



Water Cooled Screw Chiller & Heat Pump

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.

The compressor steps or stepless energy control, adapt to the changes of different part load.

EVAPORATOR

Evaporator built with high efficiency flooded type shell and tube heat exchanger, increases heat exchange coefficient of the evaporator and operation efficiency of the system significantly, unit COP/EER more than 5.0.

CONDENSER

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

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.

ELECTRICAL PARTS PROTECT

Each unit is equipped with known brand electrical parts, breaker, AC contactor, phase protect etc.

CONTROL SYSTEM

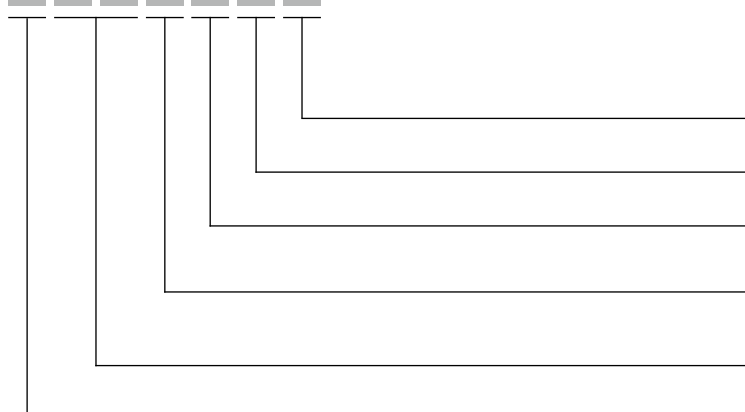
Each unit is equipped with known brand PLC control system. This system is to provide precise and stable control in long-term running. Meanwhile, it offers perfect communication function, which is convenient to realize interface with building control system.

OPTIONAL

- BMS
- Stainless steel covering for electrical box
- Soft starter
- Stepless/inverter compressor

NOMENCLATURE

H S W C B 80 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

SPECIFICATION

R134a

| Model | | 105 | 115 | 130 | 150 | 170 | 200 | 210 | 230 | 250 | |
|---------------------|---------------|-------------------|-------------------------------|-------|-------|-------|-------|-------|---------|---------|---------|
| Cooling capacity | kW | 367.8 | 402.8 | 456.8 | 527.4 | 587.4 | 688.5 | 735.6 | 805.6 | 867.1 | |
| | ton | 105 | 115 | 130 | 150 | 170 | 200 | 210 | 230 | 250 | |
| Cooling power input | kW | 70.5 | 75.9 | 84.8 | 97.9 | 108.4 | 125.5 | 141.0 | 151.8 | 160.4 | |
| Compressor | type | / | Semi-hermetic screw | | | | | | | | |
| | power supply | / | 380-415V/3PH/50HZ | | | | | | | | |
| | rated current | A | 117.5 | 126.9 | 140.7 | 162.1 | 179.8 | 209.0 | 117.5*2 | 126.9*2 | 133.5*2 |
| | start current | A | 274.2 | 296.1 | 328.3 | 378.2 | 419.5 | 487.7 | 274.2*2 | 296.1*2 | 311.5*2 |
| | qty | / | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 |
| Evaporator | type | / | Shell and tube heat exchanger | | | | | | | | |
| | water flow | m ³ /h | 63 | 69 | 79 | 91 | 101 | 118 | 127 | 139 | 149 |
| | pipe size | mm | 100 | 100 | 100 | 125 | 125 | 125 | 150 | 150 | 150 |
| Condensor | type | / | Shell and tube heat exchanger | | | | | | | | |
| | water flow | m ³ /h | 79 | 87 | 98 | 113 | 126 | 148 | 158 | 173 | 186 |
| | pipe size | mm | 100 | 100 | 100 | 125 | 125 | 125 | 150 | 150 | 150 |
| Refrigerant | type | / | R134a | | | | | | | | |
| | charge | kg | 100 | 100 | 100 | 100 | 120 | 120 | 170 | 170 | 170 |
| Dimension | L | mm | 3030 | 3030 | 3030 | 3030 | 3030 | 3110 | 4029 | 4029 | 4176 |
| | W | mm | 1300 | 1300 | 1300 | 1420 | 1420 | 1440 | 1430 | 1430 | 1561 |
| | H | mm | 1780 | 1780 | 1800 | 1920 | 1920 | 1950 | 1817 | 1817 | 1879 |
| Net weight | kg | 3400 | 3600 | 3700 | 3800 | 3900 | 4200 | 5500 | 5700 | 6100 | |
| Running weight | kg | 3700 | 4000 | 4100 | 4200 | 4300 | 4600 | 6100 | 6300 | 6700 | |

Water cooled screw chiller performance values refer to the following conditions:

- Cooling: Chilled water inlet/outlet temp is 12/7 °C, Cooling water inlet/outlet temp is 30/35°C.
- HYC reserve the right to make changes for above parameters without prior notice.

