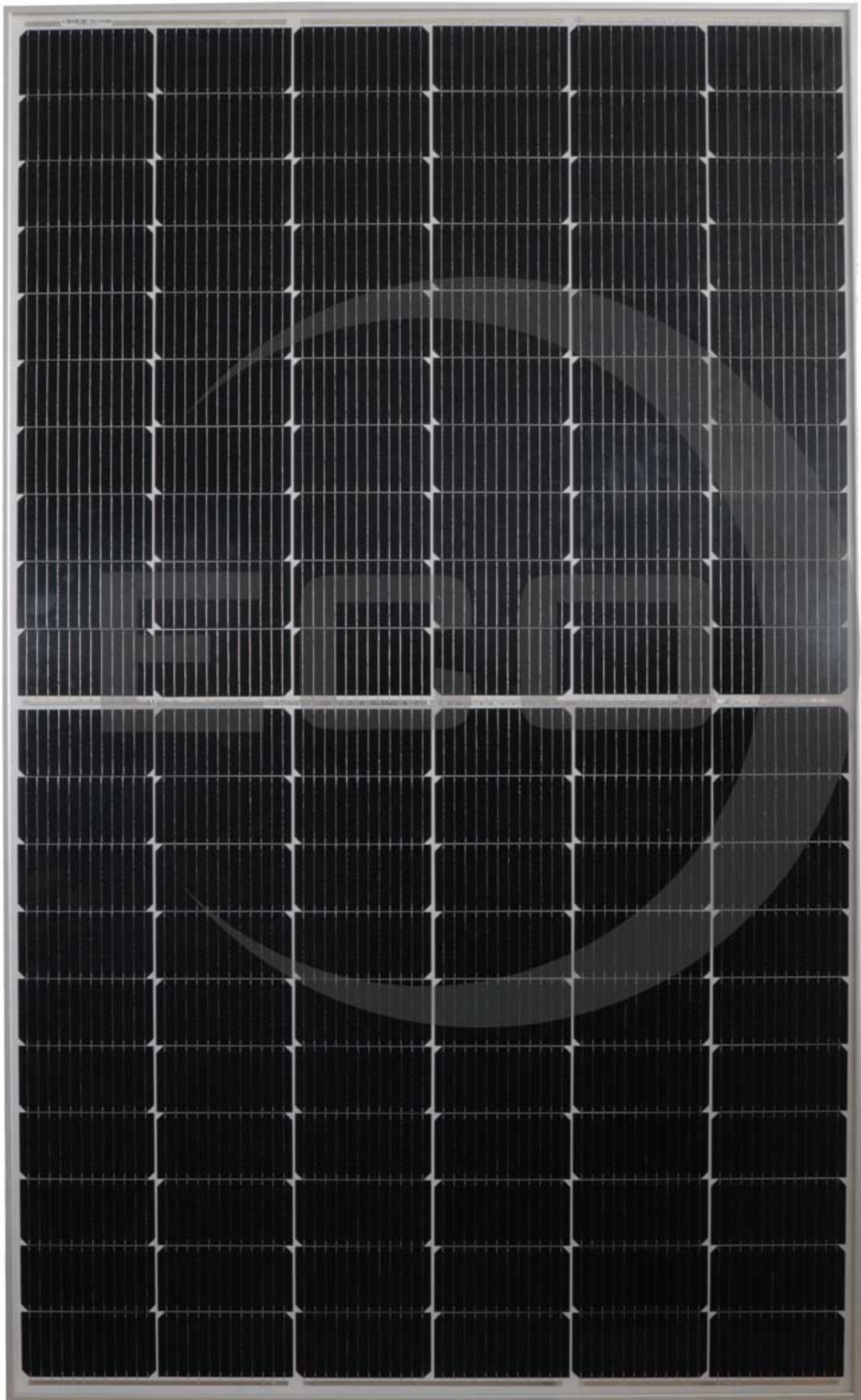
REDUCE INTERNAL MISMATCH LOSS
Reduces mismatch loss and improves output.



