



# X-Venus Series

## TOPCON



Lower Power Temperature Coefficient and Broaden Spectral Response Enhance The Power Generation.



210R Cell Technology, High Conversion Efficiency



Higher power generation better LCOE



N-Type Cells ,Higher Resistance , Better Weak Light Performance ,Solar Gain  $\geq 0.25\%$



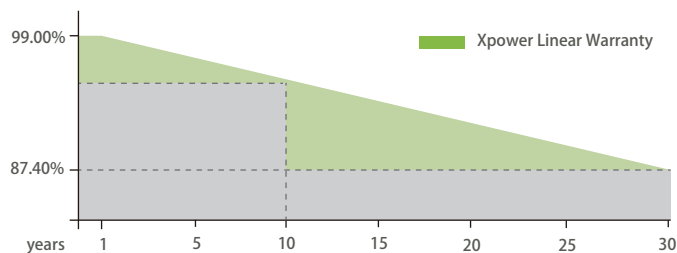
N-type cells with boron-oxide-free composite LID to increase module power generation

## 440W-455W

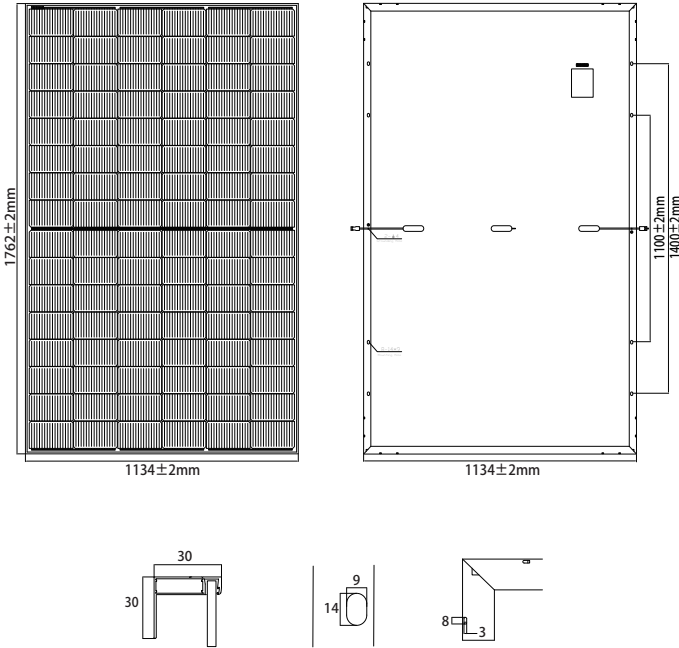
### XP-MH48R-440W-455W

N type Mono-crystalline  
TOPCON Module

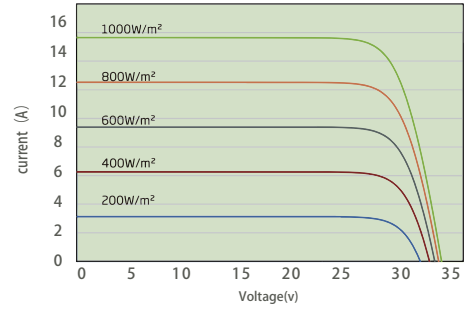
Comprehensive Products and System Certificates



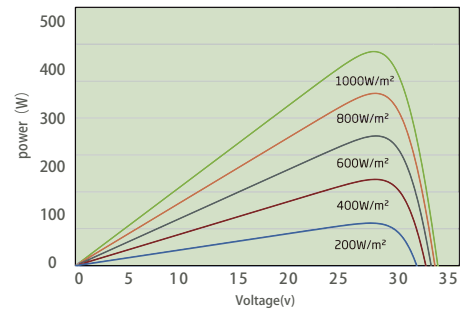
**DWSIGH**



**I-V CURVES OF PV MODULE (450W)**



**P-V CURVES OF PV MODULE (450W)**



**ELECTRIC CHARACTERISTICS**

Model of modules	XP-MH48R-440W		XP-MH48R-445W		XP-MH48R-450W		XP-MH48R-455W	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Model of modules	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum power-Pmax(W)	440	331	455	335	450	339	455	343
Open Circuit voltage-Voc(V)	34.84	33.07	34.99	33.22	35.14	33.37	35.29	33.52
Short Circuit Current-ISC (A)	15.79	12.92	15.79	13.01	16.01	13.11	16.12	13.21
Maximum Power Voltage-Vmpp (V)	28.84	27.14	28.84	27.29	29.14	27.44	29.29	27.59
Maximum Power Current-Impp (A)	15.26	12.20	15.26	12.28	15.45	12.36	15.54	12.44
Module efficiency (%)	22.0%		22.3%		22.5%		22.8%	
Module efficiency w/m	220.2W		222.7W		225.2W		227.7W	
Maximum system voltage (V)	1500V							
Current operating temperature (°C)	-40°C~+85°C							

STC (Standard Testing Conditions): Irradiance 1000W/m², Cell Temperature 25 °C, Spectra at AM1.5 NOCT (Nominal Operating Cell Temperature): Irradiance 800W/m², Ambient Temperature 20°C, Spectra at AM1.5, Wind at 1m/s

**MECHANICAL DATA**

Solar Cells	TOPCON Monocrystalline 182x 105mm
Number of cells	96 cells
Module Dimensions(L*W*H)	1762±2 x 1134±2 x 30±1mm
Glass	Tempered 3.2mm AR, High transmittance, Low iron
Encapsulant material	POE/EVA
Backsheet	White
Frame	Anodized Aluminium Alloy
Junction box	IP68/1500V/25A
Output wire	4.0mm², wire length:300mm
Connector	MC4 Compatible
Weight	22.5kg
Mechanical load	5400Pa

**PACKAGING CONFIGURATION**

Container	20GP	40HQ
Quantity/pallet	37 pieces	37 pieces
Pallet/container	6 pallets	26 pallets
Quantity/container	222 pieces	962 pieces

**TEMPERATURE RATINGS**

Nominal operating cell temperature	44±2°C
Temperature Coefficient of PMAX	-0.29%/°C
Temperature Coefficient of VOC	-0.25%/°C
Temperature Coefficient of ISC	+0.04%/°C



Scan QR Code to learn more  
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Specifications included in this datasheet are subject to change without notice.