






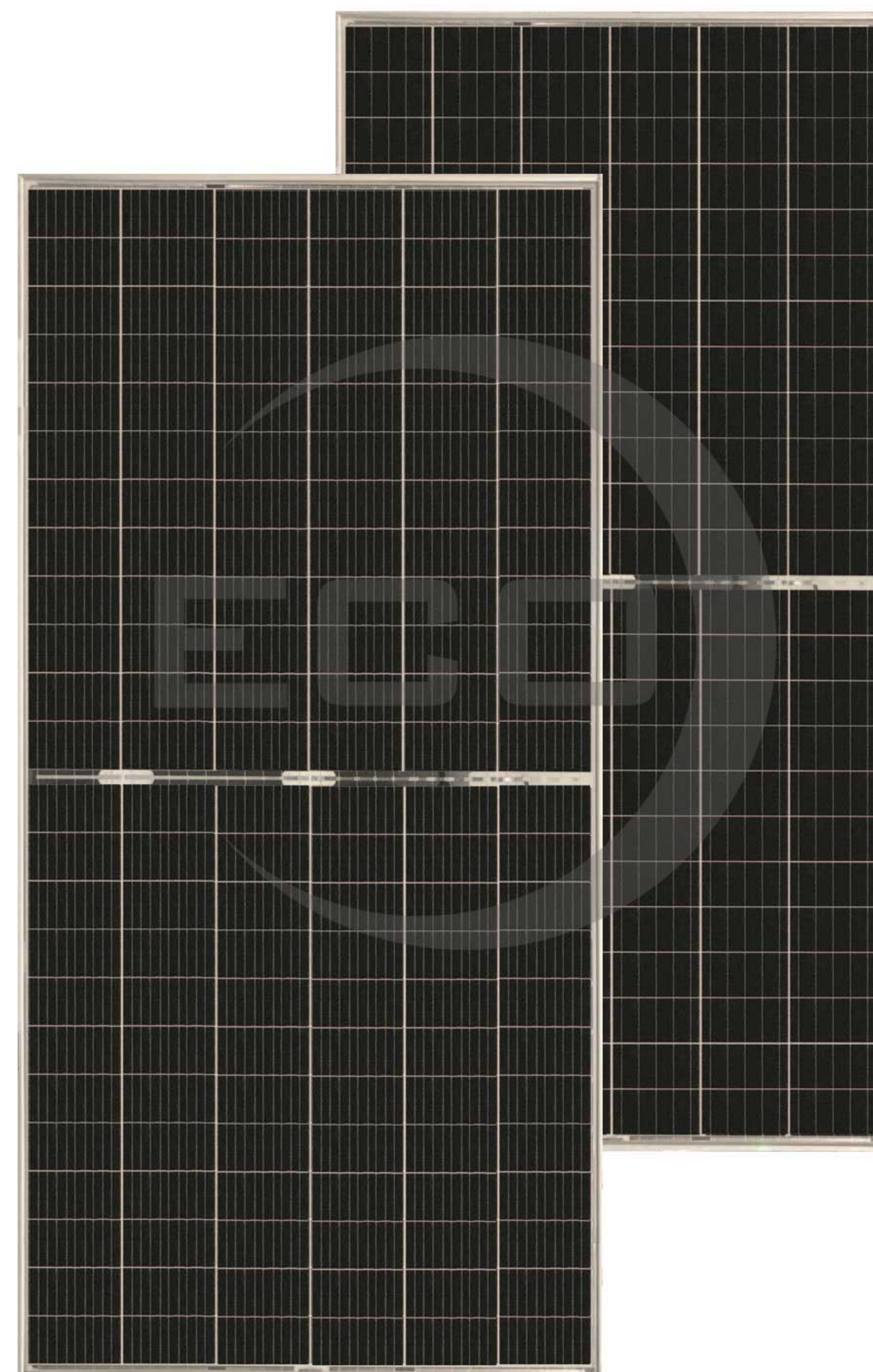


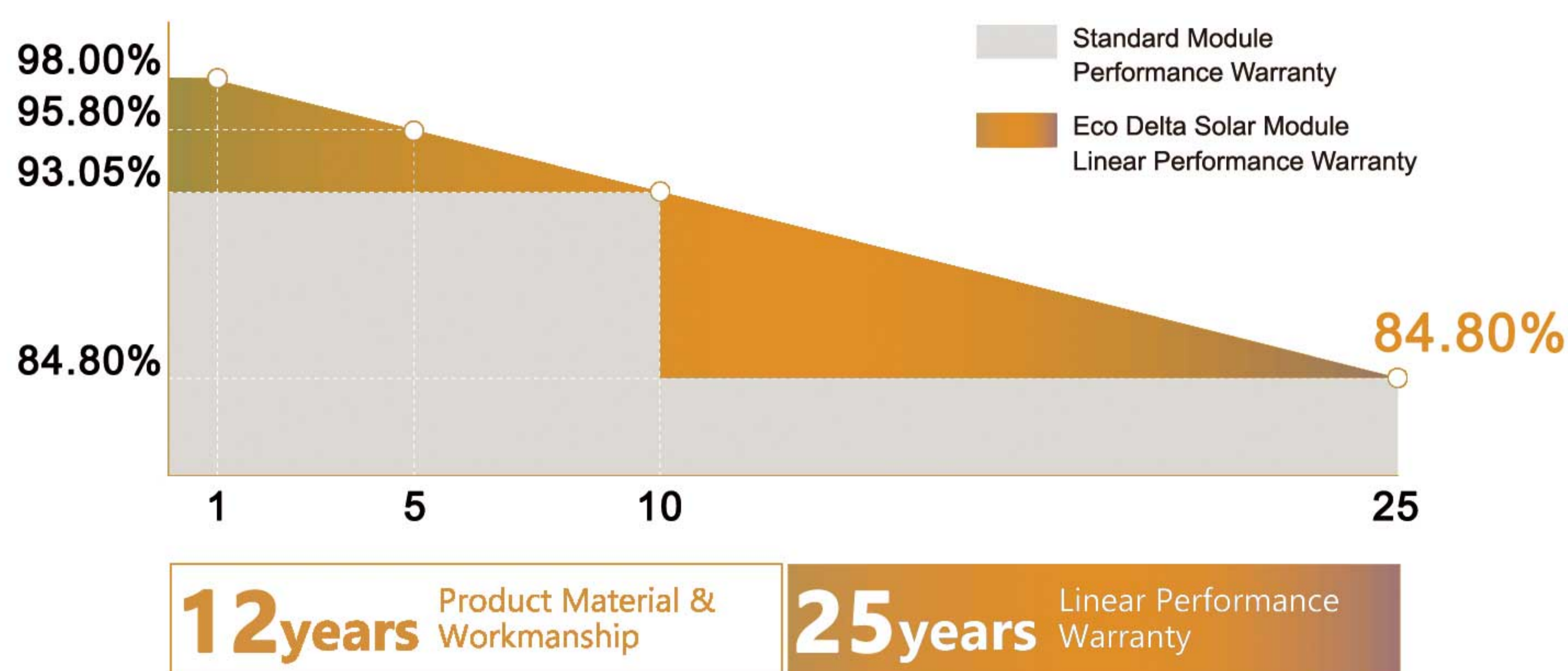
ECO DELTA High Efficiency 5BB/9BB Mono Big Cell Half-cut Double-glass-bifacial PV Module ECO-400-420M-72DHC-DGDF



- 
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 High Efficiency 5BB/9BB Mono Big Cell Half-cut Double-glass-bifacial PV Module

ECO-400-420M-72DHC-DGDF



ELECTRICAL DATA @ STC		ECO-400M-72 DHC-DGDF	ECO-405M-72 DHC-DGDF	ECO-410M-72 DHC-DGDF	ECO-415M-72 DHC-DGDF	ECO-420M-72 DHC-DGDF
Peak Power(Pmax)	(W)	400	405	410	415	420
Maximum Power Voltage (Vmp)	(V)	40.17	40.34	40.52	40.69	40.86
Maximum Power Current(Imp)	(A)	9.96	10.04	10.12	10.20	10.28
Open-circuit Voltage (Voc)	(V)	49.42	49.61	49.79	49.96	50.13
Short-circuit Current(Isc)	(A)	10.46	10.54	10.62	10.69	10.76
Module Efficiency	(%)	19.54	19.79	20.03	20.28	20.52
Operating Temperature		-40°C~+85°C				