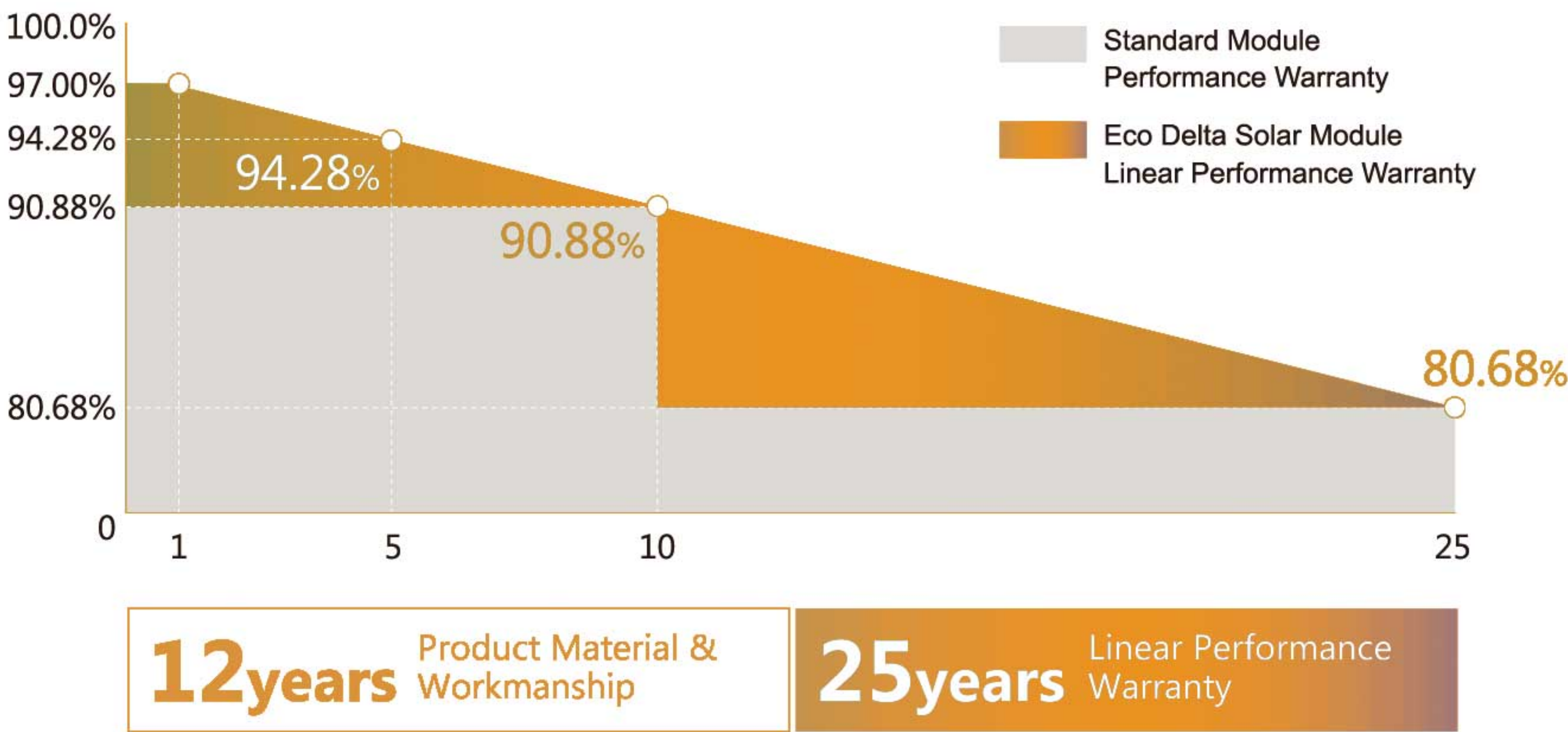
PASSED HAIL TEST
Certified to hail resistance: ice ball size (d=45mm) and ice ball velocity (v=30.7m/s).



