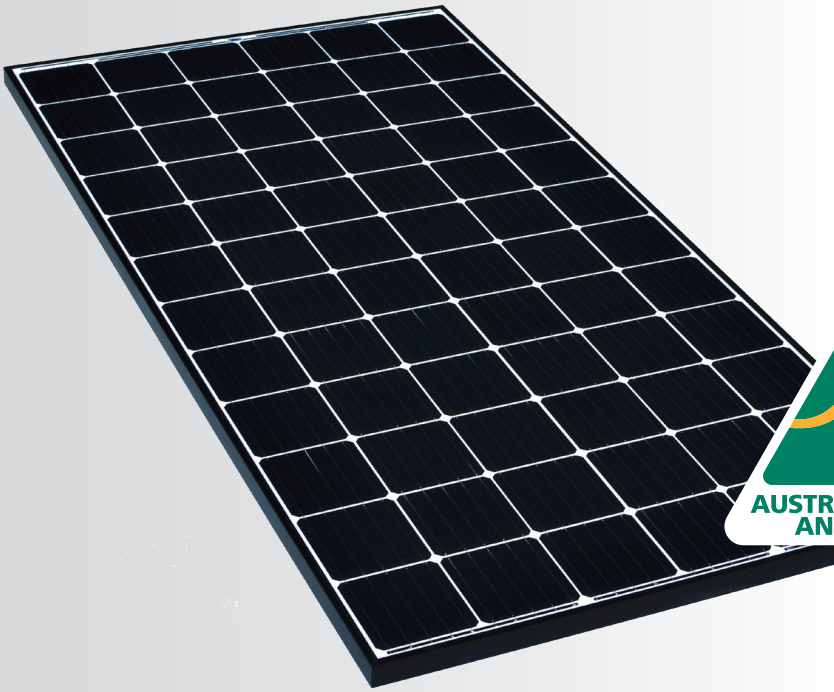
Tindo Karra 380 PERC

375 - 380 Watt
Mono-Crystalline Module



Engineered in Australia for Australian Conditions

AUSTRALIAN MADE AND OWNED

CLEAN ENERGY COUNCIL APPROVED SOLAR RETAILER

DESERT KNOWLEDGE AUSTRALIA Solar Centre
Demonstrated System Performance

A Secure & Reliable Investment
Tindo Solar offers a 12 warranty for our 72 cell modules with a 25 year performance guarantee.

Great Visual Appearance
The Tindo Karra series has been designed with appearance in mind. Their deep black cells, with black frames and thinner wires give an aesthetically pleasing appearance.

High Efficiency
Higher module conversion efficiency (up to 19.1%) benefit from Passivated Emmiter Rear Contact (PERC) technology.

Proven Field Performance
Our panels are mounted and performing everyday at the Desert Knowledge Testing Centre in Alice Springs. The Karra series panels are consistently one of the highest performing panels at the centre. www.dkasolarcentre.com.au

Maximum Cost Reductions
Much lower logistics costs due to our modules being made in South Australia with flexible module numbers per pallet on request.

Innovative All Weather Technology
Optimal yields, whatever the weather with excellent low-light and temperature behaviour.

Low-light Performance
Advanced glass and solar cell surface texturing allow for excellent performance in low-light environment.

Tindo Operations Co Pty Ltd
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6 Second Avenue Mawson Lakes SA 5095

tindo solar

Karra Series Data Sheet

Electrical Characteristics

72 Cells Panel Description		Karra-375 H		Karra-380 H	
Item	Unit	STC	**NMOT	STC	**NMOT
Max. Power (Pmax)	Wp	375	274.75	380	278.41
Max. Power voltage (Vmp)	V	40.45	36.73	40.77	37.02
Max. Power current (Imp)	A	9.27	7.48	9.32	7.52
Open circuit voltage (Voc)	V	48.65	44.88	49.00	45.21
Short circuit current (Isc)	A	9.89	8.05	9.94	8.10
Panel efficiency	%	18.9	13.8	19.1	14.0
Positive power tolerance	W	0 ~ + 5			

