Honeywell

HW-7N108-MF-AG-BK

420W~440W

MONOCRYSTALLINE MODULE

ADVANCED PERFORMANCE & PROVEN ADVANTAGES

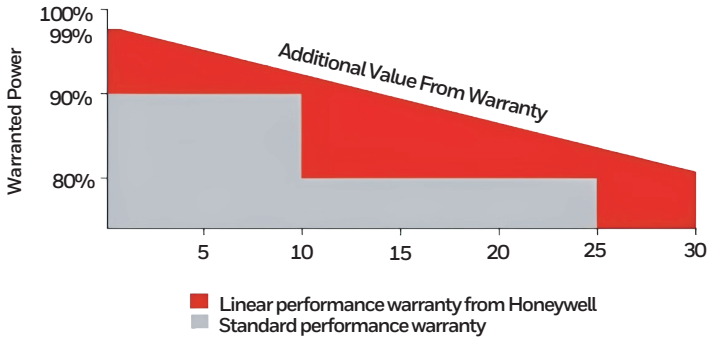
- High module conversion efficiency up to 22.53% by using innovative N-Type Topcon cell technology.
- Extremely low LID (light induced degradation) and low annual power degradation ensure higher energy yield during the module's lifetime.
- Low temperature coeficient and excellent performance under high temperature and low light conditions.
- Robust aluminum frame ensures the modules to withstand wind loads up to 2400Pa and snow loads up to 5400Pa.
- High reliability against extreme environmental conditions (passing salt mist, ammonia and hail tests).
- Potential induced degradation (PID) resistance.
- Aesthetically appealing design with black back sheet and frame

CERTIFICATIONS

- IEC 61215, IEC 61730, CE
- ISO 9001:2015: Quality management system
- ISO 14001:2015: Environmental managements system
- ISO 45001:2018: Occupational health and safety management system

SPECIAL WARRANTY

- 20 years product warranty
- 30 years linear power output warranty



Passionately committed to delivering innovative energy solution

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ELECTRICAL CHARACTERISTICS AT STC

Maximum Power (P_{max})	420W	425W	430W	435W	440W
Open Circuit Voltaje (V_{oc})	38.0 V	38.2 V	38.4 V	38.6 V	38.8 V
Short Circuit Current (I_{sc})	13.94 A	14.00 A	14.06A	14.12 A	14.18 A
Voltage at Maximum Power (V_{mp})	31.8 V	32.0 V	32.2 V	32.4 V	32.6 V
Current at Maximum Power (I_{mp})	13.21 A	13.29 A	13.36 A	13.43 A	13.50A
Module Efficiency (%)	21.51	21.76	22.02	22.28	22.53
Operating Temperature	-40°C to +85°C				
Maximum System Voltage	1000V DC/1500V DC				
Fire Resistance Rating	Type 1 (in accordance whit UL 1703) / Class C (IEC 61730)				
Maximum Series Fuse Rating	25 A				

STC: Irradiance 1000W/m2, Cell temperature 25°C, AM1.5; Tolerance of Pmax: ±3%; Measurement Tolerance: ±3%

ELECTRICAL CHARACTERISTICS AT NOCT

Maximum Power (P_{max})	316W	320W	324W	328W	331W
Open Circuit Voltaje (V_{oc})	36.1V	36.3V	36.5V	36.7V	36.9V
Short Circuit Current (I_{sc})	11.29A	11.34 A	11.39 A	11.44 A	11.49 A
Voltage at Maximum Power (V_{mp})	29.9 V	30.1 V	30.3 V	30.5 V	30.7 V
Current at Maximum Power (I_{mp})	10.57 A	10.64 A	10.70 A	10.75 A	10.81 A

