



RTM Series

**Water-or Air-Cooled Chillers
Permanent Magnet Motor
Excellent energy efficiency
Low noise & vibration levels**

R134a

**Oil-free Magnetic
Centrifugal
Compressor**

RTM Series

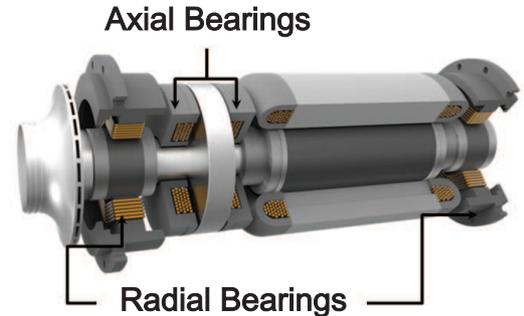


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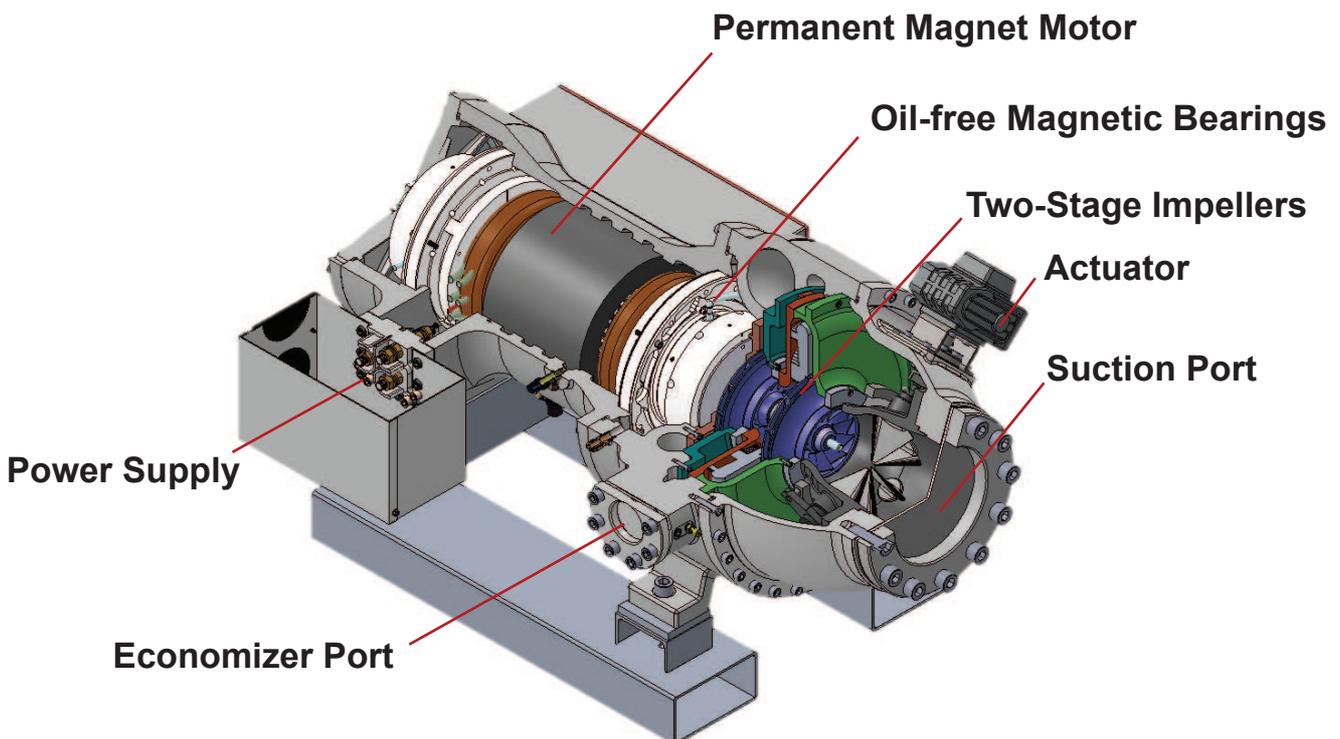
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Features of RTM Centrifugal Compressor

