

TABLE 1:  
SOLAR PANELS

Manufacturer	Model name/number	Approx cost per watt inc GST	Approx RRP inc GST	Cell type	Country of manufacture	Power rating (W)	Panel efficiency	Panel weight (kg)	Operating temperature	Temperature coefficient	Product warranty	Warranted power output at year 25			
Canadian Solar canadiansolar.com.au	CS6P-260 CS6P-265 CS6P-270	\$0.72	\$194	Polycrystalline	China	260 to 270	16.16% to 16.79%	18	-40°C to 85°C	-0.41%/°C	10 years	80.70%			
	CS6K-265P CS6K-270P CS6K-275P CS6K-280P	\$0.74	\$207	Polycrystalline		265 to 280	16.19% to 17.11%	18.2	-40°C to 85°C	-0.41%/°C		80.70%			
	CS6K-275M CS6K-280M CS6K-285M CS6K-290M	\$0.76	\$220	Monocrystalline		275 to 290	16.80% to 17.72%	18.2	-40°C to 85°C	-0.41%/°C		80.20%			
	All-Black CS6K-275M All-Black CS6K-280M All-Black CS6K-285M	\$0.78	\$226	Monocrystalline		275 to 285	16.80% to 17.41%	18.2	-40°C to 85°C	-0.41%/°C		80.20%			
	All-Black CS6K-290MS All-Black CS6K-295MS All-Black CS6K-300MS	\$0.79	\$237	Monocrystalline		290 to 300	17.72% to 18.33%	18.2	-40°C to 85°C	-0.39%/°C		80.20%			
	CS6K-260P-FG CS6K-265P-FG CS6K-270P-FG CS6K-275P-FG	\$0.78	\$214	Polycrystalline		260 to 275	15.81% to 16.72%	23	-40°C to 85°C	-0.41%/°C		83% (year 30)			
	CS6K-275M-FG CS6K-280M-FG CS6K-285M-FG	\$0.80	\$228	Monocrystalline		275 to 285	16.72% to 17.33%	23	-40°C to 85°C	-0.41%/°C		83% (year 30)			
	SuperPower CS6K-290MS SuperPower CS6K-295MS SuperPower CS6K-300MS SuperPower CS6K-305MS	\$0.81	\$247	Monocrystalline		290 to 305	17.72% to 18.63%	18.2	-40°C to 85°C	-0.39%/°C		80.20%			
	Hyundai hyundaisolar.com.au	RG Series HiA-S300RG	\$0.75	\$226		Monocrystalline	South Korea	300	18.44%	18.2		-40°C to 85°C	-0.41%/°C	25 years	80.2% (after 30 years)
	JA Solar jasolar.com	JAM60S10-320/PR JAM60S10-325/PR JAM60S10-330/PR JAM60S10-335/PR JAM60S10-340/PR	\$0.75	\$255		Monocrystalline	China	320 to 340	19.0% to 20.2%	18.7		-40°C to 85°C	-0.35%/°C	12 years	83.10%
		JAP60S10-275/SC JAP60S10-280/SC JAP60S10-285/SC JAP60S10-290/SC JAP60S10-295/SC	\$0.72	\$212		Polycrystalline		275 to 295	16.3% to 17.5%	18.7		-40°C to 85°C	-0.37%/°C		80.70%
		JAM60S09-310/PR JAM60S09-315/PR JAM60S09-320/PR JAM60S09-325/PR JAM60S09-330/PR	\$0.75	\$248		Monocrystalline		310 to 330	18.8% to 20.0%	18.4		-40°C to 85°C	-0.37%/°C		83.10%
		JAP60S09-270 JAP60S09-275 JAP60S09-280 JAP60S09-285 JAP60S09-290	\$0.72	\$209		Polycrystalline		270 to 290	16.4% to 17.6%	18.4		-40°C to 85°C	-0.40%/°C		80.70%

