Solahart Commercial Heat Pump

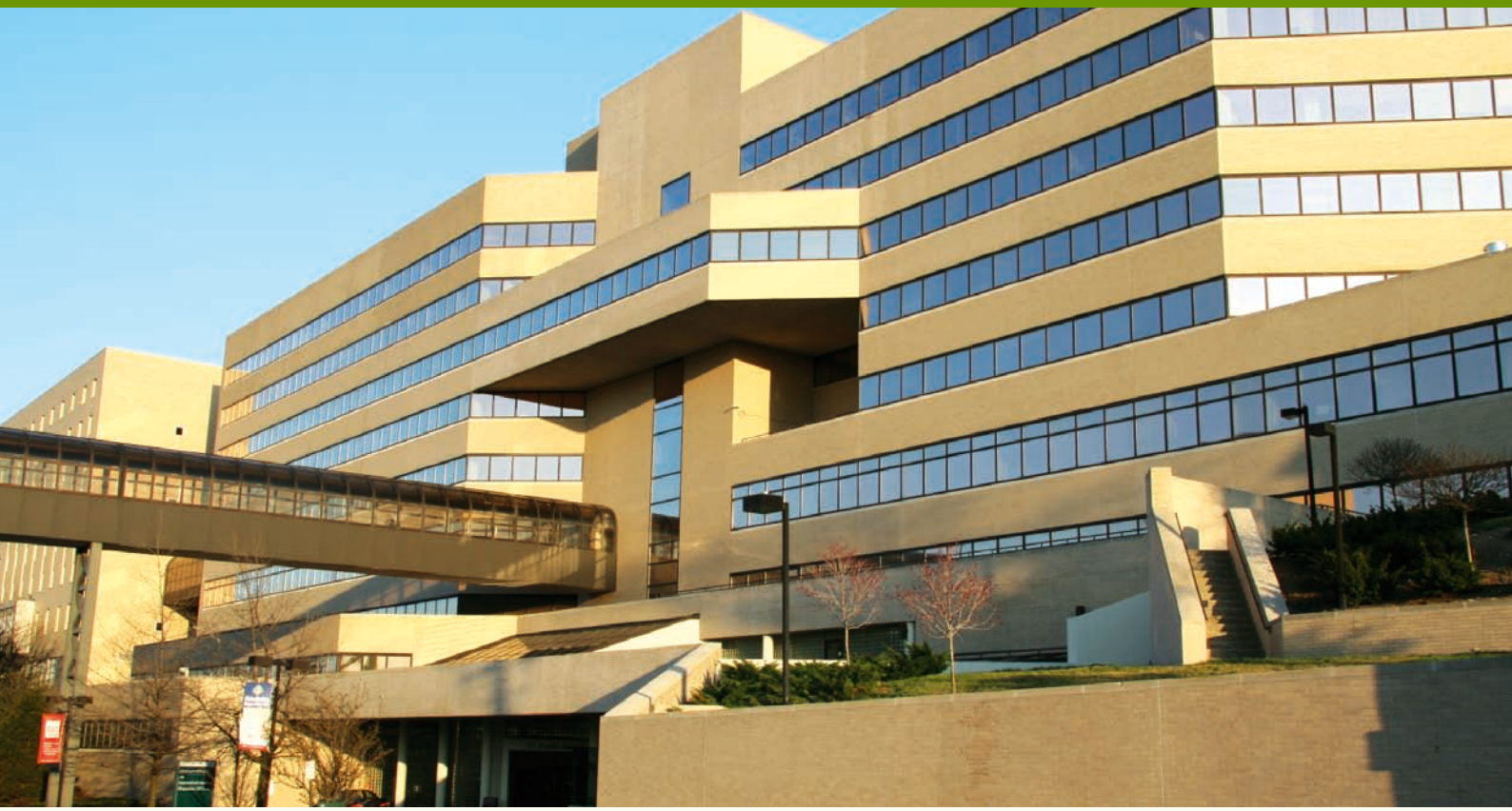
High Efficiency Heat Pump Water Heating

- Indoor and Outdoor Models
- Compact and Flexible Design
- Low Ambient Back-up
- Solahart Reliability

Solahart®

hot water free from the sun

Understanding hot water is what Solahart does best and this experience has led to the development of a truly commercial grade heat pump that delivers high thermal efficiency and hot water at 60°C something not all heat pumps can boast.



Built Tough

Solahart's Commercial Heat Pump is designed with the commercial user in mind. Up to 22kW output means over 6,500 litres of hot water can be produced per day.

Only the world's best components have been selected to ensure optimal performance and durability.

Protection from condensate is provided by a chromate treated galvanized tray, with two pvc drainage points. The entire cabinet is constructed using hot dipped metallic coated steel, which is corrosion resistance treated for protection from the elements.

