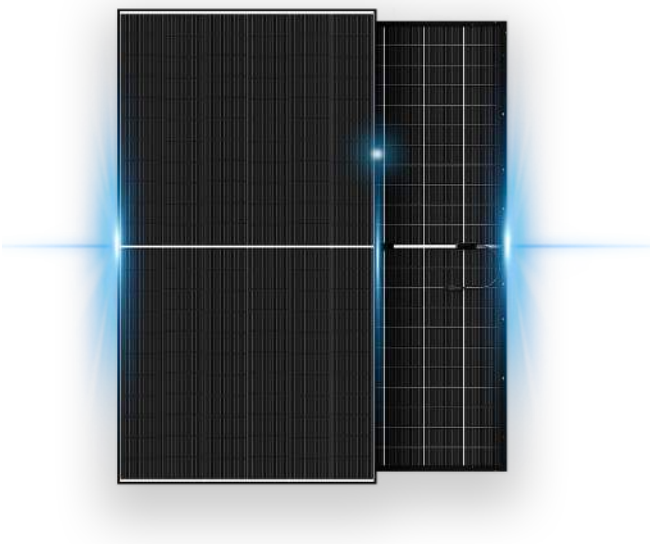
FUSION ENERGY
DOUBLE SIDED SOLAR MODULE

Designed for powering the future today **FUSION ENERGY** high density solar module dramatically amplifies energy conversion providing the highest system efficiency and space management

Featuring N-Type Topcon Cell technology, the Fusion module increases solar energy harvest by maximising low and oblique light performance

The Fusion solar module utilises a dual glass bifacial panel structure providing double sided power generation

Engineered in Australia the Fusion solar module has been designed to maximum engineering scrutiny and quality assurance to provide class leading reliability



Highest Performance
- N-Type Topcon Cell technology
- Superior low and oblique light performance
- Split cell structure for higher shading tolerance
- Double sided power generation
- Parallel Circuitry maximises energy production

Engineered Durability
- Flexible cell connection technology
- Aerospace adhesive reinforce cell connections
- Dual glass structure for increased durability

Maximum Safety
- Low voltage parallel design
- Zero Potential Induced Degradation
- AC Module design optimisation

MODULE SPECIFICATIONS

SERIES 4

ELECTRICAL CHARACTERISTICS

Module Type	REA-HD108N-420	REA-HD108N-420	REA-HD108N-420
Test Method	STC	COMBINED WITH REAR (10%)	COMBINED WITH REAR (20%)
Max Power P_{MAX} (W)	420	462	504
Open Circuit Voltage, V_{OC} (V)	37.90	37.70	37.70
Short Circuit Current I_{SC} (A)	13.98	14.99	16.08
Max Power Voltage, V_{MP} (V)	31.90	31.70	31.70
Max Power Current I_{MP} (A)	13.17	14.13	15.17
Module Efficiency (%)	21.5	23.65	25.80
STC	1000 W/m^2, 25°C, AM1.5		
NOCT	800 W/m^2, 20°C, AM1.5, wind speed 1m/s		

TEMPERATURE RATING (STC)

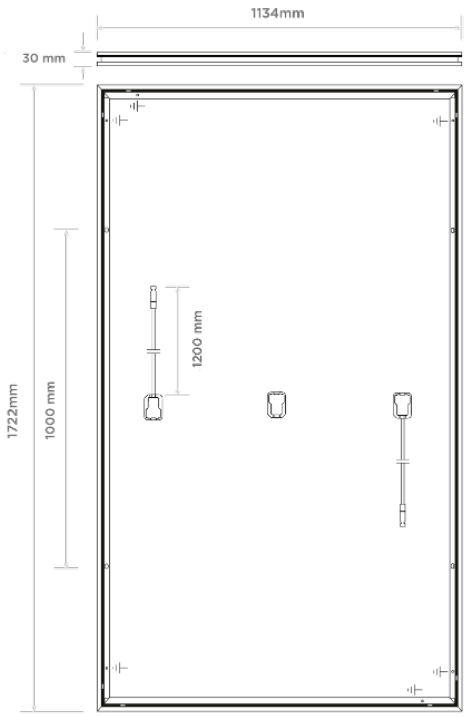
Temperature Coefficient of Isc	+0.047% / °C
Temperature Coefficient of Voc	-0.20% / °C
Temperature Coefficient of P_{MAX} (W)	-0.22% / °C

MECHANICAL LOADING

Front Side Design Load	5400 Pa | 125 lb/ft^2
Rear Side Design Load	5400 Pa | 125 lb/ft^2
Hail Impact Test	25 mm Hailstone at 23 m/s

MECHANICAL PARAMETERES

Cell Type	N-Type Topcon M10
Junction Box	Tripple design IP68, 3 diodes
Cable Detail	4 mm^2 | 12 AWG, 1000 mm
Connector	Stabuli MC4 EVO2
Glass	2.0mm ARC Glass Front and Rear
Frame	Black Anodised Aluminium Alloy
Weight	24kg
Dimension	1722mm x 1134mm x 30mm



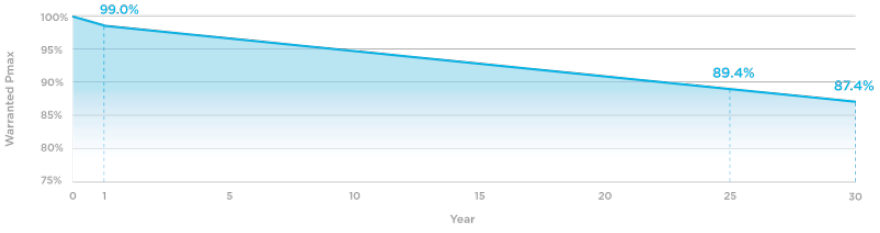
OPERATION PARAMETERS

Operational Temperature	-40°C ~ +85°C
Power Output Tolerance	-0 /+3%
Max System Voltage	DC 1500 V (IEC/UL)
Max Series Fuse Rating	30A
NOCT	45.7 +/- 2°C
Safety Class	Class II
Fire Rating	Class A / UL Type 1 or 2

WARRANTY

PRODUCT	25 YEARS
PERFORMANCE	30 YEARS LINEAR
BACKED BY	Munich RE

LINEAR POWER WARRANTY



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ENPHASE ENERGIZED

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