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Jinko Solar jinkosolar.com.au	Eagle JKM270M-60	\$0.75	\$217	Monocrystalline	China	270 to 290	16.50% to 17.72%	19	-40°C to 85°C	-0.4%/°C	10 years	80.20%	
	Eagle JKM275M-60												
	Eagle JKM280M-60												
	Eagle JKM285M-60												
	Eagle JKM290M-60												
	Eagle JKM260PP-60	\$0.67	\$188	Polycrystalline		260 to 280	15.89% to 17.11%	19	-40°C to 85°C	-0.4%/°C			80.70%
	Eagle JKM265PP-60												
	Eagle JKM270PP-60												
	Eagle JKM275PP-60												
	Eagle JKM280PP-60												
	Eagle PERC JKM280M-60	\$0.76	\$228	Monocrystalline		280 to 300	17.11% to 18.33%	19	-40°C to 85°C	-0.39%/°C			80.20%
	Eagle PERC JKM285M-60												
	Eagle PERC JKM290M-60												
	Eagle PERC JKM295M-60												
	Eagle PERC JKM300M-60												
	Eagle PERC JKM295M-60	\$0.77	\$243	Monocrystalline		295 to 315	18.02% to 19.24%	18.5	-40°C to 85°C	-0.4%/°C			80.20%
	Eagle PERC JKM300M-60												
	Eagle PERC JKM305M-60												
	Eagle PERC JKM310M-60												
	Eagle PERC JKM315M-60												
	Eagle Dual JKM270M-60-DV	\$0.75	\$221	Monocrystalline		270 to 295	16.42% to 17.94%	19	-40°C to 85°C	-0.39%/°C			83.00%
	Eagle Dual JKM275M-60-DV												
	Eagle Dual JKM280M-60-DV												
	Eagle Dual JKM285M-60-DV												
	Eagle Dual JKM290M-60-DV												
	Eagle Dual JKM295M-60-DV												
	Eagle Dual JKM265PP-60-DV	\$0.74	\$211	Polycrystalline		265 to 285	16.11% to 17.33%	19	-40°C to 85°C	-0.4%/°C			83.00%
	Eagle Dual JKM270PP-60-DV												
Eagle Dual JKM275PP-60-DV													
Eagle Dual JKM280PP-60-DV													
Eagle Dual JKM285PP-60-DV													
Eagle Dual JKM255PP-60-DV	\$0.75	\$210	Polycrystalline	255 to 280	15.57% to 17.11%	19	-40°C to 85°C	-0.4%/°C			83%		
Eagle Dual JKM260PP-60-DV													
Eagle Dual JKM265PP-60-DV													
Eagle Dual JKM270PP-60-DV													
Eagle Dual JKM275PP-60-DV													
Eagle Dual JKM280PP-60-DV													
MX series JKMS255P	\$0.73	\$197	Polycrystalline	255 to 270	15.58% to 16.5%	19	-40°C to 85°C	-0.4%/°C			80.70%		
MX series JKMS260P													
MX series JKMS265P													
MX series JKMS270P													
Cheetah JKM305M-60	\$0.79	\$257	Monocrystalline	305 to 325	18.28% to 19.48%	19	-40°C to 85°C	-0.39%/°C			80.20%		
Cheetah JKM310M-60													
Cheetah JKM315M-60													
Cheetah JKM320M-60													
Cheetah JKM325M-60													
LG lgenergy.com.au	NeON 2 LG330NIC-V5	\$1.19	\$406	Monocrystalline	South Korea	330 to 335	19.3% to 19.6%	17.1	-40°C to 90°C	-0.36%/°C	25 years	90.08%	
NeON 2 LG335NIC-V5													
NeON 2 LG340NIC-V5	\$1.19	\$406	Monocrystalline	340 to 345		19.8% to 20.1%	17.1	-40°C to 90°C	-0.36%/°C			90.08%	
NeON 2 LG345NIC-V5													
NeON 2 Black LG325N1K-V5	\$1.30	\$417	Monocrystalline	325 to 330		19.0% to 19.3%	17.1	-40°C to 90°C	-0.36%/°C			90.08%	
NeON 2 Black LG330N1K-V5													
NeON R LG360Q1C-A5	\$1.56	\$613	Monocrystalline	360 to 365		20.8% to 21.1%	18.5	-40°C to 90°C	-0.30%/°C			88.4%	
NeON R LG365Q1C-A5													
NeON R LG370Q1C-V5	\$1.56	\$613	Monocrystalline	370	21.4%	17.5	-40°C to 90°C	-0.30%/°C			90.08%		

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Longi en.longi-solar.com	LR6-60BP-290M LR6-60BP-295M LR6-60BP-300M LR6-60BP-305M LR6-60BP-310M	\$0.75	\$232	Monocrystalline	China	290 to 310	17.5% to 18.7% (front) 13.1% to 14.0% (back)	22	-40°C to 85°C	-0.380%/°C	10 years	83.80%
	LR6-60PB-285M LR6-60PB-290M LR6-60PB-295M LR6-60PB-300M LR6-60PB-305M	\$0.76	\$232	Monocrystalline		285 to 305	17.4% to 18.7%	18.2	-40°C to 85°C	-0.380%/°C		83.80%
	LR6-60PE-290M LR6-60PE-295M LR6-60PE-300M LR6-60PE-305M LR6-60PE-310M	\$0.76	\$236	Monocrystalline		290 to 310	17.7% to 19.0%	18.2	-40°C to 85°C	-0.380%/°C		83.80%
Opal Solar opalsolar.com.au	QSA 60P series QSA265P-60-S QSA 60P series QSA270P-60-S QSA 60P series QSA275P-60-S QSA 60P series QSA280P-60-S	\$0.58	\$204	Polycrystalline	China	265 to 280	16.2% to 17.2%	18.3	-40°C to 85°C	-0.407%/°C	10 years	80.70%
	QSA 60M series QSA285M-60-S QSA 60M series QSA290M-60-S QSA 60M series QSA295M-60-S QSA 60M series QSA300 M-60-S	\$0.63	\$252	Monocrystalline		285 to 300	17.5% to 18.4%	18.3	-40°C to 85°C	-0.380%/°C		83%
Phono Solar phonosolar.com.au	Twin Plus PS315M-20/UH Twin Plus PS315MH-20/UH	\$0.67	\$255	Monocrystalline	China	315	18.96%	18.5	-40°C to 85°C	-0.38%/°C	12 years if delivered from Phono before January 1, 2019, 15 years after.	80.68%
	Hyperion PS275P-20/U Hyperion PS275PH-20/U	\$0.58	\$160	Polycrystalline		275	16.90%	18	-40°C to 85°C	-0.41%/°C		80.70%
Qcells q-cells.com/au	Q.POWER-G5 260 Q.POWER-G5 265 Q.POWER-G5 270 Q.POWER-G5 275 Q.POWER-G5 280	\$0.67	\$185	Polycrystalline	South Korea/ China/Malaysia	260 to 280	15.9% to 17.1%	18	-40°C to 85°C	-0.40%/°C	12 years	83.00%
	Q.PLUS BFR-G4.1 275 Q.PLUS BFR-G4.1 280 Q.PLUS BFR-G4.1 285	\$0.85	\$242	Polycrystalline		275 to 285	16.5% to 17.1%	18.8	-40°C to 85°C	-0.40%/°C	13 years	83.00%
	Q.PEAK-G4.1 290 Q.PEAK-G4.1 295 Q.PEAK-G4.1 300 Q.PEAK-G4.1 305	\$0.82	\$253	Monocrystalline		290 to 305	17.4% to 18.3%	18.8	-40°C to 85°C	-0.39%/°C	12 years	83.60%
	Q.PEAK BLK-G4.1 285 Q.PEAK BLK-G4.1 290 Q.PEAK BLK-G4.1 295	\$0.89	\$263	Monocrystalline		285 to 295	17.1% to 17.7%	18.8	-40°C to 85°C	-0.39%/°C	12 years	83.60%
	Q.PEAK DUO-G5 315 Q.PEAK DUO-G5 320 Q.PEAK DUO-G5 325 Q.PEAK DUO-G5 330	\$0.84	\$275	Monocrystalline		315 to 330	18.7% to 19.6%	18.7	-40°C to 85°C	-0.37%/°C	12 years	85%
	Q.PRIME-G5 270 Q.PRIME-G5 275 Q.PRIME-G5 280 Q.PRIME-G5 285 Q.PRIME-G5 290	\$0.90	\$261	Monocrystalline		270 to 290	16.5% to 17.7%	18	-40°C to 85°C	-0.40%/°C	12 years	81.50%

