

Newborn with Shingled module Technology

ECO-650-670M-69BSC-DGDF
Double-glass-bifacial



15 YEARS
PRODUCT MATERIAL &
WORKMANSHIP

30 YEARS 84.95%
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

Double-glass-bifacial



ECO-650-670M-69BSC-DGDF

ELECTRICAL DATA @ STC

		ECO-650M-69 BSC-DGDF	ECO-655M-69 BSC-DGDF	ECO-660M-69 BSC-DGDF	ECO-665M-69 BSC-DGDF	ECO-670M-69 BSC-DGDF
Peak Power(Pmax)	(W)	650	655	660	665	670
Maximum Power Voltage (Vmp)	(V)	38.80	38.85	38.90	39.00	39.10
Maximum Power Current(Imp)	(A)	16.77	16.86	16.95	17.05	17.14
Open-circuit Voltage (Voc)	(V)	46.70	46.80	46.90	47.00	47.10
Short-circuit Current(Isc)	(A)	17.84	17.94	18.04	18.14	18.23
Module Efficiency	(%)	20.90	21.10	21.20	21.40	21.60
Operating Temperature		-40°C~+85°C				
Maximum System Voltage		□ 1500V				
Maximum Series Fuse Rating		30A				
Power Tolerance		0~5W				

*STC (Standard Test Condition): Irradiance 1000W/ m², Module Temperature 25°C, AM 1.5
 *Performance deviation of Voc [V], Isc [A], Vm [V] and Im [A] : ±3%

ELECTRICAL DATA @ NMOT

		ECO-650M-69 BSC-DGDF	ECO-655M-69 BSC-DGDF	ECO-660M-69 BSC-DGDF	ECO-665M-69 BSC-DGDF	ECO-670M-69 BSC-DGDF
Peak Power(Pmax)	(W)	489	493	497	501	504
MPP Voltage (Vmp)	(V)	37.00	37.05	37.10	37.20	37.30
MPP Current(Imp)	(A)	13.25	13.32	13.39	13.46	13.54
Open Circuit Voltage (Voc)	(V)	44.40	44.50	44.70	44.80	44.90
Short Circuit Current(Isc)	(A)	14.37	14.45	14.53	14.61	14.69

*Under Nominal Module Operating Temperature (NMOT), Irradiance of 800W/ m², 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		43±2°C

MECHANICAL DATA

Cell Type		Mono, 210mm cut
Cell Arrangement		408pcs
Dimension (L×W×H)		2384×1303×35 mm
Weight		39kg
Front Cover		2.0mm Tempered Glass
Frame		Anodized Aluminium Alloy
Junction Box		IP68, 3 Bypass Diodes
Cable Type		4mm ²
Length of Cable		1400mm
Connector		PV Connector

OPTIONAL

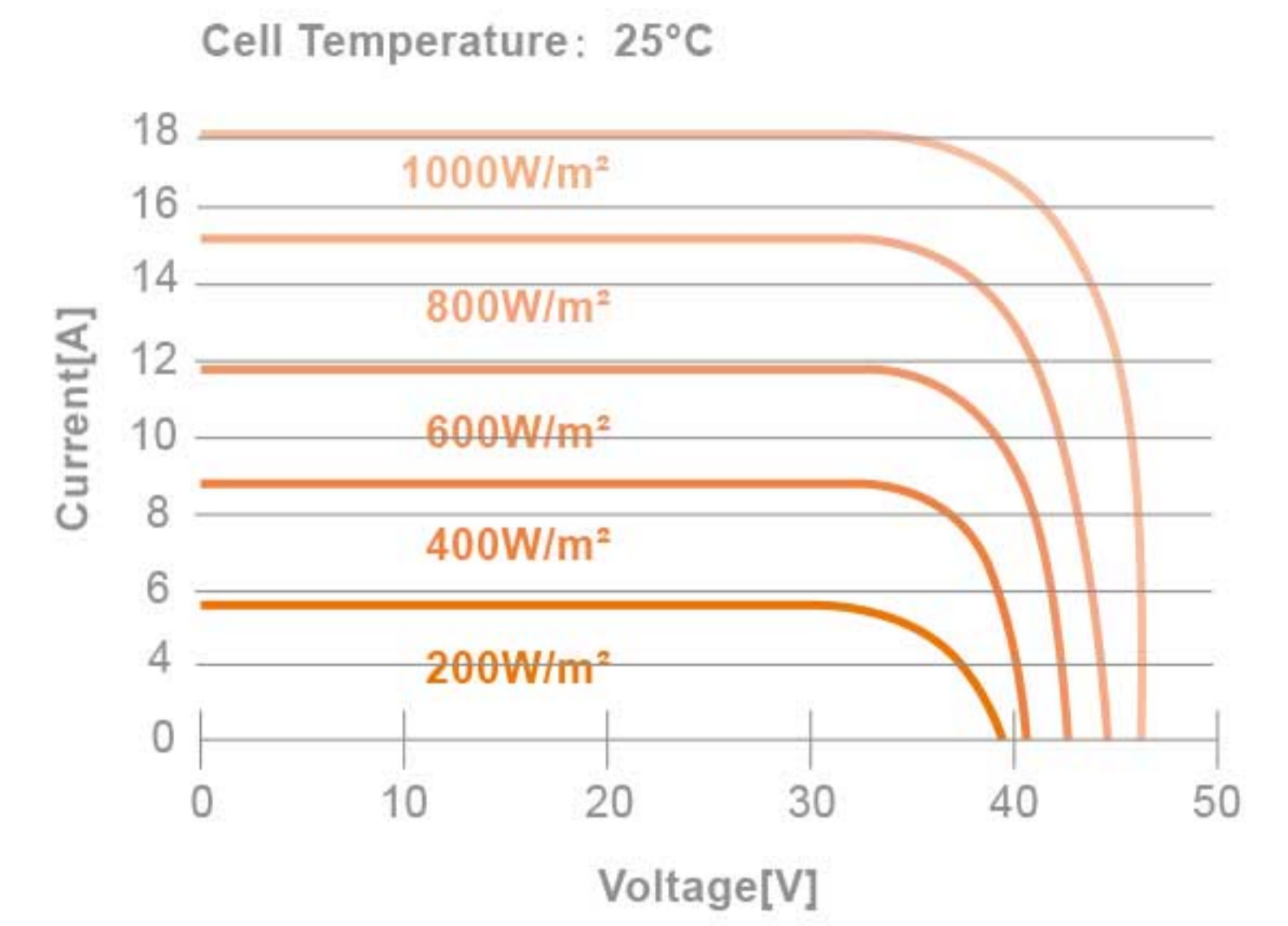
Frame		□ Black
Backsheet		□ 2.0mm Tempered Glass
Connector		□ Original MC4
Cable		□ Customized
Junction Box		□ Customized

PACKING MANNER

Packing Type		40'HQ
Piece/Pallet		31
Piece/Container		558

*The specification and key features described in this datasheet may deviate slightly and are not guaranteed.
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Current-Voltage Curve under different irradiance



Current-Voltage Curve under different working temperatures

