

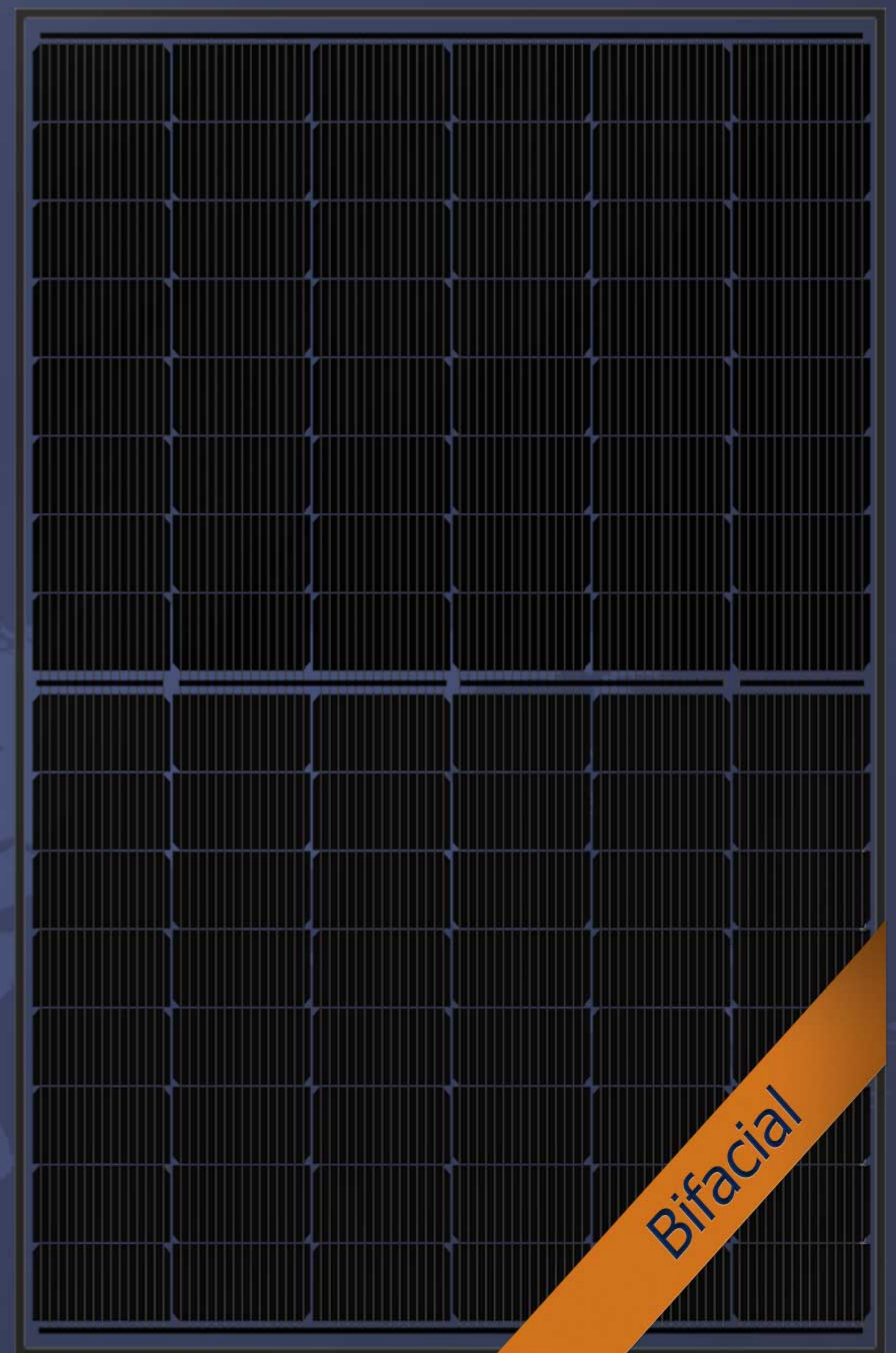
CLASSIC PLUS G™



ECO-445-455M-48RHC-DGBF(TOPCON)

N-TYPE BIFACIAL DOUBLE GLASS MODULE G12R

TOPCon



30 YEARS
Product material
& workmanship
30 YEARS 87.4%
Linear performance
warranty

G12R Smbb
and half-cut cells
technology

Reduce
internal loss
Reduce
shadow loss

N-type TOPCon
cell technology
Excellent cell
Efficiency and
power output

Harsh environ-
ment resistance
Damage-free laser
cutting, lower
micro-crack risk

Up to 80% power
bifaciality

ECO DELTA Mono TOPCon Half-cut Cell Double-glass-bifacial PV Module



ECO-440-455M-48RHC-DGBF(TOPCON)

ELECTRICAL DATA @ STC

Peak Power(Pmax)	(W)	440	445	450	455
Maximum Power Voltage (Vmp)	(V)	29.67	29.93	30.19	30.44
Maximum Power Current(Imp)	(A)	14.83	14.87	14.91	14.95
Open-circuit Voltage (Voc)	(V)	35.35	35.55	35.75	35.95
Short-circuit Current(Isc)	(A)	15.89	15.92	15.95	15.98
Module Efficiency	(%)	22.0	22.3	22.5	22.8
Operating Temperature		-40°C~+85°C			
Maximum System Voltage		1500V			
Maximum Series Fuse Rating		30A			
Mechanical Test Load		Front 5400Pa Rear 2400Pa			

