

About the table

The table lists a range of solar panels suitable for solar power systems for which suppliers provided information. It includes the important information such as type of panel output (panels now come in both DC and AC—the latter have embedded grid-interactive inverters), maximum power, voltage and current (usually rated at 25°C), power tolerance, panel efficiency, cell type, power temperature coefficient, panel construction and dimensions, including weight, warranty, and the rated lifespan. While we asked for embodied energy data, most companies failed to supply this information; however, it is generally accepted that embodied energy for any properly utilised photovoltaic panel is under two years.

Also included (where provided) are recommended retail prices including GST, but not including installation or the rebate for STCs (small-scale technology certificates, see www.bit.ly/CER_STCs for an explanation of STCs. The number of STCs you are eligible for varies by location). However, prices should be taken with a grain of salt. Price usually depends on the number of panels purchased at the time and many dealers will offer panels at lower cost, so don't settle for the first price you are given—ring around!

Ingress protection (IP) numbers, such as IP67, describe the level of resistance to the ingress of water and dust. See https://en.wikipedia.org/wiki/IP_Code for details.

Note that some suppliers/manufacturers failed to provide data for the guide table. This is noted in the comments for those listings. Data for those suppliers has been collated from manufacturers' datasheets for each product range.

Table 1. Solar panels. Table data supplied by manufacturers/importers.

