

SUMEC

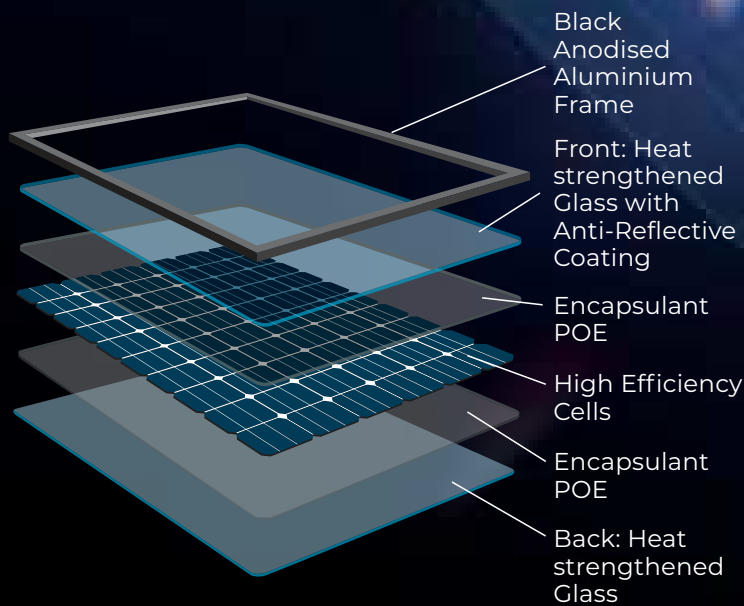
Phono[®] Solar
AUSTRALIA

390W
BIFACIAL

DIAMOND DUAL GLASS

THE DIFFERENCE IS CLEAR

BUILT TOUGH TO PERFORM IN AUSTRALIA



WHY DUAL GLASS MATTERS

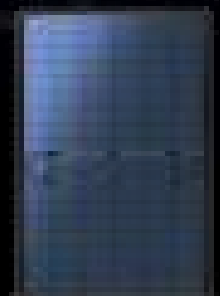
LOWER GRADE, PLASTIC BACKSHEETS

Under harsh conditions, the plastic back sheet has been a common failure point of solar panels in Australia.



DIAMOND GLASS

A second layer of tempered glass in replacement of the plastic back sheet allows **Zero Vapour Penetration**. This change and the addition of POE means you can install next to the coastline or in Australia's harshest climates.



25
25 YEAR
PRODUCT
WARRANTY*



30 YEAR
PERFORMANCE
WARRANTY



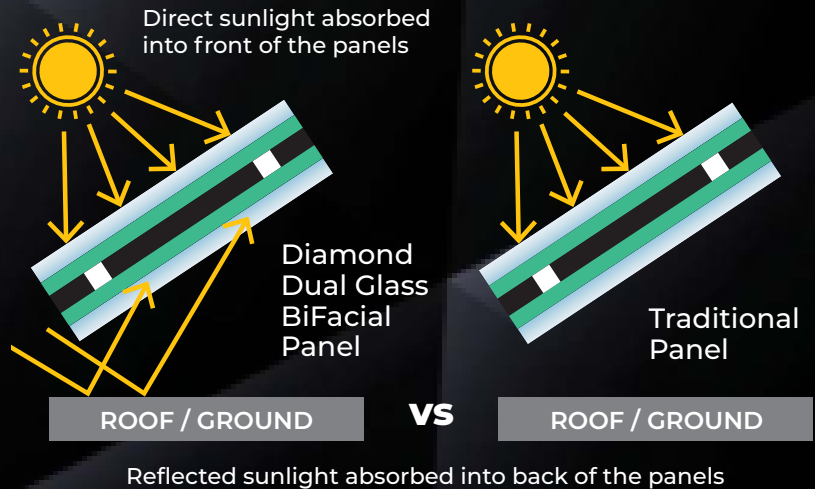
THE CLEAR DIFFERENCE

Working within Australia's harsh environment, Sumec Phono Solar manufacture a beautifully tough panel that's **CLEARLY DIFFERENT**.