PID RESISTANCE
Excellent PID resistance at 96 hours (@85°C/85%) test, and also can be improved to meet higher standards for the particularly harsh environment



LINEAR PERFORMANCE WARRANTY



QUALITY WARRANTY

Eco Delta guarantees that defects will not appear in materials and workmanship defined by IEC61215 or IEC61730 under normal installation, use and maintenance as specified in Eco Delta's installation manual for 12 years from the warranty starting date.

ISO9001
ISO14001
OHSAS18001



About Eco Delta

Eco Delta Power Co.,Ltd specializes in research, development, production, and sales of solar PV products as well as provision of related services and provides customers around the world with high-quality PV products.

www.ecodeltapower.com

ECO DELTA 12BB Monocrystalline Half-cut Cell PV Module

ECO-310-325/M-60HC(12BB)



ELECTRICAL DATA @ STC		ECO-310/M-60HC (12BB)	ECO-315/M-60HC (12BB)	ECO-320/M-60HC (12BB)	ECO-325/M-60HC (12BB)
Peak Power(Pmax)	(W)	310	315	320	325
Maximum Power Voltage (Vmp)	(V)	33.15	33.44	33.68	33.93
Maximum Power Current(Imp)	(A)	9.35	9.42	9.50	9.58
Open-circuit Voltage (Voc)	(V)	40.11	40.42	40.72	41.03
Short-circuit Current(Isc)	(A)	9.82	9.90	9.98	10.06
Module Efficiency	(%)	18.60	18.90	19.20	19.50
Operating Temperature		-40°C~+85°C			
Maximum System Voltage		□ 1000V □ 1500V			
Maximum Series Fuse Rating		15A			
Power Telorance		0~+3%			

*STC (Standard Test Condition): Irradiance 1000W/ ㎡ , Module Temperature 25°C, AM 1.5

ELECTRICAL DATA @ NMOT		ECO-310/M-60HC (12BB)	ECO-315/M-60HC (12BB)	ECO-320/M-60HC (12BB)	ECO-325/M-60HC (12BB)
Peak Power(Pmax)	(W)	227	231	235	238
MPP Voltage (Vmp)	(V)	30.54	30.80	31.02	31.25
MPP Current(Imp)	(A)	7.46	7.52	7.58	7.64
Open Circuit Voltage (Voc)	(V)	37.21	37.50	37.77	38.06
Short Circuit Current(Isc)	(A)	7.90	7.96	8.03	8.09

*Under Nominal Module Operating Temperature (NMOT), Irradiance of 800W/ ㎡ , Spectrum AM 1.5, Ambient Temperature 20°C, Wind Speed 1m/s

TEMPERATURE CHARACTERISTICS

Temperature coefficient of Pmax	-0.38%
Temperature coefficient of Voc	-0.31%
Temperature coefficient of Isc	0.05%
NMOT	41±3°C

MECHANICAL DATA

Cell Type	Mono-Crystalline, 156.75*78.38mm
Cell Arrangement	120pcs (2(6×10))
Dimension (L×W×H)	1675×992×35mm
Weight	19.0kg
Front Cover	3.2mm Tempered Glass
Frame	Anodized Aluminium Alloy
Junction Box	IP67, 3 Bypass Diodes
Cable Type	4mm²
Length of Cable	1160mm
Connector	PV Connector

