

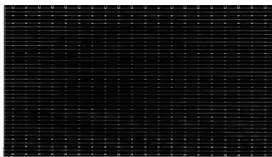
# FUSION-R SOLAR MODULE

## FUSION-R

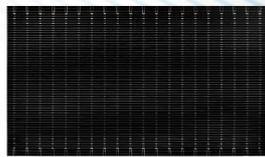
The new REA FUSION R solar module delivers up to **23% more energy** with the cutting-edge **Zero Busbar (OBB)** technology. Same dual-sided design. Same Australian-engineered quality. Now with next-level performance and reliability.

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

### FEATURES



Front Side



Rear Side



#### OBB 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 97% 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	4mm <sup>2</sup> ; 1250mm or customized; UV resistant	Weight	21.8kg
Connector	Make: Staubli; Model: PV-KST4-EVP 2/xy_UR	Dimension	1762x1134x30mm

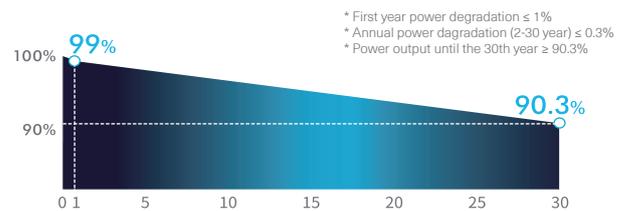
## Electrical Characteristics

TEST METHOD	STC	BNPI	NOCT
Max Power P <sub>MAX</sub> (W)	460	515	351
Open Circuit Voltage, V <sub>OC</sub> (V)	36.92	37.05	35.24
Short Circuit Current I <sub>SC</sub> (A)	15.75	17.66	12.59
Max Power Voltage, V <sub>MP</sub> (V)	31.05	31.16	29.65
Max Power Current I <sub>MP</sub> (A)	14.82	16.56	11.84
Module Efficiency (%)	23.0		

STANDARDS			
STC	AM1.5, 1000W/m <sup>2</sup> , 25°C.	NOCT	NOCT: AM1.5, 800W/m <sup>2</sup> , 20°C, 1m/s.
BNPI	BNPI: AM1.5, 1000W/m <sup>2</sup> , 135W/m <sup>2</sup> , 25°C.		

TEMPERATURE RATING (STC)			
Temperature Coefficient of I <sub>SC</sub>	+0.04% / °C	Temperature Coefficient of P <sub>MAX</sub>	-0.24% / °C
Temperature Coefficient of V <sub>OC</sub>	-0.22% / °C		

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



## 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

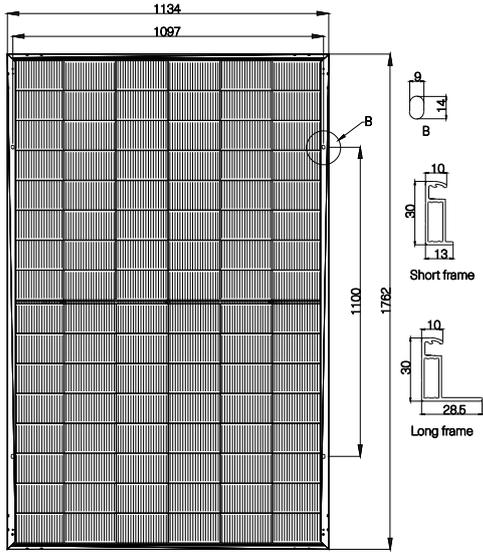
## Qualifications and Certificates



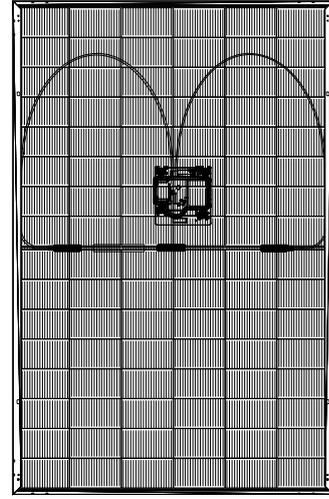
## Contact

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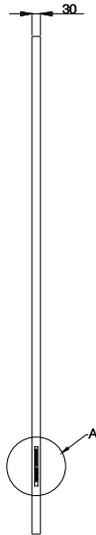
Front



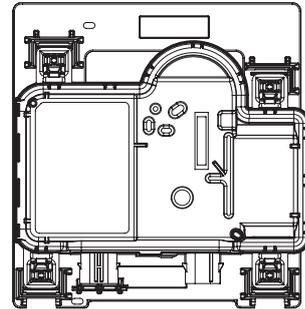
Rear



Side



Microinverter



Engineered in Australia  
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