BIFACIAL TECHNOLOGY

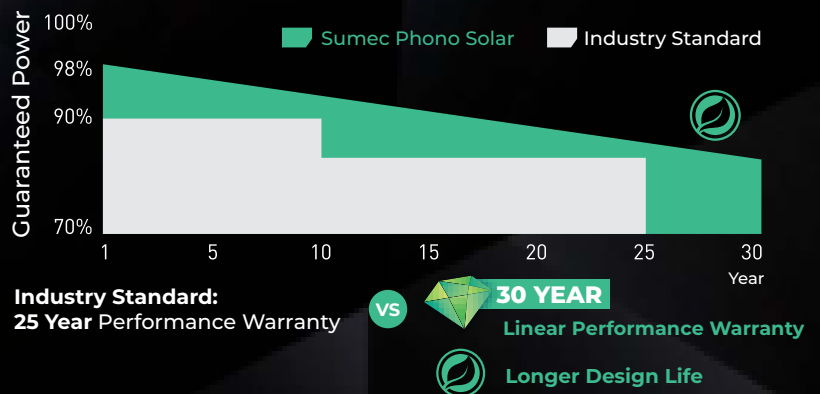
MORE POWER, PER PANEL

The Diamond Dual Glass solar panel can absorb power from both sides of the panel. In optimal install conditions, **up to 25% additional power yield can be gained** thanks to its Bifacial design.



20% MORE WARRANTED POWER

The enhanced build quality of the Diamond Dual Glass Panel gives us the confidence to warrant its performance for three decades. **A longer lasting panel is the better choice for the environment.**



ROBUST DESIGN FOR HARSH AUSTRALIAN CONDITIONS

The Diamond Dual Glass Series is thoroughly tested and built for the extremes. From the high humidity of North Queensland to the Coastal regions where over 80% of Australian's live.



SALT MIST CERTIFICATION
 To the highest Severity Level

CYCLONE TESTED
 Rated for Wind Regions like NT

INCREASED HAIL TESTING
 Normal Hail Testing uses 25mm hailstones at a speed of 80km/h.

Due to this panel's robust design, we upgraded to test 45mm at a speed of 110km/h and it passed. That's bigger than a golf ball.