STC(Standard Test Condition) : 1,000W/m², AM 1.5, 25 °C / **NMOT (Nominal Module Operating Temperature) : 800W/m², 20°C, wind speed 1m/s, Tolerance of Pmax, VOC & ISC ±3% within each watt Class @ STC

Qualification Test

Thermal cycling test	- 40°C to 85°C for 200 cycles
Damp heat test	85°C and 85% relative humidity for 1000hr
Front static load test	5400Pa
Rear static load test	2400Pa
Hail impact test	25mm hail at 23m/s from 1m distance

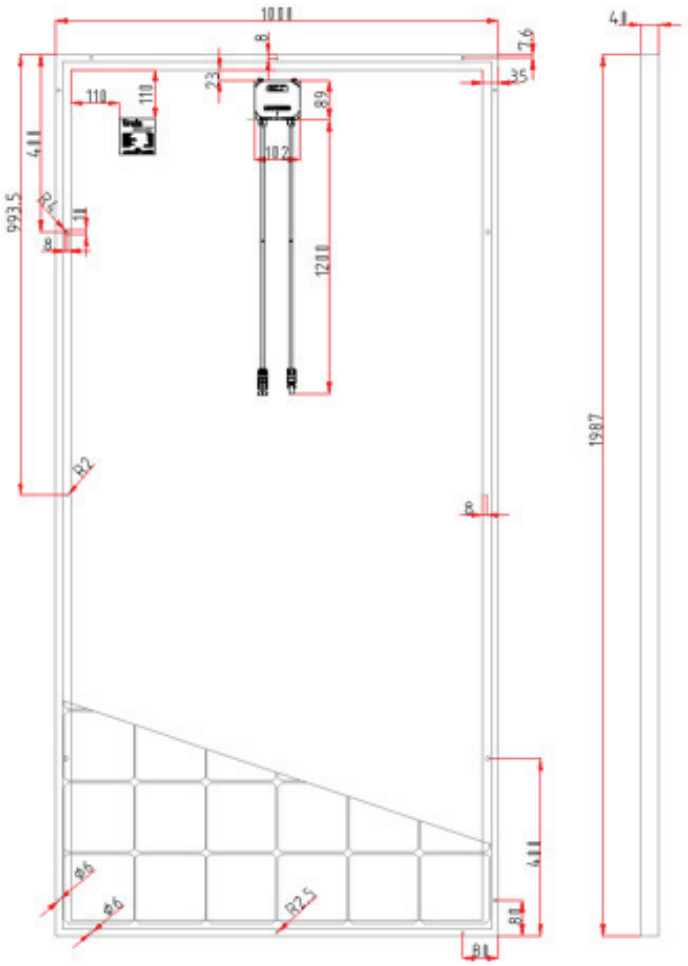
Safety factor of *static load test: 1.5 (Test load = Design load x Safety factor)

Safety Ratings & Warranties

Safety application class	Class II
Fire Safety Classification	Class C
Certifications	IEC 61215:2016, IEC 61730:2016
Warranty	12 years limited product warranty
Performance guarantee	25 years limited warranty 80% power

Mechanical Characteristics

Cells per Panel	72Cells (6 x 12)
Cell Type	5BB PERC Mono-crystalline
Panel Dimension (L x W x H)	1987 x 1000 x 40 mm
Panel Weight	22Kg
Front Glass	3.2mm Tempered ARC Glass
Frame	Anodized Aluminum
Junction Box (Output cable)	With bypass diode / IP67 (1,200mm / 4mm² cable)
Connectors type	PV-KST4-EVO2(male), PV-KBT4-EVO2(Female) / Stabli - MC4



[Panel Diagram]

System Integration Parameters

Temperature range	-40°C to 85°C
Maximum system voltage	1,500 V DC(IEC)
Maximum over-current protection	15 A

Thermal Characteristics

Rating		Unit	Value
Measurement of *NMOT		°C	44
Temperature Coefficient	Isc	%/°C	+ 0.06
	Voc	%/°C	– 0.30
	Pmax	%/°C	– 0.37

*NMOT: Nominal Module Operating Temperature

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