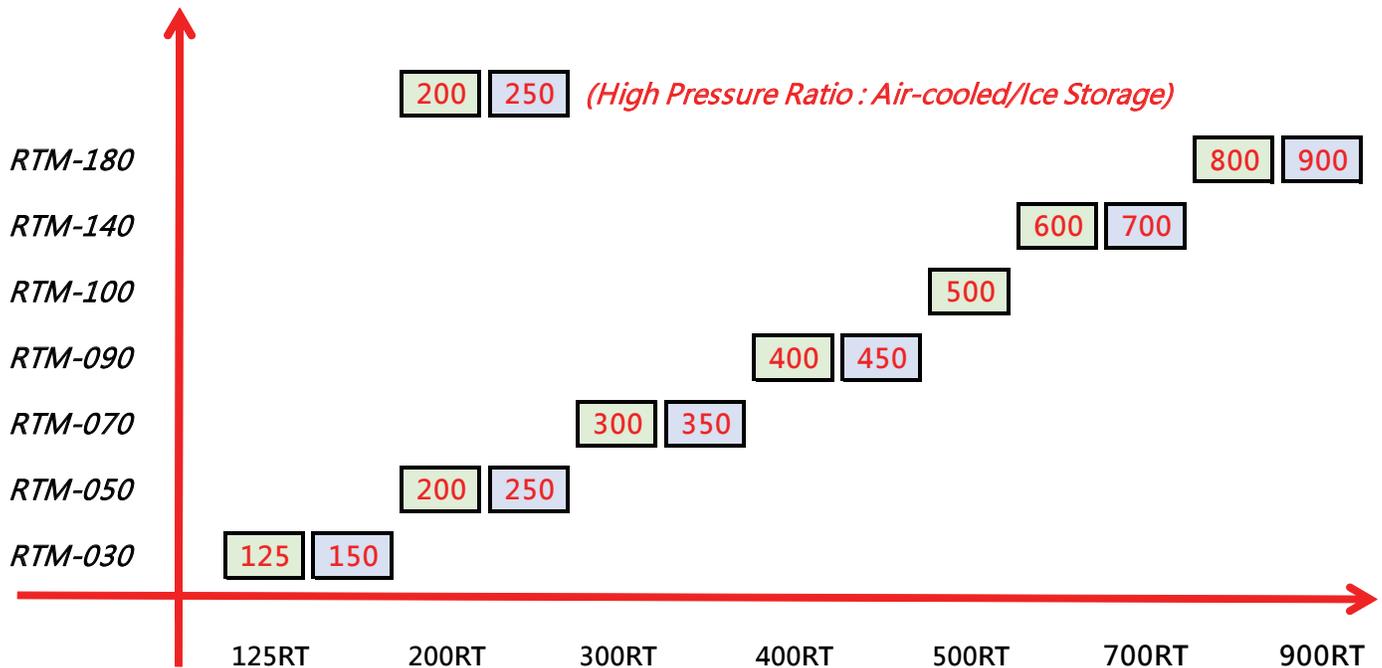
- *Advanced technology of magnetic bearing and permanent magnet motor
Combination of mechanical, electrical, and digital control technology.
Levitated rotor, no bearing friction and automatic control.*
- *Automatic control system
Plug-in and easy setup, flexible software adapts various protocols.
Comprehensive monitoring of magnetic bearing, 15000 times per second in both axial and radial direction*
- *Variable frequency drive
Modulate cooling capacity matching the varying load of the system.
Power saving especially at partial load, smoother start, lower inrush current.*
- *Oil free magnetic bearings
Eliminate the need for oil maintenance. Saving on operation and maintenance cost.
Reduced energy losses due to friction, increase heat transfer efficiency on chiller.*
- *Excellent energy efficiency
High motor efficiency, less friction loss, high IPLV*
- *Low noise and vibration levels
Eliminate friction of bearings, operation noise lower than 74dBA*



