

**108cells Monocrystalline Bifacial
Dual Glass Black Module**

**APEX-108HBD
N410-N430M10**

N-TOPCon Technology

22.02%

Maximum Module Efficiency

430W

Maximum Power Output

Power Tolerance:0-3W

1724x1134x30mm

Module Dimensions

IEC 61215 / IEC 61730

Fire safty class:Class C according to UL790

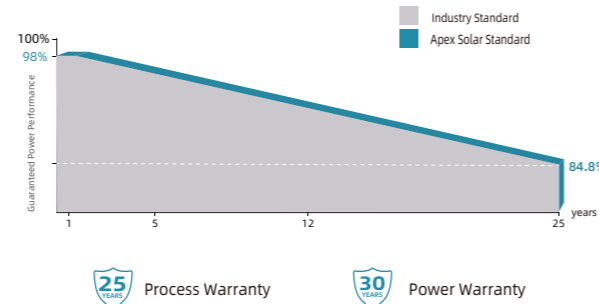
ISO 9001 :Quality Management System

ISO 14001 :Environment Management



Industry Leading Linear Power Warranty

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



- 0-3W** Guaranteed 0-3W positive tolerance ensures the power output reliability
- High customer value** Lower cost per kilowatt hour.High quality silicon wafer guarantee,high power module output, excellent cost performance advantage,is an ideal choice for solar power stations
- Highly reliable due to stringent quality control** Three times strict EL testing beyond certification requirements
- Fusion of MBB and half-cut cells technology** The new circuit design, minimizes the impact of shadow on the power generation of solar module.Excellent light utilization and current collection capacity, effectively improve product power output and reliability
- Excellent Anti-PID performance** Ensure that the scale production passes the PID test, and greatly reduce he attenuation caused by PID by optimizing the wafer process
- Outstanding low light performance** The coated glass with high transmittance and the surface technology of the wafer are used to achieve excellent performance in low light environment

APEX-108HBD-N410-N430M10

ELECTRICAL PARAMETERS AT STC

| | | | | | |
|--------------------------------|-------|-------|-------|-------|-------|
| Rated Maximum Power(Pmax) [W] | 410 | 415 | 420 | 425 | 430 |
| Maximum Power Voltage(Vmp) [V] | 31.13 | 31.32 | 31.51 | 31.70 | 31.88 |
| Maximum Power Current(Imp) [A] | 13.17 | 13.25 | 13.33 | 13.41 | 13.49 |
| Open Circuit Voltage(Voc) [V] | 37.73 | 37.92 | 38.11 | 38.30 | 38.49 |
| Short Circuit Current(Isc) [A] | 13.91 | 13.99 | 14.07 | 14.15 | 14.23 |
| Module Efficiency [%] | 21.00 | 21.25 | 21.51 | 21.76 | 22.02 |

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

ELECTRICAL PARAMETERS AT NMOT

| | | | | | |
|--------------------------------|-------|-------|-------|-------|-------|
| Rated Maximum Power(Pmax)[W] | 308 | 312 | 316 | 320 | 323 |
| Maximum Power Voltage(Vmp) [V] | 29.06 | 29.21 | 29.34 | 29.50 | 29.63 |
| Maximum Power Current(Imp) [A] | 10.61 | 10.68 | 10.76 | 10.83 | 10.91 |
| Open Circuit Voltage(Voc) [V] | 35.84 | 36.02 | 36.20 | 36.38 | 36.56 |
| Short Circuit Current(Isc) [A] | 11.23 | 11.29 | 11.36 | 11.42 | 11.49 |

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

BIFACIAL OUTPUT-REAR SIDE POWER GAIN

| | | | | | | |
|-----|--------------------------|-------|-------|-------|-------|-------|
| 5% | Maximum Power (Pmax) [W] | 431 | 436 | 441 | 446 | 452 |
| | Module Efficiency STC[%] | 22.02 | 22.29 | 22.56 | 22.83 | 23.09 |
| 10% | Maximum Power (Pmax) [W] | 451 | 457 | 462 | 468 | 473 |
| | Module Efficiency STC[%] | 23.07 | 23.35 | 23.63 | 23.91 | 24.19 |
| 20% | Maximum Power (Pmax) [W] | 492 | 498 | 504 | 510 | 516 |
| | Module Efficiency STC[%] | 25.17 | 25.47 | 25.78 | 26.09 | 26.39 |

MECHANICAL SPECIFICATION

| | |
|-------------------|---|
| Cell Type | N-Type Monocrystalline |
| Cell Dimensions | 182x182mm |
| Cell Arrangement | 108(6x18) |
| Weight | 23kg(±3%) |
| Module Dimensions | 1724x1134x30mm |
| Cable | 4.0 mm² 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 |

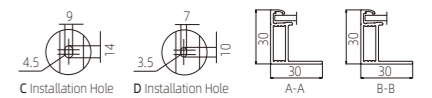
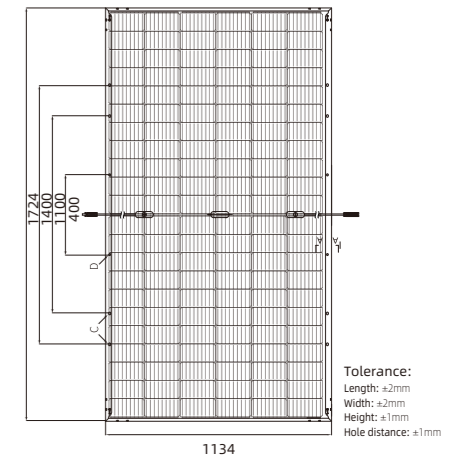
OPERATING CONDITIONS

| | |
|------------------------------------|--------------------|
| 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 |

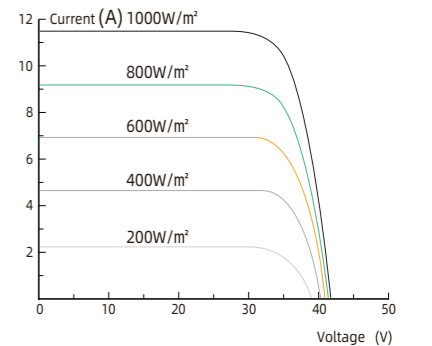
PACKING CONFIGURATION

| | |
|--------------------|--------------|
| Quantity/Pallet | 36pcs/pallet |
| Quantity/Container | 936pcs/40HQ |

Module Dimension(mm)



Current-Voltage Curve (430W)



Power-Voltage Curve (430W)

