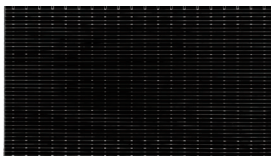


FUSION-R SOLAR MODULE

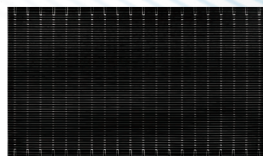
FUSION-R

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.

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

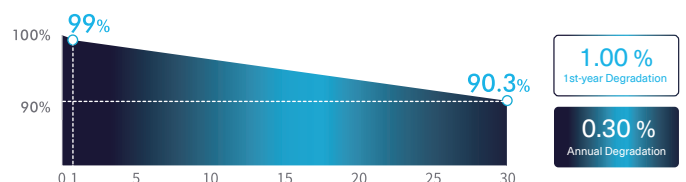
Built for dependable performance across utility, commercial, industrial, and residential rooftops.

Industry-leading Warranty

25 Year
Product Warranty

30 Year
Performance Warranty

Linear Performance Warranty



REA-HDN96R-DSN-460 | HJT Dual Glass Module

Mechanical Characteristics

Cell Type	FUSION R - HJT
No. of Cells	96pcs
Dimensions	1762x1134x30mm
Weight	21.8kg
Junction Box	IP68
Cable	4mm ² ; 1250mm or customized; UV resistant
PV Connector*	Make: Staubli; Model: PV-KST4-EVP 2/xy_UR
Frame	Anodized aluminum alloy frame
Max Static Load (front side/rear side)	5400Pa / 2400Pa
Glass	Dual glass, 1.6mm
Packing Configuration	36pcs/Pallet, 936pcs/40HQ
Fire Rating	C

Electrical Characteristics

STC						
REA-HDN96R-DSN-	435	440	445	450	455	460
Max Power P _{MAX} (W)	435	440	445	450	455	460
Module Efficiency (%)	21.8	22.0	22.3	22.5	22.8	23.0
Max Power Voltage, V _{MP} (V)	30.50	30.61	30.72	30.83	30.94	31.05
Max Power Current I _{MP} (A)	14.27	14.38	14.49	14.60	14.71	14.82
Open Circuit Voltage, V _{OC} (V)	36.42	36.52	36.62	36.72	36.82	36.92
Short Circuit Current I _{SC} (A)	15.20	15.31	15.42	15.53	15.64	15.75

STC: AM1.5, 1000W/m², 25°C.

BNPI						
Max Power P _{MAX} (W)	488	493	499	505	510	515
Max Power Voltage, V _{MP} (V)	30.61	30.72	30.83	30.94	31.05	31.16
Max Power Current I _{MP} (A)	15.94	16.07	16.19	16.31	16.44	16.56
Open Circuit Voltage, V _{OC} (V)	36.55	36.65	36.75	36.85	36.95	37.05
Short Circuit Current I _{SC} (A)	17.05	17.17	17.29	17.42	17.54	17.66

BNPI: AM1.5, 1000W/m², 135W/m², 25°C.

NOCT						
Max Power P _{MAX} (W)	332	336	340	344	347	351
Max Power Voltage, V _{MP} (V)	29.12	29.23	29.34	29.45	29.55	29.65
Max Power Current I _{MP} (A)	11.40	11.49	11.58	11.67	11.76	11.84
Open Circuit Voltage, V _{OC} (V)	34.76	34.86	34.95	35.05	35.14	35.24
Short Circuit Current I _{SC} (A)	12.15	12.24	12.32	12.41	12.50	12.59

NOCT: AM1.5, 800W/m², 20°C, 1m/s.

Operating Characteristics

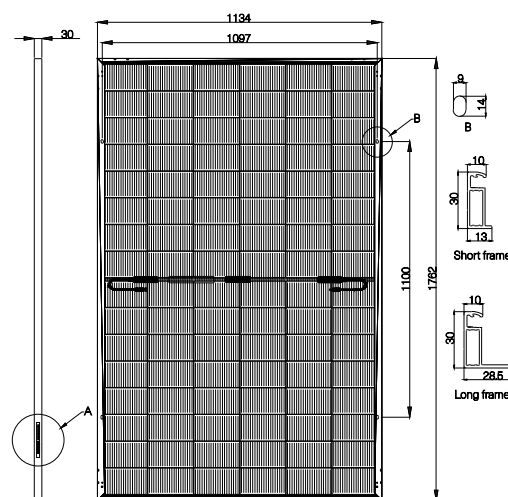
Nominal Operating Cell Temp.	44±2°C
Operating Temperature	-40~+85°C
Max System Voltage	DC1500V (IEC)
Max Series Fuse Rating	30 A
Tolerance of Pmax	0~+3%
Power Selection	0~+5W
Bifacial Gain	30%
Bifaciality Coefficient	φPmax=90±5%, φVoc=95%~100%, φIsc=90%±5%
Safety Class	Class II

Temperature Characteristics

Temperature Coefficient of P _{MAX}	-0.24%/°C
Temperature Coefficient of V _{OC}	-0.22%/°C
Temperature Coefficient of I _{SC}	+0.04%/°C

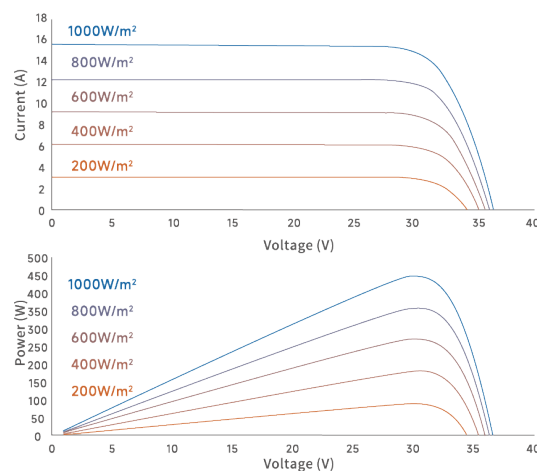
Engineering Drawings

(Unit: mm)



Characteristics Curves

(REA-HDN96R-DSN-460)



*The specification and key features described in this datasheet may deviate slightly and are not guaranteed. REA Power Pty, Ltd. reserves the right to make any adjustment to the information described herein at any time without notice. Please always obtain the most recent version of the datasheet which shall be duly incorporated into the binding contract made by the parties governing all transactions related to the purchase and sale of the products described herein.

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