

144cells Monocrystalline Bifacial Dual Glass Module



APEX-144HBD N570-N590M10

N-TOPCon Technology

22.82%

Maximum Module Efficiency

590W

Maximum Power Output

Power Tolerance:0-3W

2279×1134×30mm

Module Dimensions

IEC 61215 / IEC 61730

Fire safety class:Class A according to UL790

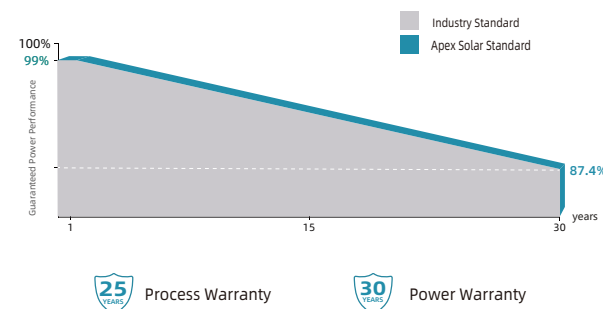
ISO 9001 :Quality Management System

ISO 14001 :Environment Management



Industry Leading Linear Power Warranty

25-year Warranty for Materials and Processing, 30-year Warranty for Extra Linear Power Output



25 years Process Warranty

30 years Power Warranty

APEX-144HBD-N570-N590M10

ELECTRICAL PARAMETERS AT STC

	570	575	580	585	590
Rated Maximum Power(Pmax) [W]	570	575	580	585	590
Maximum Power Voltage(Vmp) [V]	42.07	42.22	42.37	42.52	42.67
Maximum Power Current(Imp) [A]	13.55	13.62	13.69	13.76	13.83
Open Circuit Voltage(Voc) [V]	50.74	50.88	51.02	52.16	52.37
Short Circuit Current(Isc) [A]	14.31	14.39	14.47	14.89	14.94
Module Efficiency [%]	22.05	22.24	22.45	22.63	22.82

STC: Irradiance 1000 W/m² module temperature 25°C AM=1.5

ELECTRICAL PARAMETERS AT NMOT

	429	432	436	441	445
Rated Maximum Power(Pmax)[W]	429	432	436	441	445
Maximum Power Voltage(Vmp) [V]	39.65	39.78	39.87	41.05	41.21
Maximum Power Current(Imp) [A]	10.81	10.87	10.94	10.74	10.79
Open Circuit Voltage(Voc) [V]	48.51	48.70	48.89	50.06	50.25
Short Circuit Current(Isc) [A]	11.50	11.55	11.60	11.30	11.36

NMOT: Irradiance 800 W/m² ambient temperature 20°C wind speed: 1m/s

BIFACIAL OUTPUT-REAR SIDE POWER GAIN

	599	604	609	614	620
5% Maximum Power (Pmax) [W]	599	604	609	614	620
Module Efficiency STC[%]	23.16	23.36	23.56	23.77	23.97
10% Maximum Power (Pmax) [W]	627	633	638	644	649
Module Efficiency STC[%]	24.26	24.47	24.69	24.90	25.11
20% Maximum Power (Pmax) [W]	684	690	696	702	708
Module Efficiency STC[%]	26.47	26.70	26.93	27.16	27.40

MECHANICAL SPECIFICATION

Cell Type	N-Type Monocrystalline
Cell Dimensions	182×182mm
Cell Arrangement	144(6×24)
Weight	32kg(±3%)
Module Dimensions	2279×1134×30mm
Cable	4.0 mm ² positive/negative:300mm(11.8inches),length Can be customized
Front Glass	2.0 mm (0.08 inches), High Transmission, ARCoated Heat Strengthened Glass
Back Glass	2.0 mm (0.08 inches), Heat Strengthened Glass (White Grid Glass)
Frame	Anodized aluminium alloy
Junction Box	Protection class IP68
Connector	Mc4 Compatible
Mechanical Load	Front side 5400Pa/Rear side 2400Pa

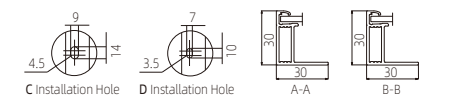
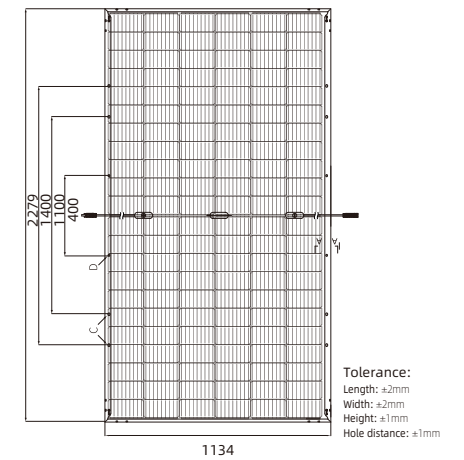
OPERATING CONDITIONS

Maximum System Voltage (V)	1000/1500VDC (IEC)
Pmax Temperature Coefficient	-0.34%/°C
Voc Temperature Coefficient	-0.28%/°C
ISC Temperature Coefficient	+0.05%/°C
Nominal Operating Cell Temperature	45±2°C
Operating Temperature	-40°C~+85°C
Maximum Series Fuse	25A

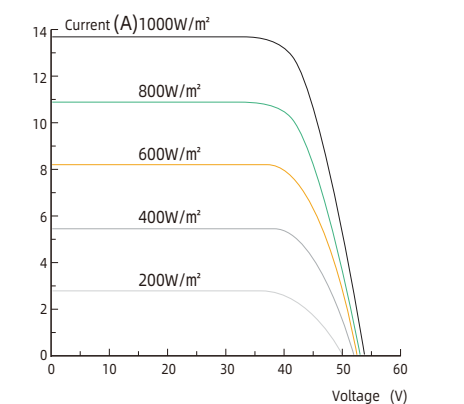
PACKING CONFIGURATION

Quantity/Pallet	36pcs/pallet
Quantity/Container	720pcs/40HQ

Module Dimension(mm)



Current-Voltage Curve (590W)



Power-Voltage Curve (590W)

