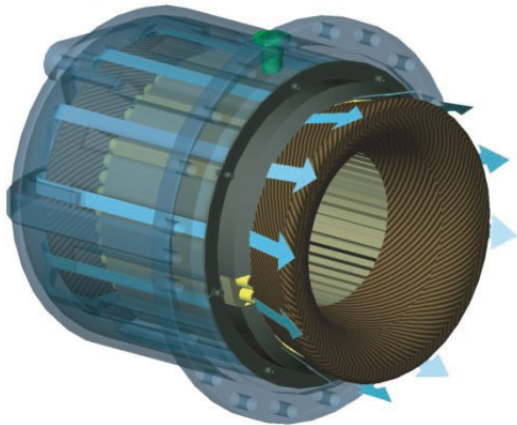


Innovative heavy duty design
Screw compressor suitable for
HFCs, HCs and HFOs

High-efficiency Model RC2 Series Screw Compressor



Highlights of RC2 Screw Compressor

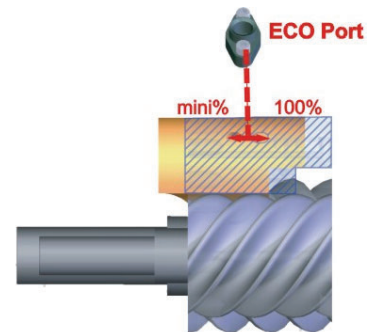


Energy-efficient Motor

- Semi-hermetic, flange-mount design
- Effective cooling by suction refrigerant gas
- Part winding, star-delta, DOL starter options available
- Variable frequency drive (VFD) option available
- Optimized housepower respond to refrigerant properties
- Cooling guide vane design on motor casing
- F-class motor insulation

Economizer (Sub-cooler) Operation

- Increasing cooling capacity at minimum additional power
- Stable middle pressure, easy to control
- Specially-designed gas flow passageway on slide valve
- Subcooling works also works at partial load



High-efficiency Screw Rotor Profile

- Five-to-six lobes patented rotor profile
- High displacement, low operation noise
- Excellent volumetric efficiency and minimum clearance
- Heat process and heavy-duty design
- In-house manufacturing technology
- Precisely machining and quality assurance

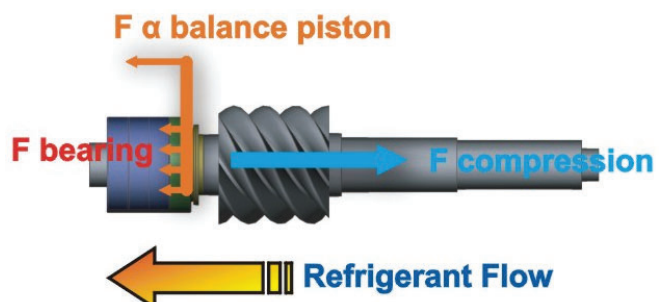
Dual Capacity Control

- Flanged-on solenoid valve, easy on installation
- Step or Continuous (Stepless) control mechanism
- High ingress protection
- Quick loading and unloading to target water temp.
- Special supply voltage on request



Durable Bearing Structure

- High-quality radial and axial bearings
- Anti-reverse rotation design
- α balance piston against axial thrust
- Long life cycle and service time
- Oversized bearings, heavy-duty



Wide Range VI Options

- Optimized selection - 2.2, 2.6, 3.0, 3.5, 4.8
- Minimum over- or under-compression
- Designed for applications of air-conditioning refrigeration, heat pump and process cooling
- Replaceable slide without chamber modification



Build-in Oil Separator

- Three-stage oil separation
- Low pressure drop and oil carry-over
- Fine demister mesh in oil separation
- High volume oil sump and inbuilt rust remover
- Pressure relief valve available



