

SINCE 1950s

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SOLUTIONS

HEAT PUMP WH



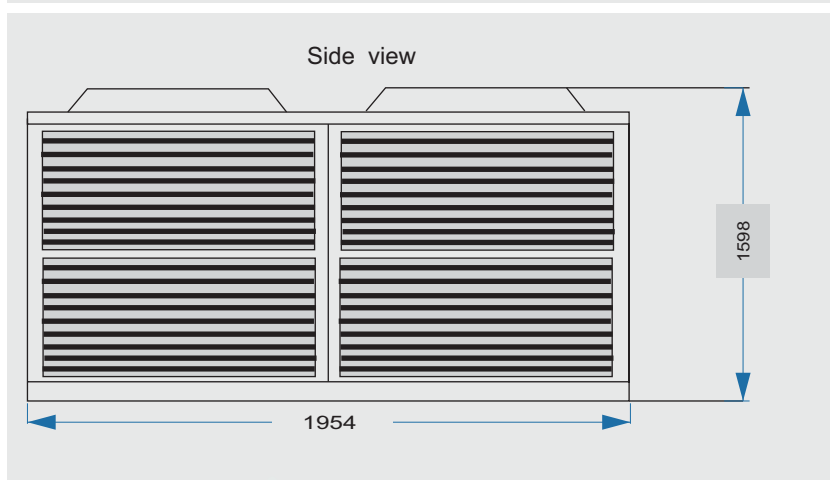
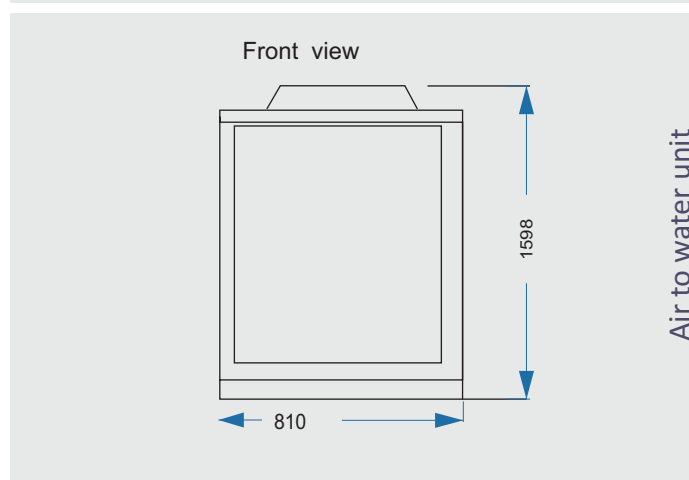
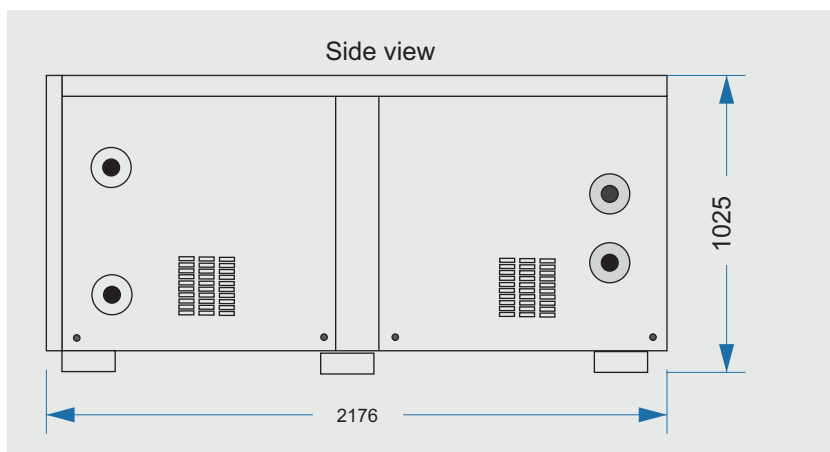
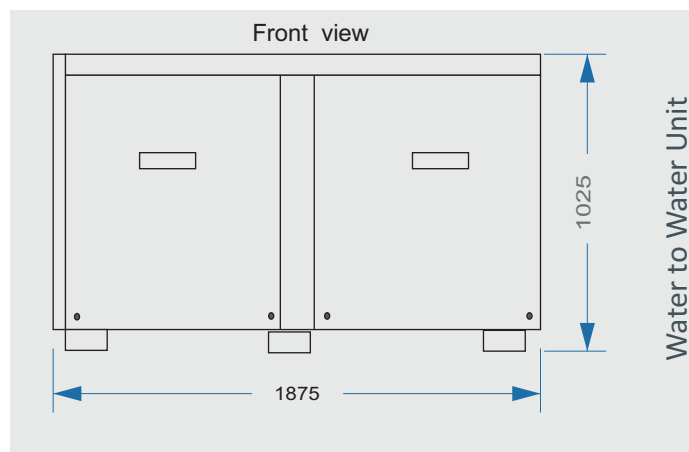
THERMEX SOLUTION
Heat pump manufacturer in AUSTRALIA
ABN 61 150 461 573

