VINDSOL
Harnessing the nature's energy for you

Technical Data Sheet - High Temp (75-80°C) Heat Pump (Air to Water)

PRODUCT MANUFACTURED IN BHARAT
World Class Heat pumps proudly Made in India

Wi-Fi ENABLED VINDSOL

MAKE IN INDIA VINDSOL

Characteristics:

1) Adopts Tube in Shell / Tube In Tube heat exchanger and with inbuilt Circulating Pump inside.
2) Efficient Rotary compressor; Safe, Reliables, Stable running & durable.
3) Efficient Saginomya four-way valve; It is very efficient in defrosting in low ambient temp
4) Saginomya / SANHUA /EMERSON Electronic Expansion Valve (EEV) or Thernostatic expnasion valve
5) Tube in tube heat exchanger inside with higher heat exchange efficiency than tube in shell heat exchanger used by others, with higher reliability & longer lifetime.
6) Green & Environment-friendly Refrigerant : R134A
7) Full consideration for noise control; Compressor rubber feet specially selected to reduce vibration.
8) Unique super energy saving controlling system can save extra 10% energy than other units in market.
9) Reliable Design and Strict Quality Control; All products 100% are tested and run at the factory to assure proper operation of all components and safety switches.

ROTARY COMPRESSOR

TOSHIBA
PANASONIC
HITACHI
MITSUBISHI

4 WAY REVERSING VALVE

SAGINOMIYA
Danfoss

LARGE AIR FLOW FAN

INTELLIGENT CONTROLLER

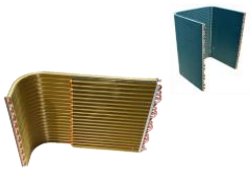
ELEC EXPANSION VALVE

Danfoss
SAGINOMIYA
EMERSON

REFRIGERANT

R410A R134A

HYDROPHILIC EVAPORATOR



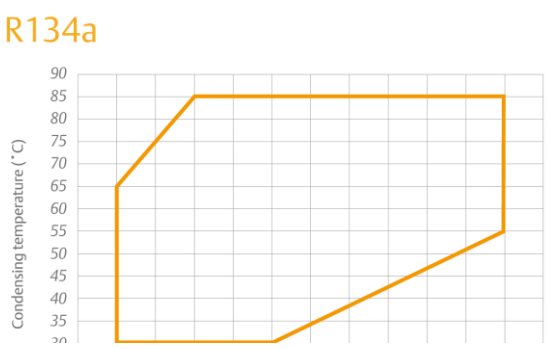
SHELL IN TUBE

Copeland ZW Scroll: Dedicated Scroll for Commercial Industrial High temperature Heating requirements

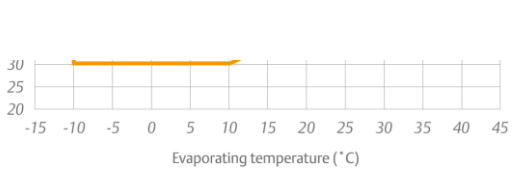
Water heating is characterized by long operating hours at both high load and high compression ratios. Demand for hot water is at its highest when ambients are low and when conventional heat pump capacity falls off.

ZW**KA compressors are designed for reliable operation for heavier duty applications where the ambient temperature does not fall below 0°C; with significantly enhanced heating capacity, higher efficiency, and minimal requirement to reduce water outlet temperatures.

Criteria	Traditional AC Scroll	ZW Series Heat Pump Specific Compressor
Heating Capacity	Standard	15-20% Higher than Standard
COP	Standard	15-20% More than standard



	Standard	15-20% More than standard
Highest Water Temperature	55℃	60℃ (Heating Optimized Valve Designed For High Compression Ratios)
Hot Water Reliability	Standard	Stronger & Robust Scroll Design, High Power Motor To Operate At Low Ambient & Higher Condensing Temperature Vs AC Compressors



MAIN FUNCTIONS OF HEAT PUMPS

Heat pump protection	High pressure protection	When water flow is too small or water temp. too high ,will prevent compressor to be damaged
	Low pressure protection	When refrigerant leaked , prevent compressor work without pressure.
	Compressor over current protection	Prevent compressor to work when current over max value
	Phase protection	Wrong phase/ absent phase protection (for 380V)
	Anti-freezing protection	Prevent water pipes and water tank freezing
Project function	Water level indication	Indicate high/low water level
	constant water temp. replenishing	Replenishing water temp. can be set, make water tank temp. constant
	Timing water temp. replenishing	Can set heat pump replenish cold water at certain time
	Timing hot water supply	Can supply hot water at certain time
	Cycle water(return water) setting	Can set cycle water temp.
	Timing start/stop heat pump	Can set 2 group of start/stop timing
	Manual switch	Seperated start/stop signal can be connected with solr system(for choice

Technical Specification

Model No			**VCHT-040BC**
Heating capacity		kW	40
Heating capacity		Btu/h	136486
Rated heated water output Heating: Ambient temp. (DB/WB): 20°C/15°C, water temp. (input/output): 15°C/75°C		L/h	573
Rated heated water output Heating: Ambient temp. (DB/WB): 30°C/25°C, water temp. (input/output): 30°C/75°C.		L/h	732
Rated outlet water temp. 1		℃	75
Max outlet water temp.		℃	80
Power		V/Ph/Hz	380 ～ 415V/3N～/50Hz
Rated input power		kW	12.4
Rated input current		A	22.2
Compressor	Compressor type		Scroll*2
	Compressor brand		Emerson Copeland Scroll
	Throttle type		Electronic expansion valve (EEV)
Fan	type		Low noise high efficiency axial type
	direction		Vertical
	Qty		2
	input power	W	550
	speed	RPM	910
Evaporator	fin type		Hydrophilic aluminium
	tube type		Innergroove tube
Heat Exchanger	Type		High efficiency tube in tube heat exchanger
	Qty		2
Controller type			Next Gen Intelligent PCB controller LCD type
Ambient Temperature		℃	(5°C ～43°C)
Refrigerant			R134A
Protection			Under / Over voltage protection, Under /Over current protection, Open phase, Phase reversal, Phase imbalance, Compressor high discharge temperature protection, Compressor high discharge pressure protection, Compressor overload, Anti-Freeze protection.
Noise in 1 meter		dB(A)	66
Water pipe size		(mm)	Rc1-1/2(DN40)
Water flow volume		m3/h	12

Cabinet		Galvanized powder coatedsteel(Stainless steel)
Unit Size	mm	1585/850/1525
N.W	kg	528

VINDSOL

Complete water Heating Solutions

Mechzephyr Engineering Pvt Ltd
shed No A 70 , KSSIDC , Bommasandra Industrial Area, Bangalore – 560099
Mobile : 9900095490 | Email: deepak@vindsol.in

Domestic water heat pumps
Commercial Water Heat Pumps
Next Gen Thermodynamics Heat Pumps
Swimming pool heat pump