FUSION-R SOLAR MODULE

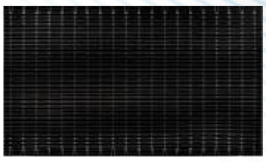
FUSION-R

The new REA FUSION R solar module delivers up to **23% more energy** with the cutting-edge **Zero Busbar (0BB)** technology. Same dual-sided design. Same Australian-engineered quality. Now with next-level performance and reliability.

Fully integrated with Enphase IQ8HC Microinverter to create the world's highest output **AC Module (ACM)**.

FEATURES

Front Side



Rear Side

0BB High-Efficiency Cell

Zero-busbar with smarter printing technology for higher voltage, efficiency, and power output.

Thinner, Flexible Silicon Wafers

No main grid and thinner ribbons reduce mechanical stress and fragmentation for stronger, more flexible wafers.

Advanced Pre-Lamination Welding

Stronger soldering, lower resistance, and fewer hot spots for lasting performance and reliability.

FUSION-R Encapsulation

Downshifting light conversion and PIB edge sealing increase energy yield and extend module lifespan.

Optimised Light Capture

Reduced rear metal shadowing boosts light intake, enabling up to 90% bifacial performance.

Versatile Application

Built for dependable performance across utility, commercial, industrial, and residential rooftops.

Industry-leading Warranty

25 Year
Product Warranty

30 Year
Performance Warranty

Microinverter Integrated

FUSION R | REA-HDN96R-DSN-460

AC Electrical Data

Inverter Model	IQ8HC ACM	Nominal Frequency	50 Hz
Maximum Apparent Power	384 VA	Min/Max. Frequency	45/55 Hz
Rated Apparent Power	380 VA	Total Harmonic Distortion	<5%
Min/Max. Grid Voltage	184/276 V	Overvoltage Class AC Port	III
Max. Output Current	1.67 A	Nighttime Power Loss	50 mW
Max. Units per single-phase 20 A circuit	10 (L+N) Single-phase	Power Factor Setting	1.0
Inverter Maximum Efficiency	97.4%	Power Factor Range	0.8 leading ... 0.8 lagging

Mechanical Parameters

Cell Type	FUSION R - HJT	Glass	Dual glass, 1.6mm
Junction Box	IP68	Frame	Anodized aluminum alloy frame
Cable Detail	4mm2; 1250mm or customized; UV resistant	Weight	21.8kg
Connector	Make: Staubli; Model: PV-KST4-EVP 2/xy_UR	Dimension	1762x1134x30mm

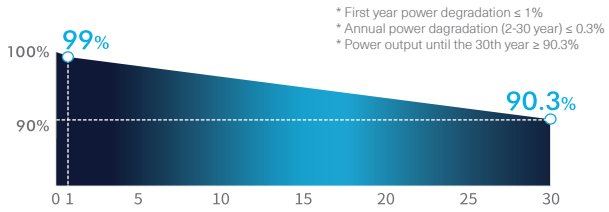
Electrical Characteristics

TEST METHOD	STC	BNPI	NOCT
Max Power P_{MAX} (W)	460	515	351
Open Circuit Voltage, V_{OC} (V)	36.92	37.05	35.24
Short Circuit Current I_{SC} (A)	15.75	17.66	12.59
Max Power Voltage, V_{MP} (V)	31.05	31.16	29.65
Max Power Current I_{MP} (A)	14.82	16.56	11.84
Module Efficiency (%)	23.0		

STANDARDS			
STC	AM1.5, 1000W/m2, 25°C.	NOCT	NOCT: AM1.5, 800W/m2, 20°C, 1m/s.
BNPI	BNPI: AM1.5, 1000W/m2, 135W/m2, 25°C.		

TEMPERATURE RATING (STC)			
Temperature Coefficient of I_{SC}	+0.04% / °C	Temperature Coefficient of P_{MAX}	-0.24% / °C
Temperature Coefficient of V_{OC}	-0.22% / °C		

WARRANTY		LINEAR POWER WARRANTY
Product Warranty	25 years	
Performance Warranty	30 years linear	
Backed By	Munich RE	



Operation Parameters

Operational Temperature	-40°C ~ +85°C	Nominal Operating Cell Temp.	44±2°C
Power Output Tolerance	0~+3%	Safety Class	Class II
Max System Voltage	DC 1500 V (IEC)	Fire Rating	C
Max Series Fuse Rating	30 A	Max Static Load (front side/rear side)	5400Pa / 2400Pa

Qualifications and Certificates

Contact

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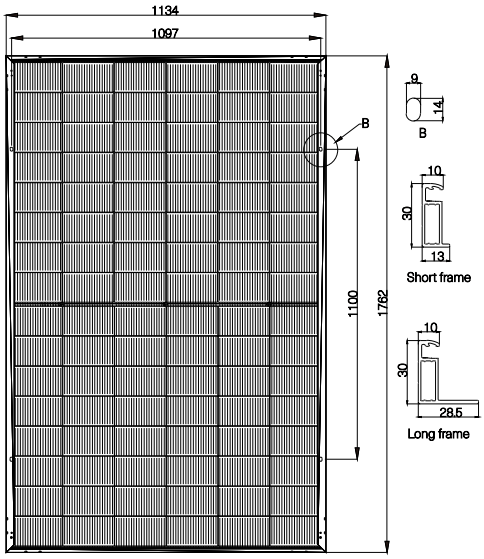
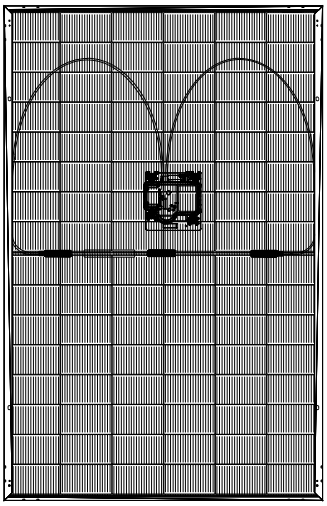
REA POWER™

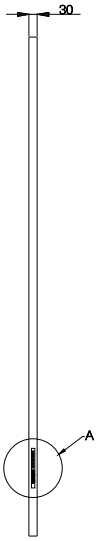
Front



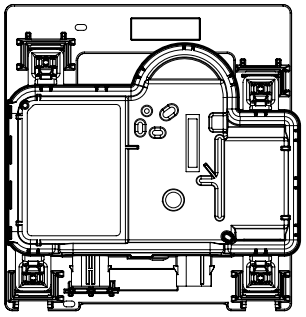
Rear



Side



Microinverter



Engineered in Australia
Specifications included in this datasheet are subject to change without notice.