Brand (made in)	Model	Rated power (watts)	Voltage at max power	Current at max power	AC or DC output	Maximisers included	Power tolerance	Panel efficiency (%)	Cell type and quantity	Cell temp at which panel is tested °C	Power temp coefficient (%/°C)	Construction	Size in mm (L x W x T)	Weight (kg)	Warranty (years)	RRP Inc GST (\$)	Cost per Watt (\$)	Embodied energy (yrs)	Rated lifetime (years)	Comments								
AC Solar Warehouse www.acsolarwarehouse.com	AU Optronics (AUO)	260 to 325			DC				Poly and mono						10 or 12 years product (depending on model), 25 years linear power					AC Solar Warehouse failed to provide updated data for this guide, so we have included abbreviated data on their product range.								
	Jinko	270 and 330			DC				Poly						10 years product, 25 years linear power													
AustraEnergy www.austraenergy.com.au	BYD	260 to 310			DC				Poly						12 years product, 25 years linear power					All PV Australia failed to provide updated data for this guide, so we have included abbreviated data on their product range.								
	Longi	300 to 360			DC				Mono						10 years product, 25 years linear power													
	CSUN	270 to 340			DC				Poly and mono																			
	Luxor	200			DC				Mono						12 years product, 25 years linear power													
Australian Premium Solar www.austalianpremiumsolar.com.au	Mono series	230 to 260			DC				Mono						12 years product, 30 years power					Australian Premium Solar failed to provide updated data for this guide, so we have included abbreviated data on their product range.								
	Poly series	230 to 250			DC				Poly																			
Canadian Solar www.canadiansolar.com/au	Ku series half-cell	Up to 360			DC				Poly and mono half cells						10 years product, 25 years power, non-cancellable warranty insurance					Canadian Solar failed to provide updated data for this guide, so we have included abbreviated data on their product range.								
	Dymond series double glass	260 to 340							Poly and mono																			
	Superpower series	290 to 3075							PERC mono																			
	Maxpower series	310 to 345							Poly and mono																			
	All-black series	275 to 300							Mono																			
	SmartDC series with optimisers	260 to 295				Optimised DC			Poly and mono																			
eArche (Sunman, available through Energius) ph:1300 090 187 www.energius.com.au	SMD085P-2x10	85	10.5	8.1	DC		0/+5W	13.90%	Poly (6 inches)	25°C	-0.41	Patented lamination process to encapsulate the silicon cells. Anodized aluminium alloy frame.	1662 x 369 x 5.6	2.8	10 years product, 25 years linear power	POA	POA	-	25 Years	eArche panels are semi-flexible. The bending angle is 248 degrees. eArche is the first lightweight solar panel to receive CEC approval for sale in grid-connected PV systems in Australia. eArche panels are 1/3 lighter than traditional glass + aluminium panels.								
	SMD105P-2x12	105	12.7	8.27			14.40%				-0.41		1979 x 369 x 5.6	3.3														
	SMD105P-4x06	105	12.7	8.27			14.80%				-0.41		1027 x 689 x 5.6	2.9														
	SMD110M-2x12	110	13	8.47			15.10%	Mono (6 inches)			-0.42		1979 x 369 x 5.6	3.3														
	SMD110M-4x06	110	13	8.47			15.50%				-0.42		1027 x 689 x 5.6	2.9														
	SMD160M-4x09	160	19.1	8.38			15.50%				-0.42		1503 x 689 x 5.6	3.9														
	SMD175P-4x10	175	21.2	8.26			15.30%	Poly (6 inches)			-0.41		1662 x 689 x 5.6	4.3														
	SMD180M-4x10	180	21.4	8.42			15.70%	Mono (6 inches)			-0.42		1662 x 689 x 5.6	4.3														
	SMD210P-4x12	210	25.4	8.27			15.40%	Poly (6 inches)			-0.41		1979 x 689 x 5.6	4.8														
	SMD215M-4x12	215	25.7	8.37			15.80%	Mono (6 inches)			-0.42		1979 x 689 x 5.6	4.8														
	SMD265P-6x10	265	31.9	8.31			15.60%	Poly (6 inches)			-0.41		1662 x 1019 x 5.6	6.6														
	SMD270M-6x10	270	32.1	8.42			15.90%	Mono (6 inches)			-0.42		1662 x 1019 x 5.6	6.6														
	SMD320P-6x12	320	38.2	8.38			15.90%	Poly (6 inches)			-0.41		1979 x 1019 x 5.6	7.7														
	SMD325M-6x12	325	38.5	8.45			16.10%	Mono (6 inches)			-0.42		1979 x 1019 x 5.6	7.7														
	SMD50	50	6.2	8.07			14.70%	Poly (6 inches)			-0.41		998 x 340 x 6	1.5														
	eArche (made by Sunman in China) Solar 4 RVs, Solar 4 Boats ph:1300 765 273 info@solar4rvs.com.au www.solar4rvs.com.au	SMA050M2x6	50	6.2	8.07	DC		+/-5W	13.5	6 mono cells	25°C (STC)		-0.42	Thin, lightweight (no glass), with 20mm square edge black anodised aluminium frame							345 x 1070 x 20	1.8	10 years product, 25 years power (at least 80.2% in the 25th year)	155.00	310		25+	Made with a patent-pending composite material similar to those used in airplane windows. These panels are approved by the Clean Energy Council for grid connection in residential and commercial applications yet they don't have a heavy, rigid frame or glass.
		SMA105M4x6	105	12.7	8.27			14.8	12 mono cells				-0.42								666 x 1070 x 20	3.3						
SMA160M4x9		160	19.1	8.38			15.5	36 mono cells			-0.42	666 x 1546 x 20	4.1															
SMA180M4x10		180	21.4	8.42			15.9	40 mono cells			-0.42	666 x 1705 x 20	4.6															
SMD050M2x6		50	6.2	8.07			13.5	6 mono cells			-0.42	Thin lightweight (no glass), with 6mm thin black anodised aluminium frame	370 x 1096 x 6	1.5														
SMD105M4x6		105	12.7	8.27			14.8	12 mono cells			-0.42		690 x 1095 x 6	2.6														
SMD160M4x9		160	19.1	8.38			15.5	36 mono cells			-0.42		690 x 1570 x 6	3.7														
SMD180M4x10		180	21.4	8.42			15.9	40 mono cells			-0.42		690 x 1730 x 6	4.1														
SMS050M2x6		50	6.2	8.07			13.5	6 mono cells			-0.42	Thin lightweight (no glass), with 8mm EPDM rubber edge seal	345 x 1070 x 8	1.4														
SMS105M4x6		105	12.7	8.27			14.8	12 mono cells			-0.42		666 x 1070 x 8	2.5														
SMS160M4x9		160	19.1	8.38			15.5	36 mono cells			-0.42		666 x 1546 x 8	3.2														
SMS180M4x10		180	21.4	8.42			15.9	40 mono cells			-0.42		666 x 1705 x 8	3.6														
First Solar Inc ph:(02) 9002 7700 www.firstsolar.com		Series 4	92.5 to 122.5			DC				Thin-film CdTe						10 years product, 25 years linear power					First Solar failed to provide updated data for this guide, so we have included abbreviated data on their product range.							
		Series 6	420 to 445																									
Hanwha Q Cells Australia www.q-cells.com.au	Q.PEAK-G4.1	295 to 305			DC				Mono Q,ANTUM						12 years product, 25 years linear power					Hanwha Q Cells Australia failed to provide updated data for this guide, so we have included abbreviated data on their product range.								
	Q.PLUS BFR-G4.1	275 to 285			DC																							

Table 1. Solar panels. Table data supplied by manufacturers/importers. (cont)

