

TOPCON Pro-54HC

N-Type Mono-crystalline

KEY FEATURES COMPARED WITH PERC



16BB Mono N Type TOPCON Half Solar Cells:
108 cells (6X9X2).



Higher power, higher efficiency:
Module power up to 580W, module efficiency up to 22.4%, bifaciality up to 85%.



Less degradation, low temperature coefficient:
30 years power warranty, with degradation first year $\leq 1\%$, annual -0.4% ,
low temperature coefficient (Pmax): $-0.30\%/^{\circ}\text{C}$, more energy in hot climate.



Enhanced reliability, compatibility
Nearly same module size, no influence on mounting bracket design and installation
Nearly same electrical parameters, no influence on string design and inverter selection.



Better BOS and LCOE
About 2.3% lower LCOE than PERC.

TOPCon



182mm , 54-CELL HALF-CUT SERIES

ELECTRICAL PERFORMANCE

Module type: Pro-54HC	415M	/	420M	/	425M	/	430M
Maximum Power(Wp)	415W		420W		425W		430W
Open circuit Voltage(Voc)	37.80V		38.00V		38.20V		38.40V
Short circuit Current(Isc)	13.76A		13.87A		13.98A		14.09A
Maximum Power Voltage(Vm)	31.76V		31.93V		32.10V		32.27V
Maximum Power Current(Im)	13.06A		13.15A		13.24A		13.33A
Module efficiency	21.3%		21.5%		21.8%		22.0%
Maximum Series Fuse	25A						
Watts positive tolerance	0~+3%						
Number of Diode	3						
Standard Test Conditions	1000W/M²,25°C,AM1.5						
Maximum System Voltage	1500V/DC						
Temperature-Coefficient Isc	+0.043%/°C						
Temperature-Coefficient Voc	-0.24%/°C						
Temperature-Coefficient Pmpp	-0.30%/°C						
Operating Temperature	-40°C...+85°C						
Normal Operating Cell Temperature	45±2°C						
Load Capacity for the cover of the module (glass)	5400Pa(IEC61215)(snow)						
Load Capacity for the front & back of the module	2400Pa(IEC61215)(wind)						

ELECTRICAL PERFORMANCE (NOCT)

Module type: Pro-54HC	415M	/	420M	/	425M	/	430M
Maximum Power(Wp)	312.1W		315.8W		319.6W		323.4W
Open circuit Voltage(Voc)	35.91V		36.10V		36.29V		36.48V
Short circuit Current(Isc)	11.11A		11.20A		11.28A		11.37A
Maximum Power Voltage(Vm)	29.90V		30.06V		30.21V		30.37V
Maximum Power Current(Im)	10.44A		10.51A		10.58A		10.65A

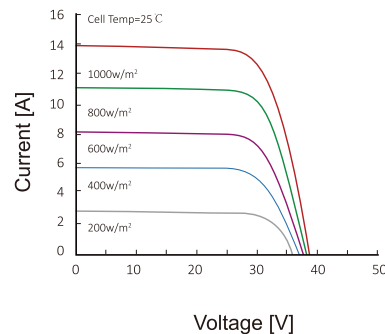
MECHANICAL CHARACTERISTICS

Front cover (material / thickness)	low-iron tempered glass / 3.2mm
Backsheet (color)	TPT in white
Cell (quantity / material / dimensions)	108 cells (6X9X2) / monocrystalline silicon
Frame (material / color)	aluminum hollow-chamber frame on each side anodized aluminum alloy / silver
Junction box (protection degree)	$\geq \text{IP68}$
Cables & Plug connectors	4mm², 300mm in length,length can be customized
Module Dimensions (L / W / H)	1722x1134x30mm
Module Weight	21.6 kg
Application class	Class A
Electrical protection class	Class II
Fire safety class	Class C

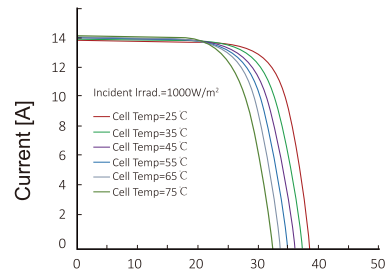
PACKING

Container Size	Units/Pallet (PCS)	Weight/Pallet (KG)	Pallet Measurment (mm)	Units/Container (PCS)
40HQ	36	790	1950x1130x1260	936

CURRENT-VOLTAGE CURVES:

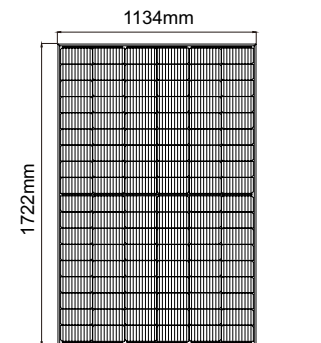
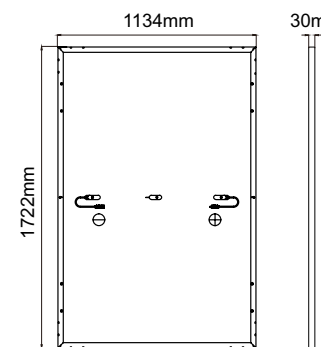


Module characteristics at constant module temperatures of 25°C and variable levels of irradiance



Module characteristics at variable module temperatures and constant module irradiance of 1.000 W/m²

MODULE DIAGRAM:



WATTS
POSITIVE
TOLERANCE



12 YEARS
PRODUCT
WARRANTY



30 YEARS LINEAR
POWER WARRANTY