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REC recgroup.com	TwinPeak 2 REC275TP2 TwinPeak 2 REC280TP2 TwinPeak 2 REC285TP2 TwinPeak 2 REC290TP2 TwinPeak 2 REC295TP2 TwinPeak 2 REC300TP2	\$0.86	\$257	Polycrystalline	Singapore	275 to 300	16.5% to 18.0%	18.5	-40°C to 85°C	-0.36%/°C	20 years (25 if installed by REC certified installer)s	80.20%						
	TwinPeak 2 Black REC275TP2 BLK2 TwinPeak 2 Black REC280TP2 BLK2 TwinPeak 2 Black REC285TP2 BLK2	\$0.87	\$248	Polycrystalline		275 to 285	16.5% to 17.1%	18.5	-40°C to 85°C	-0.36%/°C		80.20%						
	TwinPeak 2 Mono REC300TPM2 TwinPeak 2 Mono REC305TPM2 TwinPeak 2 Mono REC310TPM2 TwinPeak 2 Mono REC315TPM2 TwinPeak 2 Mono REC320TPM2	\$0.90	\$288	Monocrystalline		300 to 320	18.0% to 19.2%	18.5	-40°C to 85°C	-0.37%/°C		80.70%						
	N-Peak REC310NP N-Peak REC315NP N-Peak REC320NP N-Peak REC325NP N-Peak REC330NP	TBD	TBD	Monocrystalline		310 to 330	18.6% to 19.8%	18	-40°C to 85°C	-0.35%/°C		86%						
	Risen risenenergy.com.au	RSM60-6-270P RSM60-6-275P RSM60-6-280P RSM60-6-285P RSM60-6-290P	\$0.67	\$187		Polycrystalline	China	270 to 290	16.5% to 17.7%	18		-40°C to 85°C	-0.39%/°C	12 years	80.70%			
		RSM60-6-295M RSM60-6-300M RSM60-6-305M RSM60-6-310M RSM60-6-315M	\$0.67	\$194		Monocrystalline		295 to 315	18.0% to 19.2%	18		-40°C to 85°C	-0.39%/°C		80.20%			
		Seraphim seraphim-energy.com	SRP-255-6PB-DG SRP-260-6PB-DG SRP-265-6PB-DG SRP-270-6PB-DG	\$0.87		\$234		Polycrystalline	China	260 to 275		15.98 to 16.9%	19		-40°C to 85°C	-0.41%/°C	10 years	80.70%
			SRP-275-6MB SRP-280-6MB SRP-285-6MB SRP-290-6MB	\$0.87		\$350		Monocrystalline		275 to 305		16.9% to 18.75%	19		-40°C to 85°C	-0.40%/°C		80.68%
			SRP-265-6MB-DG SRP-270-6MB-DG SRP-275-6MB-DG SRP-280-6MB-DG	\$0.89		\$243		Monocrystalline		265 to 280		16.11% to 17.02%	22.5		-40°C to 85°C	-0.40%/°C		83% (year 30)
			Eclipse SRP-290-E11B Eclipse SRP-295-E11B Eclipse SRP-300-E11B	\$0.91		\$273		Polycrystalline		290 to 300		17.05% to 17.64%	19		-40°C to 85°C	-0.41%/°C		80.70%
Eclipse SRP-315-E01B Eclipse SRP-320-E01B Eclipse SRP-325-E01B			\$0.92	\$299	Monocrystalline	315 to 325		18.52% to 19.11%		19	-40°C to 85°C	-0.40%/°C	80.70%					
SRP-255-6PB-DG SRP-260-6PB-DG SRP-265-6PB-DG SRP-270-6PB-DG	\$0.87		\$235	Polycrystalline	255 to 270	15.5% to 16.42%	22.5	-40°C to 85°C		-0.41%/°C	83% (year 30)							
SolarEdge solaredge.com/aus	Smart Panel SPV300-60MMJ	TBD	TBD	Monocrystalline	China	300	18.3%	18.8	-40°C to 85°C	-0.40%/°C	12 years	80.2%						