Complete Protection & Accessories

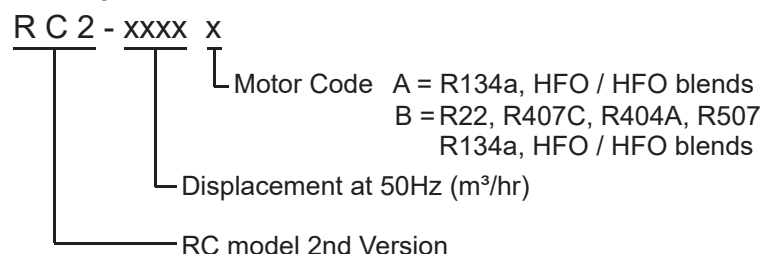
1. Motor temperature Sensor
 - PT100 or PT1000 embedded inside motor winding
 - In-time motor temperature monitor
 - As control point for liquid injection to motor
2. Discharge Port and Motor Temperature Thermistor
 - PTC embedded inside motor winding
 - Proactive and prompt reaction when overheating occurs
3. Liquid Injection Connector (Motor and Chamber)
 - Available for additional cooling requirement
4. Oil Cooler Connector
 - Available for oil cooler or external oil circuit design
4. Oil Level Switch
 - Proactive and prompt reaction on insufficient lubricant
5. Oil Heater (150W or 300W)
 - Maintain lubricant viscosity before compressor start
6. Oil Pressure Connector
 - Monitor pressure differential (Ps-Po and Pd-Po)
 - Oil filter clogging monitor



Other Advantages

- Low noise level and minimum vibration
- Fewer quantity of parts in screw compressor than those in reciprocating compressor
- Easy for maintenance and overhaul
- Compact geometry, easy for layout

Compressor Nomenclature



Quality System and Certification

- ISO 9001, ISO 45001 quality system approved
- UL listed, CE conformity, ATEX and IECEx explosion proof model available (RC2-Exp)
- Approved by chiller performance standard ASHRAE 90.1, EU 2016/2281, GB 19577, ISEER

Technical Data RC2-A

| MODEL | COMPRESSOR | | | | | MOTOR | | | | | Lubricant charge | WEIGHT | | | | | | | | | | | | | | | | |
|-----------|---|--------------------------|--------|------------------|----------|---|------------|------|----------|--|------------------|--------|------|-----|----|-----|----|-----|----|-----|----|------|----|------|----|------|----|------|
| | Displacement 60 / 50Hz m ³ /hr | Rated Speed 60 / 50Hz | VI | Cap. Control (%) | | Type | Nominal Hp | | Starting | Voltage (V) | | | | | | | | | | | | | | | | | | |
| | | | | STEP | STEPLESS | | 60Hz | 50Hz | | 60Hz | 50Hz | L | kg | | | | | | | | | | | | | | | |
| RC2-100A | 118/98 | 3550/2950 | 2.2 | 33, 66, 100 | 33~100 | 3 Phase, 2 Pole, Squirrel Cage, Induction Motor | 23 | 19 | Y-Δ | 208 220 230 380 440 460 480 575 | 7 | 275 | | | | | | | | | | | | | | | | |
| RC2-140A | 165/137 | | | 33, 66, 100 | 33~100 | | 32 | 26 | | | | | 7 | 280 | | | | | | | | | | | | | | |
| RC2-180A | 216/180 | | | 33, 66, 100 | 33~100 | | 42 | 35 | | | | | | | 7 | 300 | | | | | | | | | | | | |
