

About the tables

The data in the following tables was supplied by the manufacturer, importer or distributor of each system. Missing data in particular columns does not necessarily imply that the feature or function is not available, just that the data was not supplied. Contact suppliers for more detailed information on particular products. Some prices are quoted inc and some ex GST, and most exclude installation costs; please check with suppliers. Heat pump and solar thermal system prices are pre-STC/rebate discounts as these differ depending on location.

Table 1. Heat pump hot water systems (COP is coefficient of performance; Find your zone for STCs at www.bit.ly/STC-zones)

Make	Model	Capacity (litres)	Split system, integrated or retrofit	Tank material	Tank pressure	Insulating material	Refrigerant type	Boosting (if used)	COP	Min rated ambient temp	STCs per zone 1 to 5					Defrosting/ freeze protection	Timer and programmability options	Recovery rate	Noise level (dB)	RRP (pre STCs)	Comments	Warranty		
											1	2	3	4	5									
Bosch (Australia) Pty Ltd ph: (03) 9541 5555 www.bosch-climate.com.au	Bosch is yet to submit data for this guide. Their data will be entered here once supplied.																							
Chromagen Pty Ltd ph: 1300 367 565 www.chromagen.com.au	Chromagen is yet to submit data for this guide. Their data will be entered here once supplied.																							
Hydrotherm www.hydrothermhotwatersystems.com.au	Hydrotherm DYNAMIC-SS/X8/OP	275	Integrated system	Stainless steel 316L SS	Mains pressure	Polyurethane	R134a	None	4.25	-5 °C	24	23	29	30	30	Yes automatic defrost	Yes up to three timers	280 minutes	48	\$2597 inc GST	Built-in timers, stainless steel 316L, active defrost, timers available for maximum use of solar PV	15 years on tank, 5 years on compressor and 2 years on labour		
Quantum Energy Technologies ph: 1800 383 888 www.quantumenergy.com.au	Quantum Energy Technologies is yet to submit data for this guide. Their data will be entered here once supplied.																							
Rheem Australia Pty Ltd ph: 132 552 www.rheem.com.au	551310	310	HDI-310 integrated heat pump	Vitreous enamel lined mild steel	Mains pressure	Polyurethane	R134a	Electric	3	-	22	22	26	27	23	Yes	-	-	-	POA	Back-up element fitted in every model	Domestic installations: 5 years cylinder warranty, 3 years labour on cylinder, 2 years on sealed system including labour. 1 year on all parts and labour.		
	551325	325	MPI-325 integrated heat pump								23	21	27	28	26								-	-
	554325	325	MPI-325 integrated heat pump Rheem Plus								23	21	27	27	25								-	-
Sanden ph: (02) 9791 0999 sales@sanden.com.au www.sanden-hot-water.com.au	GAUS - 160EQTA	160	Split system	Marine-grade stainless steel	Mains pressure	Polyurethane	R744 (CO ₂)	None	4.5	-10 °C	26	25	31	33	33	Yes, inbuilt setting	Yes, inbuilt timer allows operation in defined periods (e.g. off-peak hours or middle of day to work with solar PV)	80 to 100L/h	38	POA	CO ₂ refrigerant allows a high COP (efficiency) in cold weather. Quiet running at 38dB. Australian-made marine grade stainless steel tank, Japanese-made heat pump unit. Perfect for use with off-peak electricity tariffs for more savings or even better run during peak solar hours for PV owners	15 years on tanks and 3 years on heat pump unit		
	GAUS - 250EQTA	250									26	25	32	34	33									
	GAUS - 250EQTB	250									26	25	32	34	33									
	GAUS - 315EQTD	315									26	25	32	35	33									
	GAUS - 315EQTE	315									26	25	32	34	33									
	GAUS - 315EQTF	315									26	25	32	34	34									
	GAUS - 315EQTG	315									26	25	32	35	34									
Siddons Solarstream www.siddonsolarstream.com	Siddons Solarstream is yet to submit data for this guide. Their data will be entered here once supplied.																							
Stiebel Eltron ph: 1800 153 351 info@stiebel.com.au www.stiebel.com.au	WWK 222	220	Compact heat pump	Vitreous enamel lined mild steel	Mains pressure (700kPa max)	Polyurethane	R134a	None	3.94	-5 °C	25	26	29	31	31	Active defrost function maintains energy-efficient operation down to -5 °C	N/A		45 dBa @ 1m (EN12102)	\$3099 inc GST	Specifically designed for Australian conditions, current impressed anode for use with hard or soft water, 17% lower heat loss compared to previous model due to improved tank insulation, roll-bond condenser for long-lasting optimal heat transfer, ideal to operate with solar PV. Indoor or outdoor installation possible. Compact design for ease of transportation, installation and servicing	Domestic warranty: 5 years cylinder and condenser; 2 years sealed refrigeration system including compressor, evaporator, valves and associated pipe work; 1 year all other componentry (electrical)		
	WWK 222 H										Smart element 1.7kW	25	26	29	31								31	\$3149 inc GST
	WWK 302	302						None	3.58	24	25	28	31	30	\$3369 inc GST									
	WWK 302 H							Smart element 1.7kW	24	25	28	30	30	\$3425 inc GST										
Thermann www.thermann.com.au	Thermann is yet to submit data for this guide. Their data will be entered here once supplied.																							