Brand (made in)	Model	Rated power (watts)	Voltage at max power	Current at max power	AC or DC output	Maximisers included	Power tolerance	Panel efficiency (%)	Cell type and quantity	Cell temp at which panel is tested °C	Power temp coefficient (%/°C)	Construction	Size in mm (L x W x T)	Weight (kg)	Warranty (years)	RRP Inc GST (\$)	Cost per Watt (\$)	Embodied energy (yrs)	Rated lifetime (years)	Comments
JinkoSolar (made in China) JinkoSolar Australia ph: 1300 326 182 aus@jinkosolar.com www.jinkosolar.com.au	JKMXXXPP-60	270 to 275	31.7 to 32V	8.52 to 8.61A	DC	No	3%	16.5 to 16.8	60 poly cells	25	-0.4	Anodised aluminium alloy frame, high transmission tempered glass with low iron	1650 x 992 x 40	19	10 years product, 25 years power	POA			25+	
	JKMXXXM-60	285	32V	8.9A	No		17.41	60 mono cells	-0.4											
	JKMXXXM-60	295 to 300	32.4 to 32.6V	9.10 to 9.21A	No		18.02 to 18.33	60 mono perc cells	-0.4											
	JKMSXXXPP-60	270 to 275	31.7 to 32V	8.52 to 8.61A		SOLAREEDGE OPJ300-LV	16.5 to 16.8	60 poly cells	-0.4											
	JKMSXXXPP-60-MX	270 to 275	30.1 to 30.5V	8.97 to 9.06A		MAXIM GEN II	16.5 to 16.8	60 poly cells	-0.4											
	JKMXXXPP-60H	280	32.3V	8.66A	No		16.95	120 poly half-cells	-0.38	1665 x 992 x 40	18.5									
	JKMXXXM-60H	290 to 295	32.2 to 32.4V	8.98 to 9.08A	No		17.56 to 17.86	120 mono half-cells	-0.37											
	JKMXXXM-60H	310 to 315	33 to 33.2V	9.4 to 9.49A	No		18.77 to 19.07	120 mono PERC half-cells	-0.39	1956 x 992 x 40	26.5									
	JKMXXXPP-72	325 to 330	37.6 to 37.8V	8.66 to 8.74A	No		16.75 to 17.01	72 poly cells	-0.4											
	JKMXXXM-72	335 to 340	38.4 to 38.7V	8.72 to 8.79A	No		17.26 to 17.52	72 mono cells	-0.4											
	JKMXXXM-72	355 to 365	39.3 to 39.7V	9.04 to 9.20A	No		18.31 to 18.82	72 mono PERC cells	-0.39											
	JKMXXXPP-72H	335 to 340	38 to 38.2V	8.80 to 8.88A	No		17 to 17.25	144 poly half-cells	-0.38	1987 x 992 x 40										
	JKMXXXM-72H	345 to 355	39.39.4V	8.83 to 8.99A	No		17.5 to 18.01	144 mono half-cells	-0.37											
	JKMXXXM-72H	370 to 380	40.1 to 40.5V	9.23 to 9.39A	No		18.77 to 19.28	144 mono PERC half-cells	-0.37											
Krannich Solar www.krannich.com.au	Jinko	270 to 330			DC				Poly						10 years product, 25 years linear power					Krannich Solar failed to provide updated data for this guide, so we have included abbreviated data on their product range.
	LG	300 to 360			DC				Mono						25 years product, 25 years power					
	Trina	270 to 355			DC				Poly and mono						10 years product, 25 years power					
LG Electronics (South Korea) 2 Wonderland Drive Eastern Creek NSW 2766 ph: (02) 8805 4038 www.lgenergy.com.au	LG300SIC	300	31.7	9.47	DC	No	0 to plus 3%	17.50%	Mono	25	-0.41	60 cells, EVA embedded cells, tempered glass with anti-reflective surface treatment, aluminium frame with piano black finish, double wind load of standard panels	1686 x 1016 x 40	18	12 years product, 25 years linear power, (84.8%) for Mono X plus and NeON2 range. 25 years product, 87% linear power for NeON R range	POA	POA	<1.8 years	25+	
	LG320NIK	320	33.3	9.62	DC	No	0 to plus 3%	18.70%	Mono	-0.37	1686 x 1016 x 40									
	LG335NIC	335	34.1	9.83	DC	No	0 to plus 3%	19.60%	Mono	-0.37	1686 x 1016 x 40									
	LG365NIC	365	36.7	9.95	DC	No	0 to plus 3%	21.10%	Mono	-0.30	1700 x 1016 x 40									
Low Energy Developments www.lowenergydevelopments.com.au	Low Energy Developments	10 to 250			DC				Poly and mono						Up to 25 years depending on panel					Low Energy Developments failed to provide updated data for this guide, so we have included abbreviated data on their product range.
	MPower Australia www.mpower.com.au	Suntech	265 to 325		DC				Poly and mono						12 years product, 25 years linear power					MPower Australia failed to provide updated data for this guide, so we have included abbreviated data on their product range.
Powerark Solar www.powerarksolar.com.au	Powerhouse 12V series	10 to 150			DC				Poly						5 years product, 25 years power					
	Jinko	255 to 320			DC or optimised DC				Poly and PERC mono						10 years product, 25 years linear power					Powerark Solar failed to provide updated data for this guide, so we have included abbreviated data on their product range.
	HT-SAAE	265 to 280			DC				Poly						10 years product, 25 years power					
	Longi	280 to 300			DC				Mono and PERC mono						10 years product, 25 years linear power					
	Link Energy	250 to 280			DC				Poly and mono						25 years linear power					
	Hanover black series	360 to 270			DC				Mono						12 years product, 25 years linear power					
Astro Energy	255 to 275				DC				Poly					10 years product, 25 years linear power						