Construction of RTM Centrifugal Compressor



Operation Range

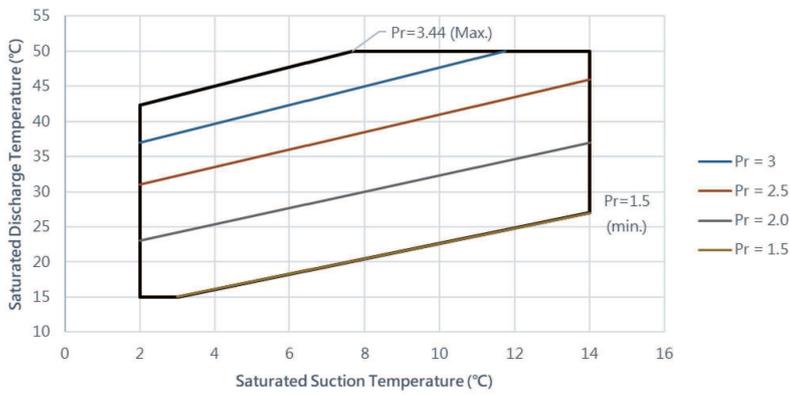


Technical Data

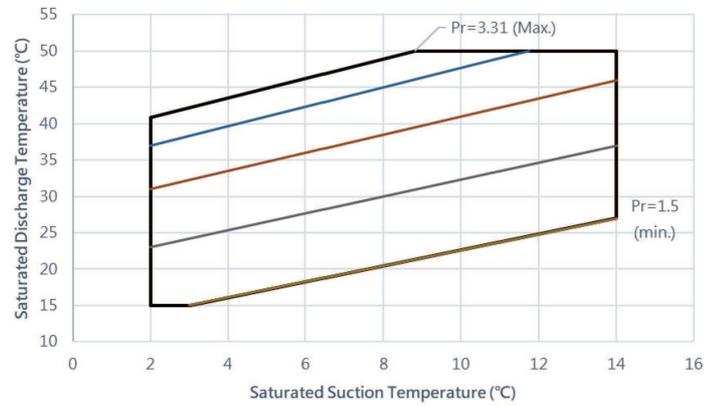
| Model | | RTM-030 | RTM-050 | RTM-070 | RTM-090 | RTM-100 | RTM-140 | RTM-180 |
|--|--------------------------|--------------------------------|----------------|-------------|----------------|----------------|-----------------|----------------|
| Refrigerant | | R134a | | | | | | |
| Compressor | Type | Two-stage Compression | | | | | | |
| | Max. Pressure Ratio | 3.4 | | 3.3 | 3.2 | 2.9 | 3.2 | 3.2 |
| | Capacity (USRT) | 125~150 | 200~250 | 300~350 | 400~450 | 450~500 | 650~700 | 800~900 |
| | Rated Frequency (Hz) | 367 | 318 | 240 | 225 | 218 | 367 | 302 |
| | Inlet Guide Vane | 20%~100% | | | | | | |
| | Movable Diffuser Control | N/A | | | | | | |
| Transmission | Type | Direct-driven | | | | | | |
| | Lubricant | Oil-free | | | | | | |
| Motor | Type (PM Motor) | 3 Phase, 2 Pole | | | | | 3 Phase, 4 Pole | |
| | Starting Mode | Variable Frequency Drive (VFD) | | | | | | |
| | Power Input | 380~460V±5% , 50/60 Hz | | | | | | |
| | Insulation | Class H | | | | | | |
| Dimension LxWxH (m) | | 1.02x0.62x0.53 | 1.13x0.74x0.59 | 1.3x0.8x0.7 | 1.34x0.85x0.76 | 1.58x0.85x0.83 | 1.82x1.02x0.95 | 1.82x1.02x0.95 |
| Weight (kg) | | 350 | 600 | 1,050 | 1,250 | 1,500 | 1,750 | 1,750 |
| Hydrostatic Pressure Test (kg/cm ² g) | | 22 | | | | | | |

Application Limits (R134a)

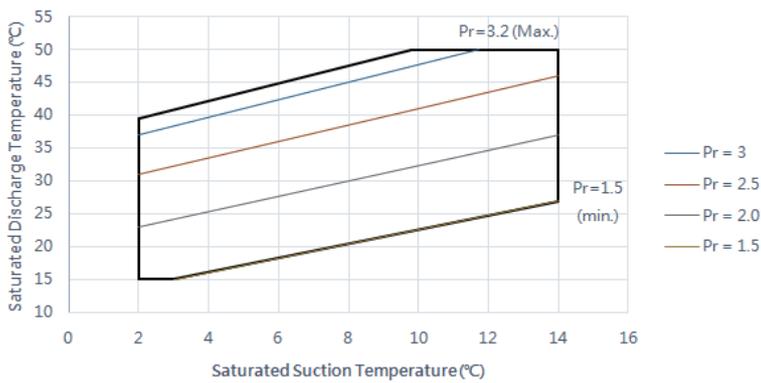
RTM-030/RTM-050



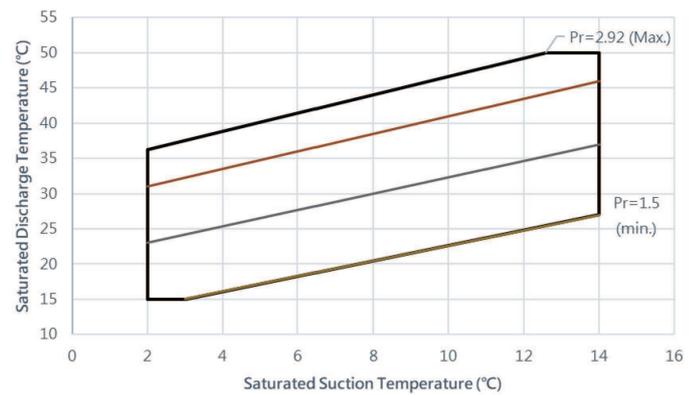
RTM-070



RTM-090/RTM-140/RTM-180



RTM-100



※For special operation temperature or application, please contact Hanbell for further discussion※



North American Distributor of Hanbell Compressors

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