



# Air Cooled Screw Chiller & Heat Pump Unit



## FEATURES

### SEMI-HERMETIC COMPRESSOR

Semi-hermetic screw compressor for the whole range. Each compressor is equipped with a crankcase heater and a built-in electronic protection. Steps or stepless energy control, adapt to the changes of different part load.

### EVAPORATOR

Evaporator built with high efficiency horizontal type shell and tube heat exchanger, with stable, low resistance and efficient heat exchange.

### CONDENSER

Condenser built with seamless copper tubes mechanically expanded into blue hydrophilic aluminum fins. Low noise, energy saving axial fan, guarantees long service life of the unit.

### REFRIGERANT CIRCUIT

Circuit is complete with sight glass, filter drier, high and low pressure gauges, solenoid valve, electronic expansion valve, high and low pressure switch, safety valve.

### ELECTRIC PANEL

Electric panel consist of: Compressor contactor, fan motor contactor, compressor protection breaker, fan protection breaker, phase sequence relay and microprocessor with function display (display only for master/packaged unit) Automatic operation dramatically reducing maintenance cost thanks to reliable microprocessor system.

### CONTROL SYSTEM

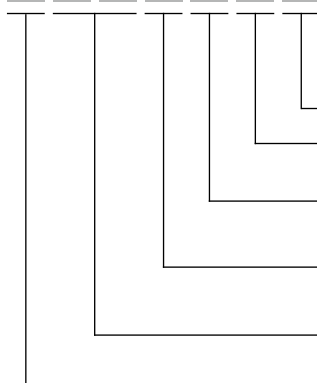
Each unit is equipped with known brand PLC control system. This system is to provide precise and stable control in long-term running. Meanwhile, it offers perfect communication function, which is convenient to realize interface with building control system.

### OPTIONAL

- Free cooling
- Compressor soft connection
- BMS
- Inverter start and running
- Heat recovery
- Remote condenser

## NOMENCLATURE

**H C A C B 90 L**



- W: Scroll compressor; L: Screw compressor
- Model (usRT)
- Refrigerant Type
- : R22; A: R410a; B: R134a; C: R407c
- C: Cooling Only
- H: Heat Pump
- CA: Air to water unit
- SW: Water to water unit
- HYC Product

**R134a**

Model		90	120	140	190	210	240	290	330	380
Rated cooling capacity	kW	320	420	500	660	744	822	1000	1160	1320
Cooling power input	kW	90.3	122.4	134.3	186.0	212.8	224.6	268.6	320.3	371.9
Rated heating capacity	kW	315	420	500	634	739	817	1000	1134	1268
Heating power input	kW	87.9	122.4	139.1	175.7	210.3	227.0	278.2	314.8	351.4
Power supply	/	380-415V / 3PH /50HZ								
Refrigerant circuit qty	EA	1	1	1	2	2	2	2	3	3
<b>Compressor</b>										
Type	/	Semi-hermetic screw								
Quantity	EA	1	1	1	2	2	2	2	3	3
<b>Condensor</b>										
Fan quantity	EA	6	8	10	12	14	16	20	22	24
Fan power	kW	10.3	13.7	17.2	20.3	24.0	27.5	34.4	37.5	40.6
Air flow	L/S	27660	36112	45139	54168	63772	72799	90278	99307	108336
<b>Evaporator</b>										
Type	/	Shell and tube heat exchanger								
Water pressure drop	kPa	21.6	23.0	23.3	25.8	29.3	21.6	23.3	25.8	25.8
Water flow	L/S	15.3	20.1	23.8	31.4	35.4	39.1	47.6	55.2	62.8
Water pipe	DN	150	150	150	150	150	150*2	150*2	150*2	150*2
<b>Unit dimension</b>										
Length	mm	3830	4800	6000	7190	8380	9820	11990	13180	14380
Width	mm	2250	2250	2250	2250	2250	2250	2250	2250	2250
Height	mm	2317	2317	2317	2317	2317	2317	2317	2317	2317
<b>Unit weight</b>										
Net weight	kg	3953	5366	5783	7486	8919	9736	11566	13269	14972
Running weight	kg	4023	5445	5877	7605	9054	9900	11754	13482	15210
Noise level	DB(A)	78	80	83	79	81	81	82	84	84

The performance values refer to the following conditions:

- Cooling: ambient air temperature 35°C; evaporator water in/out temperature 12/7°C.
- Heating: ambient air temperature DB 7°C, WB 6°C; condenser water in/out temperature 40/45°C.
- HYC reserve the right to make changes for above parameters without prior notice.