Table 1. Solar panels. Table data supplied by manufacturers/importers. (cont)

Brand (made in)	Model	Rated power (watts)	Voltage at max power	Current at max power	AC or DC output	Maximisers included	Power tolerance	Panel efficiency (%)	Cell type and quantity	Cell temp at which panel is tested °C	Power temp coefficient (%/°C)	Construction	Size in mm (L x W x T)	Weight (kg)	Warranty (years)	RRP Inc GST (\$)	Cost per Watt (\$)	Embodied energy (yrs)	Rated lifetime (years)	Comments					
Powertech (China) Jaycar Electronics ph: 1800 022 888 techstore@jaycar.com.au www.jaycar.com.au	ZM9053	5	17.5	0.29	DC		+/-5%		Mono	25	-0.39	High transparency 3.2mm tempered solar glass, 36 monocrystalline solar cells, composite film, aluminium frame, junction box	245 x 193 x 18	0.73	1 year product, 25 years power (80%)	29.95	5.99		25						
	ZM9054	10	17.5	0.57									304 x 270 x 18	1.12			49.95	5.00							
	ZM9055	20	17.2	1.16										664 x 259 x 18		2.12		89.95		4.50					
	ZM9056	40	17.2	2.33										664 x 402 x 25		3.5		99.95		2.50					
	ZM9057	80	17.6	4.55										664 x 760 x 25		5.5		179.00		2.24					
	ZM9058	120	17.6	6.8										1179 x 664 x 35		10.5		249.00		2.08					
	ZM9059	150	18.1	8.31										1479 x 664 x 35		11		299.00		1.99					
	ZM9155	100	17.8	5.62										PET board, 32 Sunpower monocrystalline solar cells, composite film, junction box		1100 x 570 x 2.5	2.1	1 year product, 5 years power (80%)		349.00	3.49		5		
	ZM9166	50	18	2.78									PCB board with PET film, 4 pcs of solar panel arrays	325 x 360 x 30	2.76		299.00		5.98						
	ZM9168	100	18	5.55									PCB board with PET film, 8 pcs of solar panel arrays	340 x 360 x 80	5.18		499.00		4.99						
	ZM9174	100	17.8	5.62									High transparency 3.2mm tempered solar glass, 36 monocrystalline solar cells, composite film, aluminium frame, junction box	525 x 665 x 75	10.3		249.00		2.49						
	ZM9176	120	18	6.66										525 x 665 x 75	13.2		299.00		2.49						
	ZM9178	160	18	8.88										665 x 759 x 75	15.5		399.00		2.49						
	RADpower Solar 4 RVs, Solar 4 Boats ph: 1300 765 273 info@solar4rvs.com.au www.solar4rvs.com.au	RP18S	18	19.8	0.91	DC		+/-3%	Encapsulated cell efficiency: 20.5 to 22.4%	6 mono SunPower Maxeon Gen II cells	25°C (STC)	-0.38	Semi-flexible: low texture ethylene tetrafluoroethylene (ETFE) top sheet, multilayer ethylene vinyl acetate (EVA), Tedlar	440 x 280 x 3	0.3	2	105.00	5.83		Not declared	These semi-flexible panels are ideal for mobile use such as caravans and boats – not on the Clean Energy Council approved module list. Installed using adhesive sealant (no glass, frame or mounting brackets). Available in thin junction box, or square junction box, or junction box underneath, or solder tabs underneath. Available with or without eyelets. Available in black or white background.				
RP30S		30	17.6	1.7														385 x 540 x 3	0.6				135.00	4.50	
RP60S		60	17.5	3.4														725 x 540 x 3	1.1				205.00	3.42	
RP80S		85	16	5.35														930 x 540 x 3	1.5				270.00	3.18	
RP110SP		110	19.2	5.7				Encapsulated cell efficiency: 22.8 to 23.7%	32 mono SunPower Maxeon Gen III cells			-0.30	Semi-flexible: high texture ETFE top sheet, multilayer EVA, Tedlar	1060 x 545 x 3	1.7			300.00	2.73						
RP120SP		120	21.7	5.7														1175 x 545 x 3	1.9				328.00	2.73	
RP135SP		135	24.1	5.7														1310 x 545 x 3	2.1				350.00	2.59	
RP150SP		150	26.5	5.7														1445 x 545 x 3	2.3				389.00	2.59	
REC Solar Australia apac.recgroup.com	TwinPeak 120 half-cell series	275 to 285			DC				PERC poly half-cells						10 years product, 25 years linear power (maximum reduction of 0.7% p.a.)					REC Solar Australia failed to provide updated data for this guide, so we have included abbreviated data on their product range.					
	Peak Energy series	250 to 275			DC				Poly																

