

Monocrystalline 108 cells

Bifacial Modules

NEPTUN TOPCON

N-Type



M10 182
multibusbar



Guaranteed positive output
selection 0 ~ +5 Wp
by single measuring



2+2 mm anti-reflective glass



BLACK | BLACK



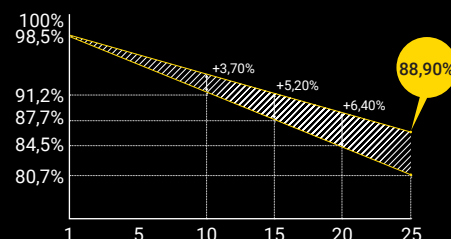
Maximum stability through
aluminium soft grip frame



Maximum 5400 Pa snow load



25-Years Power Warranty



OUTPUT: 430 - 445 WATT

Each module in the new NEPTUN Bifacial series features 108 monocrystalline TOPCON M10-half cells with multi busbar technology. The cells are divided into two halves to improve output and arranged in two parallel strings in order to better manage shading. The highly transparent front and back glass layers are 2 mm thick. Each module measures 1762 mm x 1134 mm and has a 35 mm-wide anodized aluminium frame in black. The maximum efficiency is 22.3%. The new NEPTUN modules are especially suitable for wide area ground installation.



power for a better world

STC	A-HCM430/108-TC/M10-DG	A-HCM440/108-TC/M10-DG	A-HCM445/108-TC/M10-DG
Maximum Power (Pmax) (W)	430	440	445
Open Circuit Voltage (Voc) (V)	38.95	39.38	39.59
Short Circuit Current (Isc) (A)	13.73	13.86	13.93
Voltage at Maximum Power (Vmpp) (V)	32.38	32.81	33.02
Current at Maximum Power (Impp) (A)	13.28	13.41	13.48
Module Efficiency (%)	21.52	22.02	22.27

STC (Standard Testing Condition): Irradiance 1000 W/m², Cell Temperature 25 °C, Spectra at AM 1.5; Test uncertainty tolerance for Pmax, Voc and Isc: ±3 %

Electrical Parameters at NOCT	A-HCM430/108-TC/M10-DG	A-HCM440/108-TC/M10-DG	A-HCM445/108-TC/M10-DG
Maximum Power (Pmax) (W)	323	331	335
Open Circuit Voltage (Voc) (V)	37.00	37.41	37.61
Short Circuit Current (Isc) (A)	11.09	11.19	11.25
Voltage at Maximum Power (Vmpp) (V)	30.10	30.56	30.76
Current at Maximum Power (Impp) (A)	10.73	10.83	10.89

NOCT (Nominal Operating Cell Temperature): Irradiance 800 W/m², Ambient Temperature 20 °C, Spectra at AM 1.5, Wind at 1 m/s

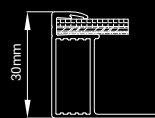
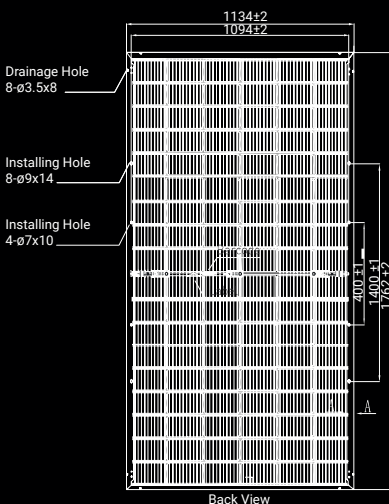
Temperature Characteristics	
Pmax Temperature Coefficients (W / °C)	-0.30 % / °C
Voc Temperature Coefficients (V / °C)	-0.25 % / °C
Isc Temperature Coefficients (A / °C)	+0.046 % / °C
NMOT Nominal Operating Cell Temperature (°C)	44 ±2 °C

Operating Conditions	
Operating Module Temperature	-40 °C ~ +85 °C
Maximum System Voltage	1500 V
Maximum Series Fuse Rating	25 A
Selection	0 ~ +5 W
Nominal Front Load	5400 Pa
Nominal Rear Load	2400 Pa
Class of Protection	II

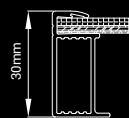
Specifications	
Cell Type	Mono M10 182 multibusbar
Weight	22.5 kg ±3 %
Dimensions	1762x1134x30 mm (±0.7 %)
Cable Cross Section Size	4 mm ² , QC4 compatible
No. of cells	108 (6x18)
Junction Box	IP68, 3 diodes
Frame	Silver, anodized aluminium
Front glass	2.0 mm high transparency, solar glass
Back glass	2.0 mm high transparency, solar glass

Packing Details	
Container Type	40'HC
No. of Pallets	28
Pieces per Pallet	36
Total quantity of modules	936

Unit: mm (1762x1134x35)



Long Frame A-A



Short Frame B-B

A-HCM430/108-TC/M10-DG

