

# CLASSIC™



## ECO-405-415M-54LHC

# PHOTOVOLTAIC MODULE

## M10 182mm



**12 YEARS**  
PRODUCT MATERIAL &  
WORKMANSHIP

**25 YEARS** 84.8%  
LINEAR PERFORMANCE  
WARRANTY

INNOVATIONAL  
MBB AND  
HALF-CUT CELLS  
TECHNOLOGY

REDUCE  
INTERNAL LOSS  
REDUCE  
SHADOW LOSS

MATURE  
PERC CELL  
TECHNOLOGY  
EXCELLENT CELL  
EFFICIENCY AND OUTPUT

PASSED THREE  
TIMES IEC  
**STANDARD TEST**

PASSED HAIL  
TEST (ICE BALL  
SIZE : d=45mm)

# ECO DELTA MBB Mono Half-cut 182 Cell PV Module



## ECO-405-415M-54LHC

ELECTRICAL DATA @ STC		ECO-405M-54 LHC	ECO-410M-54 LHC	ECO-415M-54 LHC
Peak Power(Pmax)	(W)	405	410	415
Maximum Power Voltage (Vmp)	(V)	31.52	31.76	32.00
Maximum Power Current(Imp)	(A)	12.85	12.91	12.97
Open-circuit Voltage (Voc)	(V)	37.42	37.67	37.91
Short-circuit Current(Isc)	(A)	13.60	13.66	13.72
Module Efficiency	(%)	20.76	21.01	21.27
Operating Temperature		-40°C~+85°C		
Maximum System Voltage		☐ 1000V ☐ 1500V		
Maximum Series Fuse Rating		25A		
Power Tolerance		0~+3%		

\*STC (Standard Test Condition): Irradiance 1000W/ m<sup>2</sup> , Module Temperature 25°C, AM 1.5

ELECTRICAL DATA @ NMOT		ECO-405M-54 LHC	ECO-410M-54 LHC	ECO-415M-54 LHC
Peak Power(Pmax)	(W)	307	311	315
MPP Voltage (Vmp)	(V)	29.19	29.43	29.67
MPP Current(Imp)	(A)	10.52	10.57	10.62
Open Circuit Voltage (Voc)	(V)	34.81	35.04	35.28
Short Circuit Current(Isc)	(A)	11.13	11.18	11.23

\*Under Nominal Module Operating Temperature (NMOT), Irradiance of 800W/ m<sup>2</sup> , Spectrum AM 1.5, Ambient Temperature 20°C, Wind Speed 1m/s

### TEMPERATURE CHARACTERISTICS

Temperature coefficient of Pmax	-0.35%/k
Temperature coefficient of Voc	-0.25%/k
Temperature coefficient of Isc	0.04%/k
NMOT	43±2°C

### MECHANICAL DATA

Cell Type	Mono-Crystalline, 182*91mm
Cell Arrangement	108pcs (2(6*9))
Dimension (L*W*H)	1722 x 1134 x 30 mm
Weight	20.4kg
Front Cover	3.2mm Tempered Glass
Frame	Anodized Aluminium Alloy
Junction Box	IP68, 3 Bypass Diodes
Cable Type	4mm <sup>2</sup>
Length of Cable	1000mm
Connector	Compatible with MC4 PV Connector

### OPTIONAL

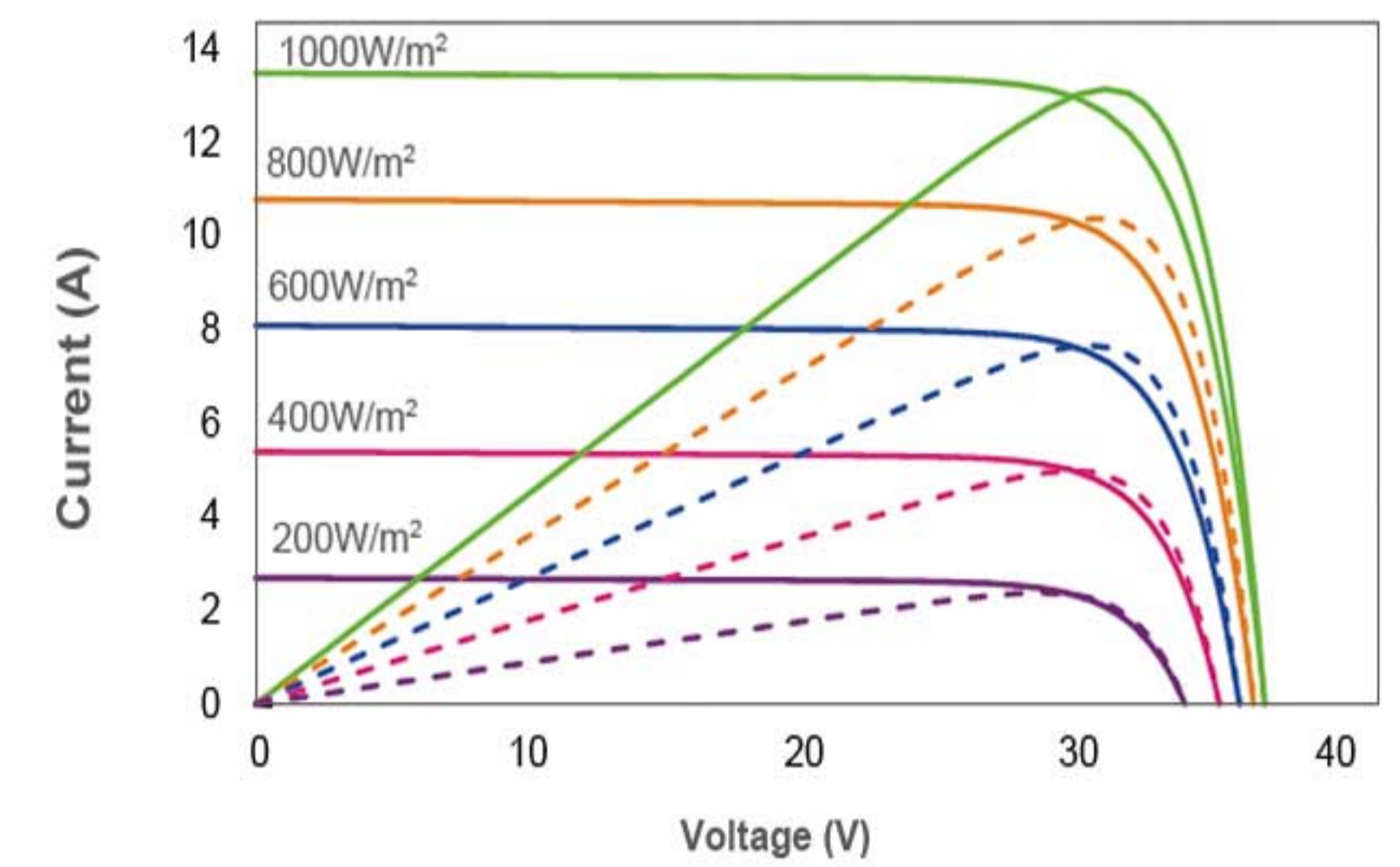
Frame	☐ Black
Backsheet	☐ Black
Connector	☐ Original MC4
Cable	☐ Customized
Module Size	☐ Customized

### PACKING MANNER

Packing Type	40'HQ
Piece/Pallet	36
Piece/Container	936

\*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