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SunPower sunpower.com.au	E series SPR-E19-320	\$1.60	\$523	Monocrystalline	Malaysia/ Philippines/ Mexico	320 to 337	19.9% to 20.4%	18.6	-40°C to 85°C	-0.35%/°C	25 years	92%
	E series SPR-E20-327											
	P17 series SPR-P17-330-COM	\$1.32	\$462	Polycrystalline		330 to 350	16.0% to 17.0%	23.1	-40°C to 85°C	-0.37%/°C		87%
	P17 series SPR-P17-335-COM											
	P17 series SPR-P17-340-COM											
	P17 series SPR-P17-345-COM											
	P17 series SPR-P17-350-COM											
	P19 series SPR-P19-310	\$1.35	\$452	Monocrystalline		310 to 335	18.4% to 19.9%	18.7	-40°C to 85°C	-0.37%/°C		82.6%
	P19 series SPR-P19-315											
	P19 series SPR-P19-320											
	P19 series SPR-P19-325											
	P19 series SPR-P19-330											
	P19 series SPR-P19-335											
	X series X21 SPR-X21-335	\$1.80	\$621	Monocrystalline		335 to 345	21.0% to 21.5%	18.6	-40°C to 85°C	-0.29%/°C		92%
X series X21 SPR-X21-345												
X series X22 SPR-X22-360	\$1.85	\$665	Monocrystalline	360	22.20%	18.6	-40°C to 85°C	-0.29%/°C		92%		
Maxeon 2 SPR-MAX2-360	TBD	TBD	Monocrystalline	340 to 360	19.2% to 20.40%	19	-40°C to 85°C	-0.35%/°C		92%		
Maxeon 2 SPR-MAX2-350												
Maxeon 2 SPR-MAX2-340												
Maxeon 3 SPR-MAX3-400	TBD	TBD	Monocrystalline	370 to 400	20.9% to 22.6%	19	-40°C to 85°C	-0.29%/°C		92%		
Maxeon 3 SPR-MAX3-390												
SPR-Maxeon 3 MAX3-370												
Suntech suntech-power.com.au	STP Poly STP275-20/Wfw	\$0.77	\$204	Polycrystalline	China	265 to 275	16.2% to 16.8%	18.3	-40°C to 85°C	-0.41%/°C	12 years	80.70%
	STP Poly STP270-20/Wfw											
	STP Poly STP265-20/Wfw											
	STP Mono STP285S-20/Wfm	\$0.86	\$237	Monocrystalline	275 to 285	16.8% to 17.4%	18.3	-40°C to 85°C	-0.41%/°C	12 years	80.20%	
	STP Mono STP280S-20/Wfm											
	STP Mono STP275S-20/Wfm											
	STP Mono Black STP280S-20/Wfb	\$0.88	\$238	Monocrystalline	270 to 280	16.5% to 17.1%	18.3	-40°C to 85°C	-0.41%/°C	13 years	80.20%	
	STP Mono Black STP275S-20/Wfb											
	STP Mono Black STP270S-20/Wfb											
	Hypro STP300S-20/Wfw	\$0.90	\$261	Monocrystalline	290 to 300	17.7% to 18.3%	18.3	-40°C to 85°C	-0.40%/°C	13 years parts and will reimburse reasonable sea transport costs for return and reshipment	80.20%	
Hypro STP295S-20/Wfw												
Hypro STP290S-20/Wfw												
Hypro Black STP295S-20/Wfb	\$0.91	\$259	Monocrystalline	285 to 295	17.4% to 18.0%	18.3	-40°C to 85°C	-0.40%/°C	12 years	80.20%		
Hypro Black STP290S-20/Wfb												
Hypro Black STP285S-20/Wfb												
Tindo tindosolar.com.au	Karra-285	\$1.12	\$251	Monocrystalline	Australia	285 to 300	17.1% to 18.0%	18.2	-40°C to 85°C	-0.410%/°C	12 years	80%
	Karra-290											
	Karra-295											
	Karra-300											

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Trina Solar trinasolar.com/au	Honey TSM-PD05	\$0.63	\$176	Polycrystalline	China	270 to 280	15.9% to 17.1%	18.6	-40°C to 85°C	-0.41%/°C	10 years	80.7%
	Honey TSM-PD05.08											
	Honey TSM-PD05.05	\$0.67	\$204	Monocrystalline		275 to 305	16.8% to 18.6%	18.6	-40°C to 85°C	-0.39%/°C	80.68%	
	Honey MPlus Mono TSM-DD05A(II)											
	Honey MPlus Mono TSM-DD05A.08(II)											
	Honey MPlus Mono TSM-DD05A.05(II)	\$0.91	\$255	Polycrystalline		260 to 280	15.8% to 17.0%	23.5	-40°C to 85°C	-0.41%/°C	83% (after 30 years)	
	Duomax TSM-PEG5											
	Duomax TSM-PEG5.40											
	Duomax TSM-PEG5.07											
	Duomax TSM-PEG5.47	\$0.92	\$281	Monocrystalline		270 to 305	16.4% to 18.05%	23.5	-40°C to 85°C	-0.39%/°C	82.5% (after 30 years)	
Duomax M Plus Mono TSM-DEG5(II)												
Duomax M Plus Mono TSM-DEG5.40(II)												
Duomax M Plus Mono TSM-DEG5.07(II)												
Duomax M Plus Mono TSM-DEG5.47(II)												
Duomax Twin TSM-DEG5C.07(II)	\$0.94	\$282	Monocrystalline	285 to 300	17.2% to 18.0%	23.5	-40°C to 85°C	-0.39%/°C	82.5% (after 30 years)			
Winaico winaico.com.au	PERC WST-285P6	\$0.86	\$245	Polycrystalline	Taiwan	285	17.1%	19	-40°C to 85°C	-0.43%/°C	15 years	80.20%
	PERC Mono WST-310M6	TBD	TBD	Monocrystalline		310	18.64%	18.8	-40°C to 85°C	-0.41%/°C		80.20%
	PERC WSP-330MX	TBD	TBD	Monocrystalline		330 to 335	18.83% to 19.11%	20.6	-40°C to 85°C	-0.41%/°C		80.20%
	PERC WSP-335MX	TBD	TBD	Monocrystalline		320	18.26%	20.6	-40°C to 85°C	-0.41%/°C		80.20%
	PERC Black WSP-320MX	TBD	TBD	Monocrystalline								

