

SINCE 1950s

**thermex**  
SOLUTIONS

**thermex**  
SOLUTIONS

# HEAT PUMP WH



THERMEX SOLUTION  
Heat pump manufacturer in AUSTRALIA  
ABN 61 150 461 573

THERMEX SOLUTIONS AUSTRALIA P/L  
16/165 WALDRON RD  
CHESTER HILL NSW 2162  
AUSTRALIA  
ABN 61 150 461 573

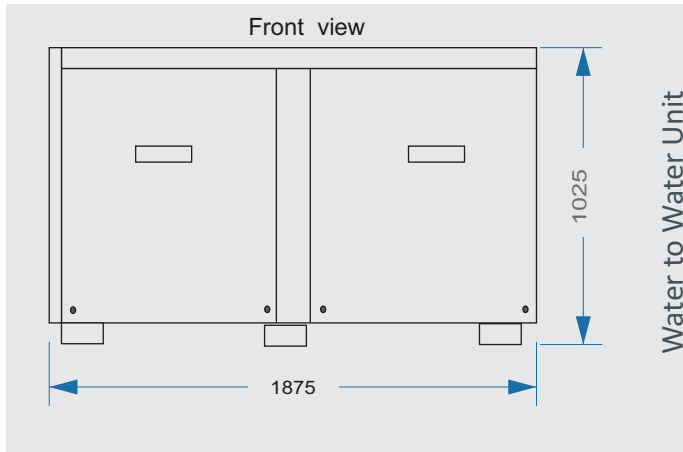
**THERMEX SOLUTIONS**

NSW 2162

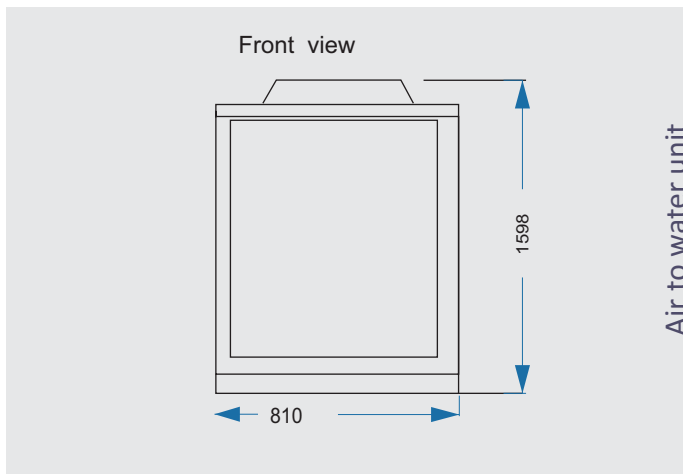
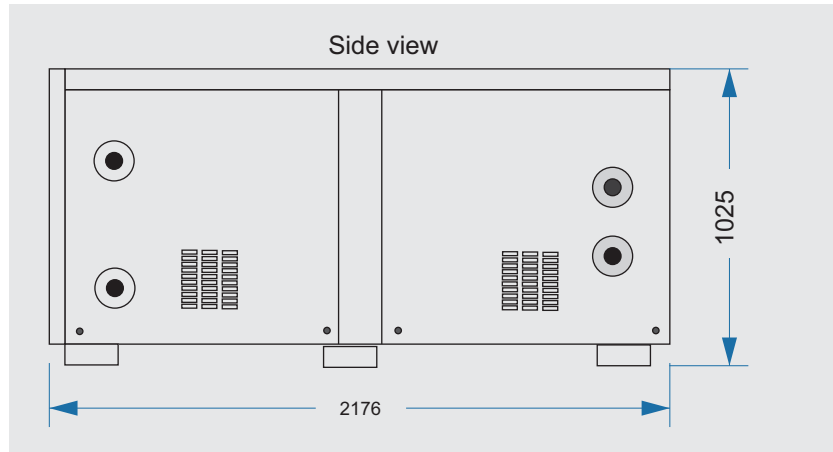
[www.thermex-solutions.com.au](http://www.thermex-solutions.com.au)



