

X-HALF CUT N-TYPE serie TOPCon + single glass

410/440_{Wp}
Power

TOPCon +
Technology Innovation

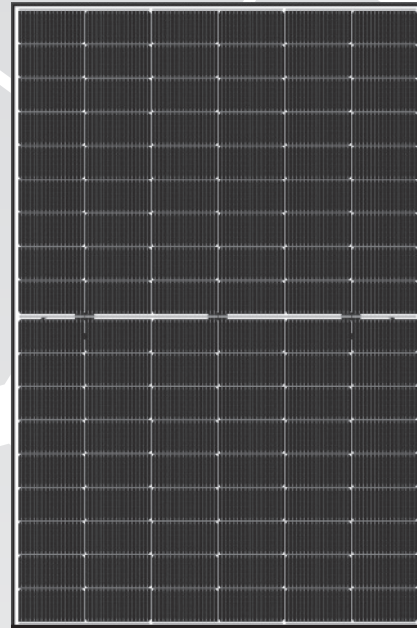
Class 1
Fire Reaction

22.54%
Efficiency

2400Pa
wind load

5400Pa
snow load

-0.300%/°C
Temperatura coefficiente



X-HALF CUT N-Type serie TOPCON+ involves the introduction of a thin oxide layer between the metal contacts and the silicon wafer, which brings significant improvements in cell conversion efficiency and power generation performance.

Linear Warranty:

- **30 years linear power Warranty**
- **99%** at the end of the **1st** year
- **89,4%** at the end of the **30th** year

Product Warranty:

- **15 years product Warranty**

CORRESPOND TO

| UNI 9177 | PV CYCLE | CE |

UNI EN ISO 9001:2015
 UNI EN ISO 14001:2015
 UNI EN BS OHSAS 45001:2018

| Quality management system
 | Standards for environmental management system
 | International standards for occupational health and safety

ELECTRICAL DATA (STC)*

XMHCTO410KBW+H XMHCTO415KBW+H XMHCTO420KBW+H XMHCTO425KBW+H **XMHCTO430KBW+H** XMHCTO435KBW+H XMHCTO440KBW+H

Open circuit Voltage	(Voc)	37.73 V ±3%	37.92 V ±3%	38.11 V ±3%	38.30 V ±3%	38.49 V ±3%	38.68 V ±3%	38.87 V ±3%
Voltage a Pmax.	(Vmp)	31.13 V	31.32 V	31.51 V	31.70 V	31.88 V	32.06 V	32.24 V
Short-circuit current	(Isc)	13.91 A ±3%	13.99 A ±3%	14.07 A ±3%	14.15 A ±3%	14.23 A ±3%	14.31 A ±3%	14.39 A ±3%
Current at Pmax.	(Imp)	13.17 A	13.25 A	13.33 A	13.41 A	13.49 A	13.57 A	13.65 A
Nominal Peak Power (Pmax)		410 Wp	415 Wp	420 Wp	425 Wp	430 Wp	435 Wp	440 Wp
Module Efficiency		21.00%	21.25%	21.51%	21.76%	22.02%	22.28%	22.54%
Power output tolerance		0 + 3W						
Maximum voltage		1500 V						
Maximum series fuse rating		25 A						
Operating Temperature		- 40°C ~ 85°C						

Tolerance electric measurement and Power output ±3%

ELECTRICAL DATA (NMOT)**

Peak Power (Pmax/W)	308.0	312.0	316.0	320.0	323.0	326.0	329.0
Maximum Power Voltage (Vmp)	29.06	29.21	29.34	29.50	29.63	29.76	29.89
Maximum Power Current(Imp)	10.61	10.68	10.76	10.83	10.91	10.99	11.07
Open Circuit Voltage (Voc)	35.84 ±3%	36.02 ±3%	36.20 ±3%	36.38 ±3%	36.56 ±3%	36.74 ±3%	36.92 ±3%
Short Circuit Current (Isc)	11.23 ±3%	11.29 ±3%	11.36 ±3%	11.42 ±3%	11.49 ±3%	11.56 ±3%	11.63 ±3%

* STC (Standard test conditions)

Irradiance 1000 w/m², temperature 25°C, AM= 1.5

**NMOT (Standard test conditions)

Irradiance 800 w/m², temperature 20°C, AM= 1.5
wind speed 1 m/s

TEMPERATURE COEFFICIENT

NOCT	45°C±2°C
Pmax Temperature Coefficient	-0.300%/ °C
Voc Temperature Coefficient	-0.250%/ °C
Isc Temperature Coefficient	0.046% / °C

MECHANICAL CHARACTERISTIC

Maximum Load	5400 Pa / 2400 Pa
Dimensions (mm)	1722 x 1134 x 30
Weight (Kg)	21.5
Solar cells type	N type Mono
No. solar cells	108

PACKING CONFIGURATION

Module per Pallet	36 pcs.
Modules per container 40'HQ	936 pcs.

GENERAL INFORMATION

Glass	Tempered, 3.2 mm high transmission, low iron
Frame	Anodized aluminum alloy
Juntion Box	IP68
Output Cable	4.0mm² , 300mm/customized

Sunerg Solar S.r.l. reserves the right to make changes to the technical data of the product without prior notice.

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