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Seraphim Solar (SAE Group) ph:1300 182 050 info@saegroup.com.au www.saegroup.com.au	SRP-260-6PB	260	30.9	8.42	DC		(0+4.99)	15.98	Poly	25	Pmax=-0.41 Voc=-0.32 Isc=+0.05	3.2mm tempered glass, low iron, anodised aluminium alloy frame, IP67 junction box, 400mm cables 900mm cable length & MC4 compatible connectors	1637 x 992 35mm	18.5kg	10 years product, 25 years linear power	POA	POA		25+	
	SRP-265-6PB	265	31.1	8.53	DC		(0+4.99)	16.29	Poly	25		3.2mm tempered glass, low iron, anodised aluminium alloy, frme, IP67 junction box, 400mm cables 900mm cable length & MC4 compatible connectors	1638 x 992 35mm	18.5kg		POA	POA		25+	
	SRP-270-6PB	270	31.3	8.63	DC		(0+4.99)	16.6	Poly	25		3.2mm tempered glass, low iron, anodised aluminium alloy, frme, IP67 junction box, 400mm cables 900mm cable length & MC4 compatible connectors	1639 x 992 35mm	18.5kg		POA	POA		25+	
	SRP-275-6PB	275	31.6	8.71	DC		(0+4.99)	16.9	Poly	25		3.2mm tempered glass, low iron, anodised aluminium alloy, frme, IP67 junction box, 400mm cables 900mm cable length & MC4 compatible connectors	1640 x 992 35mm	18.5kg		POA	POA		25+	
	SRP-290-E11B	290	35.35	8.21	DC		(0+4.99)	17.05	Poly	25°C (STC)		3.2mm tempered glass, low iron, anodised aluminium alloy, frme, IP67 junction box, 400mm cables 900mm cable length & MC4 compatible connectors	1632 x 1048 x 40mm	19		POA	POA		25+	
	SRP-320-E01B	320	36.4	8.8	DC		(0+4.99)	18.81	Poly	25		3.2mm tempered glass, low iron, anodised aluminium alloy, frme, IP67 junction box, 400mm cables 900mm cable length & MC4 compatible connectors	1633 x 1048 x 40mm	19		POA	POA		25+	
	SRP-350-6MA	350	38.1	9.19	DC		(0+4.99)	18.04	Poly	25		3.2mm Tempered glass, low iron, anodised aluminium alloy, frme, IP67 junction box, 400mm cables 900mm cable length, & MC4 compatible connectors	1955 x 992 x 40mm	23kg		POA	POA		25+	
	SRP-355-6MA	355	38.3	9.27	DC		(0+4.99)	18.3	Poly	25		3.2mm tempered glass, low iron, anodised aluminium alloy, frme, IP67 junction box, 400mm cables 900mm cable length & MC4 compatible connectors	1956 x 992 x 40mm	23kg		POA	POA		25+	
	SRP-360-6MA	360	38.5	9.36	DC		(0+4.99)	18.55	Poly	25		3.2mm tempered glass, low iron, anodised aluminium alloy, frme, IP67 junction box, 400mm cables 900mm cable length & MC4 compatible connectors	1956 x 992 x 40mm	23kg		POA	POA		25+	
Solarwatt GmbH Made in Germany Local subsidiary Solarwatt Australia	Vision 60P	275	31.2	8.89	DC			16.7	Poly	STC & NOCT conditions	-0.41	Tempered glass with anti-reflective 2mm finish, EVA, solar cells, EVA white, solar glass 2mm, anti-PID technology	1680x990x40	22.8	30 years product, 30 years power	POA			See warranty	Founded in 1993 and active globally, Solarwatt is a leading German manufacturer of photovoltaic systems. The company is a European market leader for glass-glass panels and one of the largest suppliers of home battery storage products. All products are developed in-house, manufactured in Germany and are premium quality.
	Vision 60M Style	285	31.9	9.12			17.3	Mono	-0.39											
	Vision 60M High Power	300	31.9	9.5			18.2	Mono	-0.39											
Sunpower Corp www.sunpower.com.au	E series residential	320 to 327			DC				SunPower Maxeon						25 years product, 25 years linear power					Sunpower Corp failed to provide updated data for this guide, so we have included abbreviated data on their product range.
	X series residential	335 to 345			DC				mono											