The entire evaporator coil is epoxy coated to provide long lasting protection from corrosive atmospheres and a stainless steel heat exchanger provides protection on the water side.

Modular

Up to six heat pumps can be manifolded together and controlled by one master controller and a combination of storage tanks can be manifolded to provide the required storage capacity. An indoor and outdoor model is available to suit all installations.

High Efficiency

The Solahart Commercial Heat Pump has an average Coefficient of Performance (COP) of 3.8[1], which means more than 73% of the energy used to produce hot water is free from the atmosphere. Naturally, the hotter the conditions the better the performance.

The evaporator incorporates rifle bore copper tubes, which increase heat transfer by up to 20% over smooth bore tubing. Slit aluminium fins provide even greater transfer of heat from the air to the refrigerant.

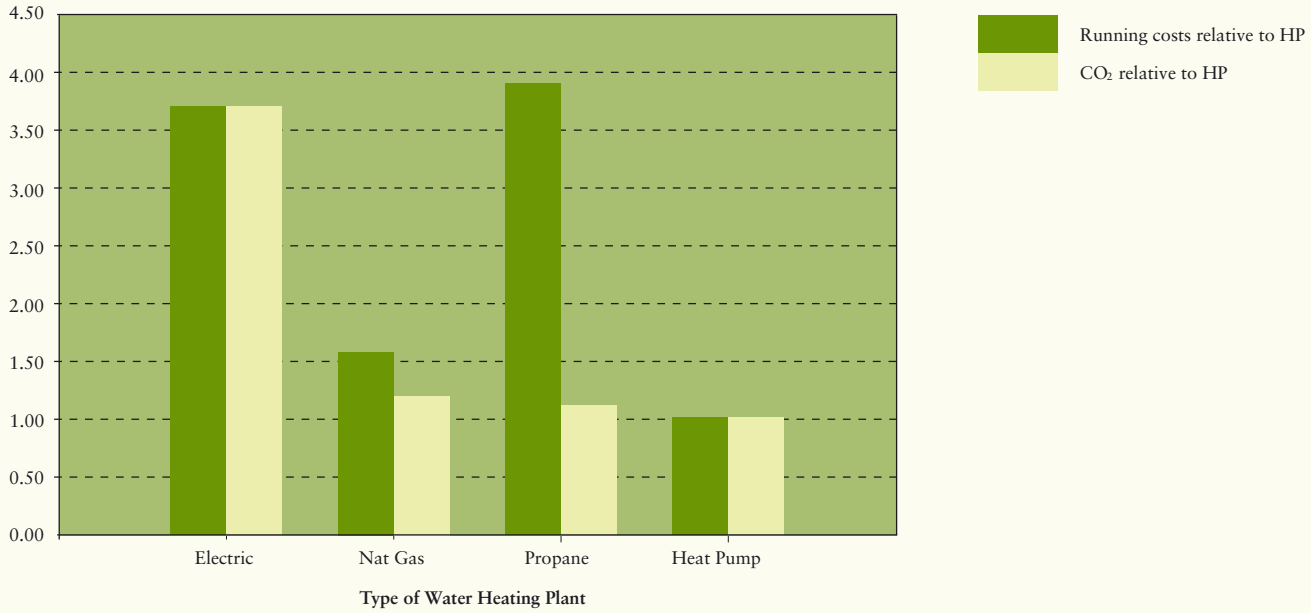
All Weather Performance

During periods of extremely low ambient temperatures the master controller switches to auxiliary boost mode. If installed, a conventional energy water heater takes over from the heat pump to ensure sufficient hot water is available for use, whilst extending product reliability and longevity.