Table 2. PV diversion hot water systems

Brand/supplier	Model	Number of diversion outputs/ maximum power per output	Minimum diversion power	Boost and/or timer function	Configurability	Displays/monitoring options	Dimensions/weight	RRP	Warranty	Comments
Australian Wind and Solar ph: 1300 736 458 www.australianwindandsolar.com	SunMate 2.0	2 outputs 3600 watts each. 3 separate units can be linked to give up to 12kW	50W	Boost 1 to 4 hours. 3 separate on/off timers for weekdays and weekends	Wi-fi or current transformer clamp. Optional temperature sensor. Installer and user menu	LCD with import / export data. Power diversion data. All data refreshed every 2 seconds	198 H x 132 W x 68 D, 760 grams. Wall mount with rear or bottom cable entry	\$850 ex GST	5 years	SunMate has threshold setting, as well as variable power mode, to enable appliances to be run when your hot water is at max temperature. AWS offer full tech support. Threshold mode allows electric vehicles to be charged from excess PV.
Catch Power ph: 1300 131 995 www.catchpower.com.au	Blue	1 x 4.8 kW		Yes	Yes	Yes via internet	Diverter: 150 x 70 x 120 mm	\$1700 inc GST, installed	5 years	
	Green				No	No	150 x 70 x 120 mm	\$1000 inc GST, installed		
PowerDiverter ph: 0432 121 633 sales@powerdiverter.com www.powerdiverter.com.au	PowerDiverter model 2	1 in main unit + 2 in new AC and battery controller	50W	Both	Yes	Timer/boost display third party monitoring available	320 H x 250 W x 140 D, 4.5 kg	\$995	5 years	PowerDiverter is rated to 4.8 kW so is compatible with all Australian electric hot water tanks. Compatible with all pool pumps when using a timer. We are just about to launch a new AC and battery controller which is compatible with the current unit. The user will be able to prioritise where the power goes
Solar iBoost www.solarboost.co.uk	Solar iBoost is yet to submit data for this guide. Their data will be entered here once supplied.									

Table 3a. Direct PV hot water controllers/inverters

Brand/supplier	Model	Maximum PV array power	Maximum PV input voltage/ current	Suitable element sizes	Configurability	Tank temperature control?	Displays/monitoring options	Dimensions/weight	RRP	Warranty	Comments
Commodore Australia (Techluck) Ph: 1300 669 256, (03) 5821 0783 sales@commodoreaustralia.com.au www.commodoreaustralia.com.au	Commodore Australia is yet to submit data for this guide. Their data will be entered here once supplied.										
Easy Warm (Aust) Pty Ltd barbara@easywarm.co.nz www.easywarm.co.nz	Hot PV™1.5kW	2.25kW (indicative)	500V/12.5A (hard limit)	1.8kW to deliver 120 litres a day	There is no risk of overheating in summer from the HotPV™ system, so the number of rooftop PV modules can be increased to also cover almost all winter water heating needs. On low sunlight days, an optional programmable controller is offered to allow grid boost, with 2 boost bands a day, 7 day individual day programming; optional grid connect of PV array after water has been heated is also available.	Yes, element thermostat	Inverter displays include power to element and total energy to element that day; wi-fi connection through home router to webpage on home computer, hourly, daily and historical daily data available	330 mm x 550 mm x 145 mm (excluding antenna)/14kg	POA, sold as a fully installed PV array (see *Note)	Inverter 5 years, optional controller 2 years	HotPV™ is an off-grid solar PV hot water system connected to the cylinder element with optional grid boost, using AC power not DC, for safety reasons. The grid boost controller can be bypassed in event of network power outages so hot water system continues to work in power cuts without grid boost. Option to grid-tie the array after water is heated, with water heating given priority. PV arrays can be oversized but must not exceed the input current and voltage limits. * Hot PV™ consists of an inverter and optional controller provided as a fully installed PV array primarily for heating water and is not sold as separate components. Price of array depends on STCs claimable, off-grid PV arrays are not limited in the STCs they can claim. Specs are current at time of printing.
	Hot PV™2kW	3kW (indicative)	600V/13.5A (hard limit)	1.8kW to deliver 160 litres a day; 2.4kW to deliver 160 litres a day				330 mm x 550 mm x 145 mm (excluding antenna)/14kg			
	Hot PV™3kW	4.5kW (indicative)	600V/16A (hard limit)	1.8kW to deliver 184 litres a day; 2.4kW to deliver 240 litres a day; 3.6kW to deliver 240 litres a day; 4.8kW to deliver 200 litres a day				330 mm x 550 mm x 145 mm (excluding antenna)/15kg			
	Hot PV™3.8kW	5kW (indicative)	500V/19A (hard limit)	3.6kW to deliver 300 litres a day; 4.8kW to deliver 224 litres a day				330 mm x 550 mm x 145 mm (excluding antenna)/15kg			
	Hot PV™4kW	6kW (indicative)	600V/16A per MPPT - dual MPPT (hard limit)	3.6kW to deliver 320 litres a day; 4.8kW to deliver 288 litres a day				401 mm x 600 mm x 168 mm (excluding antenna)/20kg			
	Hot PV™5kW	7kW (indicative)	600V/16A per MPPT - dual MPPT (hard limit)	4.8kW to deliver 400 litres a day				401 mm x 600 mm x 168 mm (excluding antenna)/20kg			

Table 3b. Direct PV hot water complete systems

Make	Model	Capacity (litres)	Type of system	Tank pressure	Tank material	Insulating material	Collector details	Boosting	Frost protection	RRP (before STCs)	Comments	Warranty
Energy Smart Water ph: (03) 9939 6722 www.esw.net.au	ROELWA300A	300	Direct PV system with on-ground tank	Unpressurised ROTEX thermal storage tank	Polypropylene with stainless steel heat exchange coil for potable water. No sacrificial anode. Exceptional heat retention	Polyurethane foam 50 mm	2kW of dedicated PV modules provide direct DC power for heating water. Monocrystalline or polycrystalline PV solar panels/modules	Alternative heat source (wood heater etc)	NA	POA	Dedicated 2kW of PV panels provides direct DC power to the storage water ensuring hot water even during blackouts. No inverter. No roof plumbing. No refrigerants. Exceptional heat retention. Hygienic separation of potable water and heated storage water with a first-in-first-out principle. Soon to be released in Australia following registration with CEC	2 years on electronics and elements, 10 years on tank, 5 years on stainless steel tank coil, 10 years on gas instantaneous heat exchanger. Applies to domestic installations only.
	ROELWA300E	300						Electric				
	ROELWA300G	300						Instantaneous gas				
	ROELWA500A	500				Polyurethane foam 80 mm		Alternative heat source (wood heater etc)				
	ROELWA500E	500						Electric				
	ROELWA500G	500						Instantaneous gas				

Table 4. Solar thermal hot water systems (Find your zone for STCs, and STCs available for your zone at www.bit.ly/HW_STCs)