THERMEX SOLUTIONS

<http://thermex-solutions.com.au>



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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



Australian
Standard



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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

25 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

- Cliff Resort 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

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	1 COP Max	No: of fans	Airflow m3/h	Water Flowrate L/S	Copper water connection size mm
TH30A3S395AW	380 - 415	3	50	60	30	60	20	35-40	8.16	4.95	1	6100	1.7	32
TH50A3S695AW	380 - 415	3	50	60	30	60	40	45-60	14.29	4.95	2	13000	2.78	40
TH60A3S795AW	380 - 415	3	50	60	30	60	50	65-80	16.33	4.95	2	11000	3.33	50
TH70A3S895AW	380 - 415	3	50	60	30	60	60	75-90	18.37	4.95	2	14200	4.17	60
TH80A3S995AW	380 - 415	3	50	60	30	60	70	85-100	20.41	4.95	2	14200	5.00	60
TH100A3S1195AW	380 - 415	3	50	60	30	60	80	105-120	24.49	4.95	2	14200	6.11	75
TH120A3S1395AW	380 - 415	3	50	60	30	60	90	125-140	28.57	4.95	3	16000	6.94	75
TH150A3S1695AW	380 - 415	3	50	60	30	60	100	155-170	34.69	4.95	3	28400	7.78	100

Certified Product
Australian Standard



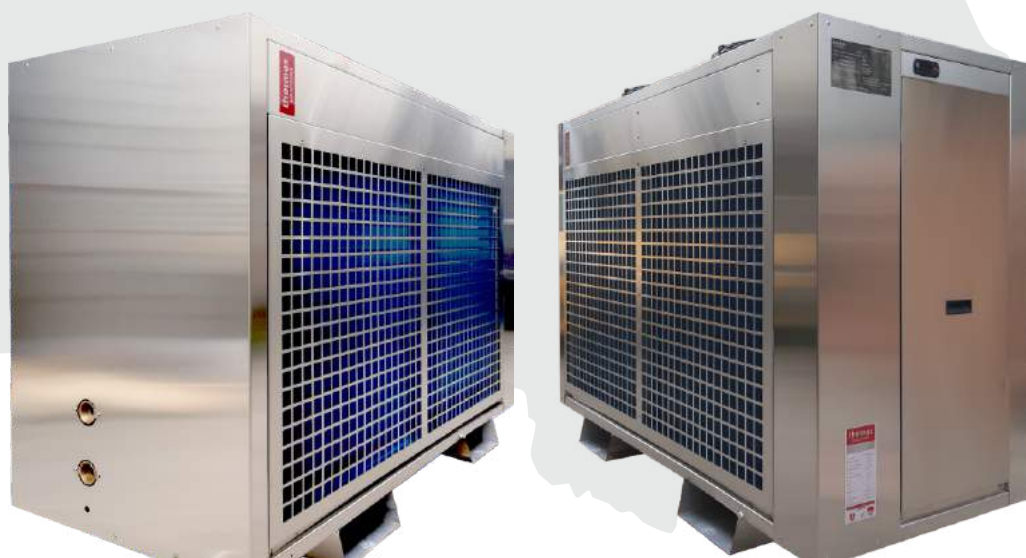
Parameter Air Source Heat Pump Water Heater

DESCRIPTION/MODEL NUMBER	TH30A3S395AW	TH40A3S495AW	TH50A3S595AW	TH60A3S695AW
TECHNICAL DATA				
MIN/MAX Heating Capacity, kW	25-38	35-48	48-59	55-69
Rating C.O.P	4.50	4.50	4.50	4.50
MIN/MAX Input Power, kW	7.5-9.5	8.5-10.5	9.5-11.5	12.5-14.5
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	60	60	62	62
COMPRESSOR				
Quantity/Type	1/Scroll 240/1/50			
Volts/Phase/Hertz	C			
HP	8.0	10.0	12.0	15.0
Pole/RPM	2/Axial			
EVAPORATOR FAN		1/Axial		
Quantity/Type	1/Axial	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			
HEAT EXCHANGER				
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	6M3	8M3	10M3	15M3
Pressure Drop thru Heat Exchanger, kPa	80	80	80	50
LAB TESTING IN DIF.CONDS				
10° C Ambient Conditions humidity 60% supply 60° C output	20	30	40	50
20° C Ambient Conditions humidity 70% supply 50° C output	25	40	50	60
30° C Ambient Conditions humidity 80% supply 40° C output	35	50	60	70
Max. Operating Pressure, kPa	2450			
GENERAL INFORMATION				
Water Connection, mm (Copper)	40	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	1060*580*1140	1500*680*1250	1500*760*1350	1910*860*1360
Approx. Shipping Weight, kg	150	180	250	350
Case Material	STAINLESS STEEL 304			
IP Rating (Enclosure Class)	IPX4			
Safety Device	High & Low Pressure Protection/Flow Protection/Compressor Overload Protection			
The following model numbers arebased on standard heat pump configuration. For variable model configurations, 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. Option for double wall heat exchanger with co-axial vented design.				