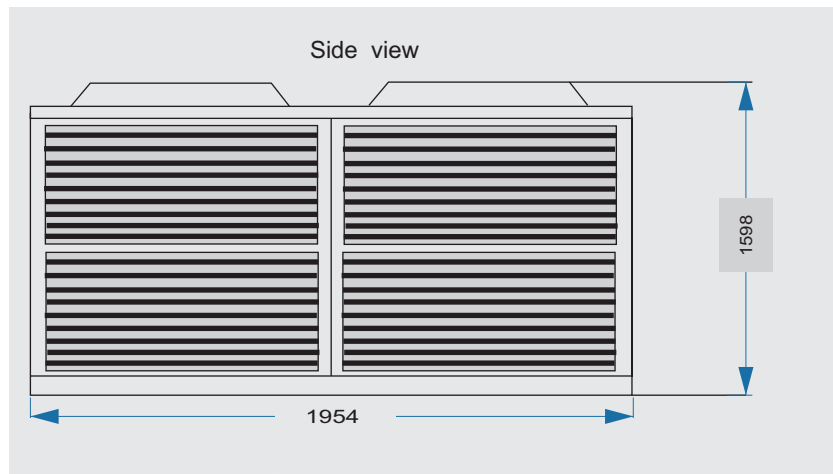
**MADE IN AUSTRALIA**



Water to Water Unit



Air to water unit



**AUSTRALIAN MADE PRODUCTS**

- Air-to-Air Hot Water Heat Pumps
- Water-to-Water Hot Water Heat Pumps
- Ground-sourced Hot Water Heat Pumps
- Reverse cycle Heat Pump/Chillers
- Elite Sports Ice-bath Chillers
- Aquaculture Heat/Cool Heat Pumps
- Domestic resident home heat pump

**PRODUCT FEATURE**

- High Coefficient of performance
- Environment friendly purposed products
- Anti-Corrosion treatment of evaporator
- Digital Control and BMS Connectivity
- Copeland /Dafoss Scroll Compressor
- Double-wall Condenser and condensate drainage
- Smaller space in higher Performance in Design

**15 YEAR COMMITMENT IN ASIA PACIFICA**

Proud of 25 years in services and supply in Asia Pacific and 12 years in Viet Nam with huge projects all over Vietnam From Quang Ninh to Da nang ,Nha Trang ,Ho Chi Minh City and Phu Quoc with 5 to 6 Star-Projects

- CliffResort and hotel Quy Nhon
- Vung Me Hotel Resort Nha Trang
- Avani Hotel Quy Nhon
- VinMec Nghe An , VinMec Quang Ninh

- Royal City Apartment
- Laguna resort, Angsana Hotel - Hue
- Time City Apartment
- Vin-homes Nguyen Chi Thanh
- Intercontinental Da Nang, Novotel - Da Nang
- VinPearl Hai Phong
- VinPearl Nghe An , VinPearl Nha Trang
- VinPearl Phu Quoc

**INVERTER Compressor in Heat Pump**

The energy regulations generate several challenges that can be easily taken up with variable speed technology. The energy regulations generate several challenges that can be easily taken up with variable speed technology.



Inverter compressors are the best way to obtain and exceed the energy standards with high part-load and seasonal efficiency while providing several other key benefits. On top of the advantages provided by the technology (precise cooling and humidity management, low start-up current, energy efficiency etc.), Danfoss inverter scrolls VZH have specific features that offer high value to the customers and end users.

**DOUBLE WALL heat exchanger inside**



Advantages of the Double-Wall Plate Heat Exchanger The Double Wall Plate Heat Exchanger, has many advantages over double-wall shell-and-tube heat exchangers: compact, Diagram Transformer oil cooling Water-contaminating

transformer oil can result in severe damage to the transformer and can necessitate lengthy plant shutdowns. Lube oil cooling Oil which pollutes the cooling medium, whether it is sea, lake or river water, can cause severe damage to the environment and if the cooling medium mixes with the oil, serious damage can be caused to the equipment being cooled. Quench oil cooling Water mixing with quench oil can cause a steam explosion. Potable water heating District heating water, glycol, refrigerants and other heat sources

All operational heating capacity, power consumption and current draw data shown below is based on the heat pump operating at the limit of its design and is intended to be an indication only. THERMEX's product range is subject to change without notice Each unit will be individually designed to customer requirements and a detailed product specification will be supplied at time of order including installation instructions and dimensions. The power consumed by the unit and the current it will draw vary depending on how the unit is constructed. The units performance may also vary slightly from the figures above again based on customer requirements