| RC2-200A | 233/193 | | | 25, 50, 75, 100 | 25~100 | | 45 | 37 | | | | | | | | | 8 | 420 | | | | | | | | | | |
| RC2-230A | 277/230 | | | 35, 50, 75, 100 | 35~100 | | 53 | 44 | | | | | | | | | | | 14 | 540 | | | | | | | | |
| RC2-260A | 309/257 | | | 25, 50, 75, 100 | 25~100 | | 59 | 49 | | | | | | | | | | | | | 14 | 545 | | | | | | |
| RC2-300A | 352/293 | | | 25, 50, 75, 100 | 25~100 | | 67 | 56 | | | | | | | | | | | | | | | 16 | 590 | | | | |
| RC2-310A | 371/308 | | | 35, 50, 75, 100 | 35~100 | | 71 | 59 | | | | | | | | | | | | | | | | | 16 | 575 | | |
| RC2-340A | 407/339 | | | 35, 50, 75, 100 | 35~100 | | 77 | 64 | | | | | | | | | | | | | | | | | | | 16 | 600 |
| RC2-370A | 440/366 | | | 35, 50, 75, 100 | 35~100 | | 84 | 70 | | | | | | | | | | | | | | | | | | | | |
| RC2-410A | 490/407 | | | 25, 50, 75, 100 | 25~100 | | 93 | 78 | 16 | 730 | | | | | | | | | | | | | | | | | | |
| RC2-470A | 567/471 | | | 25, 50, 75, 100 | 25~100 | | 108 | 90 | | | 18 | 800 | | | | | | | | | | | | | | | | |
| RC2-510A | 611/508 | | | 35, 50, 75, 100 | 35~100 | | 117 | 98 | | | | | 20 | 760 | | | | | | | | | | | | | | |
| RC2-550A | 660/549 | | | 25, 50, 75, 100 | 25~100 | | 126 | 105 | | | | | | | 23 | 820 | | | | | | | | | | | | |
| RC2-580A | 702/583 | | | 35, 50, 75, 100 | 35~100 | | 131 | 109 | | | | | | | | | 20 | 805 | | | | | | | | | | |
| RC2-620A | 745/619 | | | 35, 50, 75, 100 | 35~100 | | 137 | 114 | | | | | | | | | | | 23 | 850 | | | | | | | | |
| RC2-710A | 858/713 | | | 35, 50, 75, 100 | 35~100 | | 158 | 131 | | | | | | | | | | | | | 28 | 1100 | | | | | | |
| RC2-790A | 952/791 | | | 30, 50, 75, 100 | 30~100 | | 175 | 146 | | | | | | | | | | | | | | | 28 | 1140 | | | | |
| RC2-830A | 993/825 | | | 30, 50, 75, 100 | 30~100 | | 183 | 152 | | | | | | | | | | | | | | | | | 28 | 1150 | | |
| RC2-930A | 1117/929 | | | 35, 50, 75, 100 | 35~100 | | 212 | 176 | | | | | | | | | | | | | | | | | | | 28 | 1180 |
| RC2-1020A | 1223/1017 | 25, 50, 75, 100 | 25~100 | 227 | 189 | 40 | 1500 | | | | | | | | | | | | | | | | | | | | | |
| RC2-1130A | 1350/1122 | 25, 50, 75, 100 | 25~100 | 248 | 206 | | | 40 | 1520 | | | | | | | | | | | | | | | | | | | |
| RC2-1270A | 1521/1268 | 25, 50, 75, 100 | 25~100 | 286 | 238 | | | | | 53 | 2100 | | | | | | | | | | | | | | | | | |
| RC2-1530A | 1847/1539 | 25, 50, 75, 100 | 25~100 | 331 | 275 | | | | | | | 53 | 2200 | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Nominal HP:

All above Nominal HP are not equal to the maximum compressor HP;
please refer to Hanbell selection software for power input in specified working condition.

Technical Data RC2-B

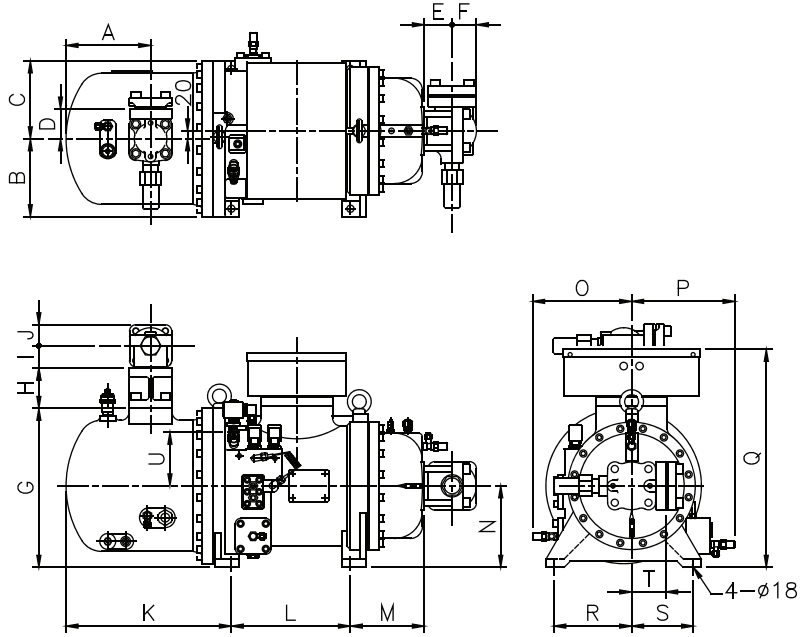
| MODEL | COMPRESSOR | | | | | MOTOR | | | | | Lubricant charge | WEIGHT | |
|--------------------|--------------|-----------|-----|------------------|----------|---|------------|------|----------|-------------|------------------|--------|------|
| | Displacement | Rated | VI | Cap. Control (%) | | Type | Nominal Hp | | Starting | Voltage (V) | | | |
| | 60 / 50Hz | Speed | | STEP | STEPLESS | | 60Hz | 50Hz | | 60Hz | | | 50Hz |
| m ³ /hr | 60 / 50Hz | | | | | | | | | L | kg | | |
| RC2-100B | 118/98 | | | 33, 66, 100 | 33~100 | 3 Phase, 2 Pole, Squirrel Cage, Induction Motor | 38 | 31 | Y-Δ | 208 | 380 | 7 | 280 |
| RC2-140B | 165/137 | | | 33, 66, 100 | 33~100 | | 50 | 41 | | | | 7 | 285 |
| RC2-180B | 216/180 | | | 33, 66, 100 | 33~100 | | 66 | 55 | | | | 7 | 335 |
| RC2-200B | 233/193 | | | 25, 50, 75, 100 | 25~100 | | 70 | 58 | | | | 8 | 425 |
| RC2-230B | 277/230 | | | 35, 50, 75, 100 | 35~100 | | 81 | 67 | | | | 14 | 555 |
| RC2-260B | 309/257 | | | 25, 50, 75, 100 | 25~100 | | 90 | 75 | | | | 14 | 560 |
| RC2-300B | 352/293 | | | 25, 50, 75, 100 | 25~100 | | 107 | 89 | | | | 16 | 600 |
| RC2-310B | 371/308 | | | 35, 50, 75, 100 | 35~100 | | 110 | 91 | | | | 16 | 580 |
| RC2-340B | 407/339 | | | 35, 50, 75, 100 | 35~100 | | 121 | 101 | | | | 16 | 620 |
| RC2-370B | 440/366 | | 2.2 | 35, 50, 75, 100 | 35~100 | | 130 | 108 | | | | 16 | 640 |
| RC2-410B | 490/407 | | 2.6 | 25, 50, 75, 100 | 25~100 | | 146 | 121 | 16 | 740 | | | |
| RC2-470B | 567/471 | | 3.0 | 25, 50, 75, 100 | 25~100 | | 170 | 141 | 18 | 810 | | | |
| RC2-510B | 611/508 | 3550/2950 | 3.5 | 35, 50, 75, 100 | 35~100 | | 183 | 152 | 20 | 780 | | | |
| RC2-550B | 660/549 | | 4.8 | 25, 50, 75, 100 | 25~100 | | 195 | 162 | 23 | 850 | | | |
| RC2-580B | 702/583 | | | 35, 50, 75, 100 | 35~100 | | 210 | 175 | 20 | 840 | | | |
| RC2-620B | 745/619 | | | 35, 50, 75, 100 | 35~100 | | 220 | 183 | 23 | 880 | | | |
| RC2-710B | 858/713 | | | 35, 50, 75, 100 | 35~100 | | 250 | 208 | 28 | 1100 | | | |
| RC2-790B | 952/791 | | | 30, 50, 75, 100 | 30~100 | | 276 | 230 | 28 | 1180 | | | |
| RC2-830B | 993/825 | | | 30, 50, 75, 100 | 30~100 | | 290 | 234 | 28 | 1215 | | | |
| RC2-930B | 1117/929 | | | 35, 50, 75, 100 | 35~100 | | 334 | 278 | 28 | 1240 | | | |
| RC2-1020B | 1223/1017 | | | 25, 50, 75, 100 | 25~100 | 357 | 297 | 40 | 1540 | | | | |
| RC2-1130B | 1350/1122 | | | 25, 50, 75, 100 | 25~100 | 393 | 327 | 40 | 1560 | | | | |
| RC2-1270B | 1521/1268 | | | 25, 50, 75, 100 | 25~100 | 471 | 392 | 53 | 2200 | | | | |
| RC2-1530B | 1847/1539 | | | 25, 50, 75, 100 | 25~100 | 534 | 443 | 53 | 2300 | | | | |

Nominal HP:

All above Nominal HP are not equal to the maximum compressor HP; please refer to Hanbell selection software for power input in specified working condition.