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SF Suntech Australia ph: (02) 8188 2450 sales@suntech-power.com.au www.suntech-power.com	STP265 - 20/Wfw	265	31	8.56	DC		0/+5 W	16.2	Poly	25	Pmax=-0.41 Voc=-0.33 Isc=+0.067	60 cells. 3.2mm low iron tempered solar glass, Tedlar backsheet, anodised aluminium frame, IP68 junction box, 100cm 4mm output cables with genuine MC4 connectors.	1650 x 992 x 35	18.3	12 years product, 25 years linear power				25+	5 busbar model, VDE extended hail tested, IP68 junction boxes, 100% PID-free module, twice electroluminescence tested, 5400Pa snow load and 4200Pa wind load, tested for harsh environments (salt mist, ammonia corrosion and sand blowing testing: IEC 61701, IEC 62716, DIN EN 60068-2-68) Atlas 25+ Long-term reliability tests and quality control measures meeting ISO 9001: 2008, ISO 14001: 2004 and ISO 17025: 2005.
	STP270 - 20/Wfw	270	31.1	8.69	DC		0/+5 W	16.5	Poly	25									25+	
	STP275 - 20/Wfw	275	31.2	8.82	DC		0/+5 W	16.8	Poly	25									25+	
	STP265 - 20/Wfi	265	31.43	8.45	DC		0/+5 W	16.1	Poly	25	Pmax=-0.39 Voc=-0.32 Isc=+0.049	60 cells. 2mm low iron heat strengthened solar glass front and back, IP67 junction box, 100cm TUV 4mm output cables with genuine MC4 connectors.	1662 x 990 x 5	19.6	12 years product, 30 years linear power			25+	Double glass module. 5 busbar model, VDE extended hail tested, IP67 junction boxes, 100% PID-free module, 2 x EL tested, 2400Pa snow and wind load, tested for harsh environments (salt mist, ammonia corrosion and sand blowing testing: IEC 61701, IEC 62716, DIN EN 60068-2-68) Atlas 25+ long-term reliability tests and quality control measures meeting ISO 9001: 2008, ISO 14001: 2004 and ISO 17025: 2005.	
	STP270 - 20/Wfi	270	31.6	8.55	DC		0/+5 W	16.4	Poly	25								25+		
	STP275 - 20/Wfi	275	31.9	8.62	DC		0/+5 W	16.7	Poly	25								25+		
	STP2905 - 20/Wfm	290	31.7	9.15	DC		0/+5 W	17.7	PERC Mono	25	Pmax=-0.40 Voc=-0.34 Isc=+0.060	60 cells. 3.2mm low iron tempered solar glass, Tedlar backsheet, anodised aluminium frame, IP68 junction box, 100cm TUV 4mm output cables with genuine MC4 connectors.	1650 x 992 x 35	18.3	12 years product, 25 years linear power			25+	Advanced PERC mono. 5 busbar model, VDE extended hail tested, IP68 junction boxes, 100% PID-free module, 2 x EL tested, 5400Pa snow load and 3800Pa wind load, tested for harsh environments (salt mist, ammonia corrosion and sand blowing testing: IEC 61701, IEC 62716, DIN EN 60068-2-68) Atlas 25+ Long-term reliability tests and quality control measures meeting ISO 9001: 2008, ISO 14001: 2004 and ISO 17025: 2005.	
	STP2955 - 20/Wfm	295	32.2	9.17	DC		0/+5 W	18	PERC Mono	25								25+		
	STP3005 - 20/Wfm	300	32.6	9.21	DC		0/+5 W	18.3	PERC Mono	25								25+		
	STP2905 - 20/Weg	290	31.9	9.09	DC		0/+5 W	17.6	Mono	25	Pmax=-0.38 Voc=-0.30 Isc=+0.048	60 cells. 2.5mm low iron heat strengthened solar glass front and back, IP67 junction box, 30cm TUV 4mm output cables with genuine MC4 connectors.	1658 x 992 x 6	22.5	12 years product, 30 years linear power			25+	N-type bifacial solar module (more efficient than P-type, no LID loss), back side can produce up to 90% of front side efficiency, 4 busbar model, VDE extended hail tested, IP67 junction boxes, 100% PID-free module, 2 x EL tested, extended snow and wind load, tested for harsh environments (salt mist, ammonia corrosion and sand blowing testing: IEC 61701, IEC 62716, DIN EN 60068-2-68) Atlas 25+ Long-term reliability tests and quality control measures meeting ISO 9001: 2008, ISO 14001: 2004 and ISO 17025: 2005.	