Make	Model	Capacity (litres)	Split or close coupled	Tank pressure	Tank material	Insulating material	Total collector area (m ²)	No. of tubes or collectors	Collector type	Collector material	Glass type	Boosting	Frost protection	RRP (before STCs)	Comments	Warranty
Apricus Australia ph:1300 277 428 www.apricus.com.au	AE-250-TS-MID-22	250	Split	Mains pressure	Stainless steel	Polyurethane foam	3.24	22 tubes	Evacuated tube	Copper header on a steel backing	Borosilicate glass (twin glass)	Electric		POA	-	15 years on manifold tubes, heat pipes and frame, 10 years on tank, 1 year on pump and controller
	AE-315-TS-MID-30	315					4.35	30 tubes								
	AE-315-30	315					4.35	30 tubes								
	AE-315-GL-BOT-30	315					4.35	30 tubes								
	AE-315-GL-MID-30	315					4.35	30 tubes								
	AE-250-GL-BOT-22	250					3.24	22 tubes								
	AE-250-GL-MID-22	250			3.24		22 tubes									
	AE-400-GL-MID-30	400			4.35		30 tubes									
	AE-400-GL-BOT-40	400			5.92		40 tubes									
	AE-400-GL-MID-40	400			5.92		40 tubes									
	AC-315-TS-26N-30	315			4.35		30 tubes	Gas								15 years on manifold tubes, heat pipes and frame, 10 years on tank, 1 year on pump and controller
	AC-315-GL-26N-30	315			4.35		30 tubes	15 years on manifold tubes, heat pipes and frame, 5 years on tank, 1 year on pump and controller								
AC-400-GL-26N-40	400	5.92	40 tubes													
Chromagen Pty Ltd ph:1300 367 565 info@chromagen.com.au www.chromagen.com.au	Chromagen is yet to submit data for this guide. Their data will be entered here once supplied.															
Dux Hot Water ph:1300 365 116 www.dux.com.au	Dux is yet to submit data for this guide. Their data will be entered here once supplied.															
ECOSOLAR ph:0800 ECOSOLAR (NZ) or +64 9 442 0996 info@ecosolar.co.nz www.ecosolar.co.nz	EC180DB 2.8ST	180	Closed loop drainback, split system	Mains pressure and low pressure tanks available, depending on system	Duplex grade stainless steel	Glasswool	2.8	1 collector	Flat-plate collectors	Copper plate, copper pipes	Prismatic low-iron safety glass	Electric		POA	-	5 years on collectors and tank and 1 year on pump
	EC330DB 4.6ST	330					4.6	2 collectors								
	EC330DB 5.6ST	330					5.6	2 collectors								
	EC425DB 6.9ST	425					6.9	3 collectors								
	EC180OL 2.8ST	180	Open loop, split system				2.8	1 collector								
	EC330OL 4.6ST	330					4.6	2 collectors								
	EC330OL 5.6ST	330					5.6	2 collectors								
	EC425OL 6.9ST	424					6.9	3 collectors								
	Commercial DB	As per design	Closed loop drainback, split system				As per design	As per design								Commercial systems designed to suit application

Table 4. Solar thermal hot water systems (cont)

Make	Model	Capacity (litres)	Split or close coupled	Tank pressure	Tank material	Insulating material	Total collector area (m ²)	No. of tubes or collectors	Collector type	Collector material	Glass type	Boosting	Frost protection	RRP (before STCs)	Comments	Warranty		
Edson Pty Ltd ph: 1300 880 154 www.edson.com.au	ES-250-20	250	Split	Mains pressure	Stainless steel	Polyurethane foam	3.14	20 tubes	Evacuated tube	Copper header on an anodised aluminium backing	Borosilicate glass (twin glass)	Electric	Not needed, collectors use heat pipes	POA	Includes all valves and fittings	15 years on manifold tubes, heat pipes and frame, 20 years on tank, 1 year on pump and controller (5 years in Vic), 5 years on valves		
	ES-250-30	250					4.63	30 tubes										
	ES-315-20	315					3.14	20 tubes										
	ES-315-30	315					4.63	30 tubes										
	ES-315-40	315					6.28	40 tubes										
	ES-400-30	400					4.63	30 tubes										
	ES-400-40	400					6.28	40 tubes										
	ES-250-20-20LP	250					3.14	20 tubes									LPG	
	ES-250-20-26LP	250					3.14	20 tubes										
	ES-250-30-20LP	250					4.63	30 tubes										
	ES-250-30-26LP	250					4.63	30 tubes										
	ES-315-20-20LP	315					3.14	20 tubes										
	ES-315-20-26LP	315					3.14	20 tubes										
	ES-315-30-20LP	315					4.63	30 tubes										
	ES-315-30-26LP	315					4.63	30 tubes										
	ES-315-40-26LP	315					6.28	40 tubes										
	ES-400-30-26LP	400					4.63	30 tubes										
	ES-400-40-26LP	400					6.28	40 tubes										
	ES-250-20-20NG	250					3.14	20 tubes										Natural gas
	ES-250-20-26NG	250					3.14	20 tubes										
	ES-250-30-20NG	250					4.63	30 tubes										
	ES-250-30-26NG	250					4.63	30 tubes										
	ES-315-20-20NG	315					3.14	20 tubes										
	ES-315-20-26NG	315					3.14	20 tubes										
	ES-315-30-20NG	315					4.63	30 tubes										
	ES-315-30-26NG	315					4.63	30 tubes										
	ES-315-40-26NG	315					6.28	40 tubes										
	ES-400-30-26NG	400					4.63	30 tubes										
	ES-400-40-26NG	400					6.28	40 tubes										
	ES-250-SHC14	250					2.53	14 tubes				Reflector evacuated tube	Electric					
	ES-250-SHC20	250					3.66	20 tubes										
	ES-315-SHC14	315					2.53	14 tubes										
	ES-315-SHC20	315					3.66	20 tubes										
	ES-315-SHC28	315					5.06	28 tubes										
	ES-400-SHC20	400					3.66	20 tubes										
	ES-400-SHC28	400					5.06	28 tubes										
	ES-250-SHC14-20LP	250					2.53	14 tubes									LPG	
	ES-250-SHC14-26LP	250					2.53	14 tubes										
	ES-250-SHC20-20LP	250					3.66	20 tubes										
	ES-250-SHC20-26LP	250					3.66	20 tubes										
	ES-315-SHC14-20LP	315					2.53	14 tubes										
	ES-315-SHC14-26LP	315					2.53	14 tubes										
	ES-315-SHC20-20LP	315					3.66	20 tubes										
	ES-315-SHC20-26LP	315					3.66	20 tubes										
	ES-315-SHC28-26LP	315					5.06	28 tubes										
	ES-400-SHC20-26LP	400					3.66	20 tubes										
	ES-400-SHC28-26LP	400					5.06	28 tubes										
	ES-250-SHC14-20NG	250					2.53	14 tubes										Natural gas
	ES-250-SHC14-26NG	250					2.53	14 tubes										
	ES-250-SHC20-20NG	250					3.66	20 tubes										
ES-250-SHC20-26NG	250	3.66	20 tubes															
ES-315-SHC14-20NG	315	2.53	14 tubes															
ES-315-SHC14-26NG	315	2.53	14 tubes															
ES-315-SHC20-20NG	315	3.66	20 tubes															
ES-315-SHC20-26NG	315	3.66	20 tubes															
ES-315-SHC28-26NG	315	5.06	28 tubes															
ES-400-SHC20-26NG	400	3.66	20 tubes															
ES-400-SHC28-26NG	400	5.06	28 tubes															