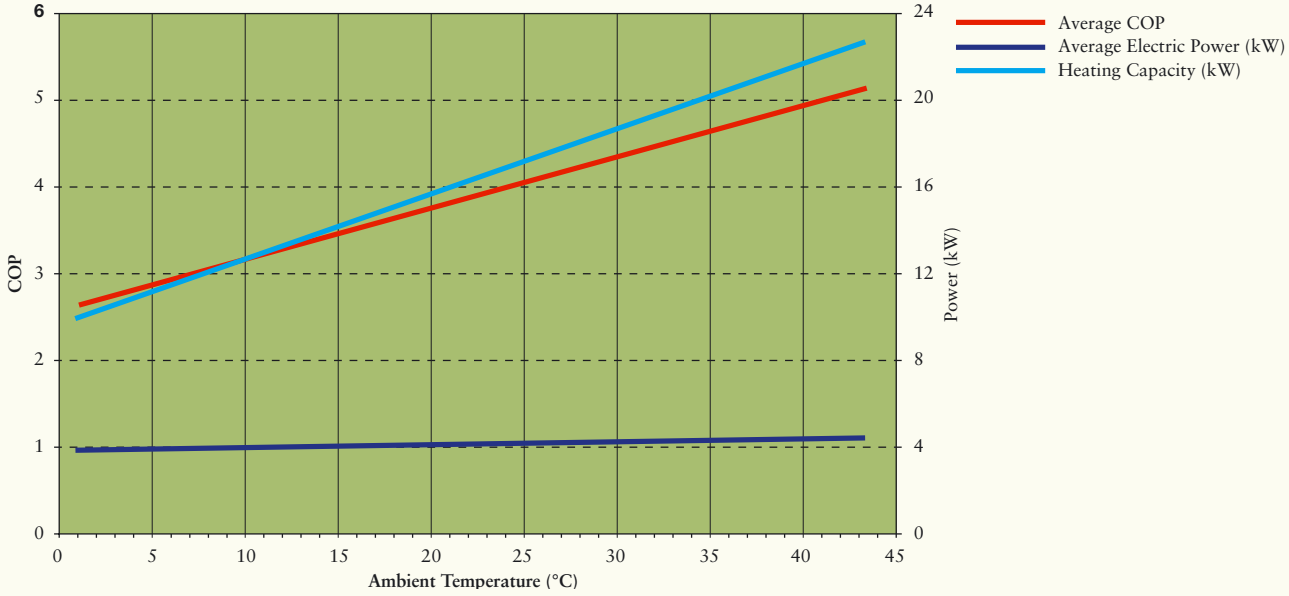
Solahart Back-Up

Like all Solahart commercial water heaters, the Commercial Heat Pump is supported by an authorised Solahart distributor, who offers local technical support, to ensure correct sizing, specification and installation.

RELATIVE RUNNING COST AND CO_2 EMISSIONS[3]



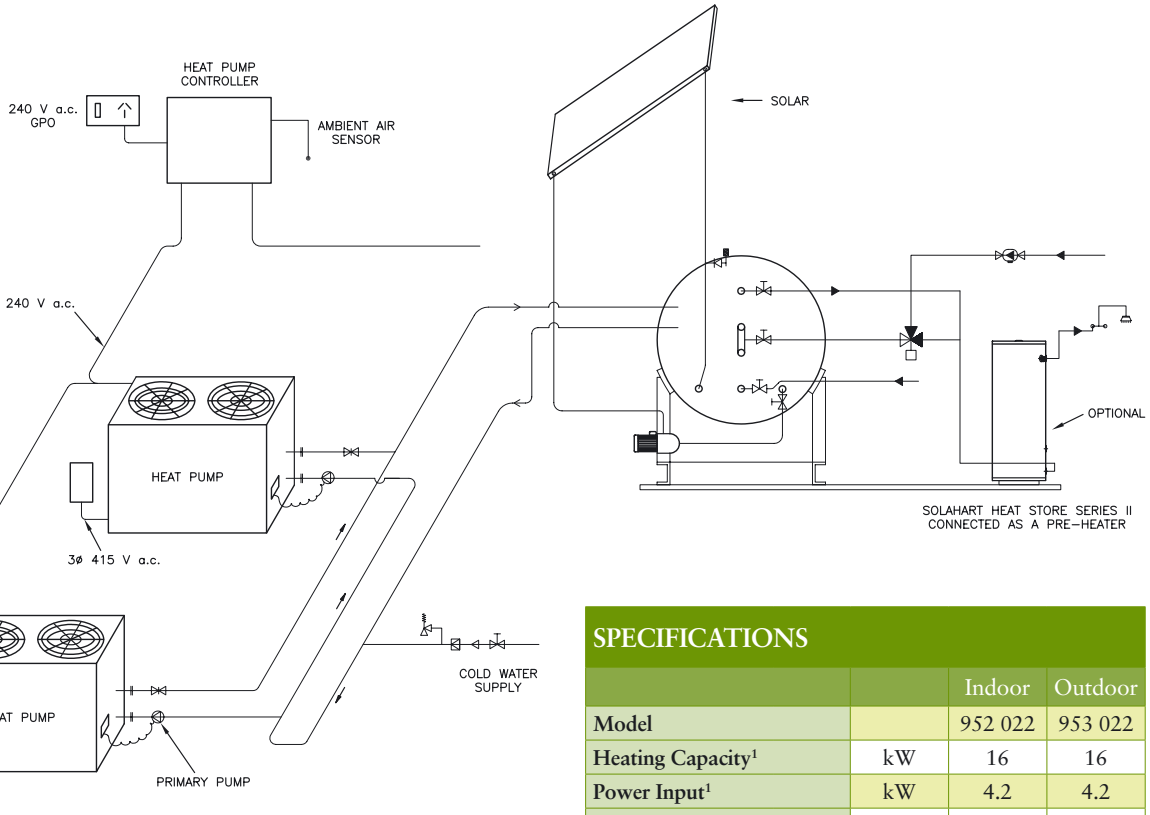
INPUT, OUTPUT AND COP v AMBIENT TEMPERATURE

