

Your solar module manufacturer since 2009



WRS-440-27 MHD B

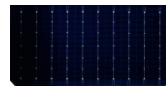
TOPCon Technology

POWER RANGE

410 W – 440 W

CELL SIZE

182 x 91 mm

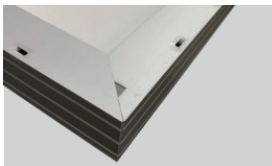


16BB



JUNCTION BOX

Waterproof protection grade: IP68
Safety Level: Class II
Maximum System Voltage: 1500 V
Outstanding waterproof level
Effectively resist harsh environments



FRAME

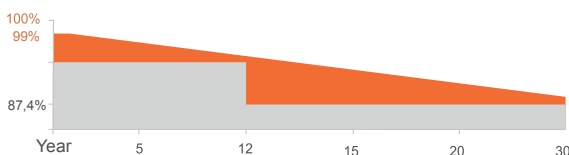
Strong mechanical load
Resistance up to 5400 Pa
Anodic oxidation layer resistant to chemical corrosion available

QUALIFICATIONS AND CERTIFICATES



IEC 61215 / IEC 61730

WARRANTY



25 YEARS Guarantee on product material and workmanship

30 YEARS Linear Power output warranty



SMBB Technology

Better light trapping and current collection to improve module power output and reliability.



PID Resistance

Excellent Anti-PID performance guarantee via optimized mass-production process and materials control.



Durability Against Extreme Environmental Conditions

High salt mist and ammonia resistance.



Enhanced Mechanical Load

Certified to withstand: wind load (2400 PA) and snow load (5400 PA).

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ELECTRICAL DATA (STC)

Model Type	WRS-410-27-MH B	WRS-415-27-MH B	WRS-420-27-MH B	WRS-425-27-MH B	WRS-430-27-MH B	WRS-435-27-MH B	WRS-440-27-MH B
Peak Power (Pmax)	410.00 W	415.00 W	420.00 W	425.00 W	430.00 W	635.00 W	640.00 W
Maximum Power Voltage (Vmp)	31.33 V	31.52 V	31.71 V	31.90 V	32.08 V	32.26 V	32.44 V
Maximum Power Current (Imp)	13.09 A	13.17 A	13.25 A	13.32 A	13.40 A	13.48 A	13.56 A
Open Circuit Voltage (VOC)	37.93 V ± 3%	38.12 V ± 3%	38.31 V ± 3%	38.50 V ± 3%	38.69 V ± 3%	38.87 V ± 3%	39.05 V ± 3%
Short Circuit Current (ISC)	13.83 A ± 3%	13.91 A ± 3%	13.99 A ± 3%	14.06 A ± 3%	14.14 A ± 3%	14.21 A ± 3%	14.29 A ± 3%
Module Efficiency (%)	21.00 %	21.25 %	21.51 %	21.76 %	22.02 %	22.28 %	22.54 %

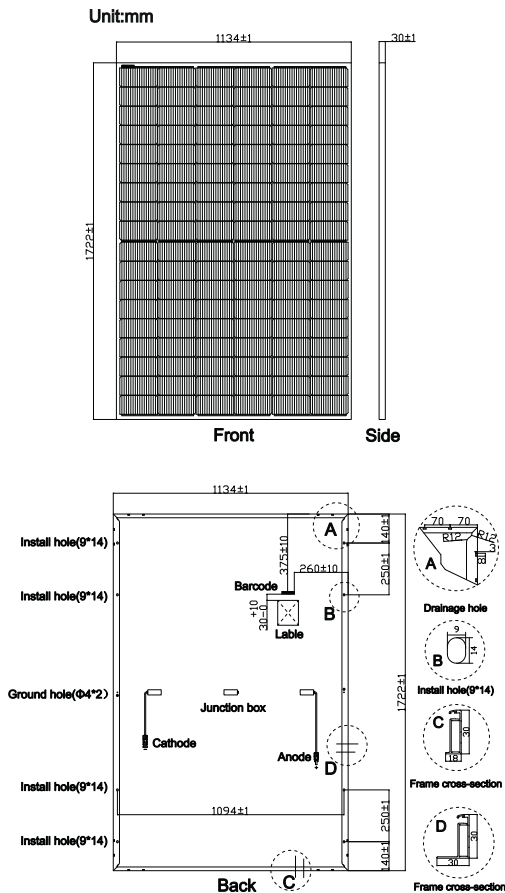
* STC: irradiance 1000 W/m², AM 1.5, and cell temperature of 25 °C