Model	Voltage	Phase	Hertz	Max.Leaving Water temperature °C	Ambient °C DB	Relative humidity %	Min CB size (A)	Heating Max.k W	Rating Power InPut	COP Max	No: of fans	Airflow m3/h	Water Flowrate L/S	Copper water connection size mm
TH40A3S595AW	380 - 415	3	50	60	30	60	20	45-60	9.56	4.95	2	10000	1.7	40
TH50A3S695AW	380 - 415	3	50	60	30	60	40	65-70	14.29	4.95	2	13000	2.78	40
TH70A3S795AW	380 - 415	3	50	60	30	60	50	75-80	16.33	4.95	2	11000	3.33	50
TH70A3S895AW	380 - 415	3	50	60	30	60	60	85-90	18.37	4.95	2	14200	4.17	60
TH80A3S995AW	380 - 415	3	50	60	30	60	70	95-100	20.41	4.95	2	14200	5.00	60
TH100A3S1195AW	380 - 415	3	50	60	30	60	80	115-120	24.49	4.95	2	14200	6.11	75
TH120A3S1395AW	380 - 415	3	50	60	30	60	90	135-140	28.57	4.95	3	16000	6.94	75
TH150A3S1695AW	380 - 415	3	50	60	30	60	100	165-170	34.69	4.95	3	28400	7.78	100



MADE IN AUSTRALIA

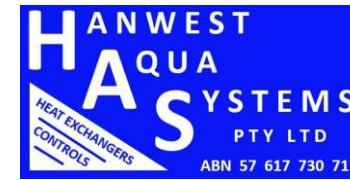


MADE IN AUSTRALIA



Parameter Air Source Heat Pump Water Heater

DESCRIPTION/MODEL NUMBER	TH40A3S595AW	TH60A3S795AW	TH70A3S895AW	TH80A3S995AW
<b>TECHNICAL DATA</b>				
MIN/MAX Heating Capacity, kW	45-55	65-80	75-90	80-100
COP	5.20	5.25	5.35	5.25
MIN/MAX Input Power, kW	9.5-11.5	14.5-16.5	15.5-17.5	16.5-19.5
Power Supply, Volts/Ph/Hz	380 - 415/3/50			
MAX current , A	30	35	45	50
Refrigerant	R134A			
Rated Outlet Water Temperature, °C	60			
Max. Outlet Water Temperature, °C	61			
Noise Level, dBA @ 3m	58	60	62	63
<b>COMPRESSOR</b>				
Quantity/Type	1/Scroll 240/1/50			
Volts/Phase/Hertz	C			
HP	12.0	15.0	20.0	25.0
Pole/RPM	2/			
<b>EVAPORATOR FAN</b>				
Quantity/Type	2/Axial			
Air Volume, M3/H	100000	130000	15000	18000
Voltage/Phase/Hertz	380 - 415/3/50		380 - 415/3/50	
Pole/RPM	6/890 hell and Tube			
<b>HEAT EXCHANGER</b>				
Evaporator Type	PLATE HEX SS 316 HIGH RESISTANT OFF SHORE PROJECT		TUBE IN TUBE TITANIUM COATING FOR SEA WATER/CHEMICAL USE	
Protection	High Resistance Anti-Corrosion Coating			
Type of Water Tube	Single Wall			
Design	S			
Flow Rate Excluding Bypass, M3/H	10M3	15M3	18M3	20M3
Pressure Drop thru Heat Exchanger, kPa	80	50	80	50
<b>LAB TESTING IN DIF.CONDS</b>				
10° C Ambient Conditions humidity 60% supply 60° C output	30	50	60	70
20° C Ambient Conditions humidity 70% supply 50° C output	40	60	70	80
30° C Ambient Conditions humidity 80% supply 40° C output	50	70	80	90
Max. Operating Pressure, kPa	2450			
<b>GENERAL INFORMATION</b>				
Water Connection, mm (Copper)	50	50	60	60
Control	Thermostat			
Drain Size/Material, mm	20/SS			
Defrost	Hot Gas Injection			
Testing	Run Tested at Factory Prior to Shipment			
Dimensions (L x W x H), mm	1500*700*1250	1600*720*1350	1924*760*1450	2010*810*1560
Approx. Shipping Weight, kg	250	300	350	410
Case Material	STAINLESS STEEL			
IP Rating (Enclosure Class)	IPX4			
Safety Device	High & Low Pressure Protection/Flow Protection/Compressor Overload Protection			
The following model numbers are based on standard heat pump configuration. For variable model configurations, <sup>1</sup> Rating conditions: 30°C ambient, 60% RH, 39°C water in, 45°C water out. Maximum outlet temperature can be obtained if the ambient temperature is above 20°C. <sup>2</sup> Option for double wall heat exchanger with co-axial vented design.				