NOCT: Irradiance 800W/m2, Ambient temperature 20°C, Wind Speed 1 m/s

MECHANICAL CHARACTERISTICS

Cell type	Monocrystalline N-type 182*91mm
Number of cells	108 (6x18)
Module dimensions	1722x1134x30mm (67.80x44.65x1.18 inches)
Weight	20.5kg (45.2lbs)
Front/Back Glass	3.2mm (0.13 inches) tempered glass whit AR coating
Frame	Anodized aluminum alloy
Junction box	IP68, 3 diodes
Cable	4mm² (0.006 inches²), Portrait: 300mm (11.81 inches). Landscape: 1200mm (47.24 inches)
Connector	MC4 or MC4 compatible

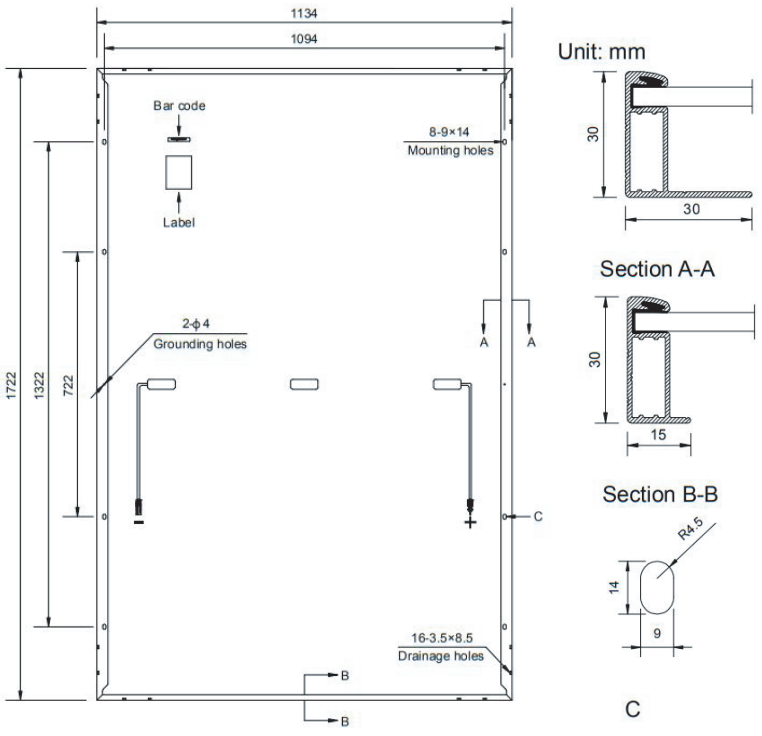
TEMPERATURE CHARACTERISTICS

Nominal Operating Cell Temperature (NOCT)	43°C±2°C
Temperature Coefficients of Pmax)	-0.30%/°C
Temperature Coefficients of VOC	-0.25%/°C
Temperature Coefficients of ISC	0.045%/°C

PACKAGING

Standard packaging	36 pcs/pallet
Module quantity per 20' container	216 pcs
Module quantity per 40' container	936pcs (HQ)

ENGINEERING DRAWINGS

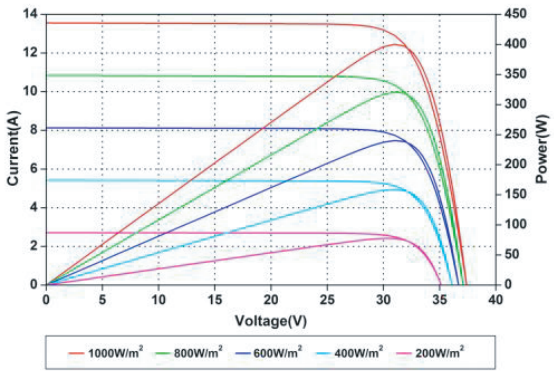


Rear View

OPTICAL CHARACTERISTICS

Module Type	Standard Module	Anti-glare Module
Daylight Glare index	≥ 22	≤ 15
Glare Rating	Unconfortable	Perceptible

IV CURVES



Current-Voltage and Power-Voltage Curves at Different Irradiances