

# Newborn with Shingled module Technology

ECO-415M-60SBF



**15 YEARS**  
PRODUCT MATERIAL &  
WORKMANSHIP  
**25 YEARS 84.8%**  
LINEAR PERFORMANCE  
WARRANTY

INNOVATIONAL  
SHINGLED  
MODULE  
TECHNOLOGY

REDUCE SHADOW  
LOSS UP TO **35%**  
COMPARING WITH  
CONVENTIONAL  
HALF CUT MODULE

REDUCE  
INTERNAL  
MISMATCH  
LOSS

PASSED THREE  
TIMES IEC  
**STANDARD TEST**

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

# ECO DELTA High Efficiency Mono SHINGLED MODULE



## ECO-415M-60SBF

ELECTRICAL DATA @ STC		ECO-415M-60 SBF
Peak Power(Pmax)	(W)	415
Maximum Power Voltage (Vmp)	(V)	38.90
Maximum Power Current(Imp)	(A)	10.67
Open-circuit Voltage (Voc)	(V)	46.70
Short-circuit Current(Isc)	(A)	11.12
Module Efficiency	(%)	21.20
Operating Temperature		-40°C~+85°C
Maximum System Voltage		□1500V
Maximum Series Fuse Rating		20A
Tolerance		Pmax±3% Voc±3% Isc±3%
Fire Class		Class C

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

ELECTRICAL DATA @ NMOT		ECO-415M-60 SBF
Peak Power(Pmax)	(W)	312
MPP Voltage (Vmp)	(V)	37.10
MPP Current(Imp)	(A)	8.43
Open Circuit Voltage (Voc)	(V)	44.50
Short Circuit Current(Isc)	(A)	9.97

\*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	-0.34%
Temperature coefficient of Voc	-0.27%
Temperature coefficient of Isc	0.04%
NMOT	42±2°C

MECHANICAL DATA	
Cell Type	Mono, 166*33.2mm cut 1/5
Cell Arrangement	340pcs (1/5 , 166)
Dimension (L×W×H)	1719 x 1140 x 35 mm
Weight	22kg
Front Cover	3.2mm Tempered Glass
Frame	Anodized Aluminium Alloy
Junction Box	IP67, 2 Bypass Diodes
Cable Type	4mm <sup>2</sup>
Length of Cable	1000mm
Connector	RENHE 05-8 RHC2 made in china

OPTIONAL	
Frame	/
Backsheet	/
Connector	□Original MC4 STAUBLI EVO2
Cable	□Customized
Junction Box	□IP68

PACKING MANNER	
Packing Type	40'HQ
Piece/Pallet	30
Piece/Container	780

\*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.

