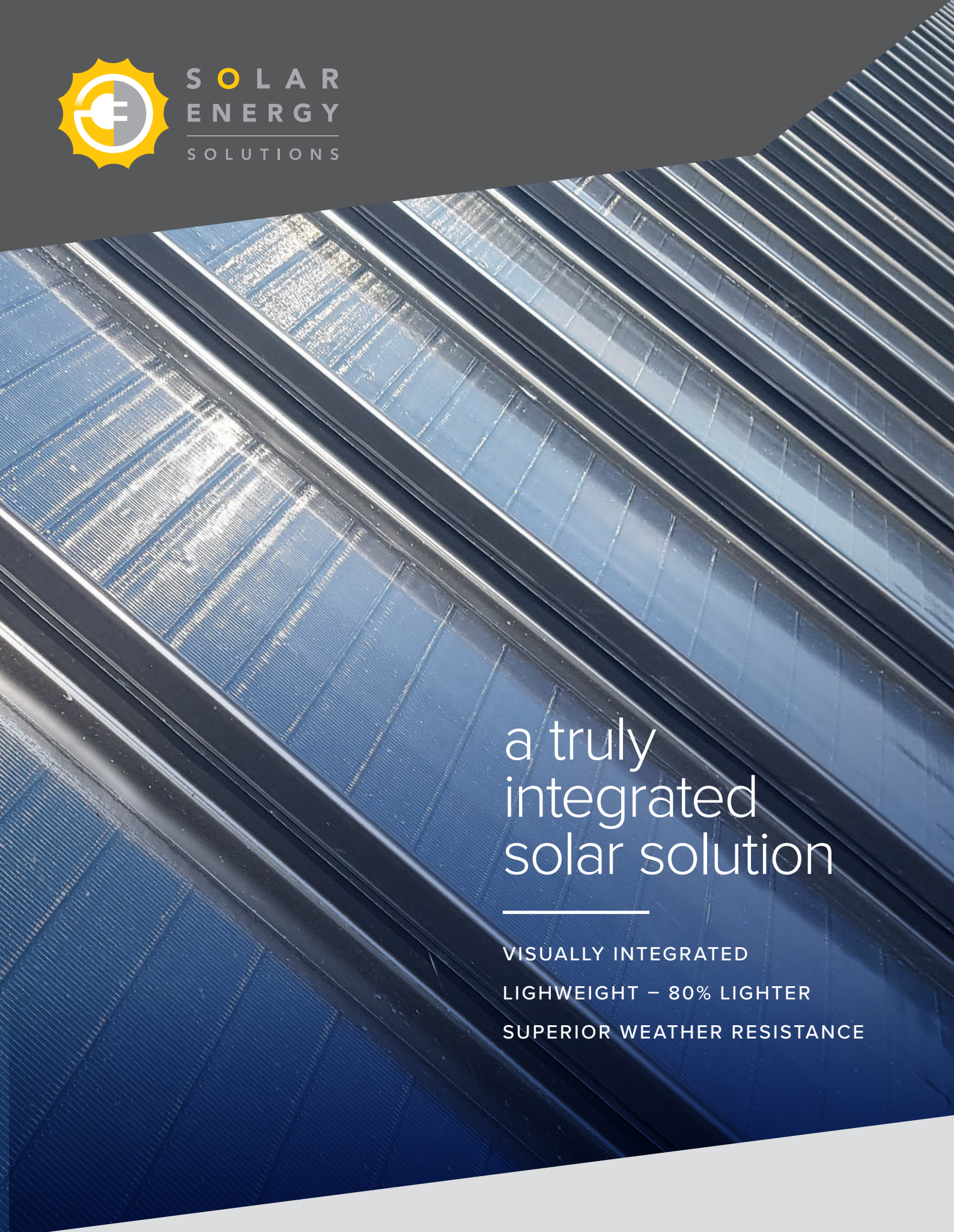
SOLAR ENERGY SOLUTIONS



a truly integrated solar solution

VISUALLY INTEGRATED

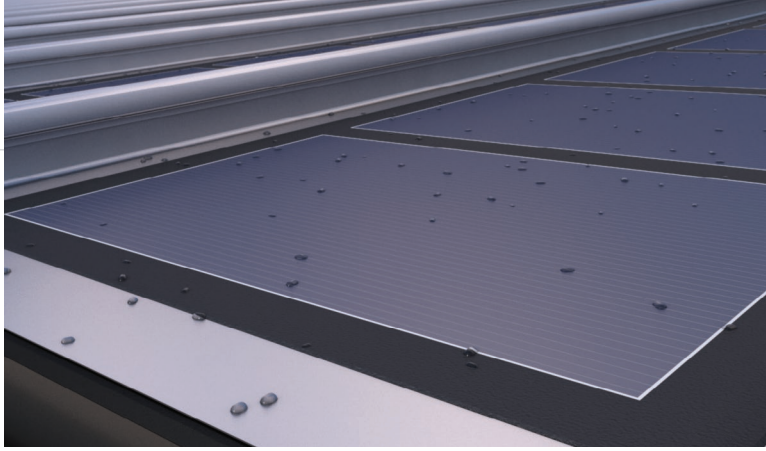
LIGHWEIGHT – 80% LIGHTER

SUPERIOR WEATHER RESISTANCE

SOLAFLEX® 290W

DATA SHEET

SOLAFLEX® 290W



Flexible CIGS Laminate strips are an innovative and perhaps the most integrated solar solution in the NZ market. The Solaflex® modules adhere directly to the pan of the roof profile; once installed they present the significant aesthetic advantages of an integrated CIGS solution, with high efficiency output properties.

Compatibility

The Solaflex range is ideally suited to a swageless flat pan long run roofing profile to ensure optimum adhesion. Although variable in length,the Solaflex range has a fixed width of 348mm so this is the absolute minimum distance required in the roof pan; however wider pan spacing is recommended as it will minimise any shading effect. Unfortunately Solaflex is not compatible with standard Corrugate and trapezoid prfiles. For further advice on compatible roof profiles please contact us.

Key features

- Record efficiency levels in a CIGS flexible form factor
- Low installed weight at less than 2.1 kg/m² (<0.43 lb/ft²)
- No penetrations, ballast or racking required
- Applicable for high wind load and high seismic hazard areas
- Bypass diodes reduce CIGS system shading losses
- Directly bonds to many approved surfaces

Reliability and safety

IEC 61646 & IEC 61730
UL 1703

Warranty

5 year workmanship
10/25 year warranty against power loss