	STP2955 - 20/Weg	295	32.1	9.19	DC		0/+5 W	17.9	Mono	25								25+		
	STP3005 - 20/Weg	300	32.3	9.29	DC		0/+5 W	18.2	Mono	25								25+		
	STP315 - 24/Vej	315	36.8	8.56	DC		0/+5 W	16.1	Poly	25	Pmax=-0.41 Voc=-0.33 Isc=+0.067	72 cells. 2mm low iron heat strengthened solar glass front and back, IP68 junction box, 110cm TUV 4mm output cables with genuine MC4 connectors.	1980 x 990 x 5	23.5				25+	Double glass module. 4 busbar model, VDE extended hail tested, IP68 junction boxes, 100% PID-free module, 2 x EL tested, 2400Pa snow and wind load, tested for harsh environments (salt mist, ammonia corrosion and sand blowing testing: IEC 61701, IEC 62716, DIN EN 60068-2-68) Atlas 25+ long-term reliability tests and quality control measures meeting ISO 9001: 2008, ISO 14001: 2004 and ISO 17025: 2005.	
	STP320 - 24/Vej	320	37.1	8.63	DC		0/+5 W	16.3	Poly	25								25+		
	STP325 - 24/Vej	325	37.3	8.72	DC		0/+5 W	16.6	Poly	25								25+		
	STP315 - 24/Vfw	315	36.8	8.56	DC		0/+5 W	16.2	Poly	25	Pmax=-0.41 Voc=-0.33 Isc=+0.067	72 cells. 3.2mm low iron tempered solar glass, tedlar backsheet, anodised aluminium frame, IP68 junction box, 110cm TUV 4mm output cables with genuine MC4 connectors.	1960 x 992 x 40	22.1	12 years product, 25 years linear power			25+	5 busbar model, VDE extended hail tested, IP68 junction boxes, 100% PID-free module, 2 x EL tested, 5400Pa snow load and 3800Pa wind load, tested for harsh environments (salt mist, ammonia corrosion and sand blowing testing: IEC 61701, IEC 62716, DIN EN 60068-2-68) Atlas 25+ long-term reliability tests and quality control measures meeting ISO 9001: 2008, ISO 14001: 2004 and ISO 17025: 2005.	
	STP320 - 24/Vfw	320	37.1	8.63	DC		0/+5 W	16.5	Poly	25								25+		
	STP325 - 24/Vfw	325	37.3	8.72	DC		0/+5 W	16.7	Poly	25								25+		
	STP320 - 24/Vfw (1500V)	320	37.1	8.63	DC		0/+5 W	16.5	Poly	25	Pmax=-0.41 Voc=-0.33 Isc=+0.067	72 cells. 3.2mm low iron tempered solar glass, Tedlar backsheet, anodised aluminium frame, IP68 junction box, 110cm TUV 4mm output cables with genuine MC4 connectors.	1960 x 992 x 40	22.1				25+	Atlas 25+ long-term reliability tests and quality control measures meeting ISO 9001: 2008, ISO 14001: 2004 and ISO 17025: 2005.	
	STP325 - 24/Vfw (1500V)	325	37.3	8.72	DC		0/+5 W	16.7	Poly	25								25+		
STP330 - 24/Vfw (1500V)	325	37.5	8.81	DC		0/+5 W	16.9	Poly	25	25+										
STP335S - 24/Vfw	335	37.5	8.94	DC		0/+5 W	17.2	Mono	25	Pmax=-0.41 Voc=-0.34 Isc=+0.060	72 cells. 3.2mm low iron tempered solar glass, Tedlar backsheet, anodised aluminium frame, IP68 junction box, 110cm TUV 4mm output cables with genuine MC4 connectors.	1960 x 992 x 40	22.1				25+			
STP340S - 24/Vfw	340	37.7	9.02	DC		0/+5 W	17.5	Mono	25								25+			
STP345S - 24/Vfw	345	37.9	9.11	DC		0/+5 W	17.7	Mono	25								25+			
Tindo Solar www.tindosolar.com	Karra series	265 to 285			AC or DC				Poly						10 years product, 25 years power					Tindo Solar failed to provide updated data for this guide, so we have included abbreviated data on their product range.