Maximum System Voltage		<input type="checkbox"/> 1000V <input type="checkbox"/> 1500V				
Maximum Series Fuse Rating		20A				
Power Tolerance		0~+3%				

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

ELECTRICAL DATA @ NMOT		ECO-400M-72 DHC-DGDF	ECO-405M-72 DHC-DGDF	ECO-410M-72 DHC-DGDF	ECO-415M-72 DHC-DGDF	ECO-420M-72 DHC-DGDF
Peak Power(Pmax)	(W)	296	300	303	307	311
MPP Voltage (Vmp)	(V)	36.91	37.09	37.18	37.35	37.56
MPP Current(Imp)	(A)	8.02	8.09	8.15	8.22	8.28
Open Circuit Voltage (Voc)	(V)	45.40	45.62	45.68	45.86	46.08
Short Circuit Current(Isc)	(A)	8.41	8.49	8.56	8.61	8.67

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

Bifacial Output-Backside Power Gain		ECO-400M-72 DHC-DGDF	ECO-405M-72 DHC-DGDF	ECO-410M-72 DHC-DGDF	ECO-415M-72 DHC-DGDF	ECO-420M-72 DHC-DGDF
Pmax	10% (W)	429	435	440	446	451
Module Efficiency	(%)	20.96	21.25	21.50	21.79	22.04
Pmax	20% (W)	468	474	480	486	492
Module Efficiency	(%)	22.87	23.16	23.45	23.75	24.04