Table 4. Solar thermal hot water systems (cont)

Make	Model	Capacity (litres)	Split or close coupled	Tank pressure	Tank material	Insulating material	Total collector area (m ²)	No. of tubes or collectors	Collector type	Collector material	Glass type	Boosting	Frost protection	RRP (before STCs)	Comments	Warranty						
Endless Solar ph: 1300 889 585 info@endless-solar.com.au www.endless-solar.com.au	ES-E-160-10	160	Split	Mains pressure	Australian-made marine-grade stainless steel. No sacrificial anode required. Highly insulated	Polyurethane	1.6	10 tubes	Evacuated tube collector	Anodised aluminium manifold with copper heat exchanger, evacuated tubes with centralised copper heat pipes and stainless steel mounting frame	High impact-resistance borosilicate glass tubes. Complies with Australian Standard 2712:2007	Electric (bottom 3.6kW). Mid element also available Natural gas or LPG	Frost tolerant to -15°C (does not require glycol).	POA	Australian designed and proven in the Australian climate for over 10 years. Frost tolerant to -15°C (does not require glycol). Very effective in winter and colder climates. Australian Standards approved and Watermarked.	15 years on major components						
	ES-E-250-20	250					3.1	20 tubes														
	ES-E-315-30	315					4.6	30 tubes														
	ES-E-315-40	315					6.2	40 tubes														
	ES-G-250-21N-20	250					3.1	20 tubes														
	ES-G-315-21N-30	315					4.6	30 tubes														
	ES-G-315-26N-40	315					6.2	40 tubes														
	Commercial models	As required	As required	As required	As required	As required	As required	As required	As required	As required	As required	As required	As required	As required	Custom designed and computer modelled to suit application	5 years on major components						
Rheem Australia Pty Ltd ph: 132 552 www.rheem.com.au	52H180/ISP-G	180	Close coupled	Mains pressure	Stainless steel	Polyurethane	2	1 collector	Flat plate	Black powder-coated mild steel absorber	Low-iron tempered	Gas	Yes	POA	Roof-mounted. Space-saving design. Low-maintenance, no pump required. Suitable for frost-prone areas with good water chemistry.	7 years cylinder, 5 year solar collectors, 1 year labour on cylinder and collectors, 1 year parts inc labour. Applies to domestic installations only.						
	52H300/2SP-G	300					4	2 collectors														
	52H180/ISP	180					2	1 collector														
	52H300/2SP	300					4	2 collectors														
	52C180/INPT-G	180					2	1 collector														
	52C300/2NPT-G	300					4	2 collectors														
	52C180/INPT	180					2	1 collector														
	52C300/2NPT	300					4	2 collectors														
	52S160/INPT-G	160			2		1 collector															
	52S300/2NPT-G	300			4		2 collectors															
	52S160/INPT	160			2		1 collector															
	52S300/2NPT	300			4		2 collectors															
	590160/2LCS-G	160			Split		Mains pressure	Vitreous enamel lined mild steel		Fibreglas blanket		4			2 collectors	Sputtered selective surface aluminium absorber with copper headers / risers	Black powder-coated aluminium absorber with copper headers / risers	Gas	No	Roof-mounted. Space-saving design. Low-maintenance, no pump required. Suitable for warmer climates with good water chemistry.	5 years cylinder and solar collectors, 3 years labour on cylinder, 1 year labour on collectors, 1 year parts inc labour. Applies to domestic installations only.	
	596160/2LCS	160										4			2 collectors							
	596270/2SP	270										4			2 collectors							
	596270/3SP	270										6			3 collectors							
	596270/2T	270	Vitreous enamel lined mild steel	Polyurethane		4		2 collectors	Black chrome selective surface mild steel absorber		Black powder-coated mild steel absorber	Gas	Yes	Split design reduces the structural load on the roof. Suitable for frost-prone areas or areas with poorer water chemistry.	5 years cylinder and solar collectors, 3 years labour on cylinder, 1 year labour on collectors, 1 year parts inc labour. Applies to domestic installations only.							
	596270/3T	270															6					3 collectors
	591270/2SP	270															4					2 collectors
	591270/3SP	270															6					3 collectors
	591270/2T	270	Vitreous enamel lined mild steel	Polyurethane	4	2 collectors	Black chrome selective surface mild steel absorber	Black powder-coated mild steel absorber	Electric	Limited	Split design reduces the structural load on the roof. Suitable for warmer climates with good water chemistry.	5 years cylinder and solar collectors, 3 years labour on cylinder, 1 year labour on collectors, 1 year parts inc labour. Applies to domestic installations only.										
	591270/3T	270											6	3 collectors								
	511271/2NPT-G	270											4	2 collectors								
	511325/2NPT-G	325											4	2 collectors								
	511410/3NPT-G	410	Close coupled	Mains pressure	Stainless steel	Polyurethane	6	3 collectors	Black powder-coated aluminium absorber with copper headers / risers	Black powder-coated aluminium absorber with copper headers / risers (Sputtered selective surface copper absorber collector also available)	Gas	No	Roof-mounted. Space-saving design. Low-maintenance, no pump required. Suitable for warmer climates with good water chemistry.	7 years cylinder and solar collectors, 3 years labour on cylinder and collectors, 1 year parts inc labour. Applies to domestic installations only.								
	511271/2NPT	270					4	2 collectors														
	511325/2NPT	325					4	2 collectors														
	511410/3NPT	410					6	3 collectors														
	52L180/INPT-G	180					2	1 collector														
	52L300/2NPT-G	300					4	2 collectors														
	52L180/INPT	180					2	1 collector														
	52L300/2NPT	300					4	2 collectors														
52H180/INPT-G	180	Close coupled	Mains pressure	Stainless steel	Polyurethane	2	1 collector	Black powder-coated aluminium absorber with copper headers / risers	Black powder-coated aluminium absorber with copper headers / risers (Sputtered selective surface copper absorber collector also available)	Gas	Yes	Roof-mounted. Space-saving design. Low-maintenance, no pump required. Suitable for frost-prone areas with good water chemistry.	7 years cylinder and solar collectors, 3 years labour on cylinder and collectors, 1 year parts inc labour. Applies to domestic installations only.									
52H300/2NPT-G	300					4	2 collectors															
52H180/INPT-G	180					2	1 collector															
52H300/2NPT	300					4	2 collectors															