Table 1. Solar panels. Table data supplied by manufacturers/importers. (cont)

Brand (made in)	Model	Rated power (watts)	Voltage at max power	Current at max power	AC or DC output	Maximisers included	Power tolerance	Panel efficiency (%)	Cell type and quantity	Cell temp at which panel is tested °C	Power temp coefficient (%/°C)	Construction	Size in mm (L x W x T)	Weight (kg)	Warranty (years)	RRP Inc GST (\$)	Cost per Watt (\$)	Embodied energy (yrs)	Rated lifetime (years)	Comments	
Trina Solar www.trinasolar.com.au	Duomax Plus series glass-glass	270 to 305			DC				Mono						10 years product, 30 years linear power					Trina Solar failed to provide updated data for this guide, so we have included abbreviated data on their product range.	
	Duomax series glass-glass	260 to 280			DC				Poly												
	Honey series	260 to 280			DC				Mono						10 years product, 25 years linear power						
	Tallmax series	320 to 335			DC				Poly												
Upsolar Australia www.upsolar.com/au	Upsolar standard series	265 to 365			DC				Poly and mono						12 years product, 25 years linear power					Upsolar Australia failed to provide updated data for this guide, so we have included abbreviated data on their product range.	
	Optimised series	185 to 310			Optimised DC																
WINAICO (Taiwan) (Win Win Precision Technology - WINAICO) WINAICO Australia Pty Ltd ph: (02) 8091 2771 australia@winaico.com www.winaico.com	WST-285P6	285	31.3	8.97	DC		0+5W	17.1	Poly 60 cell	STC & NOCT conditions	-0.43	100% aluminium frame, precision cut, finished, anodised and pressure assembled; highly transmissive, low iron, anti-reflective coated and strengthened glass; EVA encapsulant; white back sheet with adhesive tape for module sealing; MC4 connectors. Electroluminescence and flash tested.	1666 x 999 x 35	19	15 years product, linear 25 years power	POA	POA		25 years	WINAICO customers receive 2 years of complimentary 3-in-1 WINAICO system insurance cover against: All risks, reduced yield and interruption of service; Latest technology includes: PERC poly/mono-crystalline modules for high efficiency; Fully automated production line with strict quality control procedures; Hail resistant up to 35mm ice ball at 98kph; Anti-PID, ammonia resistance, salt-mist resistance, hotspot protection; Direct from the manufacturer with comprehensive local engineering and warranty support from warehouses across the country.	
	WSP-310M6	310	32.9	9.42			18.6	Mono 60 cell - PERC					1665 x 999 x 40	19.6							
Yingli Green Energy (China) Australian Sales and Technical office ph: 1300 309 489 australia@yingli.com www.yinglisolar.com/au	YGE 60 Series	270	30.7	8.80	DC		Positive tolerance 0 to +5W	16.6	Poly 60 cell	STC & NOCT conditions	-0.42	High transmission low iron tempered glass with an anti-reflection coating. Clear EVA encapsulant. White backsheet. Genuine MC4 connectors. Premium tape seal. All black module available on request with black silicon cells, black backsheet and black frame.	1640 x 992 x 35	18.5	10 years product, 25 years power: maximum 2.5% reduction after the first year, 0.7% every subsequent year.	POA	POA		See warranty	Yingli Solar has been manufacturing solar modules for over 14 years and was the world's largest manufacturer in 2012 and 2013. Yingli Solar modules sold in Australia, NZ and the Pacific Islands are supported by a local Australian team with full sales and technical services headquartered in Sydney's CBD.	
	YGE 72 Series	320	37.0	8.64		16.5		Poly 72 cell						1960 x 992 x 35							22
	PANDA BIFACIAL 60 Series	285	32.0	8.91				17.1	Mono PERC bifacial 60 cell	-0.38	Glass-on-glass construction. The anodised aluminium frame is a hollow boxed extrusion without a rear flange, minimising the rear shading. Three slim-line junction boxes which do not shade the solar cells, instead of one large box. Also available 'frameless' on request. Frameless version comes with white corner protectors and a protective bumper edge seal around the perimeter for easier handling and care.	1666 x 998 x 32	24.5	10 years product, 30 years power: maximum 2% reduction after the first year, 0.5% every subsequent year.							
	PANDA BIFACIAL 144HC Series	350	39.2	8.99				17.1	Mono PERC bifacial 144 half-cell				1956 x 1046 x 32		29.2						
Zeus Appollo Solar ph: (07) 3123 6148 sales@zeusappollosolar.com.au www.zeusappollo.com	Z20P260C	260	30.67	8.48	DC		0 to +3%	15.98%	Poly	25	-0.43	Tempered glass, EVA, aluminium frame. Anti-reflective glass. Anti-PID technology (APT).	1640 x 992 x 40	18.9	12 years product, 25 years linear power	POA	POA		See warranty		
	ZAI2DNY-260P60	260	31.91	8.15		15.88%							1650 x 992 x 40	19						10 years product, 25 years linear power	
	ZAI2DNY-310P72	310	38.02	8.16		15.98%		Mono	1956 x 992 x 45		23										
	ZAI2DNY-200C	200	36.95	5.42		15.60%					1580 x 808 x 35		15								
	ZAI2DNY-250C60	250	31.17	8.03		15.30%			1650 x 992 x 40		19										
	ZAI2DNY-300C72	300	37.62	7.98		15.40%			1956 x 992 x 45		23										