TEMPERATURE CHARACTERISTICS		
Temperature coefficient of Pmax		-0.36%/k
Temperature coefficient of Voc		-0.26%/k
Temperature coefficient of Isc		0.04%/k
NMOT		41±3°C

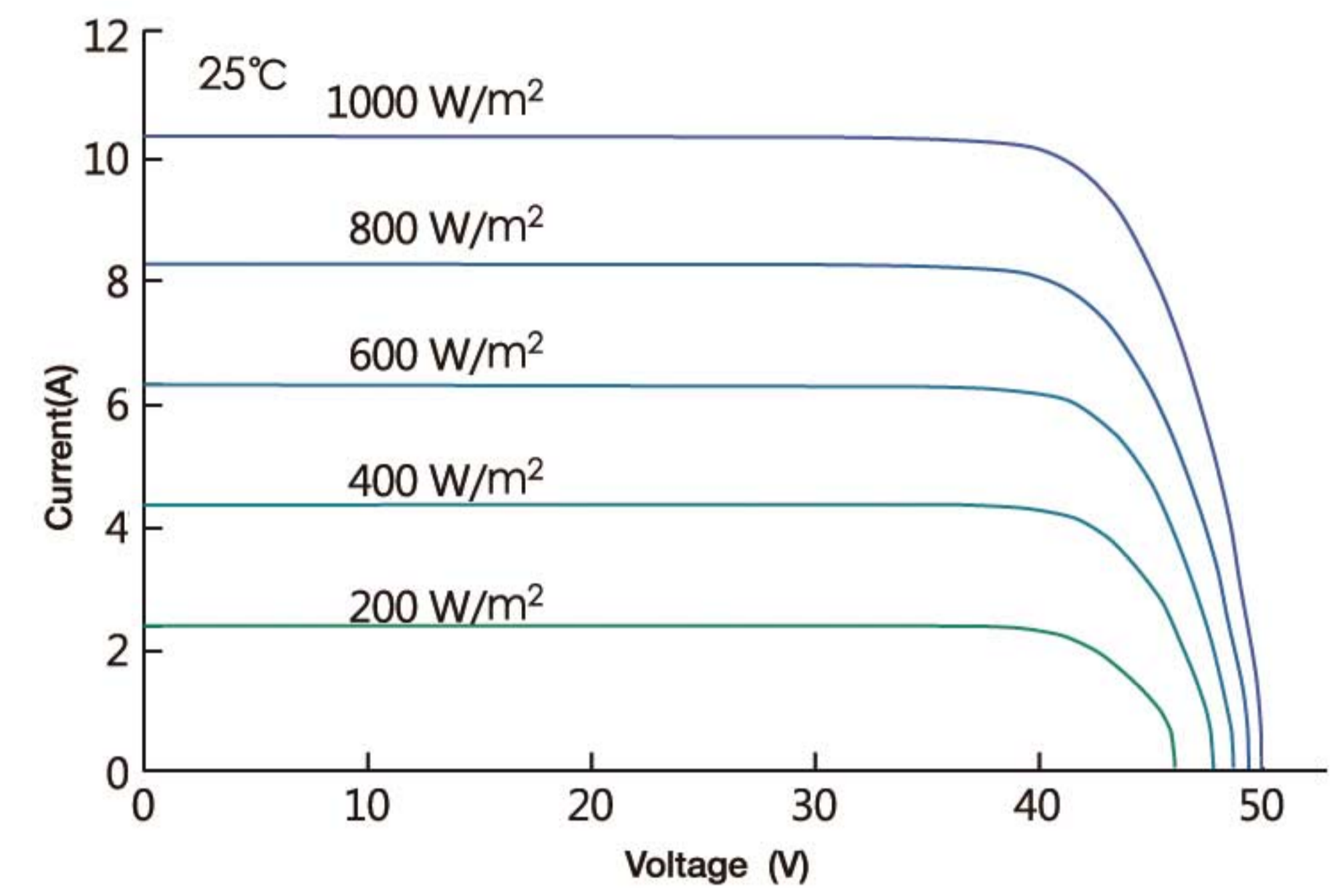
MECHANICAL DATA		
Cell Type		Mono-Crystalline, 158.75*79.38mm
Cell Arrangement		144pcs (2(6*12))
Dimension (L*W*H)		2030*1008*30mm
Weight		25.4kg
Front Cover		2mm Tempered Glass
Frame		Anodized Aluminium Alloy
Junction Box		IP68, 3 Bypass Diodes
Cable Type		4mm ²
Length of Cable		1200mm
Connector		PV Connector

OPTIONAL		
Frame		<input type="checkbox"/> Black
Backsheet		<input type="checkbox"/> Transparent
Cable		<input type="checkbox"/> 300mm <input type="checkbox"/> 1200mm

PACKING MANNER		
Packing Type		40'HQ
Piece/Pallet		35
Piece/Container		770

*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 products described herein.

Current-Voltage Curve under different irradiance



Current-Voltage Curve under different working temperatures