45mm vs 25mm hailstone

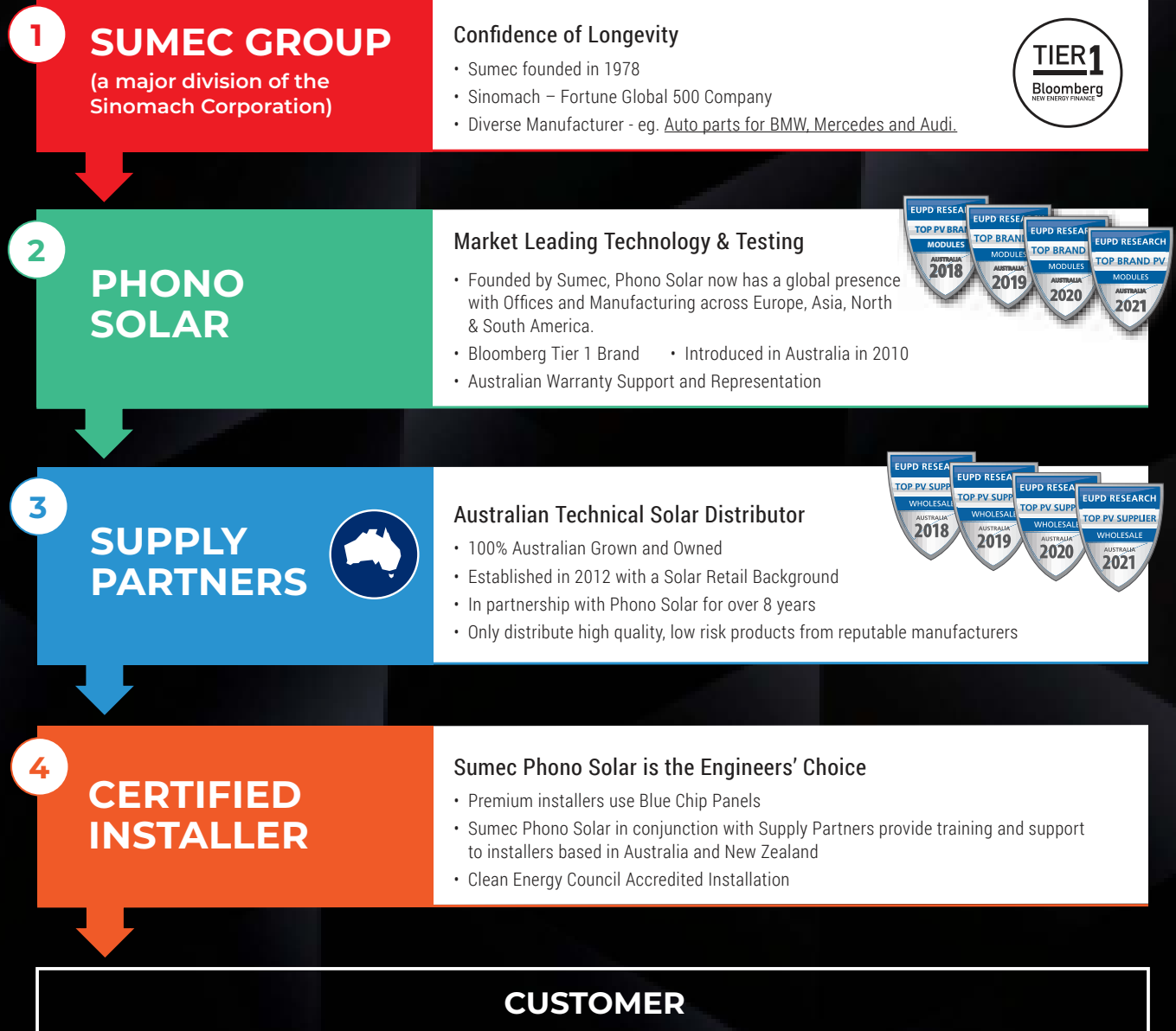
MAKE A SECURE INVESTMENT

4 LAYERS OF PROTECTION

In 2013 there were more than 400 Solar Panel Manufacturers approved for install in Australia and today there are fewer than 100.

SUMEC Group was founded over 40 years ago so, we understand a warranty is only as strong as the company behind it.

As a **Blue Chip brand**, Sumec Phono Solar has **longevity, commitment and stability** at every layer of protection. From the Fortune 500 Founding Corporation, through to the experienced Australian Distributor, **you can feel secure in your solar investment** for decades to come.



AUSTRALIAN
OFFICE AND
REPRESENTATION

SUMEC PHONO SOLAR AUSTRALIA
Level 35, Tower One, 100 Barangaroo Ave, Sydney, AUSTRALIA
TEL: 02 8114 4516 www.phonosolar.com.au

PHONO SOLAR INTERNATIONAL (SUMEC)
No. 1 Xinghuo Rd., Nanjing Hi-tech Zone, Nanjing, CHINA
www.phonosolar.com



DIAMOND DUAL GLASS MODULE

ELECTRICAL TYPICAL VALUES

Model	PS390M7GF-18/VH PS390M7GFH-18/VH	
Testing Condition	STC	NOCT
Rated Power (P _{mpp}) ²	390W	287
Rated Current (I _{mpp})	12.65	10.12
Rated Voltage (V _{mpp})	30.84	28.36
Short Circuit Current (I _{sc})	13.49	10.87
Open Circuit Voltage (V _{oc})	36.87	34.10
Module Efficiency (%)	19.90	

TEMPERATURE CHARACTERISTICS

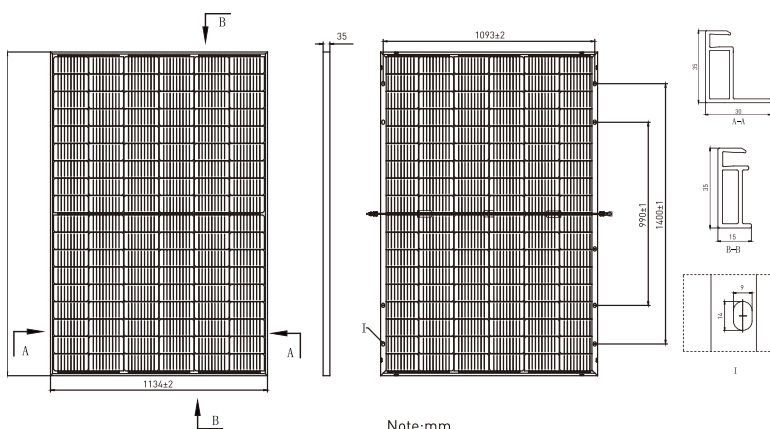
Voltage Temperature	-0.28%/°C
Coefficient Current Temp	+0.048%/°C
Coefficient Power Temp	-0.35%/°C
Power Tolerance	0-+5w
NOCT	42±2-C:
Bifaciality	70±5%