Table 4. Solar thermal hot water systems (cont)

Make	Model	Capacity (litres)	Split or close coupled	Tank pressure	Tank material	Insulating material	Total collector area (m ²)	No. of tubes or collectors	Collector type	Collector material	Glass type	Boosting	Frost protection	RRP (before STCs)	Comments	Warranty		
Rinnai Solar ph: 1300 555 545 www.rinnai.com.au	SS180HIEXT	180	Close coupled	Mains pressure	Stainless steel	Glass wool/ polyurethane	2	1 collector	Flat plate	Aluminium/ copper TiNOX (low emissivity) absorber	Low-iron tempered	Electric 2.4kW or 3.6kW		POA	Australian-made collectors using high-performance selective surface. Australian-made stainless steel tanks. Dedicated continuous flow gas booster, same technology as the Rinnai Infinity. High STCs awarded due to high performance of the system	5 years on vitreous enamel lined tanks, 10 years on stainless steel tanks, 7 years on flat-plate collectors, 15 years on evacuated tube collector, 12 years on gas booster heat exchanger		
	SS330H2EXT	330					4	2 collectors										
	CCSE2001B	200					2	1 collector										
	CCSE3302B	330					4	2 collectors										
	SS180HIEXTRG	180			Split			Vitreous enamel lined mild steel		2		1 collector					Aluminium/ copper	S20 or S26 Rinnai continuous flow gas
	SS330H2EXTRG	330						4		2 collectors		Aluminium/ copper						
	CCSG2001B	200						Vitreous enamel lined mild steel		2		1 collector					Aluminium/ copper	
	CCSG3302B	330						4		2 collectors		Aluminium/ copper						
	MSS250H2EXT	250						Stainless steel		4		2 collectors					Aluminium/ copper TiNOX absorber	Electric 2.4kW or 3.6kW
	MSS315H2EXT	315						4		2 collectors		Aluminium/ copper						
	SM250SL2B	250						Vitreous enamel lined mild steel		4		2 collectors					Aluminium/ copper	
	SM315SL2B	315						4		2 collectors		Aluminium/ copper						
	SS2502EXTRG	250						Stainless steel		4		2 collectors					Aluminium/ copper TiNOX absorber	S20 or S26 Rinnai continuous flow gas
	SS3152EXTRG	315						4		2 collectors		Aluminium/ copper						
	SG1751B	175	Vitreous enamel lined mild steel	2		1 collector		Aluminium/ copper										
	SG1751BL	175	2.4	1 collector		Evacuated tube		Aluminium header and frame assembly with copper heat pipes	Borosilicate glass	Electric 2.4kW or 3.6kW								
	SG2152B	215	4	2 collectors														
	SG270SL2B	270	4	2 collectors														
	MSS250HEVT25A	250	Stainless steel	4.1							25 tubes							
	MSS315HEVT30A	315	4.9	30 tubes		Vitreous enamel lined mild steel		25 tubes	30 tubes	S20 or S26 Rinnai continuous flow gas								
	SM250SLEVT25A	250	4.1	25 tubes														
	SM315SLEVT30A	315	4.9	30 tubes	Vitreous enamel lined mild steel	25 tubes	30 tubes											
	SS250EVT25ARG	250	4.1	25 tubes														
	SS315EVT30ARG	315	4.9	30 tubes														
	SG175EVT20A	175	3.3	20 tubes														
	SG175EVT25A	175	4.1	25 tubes														
	SG215EVT25A	215	4.1	25 tubes														
	SG270SLEVT30A	270	4.9	30 tubes														
	Commercial systems	Varies							Stainless steel and vitreous enamel lined mild steel	Varies	Varies		Varies	Varies	Heavy duty gas		Contact Rinnai with your project and a system can be tailor-made to maximise your return on investment	5 years on stainless steel tanks, 5 years on heavy duty continuous flow heat exchanger

Table 4. Solar thermal hot water systems (cont)