TABLE 2:  
GRID-CONNECT INVERTERS

Manufacturer	Model	Single or three phase	Power output (W)	Oversizing capacity (W)	Efficiency (%)	Operating temperature range	Connectivity	Size (mm) W x H x D	Weight (kg)	IP rating	Warranty	
ABB new.abb.com/au	UNO-DM-3.3-TL-PLUS	Single phase	3300	3500	97	-25°C to +60°C	Wi-fi	553 x 418 x 175	15	IP65	10 years	
	UNO-DM-4.0-TL-PLUS		4000	4250	97							
	UNO-DM-5.0-TL-PLUS		5000	5150	97.4							
	TRIO-7.5-TL-OUTD	Three phase	7500	7650	97.5							
	TRIO-8.5-TL-OUTD		8500	8700	97.5							
Delta deltapvi.com.au	H2.5	Single phase	2500	Not listed	97.5	-25°C to +60°C	Wi-fi	380 x 318 x 130	9	IP65	5 years, 10 years optional	
	H3		3000									
	H3A		3000									
	H4A		4000									
	H5A		5000									
				98.3								
Fronius Australia fronius.com.au	Primo 3.0-1	Single phase	3000	4500	98	-40°C to +55°C	Wi-fi, ethernet	645 x 431 x 204	21.5	IP65	5 years, additional 5 years if registered at solarweb.com	
	Primo 3.5-1		3500	5300	98.1							
	Primo 4.0-1		4000	6000								
	Primo 5.0-1		5000	7500								
	Primo 6.0-1		6000	9000								
	Primo 8.2-1		8200	12,300								
	Symo 3.0-3	Three phase	3000	6000	98							-25°C to +60°C
	Symo 3.7-3		3700	7400								
	Symo 4.5-3		4500	9000								
	Symo 5.0-3		5000	10,000								
	Symo 6.0-3		6000	12,000								
	Symo 8.2-3		8200	16,400								
	Symo 10.0-3		10,000	15,000								
	Galvo 1.5-1	Single phase	1500	3000	95.9							-40°C to +60°C
	Galvo 2.0-1		2000	4000	96							-25°C to +50°C
	Galvo 2.5-1		2500	5000	96.1							
	Galvo 3.0-1		3000	6000	96.1							
	Huawei solar.huawei.com	SUN2000-5KTL-MO	Three phase	5000	10,250							98.4
SUN2000-12KTL-MO		12,000		24,000	98.5	525 x 470 x 262	25					
Kehua kehua.com	SPI3000-B2	Single phase	3000	4050	98.1	-40°C to +60°C	RS485, wi-fi (optional)	360 x 420 x 125	12.6	IP65	5 years, extendable to 10 or 15 years	
	SPI4000-B2		4000	5400	98.3							
	SPI5000-B2		5000	6750								
	SPI6000-B2		6000	8100								
Opal Solar opalsolar.com.au	Opal Switch Light 01-1500S	Single phase	1500	1650	97.1	-20°C to +60°C	RS485, optional wi-fi and ethernet	248 x 350 x 124	7	IP65	5 years, 10 years optional	
	Opal Switch Light 01-2000S		2000	2200								
	Opal Switch Light+ 01-2500S		2500	2700	97.6			323 x 402 x 119	9.5			
	Opal Switch Light+ 01-3000S		3000	3200								
	Opal Switch Light Pro 3000D		3000	3250	97.8			339 x 420 x 143	14.6			
	Opal Switch Light Pro 4200D		4200	4600	16.7							
	Opal Switch Light Pro 5000D		4999	5200								

TABLE 2:  
GRID-CONNECT INVERTERS (CONTINUED)