OPTIONAL

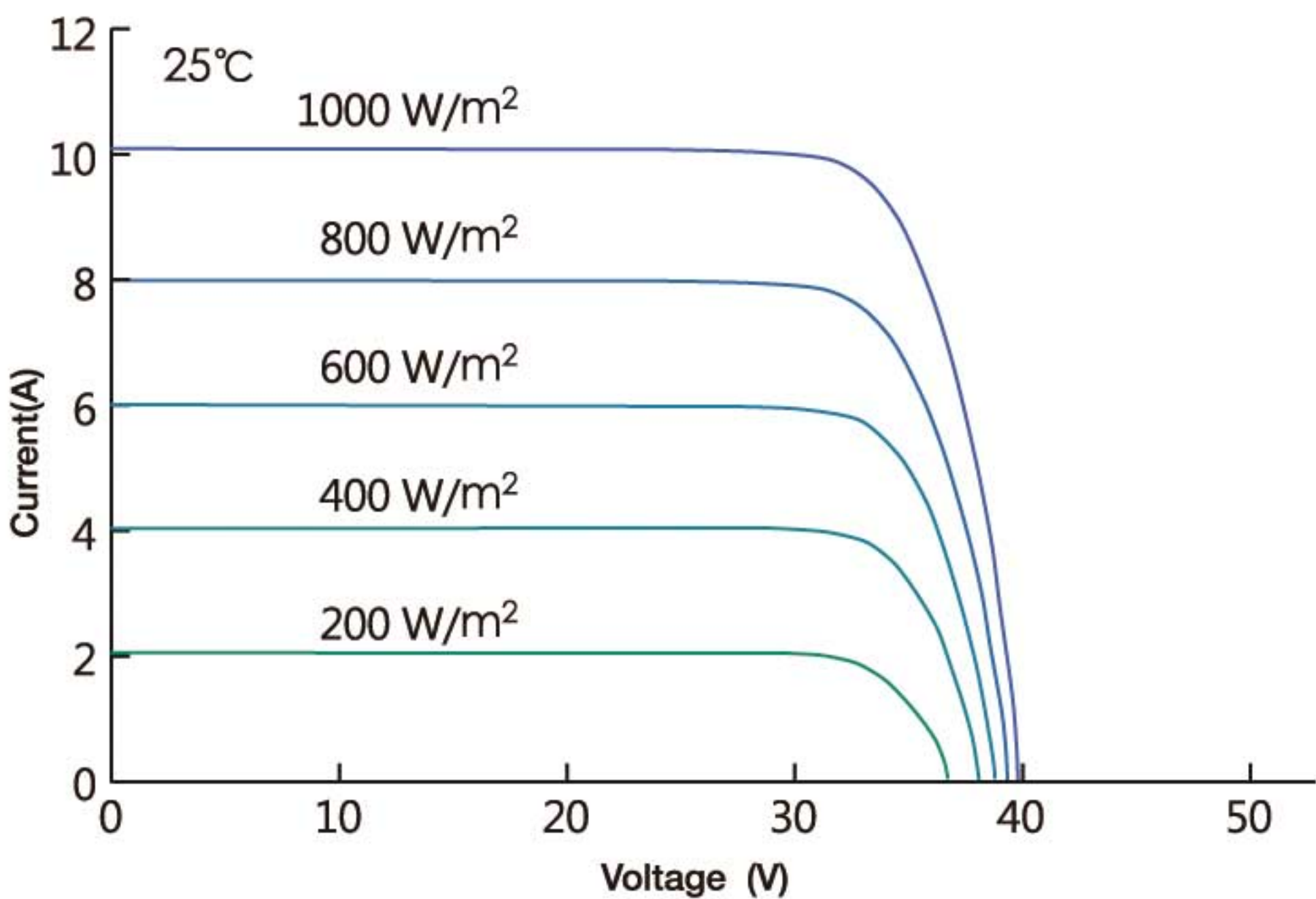
Frame	□ Black
Backsheet	□ Black
Connector	□ Original MC4
Cable	□ 300mm □ 1160mm
Module Size	□ Customized

PACKING MANNER

Packing Type	40'HQ
Piece/Pallet	30
Piece/Container	840

*The specification and key features described in this datasheet may deviate slightly and are not guaranteed. Due to ongoing innovation, R&D enhancement, ECO DELTA POWER CO., LTD Reserves the right to make any adjustment to the information described herein at any time without notice. Please always obtain the most recent version of the datasheet which shall be duly incorporated into the binding contract made by the parties governing all transactions related to the purchase and sale of the produccets described herein.

Current-Voltage Curve under different irradiance



Current-Voltage Curve under different working temperatures