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

ELECTRICAL DATA @ NMOT

Peak Power(Pmax)	(W)	332	336	340	344
MPP Voltage (Vmp)	(V)	27.74	27.98	28.24	28.51
MPP Current(Imp)	(A)	11.97	12.01	12.04	12.07
Open Circuit Voltage (Voc)	(V)	33.65	33.84	34.03	34.22
Short Circuit Current(Isc)	(A)	12.83	12.87	12.91	12.95

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

Electrical characteristics @ Rear Power Gain

5% Max Power:Pmax	(W)	462	467	472	477
5% Module Efficiency:η	(%)	23.1	23.4	23.6	23.9
15% Max Power:Pmax	(W)	506	511	517	523
15% Module Efficiency:η	(%)	25.3	25.6	25.9	26.2
25% Max Power:Pmax	(W)	550	556	562	568
25% Module Efficiency:η	(%)	27.5	27.8	28.1	28.4

TEMPERATURE CHARACTERISTICS

Temperature coefficient of Pmax	-0.28%/°C
Temperature coefficient of Voc	-0.24%/°C
Temperature coefficient of Isc	0.046%/°C
NMOT	45±2°C

MECHANICAL DATA

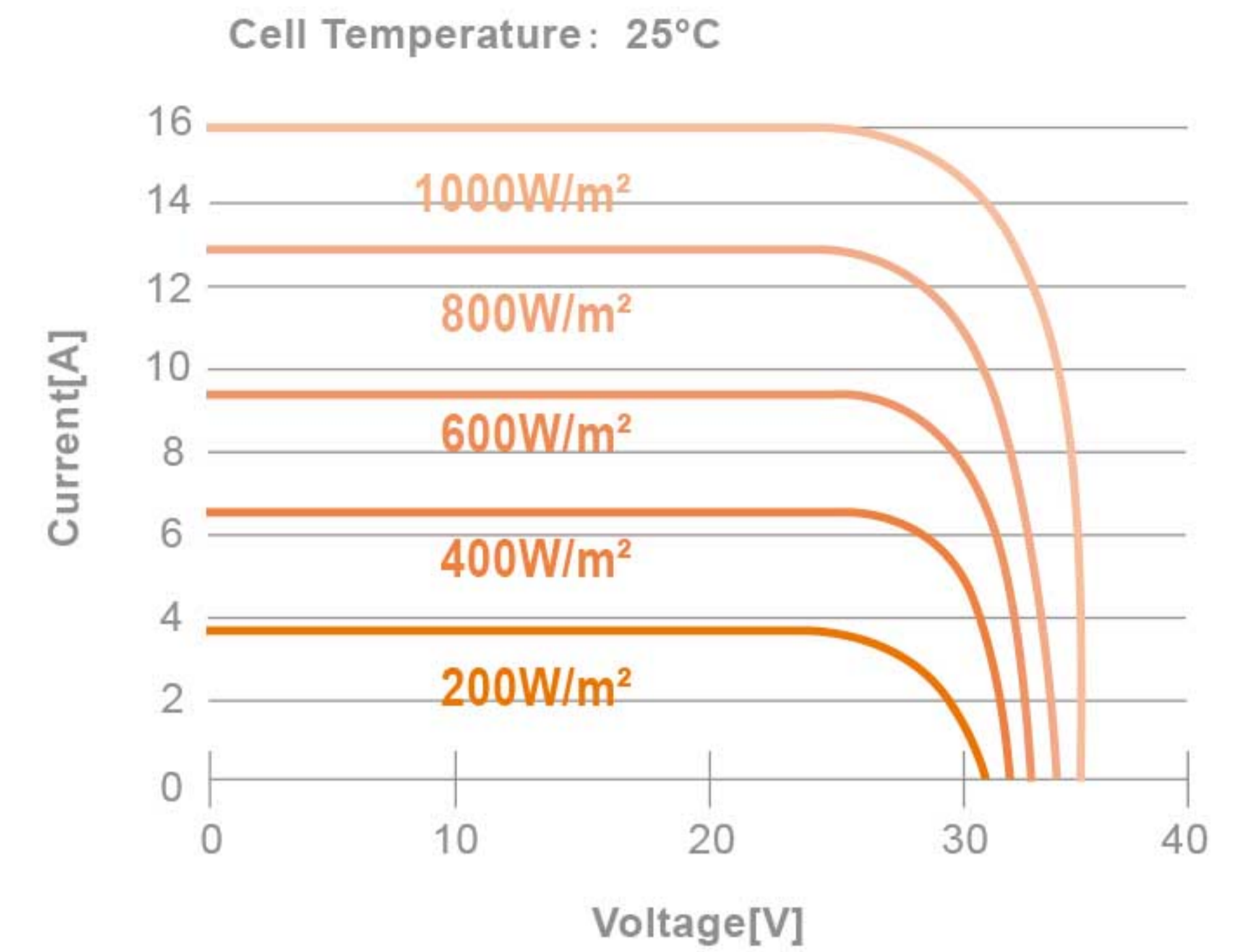
Cell Type	Mono-Crystalline TOPCON
Cell Arrangement	96pcs (2(6×8))
Dimension (L×W×H)	1762 x 1134 x 30 mm
Weight	21kg
Front Glass	1.6mm high transmittance, AR coated tempered glass
Rear Glass	1.6mm heat strengthened glass
Frame	Anodized Aluminium Alloy
Junction Box	IP68, 3 Bypass Diodes
Cable Type	4mm ²
Length of Cable	1000mm,length can be customized
Connector	Compatible with MC4 PV Connector

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