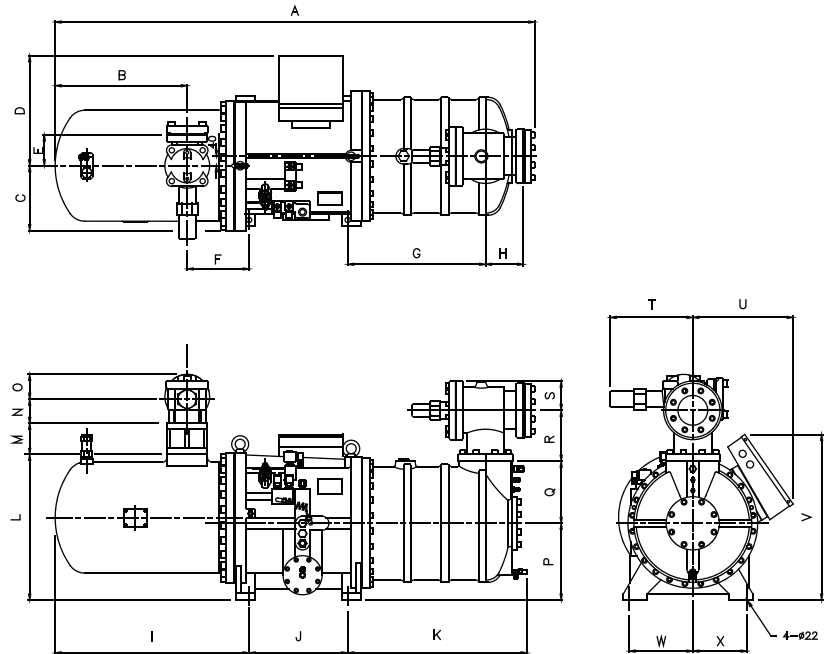
RC2-100~RC2-180 Outline

Note: Number in red indicate dimensions in which RC2-B differs from RC2-A (A / B)