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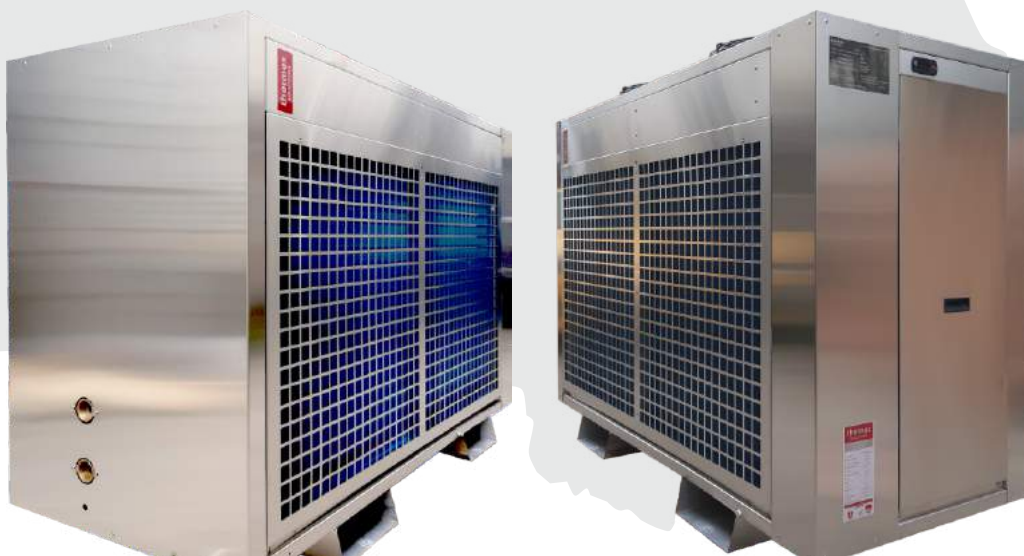
Parameter Air Source Heat Pump for Swimming Pool

DESCRIPTION/MODEL NUMBER	TH80A3S895WP	TH90A3S995WP	TH110A3S1295WP	TH150A3S1695WP
TECHNICAL DATA				
MIN/MAX Heating Capacity, kW	75-89	85-95	100-128	145-170
COP	4.50	4.50	4.50	4.50
MIN/MAX Input Power, kW	17.5-19.5	19.8-22.5	23.5-26.5	35.5-39.5
Power Supply, Volts/Ph/Hz	380 - 415/3/50			
MAX current , A	60	80	100	120
Refrigerant	R134A/R410a			
Rated Outlet Water Temperature, °C	60			
Max. Outlet Water Temperature, °C	61			
Noise Level, dBa @ 3m	65	65	65	65
COMPRESSOR				
Quantity/Type	1/Scroll 240/1/50			
Volts/Phase/Hertz	C			
HP	20.0	25.0	30.0	40.0
Pole/RPM	2/			
EVAPORATOR FAN				
Quantity/Type	2/Axial			4/Axial
Air Volume, M3/H	20000	25000	40000	40000
Voltage/Phase/Hertz	380 - 415/3/50		380 - 415/3/50	
Pole/RPM	6/890 hell and Tube			
HEAT EXCHANGER				
Heat Exchanger Type	TUBE IN TUBE TITANIUM COATING FOR SEA WATER/CHEMICAL USE		TUBE IN TUBE TITANIUM COATING FOR SEA WATER/CHEMICAL USE	
Protection	High Resistance Anti-Corrosion Coating			
Type of Water Tube	Titanium Tube in Tube			
Design	S			
Flow Rate Excluding Bypass, M3/H	28M3	30M3	38M3	45M3
Pressure Drop thru Heat Exchanger, kPa	80	80	80	80
LAB TESTING IN DIF.CONDS				
10° C Ambient Conditions humidity 60% supply 60° C output	55	65	90	110
20° C Ambient Conditions humidity 70% supply 50° C output	80	90	110	160
30° C Ambient Conditions humidity 80% supply 40° C output	89	95	130	170
Max. Operating Pressure, kPa	2450			
GENERAL INFORMATION				
Water Connection, mm (Copper)	60	70	80	100
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	1920*790*1350	1920*790*1350	1924*860*1675	2010*1500*1460
Approx. Shipping Weight, kg	400	450	550	750
Case Material	STAINLESS STEEL 304			
IP Rating (Enclosure Class)	IPX4			
Safety Device	High & Low Pressure Protection/Flow Protection/Compressor Overload Protection			
The following model numbers arebased on standard heat pump configuration. For variable model configurations, 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. Option for double wall heat exchanger with co-axial vented design.				

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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.

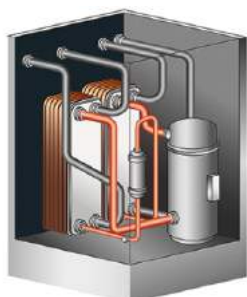


Edwards Model 5VS 2.5.1 heat exchanger may be applied as a water cooled condenser for water heating or as a liquid chilling evaporator for fresh or sea water chilling.



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

SS 316 HEX PLATE



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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.



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



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