Make	Model	Capacity (litres)	Split or close coupled	Tank pressure	Tank material	Insulating material	Total collector area (m ²)	No. of tubes or collectors	Collector type	Collector material	Glass type	Boosting	Frost protection	RRP (before STCs)	Comments	Warranty											
Run On Sun Australia Pty Ltd ph: (02) 6734 6322 www.runonsun.com.au	ROSAHP150EL	160	Close coupled	Mains pressure	316 L marine grade stainless steel	Polyurethane foam	2.8	18 tubes	Evacuated tubes with copper heat pipes	Selective surface, Sydney tubes with 2mm thick glass plus copper heat pipes	Borosilicate glass (twin glass) 2mm thick	Electric 2kW	Yes	\$3160	Includes all valves required, pipe insulation, spare tubes, 2mm stainless steel frame, cyclone mount kit and free freight	6 years on the tank, 14 years on the evacuated tubes, 14 years on the frame and mounting kit.											
	ROSAHP200EL	220					3.8	24 tubes				Electric 2kW		\$3830													
	ROSAHP250EL	270					4.8	30 tubes				Electric 2kW		\$4265													
	ROSAHP150G	160					2.8	18 tubes				Gas Bosch 21e		\$4132													
	ROSAHP200G	220					3.8	24 tubes				Gas Bosch 21e		\$4800													
	ROSAHP250G	270					4.8	30 tubes				Gas Bosch 21e		\$5265													
	SPLIT250-24EL	270	Split				Vitreous enamel lined mild steel	Rockwool	3.8			24 tubes	Evacuated tubes	Selective surface, Sydney tubes with 2mm thick glass plus copper heat pipes. Stainless steel manifold housing			Borosilicate glass (twin glass) 2mm thick	Electric mid	\$3660	Includes Grundfos pump station that can attach to the tank. Electric-boosted models with mid-element boost. Optional cost-price valve kit and brassware with insulation gloves	10 years on the tank, 14 years on the evacuated tubes, 14 years on the frame and mounting kit, 5 years on the pump and controller						
	SPLIT315-30EL	340							4.8			30 tubes						Electric mid	\$3980								
	SPLIT400-48EL	450							7.6			48 tubes						Electric mid	\$4820								
	SPLIT250-24G	270							3.8			24 tubes						Gas Rinnai S21	\$4460								
	SPLIT315-30G	340							4.8			30 tubes						Gas Rinnai S21	\$4780								
	SPLIT400-48G	450							7.6			48 tubes						Gas Rinnai S21	\$5620								
	SPLIT315-30G26	340			4.8	30 tubes			Gas Rinnai S26	\$4980																	
	SPLIT400-48G26	450			7.6	48 tubes			Gas Rinnai S26	\$5820																	
	Retrofit evacuated tube collector	NA			Split	NA			Rockwool	1.8	12 tubes	Evacuated tubes			Selective surface, Sydney tubes with 2mm thick glass plus copper heat pipes. Stainless steel manifold housing	Borosilicate glass (twin glass) 2mm thick		Existing tank	\$920			Includes evacuated tube collector with a 2mm thick stainless steel frame. Optional pump, controller, air/steam eliminator and a one-way valve \$400. AC or DC pump available	14 years on the evacuated tubes, 14 years on the frame, 5 years on the pump and controller				
		2.8								18 tubes	\$1180																
		3.8								24 tubes	\$1440																
		4.8								30 tubes	\$1680																
	Solahart ph: (02) 9684 9100 www.solahart.com.au	181SPg or CS13Cg	180		Close coupled	Mains pressure	Vitreous enamel lined mild steel	Polyurethane	2	1 collector	Flat plate	Non-selective surface mild steel absorber or sputtered selective surface copper absorber	Low iron	Gas	Yes	Ask your local dealer for a free onsite quote	Roof-mounted closed circuit system with heat exchanger. Suitable for frost areas and/or poorer water quality areas. 300-litre range also available with an extended warranty.	For single family domestic dwellings, standard thermosiphon series is 5/5/5: 5 years supply tank and collectors, 5 years labour tank and collectors, 5 years components supply and labour. Free Heat series is 10/5/5: 10 years supply tank and collectors, 5 years labour tank and collectors, 5 years components supply and labour									
		302SPg or CS13Cg	300						4	2 collectors																	
181SP or CS13C		180	2	1 collector																							
302SP or CS13C		300	4	2 collectors																							
181Lg		180	2	1 collector																							
302Lg or LCSDg		300	4	2 collectors																							
181L		180	2	1 collector																							
302L or LSCD		300	4	2 collectors																							
272MLVg		270	Split	Vitreous enamel lined mild steel	Polyurethane				4	2 collectors	Aluminium non-selective surface	Aluminium non-selective surface or selective surface	Low iron	Gas	No	Roof-mounted direct system. Suitable for warmer climates with good water chemistry. 300-litre range also available with an extended warranty.	For single family domestic dwellings, split series is 5/3/2: 5 years supply tank and collectors, 3 years labour tank and collectors, 2 years components supply and labour										
322MLVg		320							4	2 collectors																	
412MLVg		410							4	2 collectors																	
413MLVg		410							6	3 collectors																	
272MLV		270							4	2 collectors																	
322MLV		320							4	2 collectors																	
412MLV		410							4	2 collectors																	
413MLV		410							6	3 collectors																	

Table 4. Solar thermal hot water systems (cont)

Make	Model	Capacity (litres)	Split or close coupled	Tank pressure	Tank material	Insulating material	Total collector area (m ²)	No. of tubes or collectors	Collector type	Collector material	Glass type	Boosting	Frost protection	RRP (before STCs)	Comments	Warranty
Solar Lord ph: 1300 133 782 www.solarlord.com.au	E270U15-O	270	Split	Mains pressure	Vitreous enamel lined mild steel	Polyurethane	1 collector (15 x 2100 mm long U-tubes)	2 collectors (30 x 2100 mm long U-tubes)	Evacuated tube open loop	Selective surface, novel sputtering treatment, U copper tubes collector	Evacuated borosilicate glass tube	Continuous/off-peak electric	Antifreeze level 2	POA	Winner of HIA GreenSmart Award - Product of the Year 2007. Suitable for good quality water	5 years on Rinnai gas instantaneous booster 5 years on collector skeleton 5 years on tank 1 years on parts
	E340U15-O	340														
	E450U30-O	450														
	E450U45-O	450														
	G270U15-O	270														
	G340U15-O	340														
	G450U30-O	450														
	G450U45-O	450														
	E180H16-O	180														
	E270H24-O	270														
	E340H32-O	340														
	E450H40-O	450														
	E450H48-O	450														
	G180H16-O	180														
	G270H24-O	270														
	G340H32-O	340														
	G450H40-O	450														
	G450H48-O	450														
	E450U45-OH	450														
	E450H48-OH	450														
	G450U45-OH	450														
	G450H48-OH	450														
	E250U15-O	250														
	E315U15-O	315														
	G250U15-O	250														
	G315U15-O	315														
	E250H24-O	250														
	E315H32-O	315														
G250H24-O	250															
G315H32-O	315															
					Vitreous enamel lined mild steel with copper coil for hydronic heating		3 collectors (45 x 2100 mm long U-tubes)		U copper tube collector		Continuous/off-peak electric			Winner of HIA GreenSmart Award - Product of the Year 2007. Good performance in winter and on overcast and rainy days. Suitable for hard to poor quality water		
							3 collectors (48 x 1800 mm heat pipe tubes)		Heat pipe collector		Instantaneous gas					
					Stainless steel		1 collector (45 x 2100 mm long U-tubes)		Selective surface, novel sputtering treatment, U copper tubes collector		Continuous/off-peak electric				Good performance in winter and on overcast and rainy days	5 years on Rinnai gas instantaneous booster (for gas boosted systems)
											Instantaneous gas					
							1 collector (24 x 1800 mm heat pipe tubes)		Selective surface, novel sputtering treatment, heat pipe collector		Continuous/off-peak electric				Easy and cost saving installation, good performance in winter and on overcast and rainy days	
							2 collectors (32 x 1800 mm heat pipe tubes)									
							1 collector (24 x 1800 mm heat pipe tubes)									
							2 collectors (32 x 1800 mm heat pipe tubes)									