EDWARDS "5VS" Series Tube-in-Tube water to refrigerant heat exchangers are available in either single or multiple assemblies for refrigeration or air conditioning system applications. They are manufactured with Titanium water tubes with an extended surface vent tube drawn over the external surface of the water tube. The outer refrigerant tube is a carbon steel pressure tube or they can be supplied with a copper outer refrigerant tube. All models are manufactured in a "double wall-vented tube" design to prevent cross contamination of refrigerant to the water side should a leak occur in a water tube.



Edwards Model 5VS-2.5.I heat exchanger may be applied as a water cooled condenser for water heating or as a liquid chilling evaporator for fresh or sea water chilling.



Edwards "5VS" series double wall vented tube heat exchanger with Titanium water tube & copper outer refig tube for Aquaculture water heating.



Edwards "5VS" series Titanium tube water cooled condenser for 250 kW heat pump water heater for swimming pool application.

**Typical Applications:**

Water cooled condensers for the following applications.

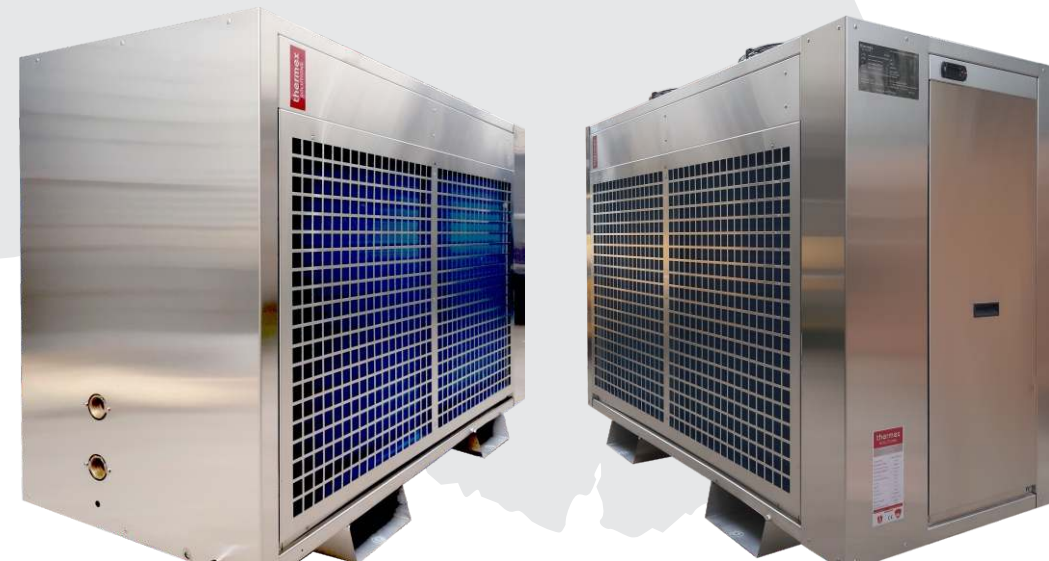
- Swimming pool heat pump water heaters.
- "Pure Water" heat pump water heaters.
- Aquaculture sea water heating heat pump units.
- Heating of corrosive fluids.

They are also suitable as liquid chilling evaporators for the following applications:

- Tropical swimming pool chillers.
- Water chillers for fish hatcheries.
- Water chillers for live fish, crabs, lobsters etc.
- Wine or fruit juice chilling.
- Chilling of corrosive fluids.

Titanium is a robust material that resists corrosion and will give many years of efficient service.

MADE IN AUSTRALIA



SS 316 HEX PLATE