Manufacturer	Model	Single or three phase	Power output (W)	Oversizing capacity (W)	Efficiency (%)	Operating temperature range	Connectivity	Size (mm) W x H x D	Weight (kg)	IP rating	Warranty				
SMA Australia sma-australia.com.au	Sunny Boy 1.5	Single phase	1500	3000	97.2	-40°C to +60°C	Wi-fi, ethernet	460 x 357 x 122	9.2	IP65	5 years, 10 or 15 years option				
	Sunny Boy 2.0		2000	4000											
	Sunny Boy 2.5		2500	5000											
	Sunny Boy 3.0		3000	5500	97										
	Sunny Boy 3.6		3680	5500											
	Sunny Boy 4.0		4000	7500											
	Sunny Boy 5.0		5000	7500											
	Sunny Boy 6.0	6000	9000												
	Sunny Tripower 3.0	Three phase	3000	6000	98.2	-25°C to +60°C	Wi-fi, ethernet, RS485	435 x 470 x 176	17						
	Sunny Tripower 4.0		4000	8000											
	Sunny Tripower 5.0		5000	9000											
	Sunny Tripower 6.0		6000	9000	98.3										
	Sunny Tripower 8.0		8000	15,000											
	Sunny Tripower 10.0		10,000	15,000											
SolarEdge solaredge.com/aus	SE5K	Three phase	5000	6750	98	-20°C to +60°C	RS485, ethernet, ZigBee (optional), wi-fi (optional), 4G (optional)	775 x 315 x 191	24.7	IP65	12 years				
	SE7K		7000	9450											
	SE8K		8000	10,800											
	SE2200	Single phase	2200	2950	97.6			540 x 315 x 172	20.2						
	SE3000		3000	4050											
	SE3500		3500	4700											
	SE4000		4000	5400											
	SE5000		4985	6750											
	SE6000		6000	8100											
	SE7300		7300	9850											
SolaX solax.com	X3-4.0-T	Three phase	4000	5200	98.3	-25°C to +60°C	RS485, optional wi-fi and ethernet	460 x 400 x 180	23	IP65	5 years				
	X3-5.0-T		5000	6500											
	X3-6.0-T		6000	7800											
	X3-7.0-T		7000	8400	98.4										
	X3-8.0-T		8000	9600											
	X3-9.0-T		9000	10,800	98.5										
	X3-10.0-T		10,000	12,000											
	X1 Boost X1-3.0T	Single phase	3000	3250	97.8			-20°C to +60°C	RS485, optional wi-fi			339 x 420 x 143	14.6	5 years, plus additional 5 years for materials only	
	X1 Boost X1-4.2T		4200	4600									16.7		
	X1 Boost X1-5.0T		4600	5200											
Solis solisinverters.com.au	Solis-IP2K-4G	Single phase	2000	2300	97.5	-25°C to +60°C	RS485	310 x 543 x 160	11	IP65	5 years, extendable to 20 years				
	Solis-IP3K-4G		3000	3500	97.8				11.5						
	Solis-IP4K-4G		4000	4600	98.1										
	Solis-IP5K-4G		5000	5800	98.1										
	Solis-6K	Three phase	6000	Not listed	97.5			-25°C to +60°C	RS485, wi-fi			430 x 600 x 220	27	IP65	5 years, 10 years optional
	Solis-10K		10,000												



TABLE 2:  
GRID-CONNECT INVERTERS (CONTINUED)

Manufacturer	Model	Single or three phase	Power output (W)	Oversizing capacity (W)	Efficiency (%)	Operating temperature range	Connectivity	Size (mm) W x H x D	Weight (kg)	IP rating	Warranty
Zeversolar zeversolar.com	Zeverlution 1500S	Single phase	1500	2140	97.2	-25°C to +60°C	Wi-fi, ethernet, RS485	346 x 346 x 132	6.5	IP65	5 years
	Zeverlution 2000S		2000	2860	97.3			6.5			
	Zeverlution 3000S		3000	3900	97.5			346 x 346 x 146	6.8		
	Zeverlution 4000		4000	5720	97.2			341 x 395 x 172	11		
	Zeverlution 5000		5000	6500	97.2						
	Evershine TLC4000	Three phase	4000	5280	98	-25°C to +60°C		405 X 498 X 222	21		
	Evershine TLC5000		5000	6600							
	Evershine TLC6000		6000	7200							
	Evershine TLC8000		8000	10,560	98.1			405 X 498 X 255	25		
	Evershine TLC10000		10,000	12,000							

TABLE 3:  
MICROINVERTERS

Manufacturer	Model	Power output (W)	Recommended module size/type (W)	Efficiency (%)	Operating temperature range	Connectivity	Size (mm) W x H x D	Weight (kg)	IP rating	Warranty
Enphase enphase.com/en-au	IQ 7	250	235 - 350, 60 cells	96.5 (EU rating)	-40°C to +65°C	Powerline communication	212 x 175 x 30.2 (without bracket)	1.08	IP67	10 years
	IQ 7+	295	235 - 440, 60 or 72 cells							
	IQ 7X	320	320 - 460, 96 cells	-40°C to +60°C						
	S230	220	185 - 285, 60 cells	-40°C to +65°C	172 x 175 x 35 (without bracket)		1.8	IP67		
	S270	260	230 - 350, 60 or 72 cells	96.9						
APSystems aunz.apsystems.com	YC600	550	Two x 250 to 375, 60 or 72 cells	95.5	-40°C to +65°C	Wireless	260 x 188 x 31.5	3.25	IP67	10 years, option to extend