ELECTRICAL DATA (NMOT)

Model Type	WRS-410-27-MH B	WRS-415-27-MH B	WRS-420-27-MH B	WRS-425-27-MH B	WRS-430-27-MH B	WRS-435-27-MH B	WRS-440-27-MH B
Peak Power (Pmax)	308.00 W	312.00 W	316.00 W	320.00 W	323.00 W	327.00 W	331.00 W
Maximum Power Voltage (Vmp)	29.37 V	29.55 V	29.73 V	29.91 V	30.08 V	30.25 V	30.42 V
Maximum Power Current (Imp)	10.50 A	10.56 A	10.63 A	10.68 A	10.75 A	10.81 A	10.88 A
Open Circuit Voltage (VOC)	36.03 V ± 3%	36.21 V ± 3%	36.39 V ± 3%	36.57 V ± 3%	36.75 V ± 3%	36.93 V ± 3%	37.11 V ± 3%
Short Circuit Current (ISC)	11.16 A ± 3%	11.23 A ± 3%	11.29 A ± 3%	11.35 A ± 3%	11.42 A ± 3%	11.49 A ± 3%	11.56 A ± 3%

* NMOT: irradiance 800 W/m², AM 1.5, ambient temperature 20 °C, wind speed 1 m/s

PV DRAWINGS



TEMPERATURE & MAXIMUM RATING

Maximum System Voltage (V)	1500 V
Maximum Series Fuse Rating (A)	25 A
Power Tolerance	0 - +3 W
Pmax Temperature Coefficients (W/°C)	-0.300 W % /°C
VOC Temperature Coefficients (V/°C)	-0.250 V % /°C
ISC Temperature Coefficients (A/°C)	+0.046 A % /°C
NMOT Nominal Module Operating Temperature (°C)	45 ± 2 °C
Operating and Storage Temperature (°C)	-40 - +85 °C

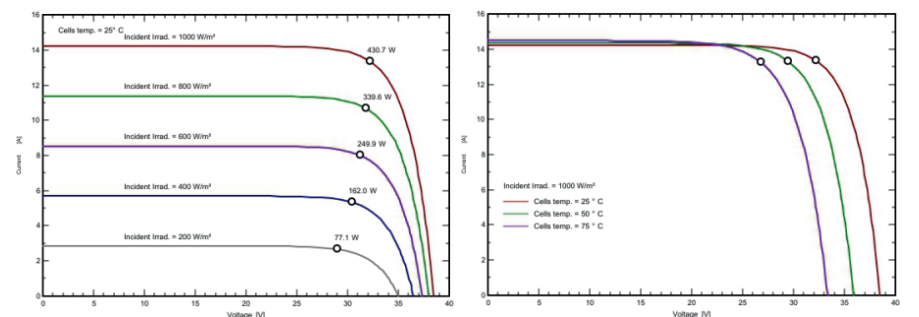
MECHANICAL CHARACTERISTICS

Cell Type	182 x 91 N-Type Mono
No. of Cells	108 (12 x 09)
Dimension	1722 x 1134 x 30 mm
Weight	21.50 kg
Front Glass	3.2 mm high transmission, low iron, tempered glass
Frame	Anodized Aluminium Alloy
Junction Box	IP68 3 diodes
Output Cables	4 mm ² cable 1000 mm (including MC4 connector)
Maximum Wind Load / Snow Load	2400 Pa / 5400 Pa

PACKING WAY

20" FT Container	6 Packages / 222 pcs
40" HQ Container	26 Packages / 962 pcs

IV CURVE (430 W)



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