Table 4. Solar thermal hot water systems (cont)

Make	Model	Capacity (litres)	Split or close coupled	Tank pressure	Tank material	Insulating material	Total collector area (m ²)	No. of tubes or collectors	Collector type	Collector material	Glass type	Boosting	Frost protection	RRP (before STCs)	Comments	Warranty
SolarOz ph: 1800 821 172 save@solaroz.com.au www.solaroz.com.au	SPZ58/1800-12	100	Close coupled	Mains and low pressure systems available	Stainless steel	Polyurethane foam	0.96 absorbing	12 tubes	Evacuated tube		58 mm x 1800 mm x 2mm thick evacuated tube with three layer coating	Electric, gas		POA		10 years on tubes and frame, 5 years on tank, 1 year on electrical
	SPZ58/1800-24	220					1.92 absorbing	24 tubes								
	SPZ58/1800-30	300					2.4 absorbing	30 tubes								
	SSHE58/1800-12	100					0.96 absorbing	12 tubes								
	SSHE58/1800-24	220					1.92 absorbing	24 tubes								
	SSHE58/1800-30	300					2.4 absorbing	30 tubes								
	SPHE58/1800-30	300					2.4 absorbing	30 tubes								
	SS300E30T	300	Split				2.4 absorbing	30 tubes		Aluminium/ copper		Electric, gas				
	SS400E40T	400					3.2 absorbing	40 tubes								
	SS500E60T	500					4.8 absorbing	60 tubes								
Thermann www.thermann.com.au	Thermann is yet to submit data for this guide. Their data will be entered here once supplied.															

Table 5. Instantaneous electric hot water systems

Brand	Model	Power rating	Single or 3 phase	Minimum flow to activate	Heat exchange material	Element type	Element/heat exchanger replaceable?	Suitable for	RRP	Comments	Warranty							
Chronomite ph: 1300 123 452 sales@chronomite.com.au www.chronomite.com.au	RBAM-15-35C, 40C, 42C & 49C RBAM-20-35C, 40C, 42C & 49C RBAM-30-35C, 40C, 42C & 49C RBAM-40-35C, 40C, 42C & 49C	3600W 4800W 7200W 9600W	Single	1.5L/min for RBAM-15 and RBAM-20; 2.7L/min for RBAM-30 and RBAM-40	Heating coils are nichrome	Microprocessor-controlled bare wire heating coils	No	Kitchen and bathroom basins/sinks	\$635 + GST	No standing heat losses. Conserves water, materials savings on pipework. Compact, self cleaning, low install costs, low running costs	1 year							
Elwa Pty Ltd ph: (08) 8377 6666 sales@elwa.com.au www.elwa.com.au	HOTRUN 38VE	3.8	Single	1.5L/min (rated performance is at flow rate of 2 L/min)	Polyamide	Nickel-chrome	Yes	1 handwash basin	\$624.75	Can be set to any temperature (and limit). All water heaters are supplied with flexible cord fitted to the unit and with two flexible hoses for hot and cold water connections, and are fitted with mounting brackets at the back for ease of installation	2 years							
	HOTRUN 48VE	4.8		1.7L/min (rated performance is at flow rate of 3 L/min)				1 handwash basin	\$690									
	HOTRUN 60VE	6		1.9L/min (rated performance is at flow rate of 4 L/min)				2 handwash basins	\$716.10									
	HOTRUN 75VE	7.5	Single/2 phase	2.1L/min (rated performance is at flow rate of 5 L/min)				2 handwash basins or 1 hairdresser basin or in warm climate 1 shower	\$787.50									
	HOTRUN 96VE	9.6		2.3L/min (rated performance is at flow rate of 6 L/min)				3 handwash basins or 1 shower or 1 hairdresser basin or 1 kitchen sink	\$827.40									
	HOTRUN 120VE	12	3 phase	2.5L/min (rated performance is at flow rate of 8 L/min)				4 handwash basins or 1 shower or 1 hairdresser basin or 1 kitchen sink	\$1065.75									
	HOTRUN 150VE	15		2.5L/min (rated performance is at flow rate of 9 L/min)				4 handwash basins or 2 showers in warm climate or 2 hairdresser basins or 2 kitchen sinks in warm climate	\$1094.75									
	HOTRUN 180VE	18		2.5L/min (rated performance is at flow rate of 10 L/min)				5 handwash basins or 2 showers or 2 hairdresser basins or 2 kitchen sinks	\$1123.75									
	HOTRUN 210VE	21		2.5L/min (rated performance is at flow rate of 11 L/min)				5 handwash basins or 2 showers or 2 hairdresser basins or 2 kitchen sinks	\$1152.75									
	HOTRUN 240VE	24	Min 60kPa 2.5L/min (rated performance is at flow rate of 12 L/min)	6 handwash basins or 2 showers or 3 hairdresser basins or 2 kitchen sinks				\$1167.25										
Gleamous Australia ph: 1300 550 490 info@gleamoushotwater.com.au www.gleamoushotwater.com.au	Gleamous Australia is yet to submit data for this guide. Their data will be entered here once supplied.																	
Hey Presto ph: 0450 093 991 info@heyprestoinstanthotwater.com.au www.heyprestoinstanthotwater.com.au	Hey Presto is yet to submit data for this guide. Their data will be entered here once supplied.																	
Microheat ph: (03) 9545 0722 info@microheat.com.au www.microheat.com.au	CFEWH Series 1-10	up to 9.6 kW	Single	1.5 L/min	No heat exchange	Inert electrode	Not required	Single point of use	POA	No scale, no burn out. Settable and accurate outlet temperature to 1°C, so no scalding. Building Management System ready	3 year manufacturers warranty							
	CFEWH Series 1-20 Tandem	up to 19.2kW	Single	1.5 L/min				Single/multiple point of use										
	CFEWH Series 2-30	up to 30kW	3 phase	1.5 L/min				Centralised hot water system										
Stiebel Eltron ph: 101800 153 351 info@stiebel.com.au www.stiebel.com.au	DHE 18 AU	19.4kW/27 amp	3 phase	2.5L/min	Material of heating element: Nichrome	Bare wire element complete with pressure-tested copper casing	Yes	Suited to both soft and hard water areas	\$1320	Precise hot water temperature up to 60°C with 4i Technology. Can accept pre-heated water (up to 55°C), e.g. for reheating with a solar heating system	5 year full parts and labour domestic warranty, refer to warranty policy for full details							
	DHE 27 AU	29.1kW/40 amp							\$1370									
	DEL 18 AU	19.4kW/27 amp							\$1179									
	DEL 27 AU	28kW/40 amp							\$1239									
	DHB-E 18 AU	19.4kW/27 amp							\$990									
	DHB-E 27 AU	28kW/40 amp							\$1045									
	DHB-E 13 AU	14.5kW/20 amp	\$935															
	Simplex	13.2kW/20 amp	3.0L/min	Material of heating element: Copper		Copper tubular		\$585	Suitable for existing plumbing, ideal as a replacement hot water system	\$730	7.5 litres per minute delivers a 25°C rise. Switch on flow rate of 4.5 litres per minute	5 year domestic warranty, conditions apply						
	DHF 13 C AU	14.2kW/19.7 amp	Half power 3.0L/min or full power 4.5L/min	Material of heating element: Copper		Copper tubular		\$730	Replacement type water heater for certain types of 3 phase electric instantaneous water heaters in New South Wales	\$730	Hydraulically controlled. Two-stage temperature and output selection							
	DHF 15 C AU	16.1kW/22.5 amp						Single	>1.4 L/min	Material of heating element: Copper	Copper tubular	Suitable for use in northern regions of Australia only	\$635	Compact size for space-saving point-of-use installation	5 year full parts and labour domestic warranty; refer to warranty policy for full details			
	DHC 4	4.8 kW/20 amp	1.5L/min	Material of heating element: Copper		Copper tubular							Suitable for use in northern regions of Australia only	\$635		Compact size for space-saving point-of-use installation		
	DHCE 6/50	7.1kW/30 amp															\$660	Maximum hot water output temperature 50°C: no tempering valve needed. Electronically controlled for accurate temperature delivery
	DHCE 8/50	9.5kW/40 amp																
DHCE 8/60	9.5kW/40 amp	\$690	Delivers up to 60°C hot water, dependent on incoming cold water temperature. Compact design for space-saving installation															