SPECIFICATION

R134a

| Model | | 260 | 300 | 335 | 350 | 395 | 415 | 455 | 495 | 575 | |
|---------------------|---------------|-------------------|-------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|
| Cooling capacity | kW | 913.5 | 1059 | 1174.7 | 1224.7 | 1377 | 1451.4 | 1589.4 | 1735.8 | 2010.5 | |
| | ton | 260 | 305 | 335 | 350 | 395 | 415 | 455 | 495 | 575 | |
| Cooling power input | kW | 169.6 | 195.8 | 209.1 | 218.0 | 244.8 | 258.8 | 283.5 | 309.3 | 357.6 | |
| Compressor | type | / | Semi-hermetic screw | | | | | | | | |
| | power supply | / | 380-415V/3PH/50HZ | | | | | | | | |
| | rated current | A | 140.7*2 | 162.1*2 | 179.8*2 | 187.6*2 | 209.0*2 | 152.0*3 | 168.0*3 | 180.2*3 | 206.2*3 |
| | start current | A | 328.3*2 | 378.2*2 | 419.5*2 | 437.7*2 | 487.7*2 | 354.7*3 | 392.0*3 | 420.5*3 | 481.1*3 |
| | qty | / | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 |
| Evaporator | type | / | Shell and tube heat exchanger | | | | | | | | |
| | water flow | m ³ /h | 157 | 182 | 202 | 211 | 237 | 250 | 273 | 299 | 346 |
| | pipe size | mm | 150 | 150 | 200 | 200 | 200 | 200 | 200 | 200 | 250 |
| Condensator | type | / | Shell and tube heat exchanger | | | | | | | | |
| | water flow | m ³ /h | 196 | 228 | 253 | 263 | 296 | 312 | 342 | 373 | 432 |
| | pipe size | mm | 150 | 150 | 200 | 200 | 200 | 200 | 200 | 200 | 250 |
| Refrigerant | type | / | R134a | | | | | | | | |
| | charge | kg | 170 | 220 | 220 | 250 | 250 | 500 | 550 | 550 | 600 |
| Dimension | L | mm | 4176 | 4142 | 4397 | 4397 | 4397 | 4693 | 4750 | 4750 | 4830 |
| | W | mm | 1561 | 1561 | 1691 | 1691 | 1691 | 2211 | 2211 | 2211 | 2330 |
| | H | mm | 1879 | 1879 | 2115 | 2115 | 2115 | 2166 | 2230 | 2230 | 2300 |
| Net weight | kg | 6200 | 6900 | 7300 | 7400 | 7600 | 12400 | 12600 | 12800 | 14000 | |
| Running weight | kg | 6800 | 7500 | 7900 | 8000 | 8200 | 13000 | 13200 | 13400 | 14600 | |

Water cooled screw chiller performance values refer to the following conditions:

- Cooling: Chilled water inlet/outlet temp is 12/7 °C, Cooling water inlet/outlet temp is 30/35°C.
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SPECIFICATION

R134a

| Model | | | 105 | 120 | 130 | 150 | 175 | 200 |
|-----------------------|--------------------|-------------------|-------------------------------|-------|-------|-------|-------|-------|
| Cooling capacity | kW | | 357.9 | 417.8 | 445 | 514.9 | 614.2 | 704.2 |
| | ton | | 105 | 120 | 130 | 150 | 175 | 200 |
| Cooling power input | kW | | 57.9 | 65.0 | 71.3 | 80.8 | 94.2 | 109.0 |
| Cooling current input | A | | 111.1 | 112.6 | 123.5 | 141.7 | 168.0 | 191.9 |
| Heating capacity | kW | | 374.7 | 439.1 | 459.6 | 530.2 | 636.1 | 730.6 |
| Heating power input | kW | | 78.4 | 93.3 | 95.3 | 108.1 | 127.6 | 147.6 |
| Heating current input | A | | 132.7 | 149.3 | 161.7 | 182.3 | 215.7 | 248.3 |
| Compressor | type | / | Semi-hermetic screw | | | | | |
| | power supply | / | 380-415V/3PH/50HZ | | | | | |
| | qty | / | 1 | 1 | 1 | 1 | 1 | 1 |
| Evaporator | type | / | Shell and tube heat exchanger | | | | | |
| | cooling water flow | m ³ /h | 62 | 72 | 77 | 89 | 106 | 121 |
| | heating water flow | m ³ /h | 37 | 43 | 46 | 53 | 63 | 73 |
| | pipe size | mm | 100 | 100 | 100 | 125 | 125 | 125 |
| Condensor | type | / | Shell and tube heat exchanger | | | | | |
| | cooling water flow | m ³ /h | 37 | 43 | 46 | 53 | 63 | 73 |
| | heating water flow | m ³ /h | 62 | 72 | 77 | 89 | 106 | 121 |
| | pipe size | mm | 100 | 100 | 100 | 125 | 125 | 125 |
| Refrigerant | type | / | R134a | | | | | |
| | charge | kg | 120 | 120 | 130 | 150 | 180 | 200 |
| Dimension | L | mm | 3095 | 3095 | 3095 | 3105 | 3105 | 3105 |
| | W | mm | 1330 | 1330 | 1330 | 1506 | 1506 | 1506 |
| | H | mm | 1750 | 1750 | 1750 | 1861 | 1861 | 1861 |
| Net weight | kg | 4300 | 4500 | 4800 | 5000 | 5200 | 5500 | |
| Running weight | kg | 4600 | 4800 | 5100 | 5400 | 5600 | 5900 | |