TABLE 4:  
HYBRID INVERTERS

Manufacturer	Model	Approx RRP + GST	Does backup?	Single or three phase	Nominal AC power (W)	PV input power (W)	Max output power to battery	Max input power to battery	Dimensions (mm)	Weight (kg)	IP rating	Ambient temperature range	Maximum efficiency (PV to grid)	Connectivity	Warranty	Compatible with which battery brands?
Delta deltapvi.com.au	RPI E5	\$3000	Yes	Single phase	5000	TBD	TBD	TBD	507 x 441 x 177	30	IP65	-25°C to 60°C	97.2%	Wi-fi (option), RS-485	5 years	TBD
Fronius fronius.com.au	SYMO HYBRID 5.0-3-S	\$3950	Yes	Three phase	5000	8000	5000	5000	645 x 431 x 204	22	IP65	-25°C to 60°C	97.6%	Wi-fi, ethernet	5, optional additional 5 years	TBD
	SYMO HYBRID 4.0-3-S	\$3700	Yes	Three phase	4000	6500	4000	4000	645 x 431 x 204	22			97.6%			TBD
	SYMO HYBRID 3.0-3-S	\$3400	Yes	Three phase	3000	5000	3000	3000	645 x 431 x 204	22			97.5%			TBD
Goodwe goodwe.com.au	GW5048D-ES	\$3020	TBD	Single phase	4600	6000	4600	4600	516 x 440 x 184	30	IP65	-25°C to 60°C	97.6%	Wi-fi, RS485, CAN	5	TBD
Huawei solar.huawei.com	SUN2000TL-2KTL	\$1352	No	Single phase	2000	2660	TBD	TBD	375 x 375 x 161.5	10.6	IP65	-30°C to 60°C	97.0%	RS485, wi-fi	5, optional additional 5 years	LG Chem
	SUN2000TL-3KTL	\$1750	No	Single phase	3000	3990	TBD	TBD	375 x 375 x 161.5	10.6			97.6%			LG Chem
	SUN2000TL-4KTL	\$1987	No	Single phase	4000	5400	TBD	TBD	375 x 375 x 161.5	10.6			97.9%			LG Chem
	SUN2000TL-4.6KTL	\$2094	No	Single phase	4600	6210	TBD	TBD	375 x 375 x 161.5	10.6			98%			LG Chem
	SUN2000TL-5KTL	\$2203	No	Single phase	5000	6750	TBD	TBD	375 x 375 x 161.5	10.6			98%			LG Chem
Imeon imeon-energy.com.au	IMEON 3.6	\$3000	Yes	Single phase	3000	4000	3840	2880	440 x 580 x 165	18	IP20	-25°C to 50°C	>94%	Wi-fi, RS485, CAN	10 years	TBD
	IMEON 9.12	\$6040	Yes	Three phase	9000	12,000	9600	7680	580 x 800 x 240	46			>94%			TBD
Redback redbacktech.com	SH5000	\$5000	Yes	Single phase	5000	TBD	4600	4600	516 x 950 x 278	44	IP65	-25°C to 60°C	97.6%	Ethernet, wi-fi	5 years	LG Chem, Pylontech
Selectronic selectronic.com.au	SP PRO SPMC240	POA	Yes	Single or three phase (one inverter on each phase)	3000		3000		690 x 375 x 220	33	IP43	-10°C to 60°C	95%	USB, serial and ethernet	3 to 10 years	Most battery chemistries including lithium. Check Selectronic website for details
	SP PRO SPMC241				4500		4500			39			95%			
	SP PRO SPMC480				3500		3500			33			95%			
	SP PRO SPMC481				5000		5000			40			96%			
	SP PRO SPMC482				7500		7500			43			96%			
	SP PRO SPMC1201				7500		7500			43			97%			
	SP PRO SPLC1200				15000		15000			113			97%			
	SP PRO SPLC1202				20000		20000			115			97%			
SolaX solax.com	X-Hybrid-5.0-E	\$2374	Yes	Single phase	4999	6000	6000	6000	460 x 477 x 181.5	26.9	IP65	-20°C to 60°C	97.8%	Ethernet, optional wi-fi	5 to 10 years	TBD
	X-Hybrid-4.6-E	\$2286	Yes	Single phase	4600	6000	6000	6000	460 x 477 x 181.5	26.9			97.8%			TBD
	X-Hybrid-3.7-E	TBD	Yes	Single phase	3680	5000	6000	6000	460 x 477 x 181.5	26.9			97.8%			TBD
	X-Hybrid-3.0-E	TBD	Yes	Single phase	3000	4000	6000	6000	460 x 477 x 181.5	26.9			97.8%			TBD
	X-Hybrid-5.0-T	\$3036	Yes	Three phase	5000	6000	6000	6000	655 x 456 x 208	40			97.6%			TBD
	X-Hybrid-6.0-T	\$3812	Yes	Three phase	6000	7200	8000	8000	655 x 456 x 208	40			97.6%			TBD
	X-Hybrid-8.0-T	\$4472	Yes	Three phase	8000	9600	10,000	10000	655 x 456 x 208	40			97.6%			TBD
	X-Hybrid-10.0-T	\$4750	Yes	Three phase	10000	12,000	10,000	10000	655 x 456 x 208	40			97.6%			TBD
Sungrow sungrowpower.com	SH5K+	\$2640	Yes, (requires a few seconds for switchover)	Single phase	4990	6500	TBD	TBD	447 x 510 x 150	20	IP65	-25°C to 60°C	97.70%	Wired, optional wi-fi	5, optional additional 5 years	TBD