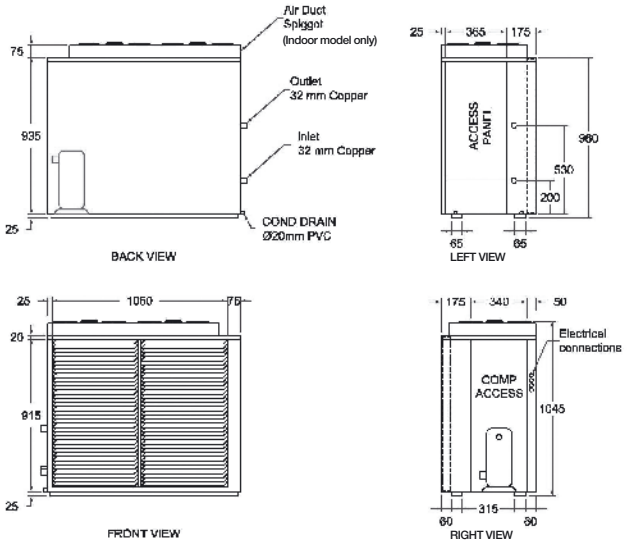


RECOVERY

		Ambient Temperature °C (60% RH)							
		5	10	15	20	25	30	35	40
Output (kW)		11.25	12.75	14.25	15.75	17.25	18.75	20.25	21.75
Recovery - Litres per hour at									
	20°C rise	484	548	613	677	742	806	871	935
	30°C rise	323	366	409	452	495	538	581	624
	35°C rise	276	313	350	387	424	461	498	534
	40°C rise	242	274	306	339	371	403	435	468
	45°C rise	215	244	272	301	330	358	387	416
	50°C rise	194	219	245	271	297	323	348	374
	55°C rise	176	199	223	246	270	293	317	340

Typical Installation





ACCESSORIES

Storage Tank 410L	610430
Storage Tank 1000L	1000SS
Primary Circulator	UPS32-80B
Controller	052140

Warranty: 2 year parts and labour on sealed system. 1 year parts and labour

Printed using petroleum free inks and green electricity on 100% recycled paper made from 60% post consumer and 40% post industrial waste fibre. Both paper manufacturer and printer are approved to the highest environmental standards.

processgreen™ environmentally sustainable printing

SPECIFICATIONS

		Indoor	Outdoor
Model		952 022	953 022
Heating Capacity[1]	kW	16	16
Power Input[1]	kW	4.2	4.2
Coefficient of Performance[1]		3.8	3.8
Recovery @ 45°C Rise[1]	L/hr	300	300
Operating Range	°C	5-40	5-40
Outlet temperature	°C	60	60
Refrigerant		R22	R22
Pressure Relief Valve Setting	kPa	1000	1000
Expansion Control Valve Setting[2]	kPa	850	850
Maximum Water Supply pressure			
Without ECV	kPa	800	800
With ECV	kPa	650	650
Electrical Connection		3 Phase/415V/50Hz	
Current per Phase (running)	Amps	11.7	11.7
Minimum Circuit Size	Amps	20	20
Air Flow	L/s	1,600	1,600
Maximum Static Pressure	Pa	40	-
Minimum Ventilation m²		1	-
Sound Pressure Level @ 1m	dBA	70	61
Approx Weight Empty	kg	120	120
Approx Weight Full	kg	125	125
Plumbing Connections		32mm Copper	
Storage per Heat Pump	L	400 to 4000	
Dimensions	Length mm	1150	1150
	Depth mm	565	565
	Height mm	980	980
Clearances	Front mm	600	600
	Back mm	50	50
	Sides mm	900	900
	Top mm	800	1200

Solahart Australia
PO Box 6, Rydalmere, NSW 2116
Telephone: (02) 9684 9100
Facsimile: (02) 9684 9180
solahart@solahart.com.au
www.solahart.com.au

Solahart International
112 Pilbara Street, Welshpool, 6106
Western Australia, Australia
Telephone: +61 8 9351 4600
Facsimile: +61 8 9351 8034
solahart@solahart.com.au
www.solahart.com

Solahart®
hot water free from the sun®

[1] 20°C / 60%RH. [2] ECV not supplied with the water heater. [3] Comparison will vary depending upon your location, type of system installed, type of water heater being replaced, hot water consumption and fuel tariff. CO2 emissions for fuel types is based on AGO published information. Materials and specifications are subject to change without notice due to ongoing product improvements. Solahart is a Registered Trademark of Solahart Industries Pty Ltd. 08/09.

SH210 July 2009