MECHANICAL CHARACTERISTICS

Cell Type	Monocrystalline 182mm x 91 mm
Dimensions	Length: 1724mm, Width: 1134mm Height: 35mm
Weight	24.7kg
Front/Back Glass	2.0/2.0 Toughened Glass
Frame	Black anodised aluminium alloy
Cable	4mm ² (IEC), 1150mm cable length
Junction Box	IP 68 rated
Connectors	MC4-EVO 2 (1500V)

PACKING CONFIGURATION

Container	Pieces per container	Per Pallet
40'GP	806	31



BIFACIAL ELECTRICAL VALUES

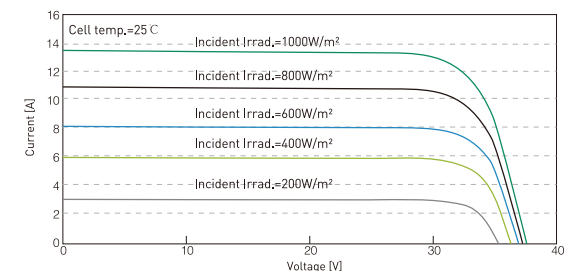
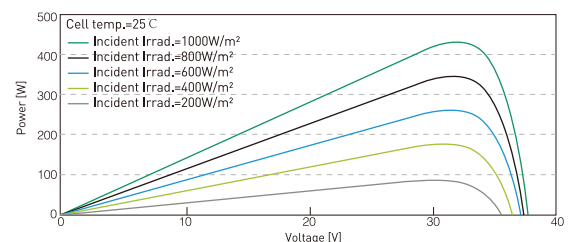
Back Power Gain	5%	10%	15%	20%	25%	BNPI
P _{max} /W	404	417	431	445	458	426
Module Efficiency	20.7	21.3	22.0	22.8	23.4	21.8
V _{oc} /V	36.87	36.87	36.87	36.97	36.97	36.87
I _{sc} /A	13.96	14.43	14.91	15.38	15.85	14.73
V _{mp} /V	30.84	30.84	30.84	30.94	30.94	30.84
I _{mp} /A	13.09	13.54	13.98	14.42	14.86	13.82

Additional back power gain will vary according to the ground clearance and surface reflectivity at the installation location. Higher ground clearance and surface albedo will provide better results.

ABSOLUTE MAXIMUM RATING

Operating Temperature	From -40 to +85°C
Hail Diameter @ 110km/h	Up to 45mm
Front Side Maximum Static Loading	5400Pa
Rear Side Maximum Static Loading	2400Pa
Maximum Series Fuse Rating	30A
PV Module Classification	II
Module Rating (IEC 61730)	C
Maximum System Voltage	DC 1000V/1500V

ELECTRICAL CHARACTERISTICS



- In compliance with our warranty terms and conditions.
- Measurement conditions under irradiance level of Standard Test Conditions (STC): Irradiance 1000W/m², AM 1.5, Cell Temperature 25°C.



30-year linear performance warranty to 84.95% at year 30.
This amounts to 2% degradation in the first year, 0.45% annually.

*** 25 year Product Warranty applies to Residential System Installations.**
Commercial System Installations are eligible for 15 year Product Warranty.
Please see our warranty document for full terms, conditions and details.

NOTE: This datasheet is not legally binding. Phono Solar reserves the right to make specifications changes without notice.

Further information can be found on our website: www.phonosolar.com.au

Sumec Phono Solar modules are proudly manufactured in our facility in Nanjing, China.