TABLE 5:  
MONITORING SYSTEMS

Supplier	Product	Suitable for	Portal URL
<b>Inverter and storage-based systems (may require switchboard switches or a gateway to be added)</b>			
AlphaESS alpha-ess.com	Alpha Cloud	AlphaESS storage systems	alphaess.com
Enphase enphase.com/en-au	Enphase Home Energy Solution (MyEnlighten)	Enphase microinverter and AC battery systems	enlighten.enphaseenergy.com
Fronius solarweb.com	Fronius Solar.Web + app	Fronius inverter and battery based systems	solarweb.com
GoodWe goodwe.com.au	GoodWe EzLogger Pro and portal	GoodWe inverter based systems	semsportal.com
PVoutput pvoutput.org	PVOutput (generation/consumption data)	Any compatible data can be uploaded, auto uploading available for Enphase, SolarEdge, Zegersolar, SMA webbox, as well as several other energy monitoring systems. Other systems may be supported by third-party software such as PV Beancounter (see pvbeancounter.com for compatibility)	pvoutput.org
Redback Technologies redbacktech.com	Redback Portal and MYRedback app	Redback Technologies Smart Hybrid System	portal.redbacktech.com
Selectronic selectronic.com.au	Selectronic SP Link	SP Pro based systems. Software supports Windows only	NA, software on local PC only
SMA Australia sma-australia.com.au	SMA Energy Meter	Energy monitoring in all solar energy systems, single and three phase	NA, local web interface
	SMA Sunny Portal/Sunny Places	SMA inverter based systems	sunnyportal.com, sunnyplaces.com
	Sunny Home Manager	Monitoring of all energy flows and control of major appliances in homes with SMA inverter based systems, via Sunny Portal	sunnyportal.com
SolarEdge solaredge.com/aus	SolarEdge Monitoring Platform, with app	Module and system level monitoring of SolarEdge based systems	monitoring.solaredge.com
Sonnen sonnensupportaustralia.com.au	Sonnen sonnenApp	Sonnen battery based systems	meine.sonnenbatterie.de
Tesla tesla.com	Tesla Powerwall app	Solar systems with a Tesla Powerwall battery	NA, local app only
Victron Energy victronenergy.com	Victron VRM Portal and VRM app	Monitoring of any compatible Victron Energy equipment	vrn.victronenergy.com
Zegersolar zegersolar.com	ZevelCloud	Systems with Zegersolar inverter	zevelcloud.com
<b>Aftermarket monitoring systems</b>			
carbonTRACK carbontrack.com.au	carbonTRACK Portal and app	Smart monitoring and control of renewable energy systems. Requires installation of carbonTRACK Smart Gateway. Sold to domestic customers through carbonTRACK Partners only	my.carbontrack.com.au
Efergy efergy.com/engage	Efergy Engage hub kit	In-home display that allows monitoring of up to five channels, including solar generation	NA
OpenEnergyMonitor openenergymonitor.org	OpenEnergyMonitor	Smart monitoring of energy consumption and solar generation. Requires installation of the emonPi module	emoncms.org
Reposit Power repositpower.com	Reposit Power plus app	Monitoring for many solar systems with a battery, requires the installation of the Reposit module. See repositpower.com/compatibility for compatibility information	repositpower.com
Smappee smappee.com	Smappee	Smart monitoring and control of renewable energy systems	dashboard.smappee.net
Solar Analytics solaranalytics.com/au	Solar Analytics	Monitoring for almost any solar system, requires the installation of the Solar Smart Monitor module	my.solaranalytics.com/au
Splash Monitoring splashmonitoring.com	Splash monitoring	System monitoring for most solar systems, including those with SMA, APS, Delta, ABB, and other inverters and charge controllers.	splashmonitoring.com
Wattwatchers wattwatchers.com.au	Wattwatchers Portal	Smart monitoring and control of renewable energy systems. Requires installation of Wattwatchers Auditor module. Sold to domestic customers through Wattwatchers Partners only	mydata.energy

## About the tables

Data for Table 1, Solar panels, was derived from the Solar Quotes PV panel table at [solarquotes.com.au/panels/comparison/compare-solar-panels](http://solarquotes.com.au/panels/comparison/compare-solar-panels)

Data for Table 2, Grid-connect inverters, was compiled by Renew from manufacturer datasheets.

Data for table 3, Microinverters, was compiled by Renew from manufacturer datasheets.

Data for Table 4, Hybrid inverters, was derived from the Solar Quotes hybrid inverter table at [solarquotes.com.au/battery-storage/hybrid-inverter-comparison](http://solarquotes.com.au/battery-storage/hybrid-inverter-comparison), with the addition of the Selectronic entry by Renew. Technically, the Selectronic SP Pro is more a multimode inverter/charger than a true hybrid inverter, but it can be used in this way, so we have included it.

Data for Table 5, Monitoring systems, was compiled by Renew.

## Terminology

### Inverters and hybrid inverters

- CAN: Controller area network—a form of low speed network that allows devices to communicate without a host computer.
- Inverter efficiency is simply the output power divided by the input power, represented as a percentage, and represents how much of the input is transferred to the output.
- IP (ingress protection) ratings are the level of sealing of the enclosure of the device, and describe how well the device resists dust (the first number) and water (the second number). See [en.wikipedia.org/wiki/IP\\_Code](http://en.wikipedia.org/wiki/IP_Code) for an explanation.
- Hybrid inverters that do backup mean that they can continue to power the home in the event of a blackout, if the system is configured correctly.

### Solar panels

- Approximate cost per watt is simply the cost of the panel divided by the rated wattage. It does not include other costs such as the inverter or the rest of the system, only the panel cost.
- Temperature coefficient: the amount of reduction in power output as the panel heats up. For example, a coefficient of  $-0.4\%/^{\circ}\text{C}$  means that for every degree above  $25^{\circ}\text{C}$ , the peak panel output drops by 0.4%. So, a panel running at  $60^{\circ}\text{C}$  would lose  $(60-25) \times 0.4 = 14\%$  of its rated output.

For updates, omissions or enquiries about these tables, please email Lance Turner at *Renew*, [lance@renew.org.au](mailto:lance@renew.org.au)