Electrical performance at stc[1]

Nominal Power	P_{MPP}	[W]	290
Nominal Efficiency	η	[%]	16.1%
Power Output Tolerance		[W]	+10/-0
Maximum Power Voltage	V_{MPP}	[V]	70.3
Maximum Power Current	I_{MPP}	[A]	4.13
Open Circuit Voltage	V_{OC}	[V]	87.9
Short Circuit Current	I_{SC}	[A]	4.70
Maximum Series Fuse Rating		[A]	10
Maximum System Voltage	IEC/UL	[V]	1000/1000

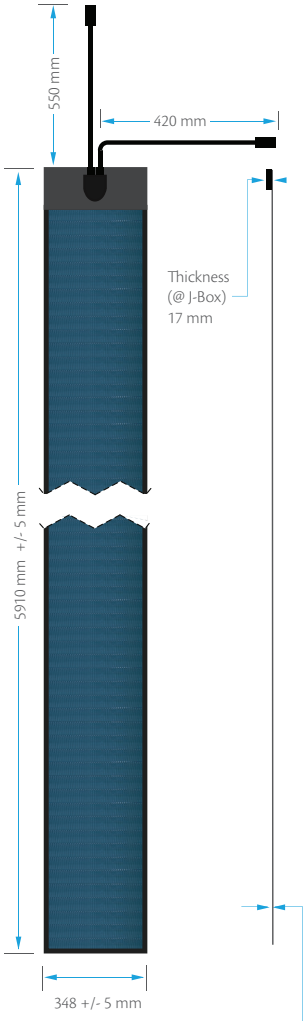
[1]Standard Test Conditions (STC): 1000 W/m², 25°C cell temperature, AM 1.5 spectrum

Thermal characteristics

NOCT	[℃]	48
Temperature Coefficient of P_{MPP}	[%/℃]	-0.38
Temperature Coefficient of V_{OC}	[%/℃]	-0.28
Temperature Coefficient of I_{SC}	[%/℃]	0.008

Physical and mechanical specifications

Length	5910 mm (232.7 in)
Width	348 mm (13.7 in)
Thickness, Maximum at J–Box*, Module	17 mm (0.7 in)
Weight (Module without adhesive)	3.6 kg (7.9 lb)
Weight (Module with adhesive)	4.3 kg (9.5 lb)
Weight/Area (Module without adhesive)	1.7 kg/m² (<0.4 lb/ft²)
Weight/Area (Module with adhesive)	2.1 kg/m² (0.4 lb/ft²)
Junction Box Type	IP68
Cable Connections	MC4 Compatible
Cell Type	Copper Indium Gallium Diselenide (CIGS)
Warranty**	5 year workmanship; 10/25 year power output
Certifications	UL 1703, IEC 61646, IEC 61730
Packaging Info	5 modules per crate, 40 modules per pallet, 800 modules per 20' ISO container, 1760 modules per 40' ISO container



*2.5 mm (0.1 in) for the rest of the module with adhesive
*1.6 mm (0.06 in) for the rest of module without adhesive
**Please see full warranty for details