Water(Geothermal) source heat pump performance values refer to the following conditions:

- Cooling: Water source side water inlet/outlet temp 18/29°C; User side chilled water inlet/outlet temp 12/7 °C.
- Heating: Water source side water inlet/outlet temp 15/7°C; User side hot water inlet/outlet temp 40/45 °C.
- HYC reserve the right to make changes for above parameters without prior notice.

SPECIFICATION

R134a

| Model | | 205 | 240 | 250 | 290 | 350 | 405 | |
|-----------------------|--------------------|-------------------|-------------------------------|---------|---------|---------|---------|------|
| Cooling capacity | kW | 715.8 | 835.6 | 880 | 1019.8 | 1228.4 | 1408.4 | |
| | ton | 205 | 240 | 250 | 290 | 350 | 405 | |
| Cooling power input | kW | 115.8 | 130.0 | 140.6 | 159.6 | 188.4 | 218.0 | |
| Cooling current input | A | 111.1*2 | 112.6*2 | 123.5*2 | 141.7*2 | 168.0*2 | 191.9*2 | |
| Heating capacity | kW | 749.4 | 878.2 | 919.2 | 1060.4 | 1272.2 | 1461.2 | |
| Heating power input | kW | 156.8 | 186.6 | 190.6 | 216.2 | 255.2 | 295.2 | |
| Heating current input | A | 132.7*2 | 149.3*2 | 161.7*2 | 182.3*2 | 215.7*2 | 248.3*2 | |
| Compressor | type | / | Semi-hermetic screw | | | | | |
| | power supply | / | 380-415V/3PH/50HZ | | | | | |
| | qty | / | 2 | 2 | 2 | 2 | 2 | 2 |
| Evaporator | type | / | Shell and tube heat exchanger | | | | | |
| | cooling water flow | m ³ /h | 123 | 144 | 151 | 175 | 211 | 242 |
| | heating water flow | m ³ /h | 77 | 90 | 95 | 109 | 131 | 151 |
| | pipe size | mm | 150 | 150 | 150 | 200 | 200 | 200 |
| Condensor | type | / | Shell and tube heat exchanger | | | | | |
| | cooling water flow | m ³ /h | 77 | 90 | 95 | 109 | 131 | 151 |
| | heating water flow | m ³ /h | 123 | 144 | 151 | 175 | 211 | 242 |
| | pipe size | mm | 150 | 150 | 150 | 200 | 200 | 200 |
| Refrigerant | type | / | R134a | | | | | |
| | charge | kg | 200 | 250 | 250 | 300 | 350 | 400 |
| Dimension | L | mm | 4430 | 4430 | 4430 | 4430 | 4800 | 4800 |
| | W | mm | 1431 | 1431 | 1615 | 1615 | 1665 | 1665 |
| | H | mm | 1845 | 1845 | 2055 | 2055 | 2100 | 2100 |
| Net weight | kg | 6300 | 6600 | 6700 | 7000 | 7500 | 7800 | |
| Running weight | kg | 6600 | 7000 | 7100 | 7400 | 8000 | 8300 | |

Water(Geothermal) source heat pump performance values refer to the following conditions:

- Cooling: Water source side water inlet/outlet temp 18/29°C; User side chilled water inlet/outlet temp 12/7 °C.
- Heating: Water source side water inlet/outlet temp 15/7°C; User side hot water inlet/outlet temp 40/45 °C.
- HYC reserve the right to make changes for above parameters without prior notice.