Table terms explained

'Sydney tubes': Another term for the most common type of evacuated tubes. Named after the Solar Energy Research Group at the University of Sydney as they developed an all-glass evacuated tube for solar collectors which has become the industry standard design.

Closed loop: Also called a closed circuit or indirect system, closed loop systems use a heat exchanger in the tank which is coupled to the collectors. Heat transfer fluid circulates between the solar collectors and the heat exchanger, transferring the heat to the potable water in the tank. The heat transfer fluid and the water are never in contact. Closed loop systems may use water in the closed loop, but normally use low freezing point liquids such as propylene glycol, especially if installed in frost-prone areas. Closed loops may be used in both close-coupled and split systems.

Open loop: Also called direct systems, open loop systems have the collectors directly coupled to the tank. The potable water in the tank flows between the tank and the collectors and is itself the heat transfer fluid. Direct systems are not usually used in frost-prone areas due to the risk of water freezing in the collectors.

Drainback system: A system using an unpressurised closed loop where there is an air space in the loop and a small reservoir for the heat transfer fluid. Heat transfer fluid (usually pure water) is pumped to the collectors where it is heated and drains back under gravity. Drainback systems have some advantages over other closed loop systems—they can prevent system overheating simply by turning off the circulating pump. The same applies for freeze protection. Their main disadvantage is that the pump will use more energy compared to a regular closed loop system as it has to overcome gravity to push water up to the collector. Some drainback systems may even have two pumps, the second circulates potable water from the main tank to the HTF tank's heat exchange coil for heating.

Borosilicate: A type of heat-resistant glass, commonly used in applications that require low thermal expansion and high strength characteristics, such as solar water heater tubes, laboratory glassware etc. Its primary constituents are silica (silicon dioxide) and boron trioxide.

U-tube: A tube, usually found inside solar thermal evacuated tubes, in which the water to be heated flows directly. So-named because the tube is a double tube with a U-bend at the end, so that water

flows first one way along the length of the tube, and then back again.

Nichrome: An electrical wire made primarily from chromium and nickel, designed to have a particular resistance per unit length and mostly used to make heating elements. The most common form of resistance wire.

Selective surface: A surface coating that increases solar absorption while decreasing heat emission. Used to make solar collectors more efficient.

Absorbing area: When used in reference to a solar thermal collector, it refers to the actual area of material that absorbs the sun's rays, as opposed to the total area of the collector. For example, the space between tubes in an evacuated tube collector does not absorb heat, only the tubes do. So a collector's absorbing area will be smaller than the physical size taken up by the complete collector.

Polyamide: In relation to appliances, a form of tough plastic. Nylon is one example of a polyamide. **Stainless steel/vitreous lined steel:** Tank materials are usually either stainless steel (may be grade 304 or the more corrosion resistant grade 316), which has a minimum of 10.5% chromium by mass, or vitreous lined mild steel, which is regular mild steel with a coating, similar to glass, which is literally

melted onto the steel to form a corrosion-resistant lining.

STCs: Small-scale technology certificates are a form of rebate (available across Australia) for installations of renewable energy technologies—each STC is equivalent to the one megawatt hour of electricity the system will displace over a 10-year period.

STCs can save you a great deal on the cost of a new heat pump or solar thermal hot water system. The STCs are usually arranged by the supplier so you don't need to do any paperwork to receive the discount.

Prices stated in these tables are pre-STCs, so actual cost will be lower, depending on your location and the system installed.

Sputtering: a method of applying a thin-film coating to a surface by eroding a piece of 'target' material such that the material emitted during erosion deposits on the surface to be coated. See http://en.wikipedia.org/wiki/Sputter_deposition

References for table data

Grades of stainless steel: http://en.wikipedia.org/wiki/SAE_steel_grades#Stainless_steel
List of refrigerants: http://en.wikipedia.org/wiki/List_of_refrigerants