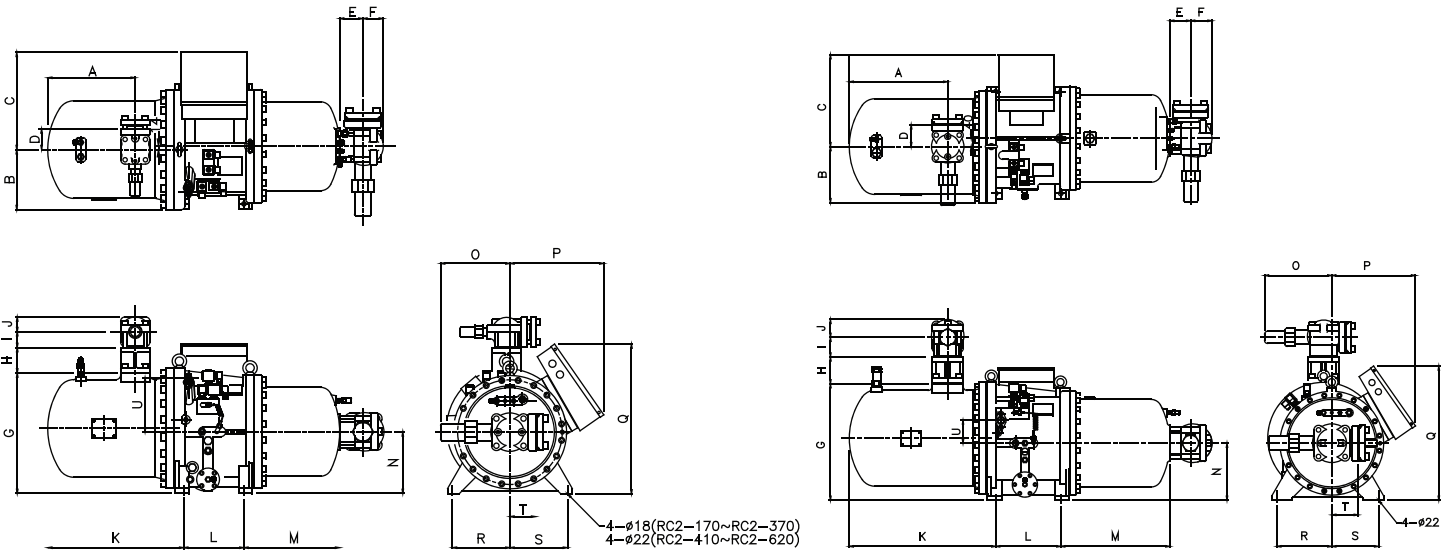


| MODEL | Dimensions | | | | | | | | | | | | | | | | | | | | Unit: mm |
|---------|------------|-----|-----|----|----|------|-----|-----|----|----|-------|-----|-------|-----|-----|-----|-------|-----|-----|----|----------|
| | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U |
| RC2-100 | 213 | 196 | 196 | 75 | 70 | 61 | 400 | 101 | 57 | 53 | 416.5 | 300 | 186.5 | 205 | 249 | 260 | 548.5 | 196 | 156 | 86 | 135 |
| RC2-140 | 213 | 196 | 196 | 75 | 70 | 61 | 400 | 101 | 57 | 53 | 416.5 | 300 | 186.5 | 205 | 249 | 260 | 548.5 | 196 | 156 | 86 | 135 |
| RC2-180 | 283 | 196 | 196 | 75 | 81 | 68.5 | 410 | 101 | 57 | 53 | 486.5 | 386 | 196 | 205 | 239 | 362 | 548.5 | 196 | 156 | 95 | 123 |

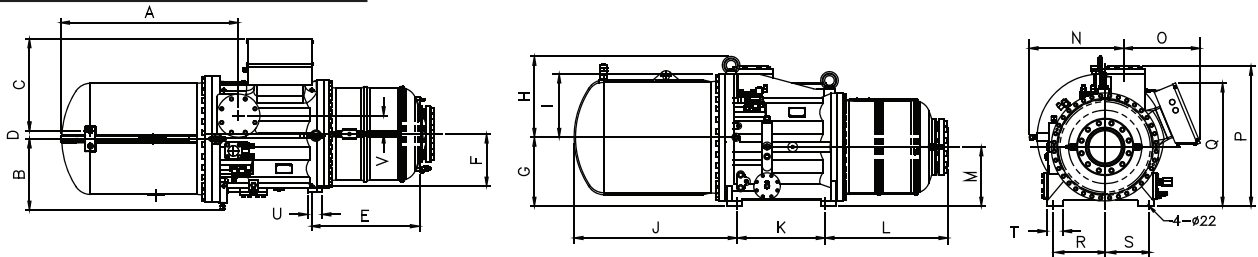
RC2-710~RC2-930 Outline



| MODEL | Dimensions | | | | | | | | | | | | | | | | | | | | | | | Unit: mm | |
|---------|-----------------|-----|-----|-----|-----|-------|---------------|-----|-------|-----|-----------|-----|-------|-----|-----|-----|-----|-------|-----|-----|-----|-----|-----|----------|-----|
| | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y |
| RC2-710 | 1898.5 / 1968.5 | 560 | 275 | 466 | 130 | 262.5 | 514.5 / 584.5 | 161 | 822.5 | 353 | 690 / 760 | 617 | 131.5 | 103 | 105 | 325 | 263 | 215.5 | 124 | 350 | 426 | 701 | 270 | 230 | 269 |
| RC2-790 | 1963.5 / 2033.5 | 560 | 275 | 466 | 130 | 262.5 | 514.5 / 584.5 | 161 | 822.5 | 418 | 690 / 760 | 617 | 131.5 | 103 | 105 | 325 | 263 | 215.5 | 124 | 350 | 426 | 701 | 270 | 230 | 230 |
| RC2-830 | 1963.5 / 2033.5 | 560 | 275 | 466 | 130 | 262.5 | 514.5 / 584.5 | 161 | 822.5 | 418 | 690 / 760 | 617 | 131.5 | 103 | 105 | 325 | 263 | 215.5 | 124 | 350 | 426 | 701 | 270 | 230 | 230 |
| RC2-930 | 2033.5 / 2087.5 | 560 | 275 | 466 | 130 | 262.5 | 584.5 / 638.5 | 161 | 822.5 | 418 | 760 / 814 | 617 | 131.5 | 103 | 105 | 325 | 263 | 215.5 | 124 | 350 | 426 | 701 | 270 | 230 | 230 |

RC2-200~RC2-580 Outline
RC2-550~RC2-620 Outline


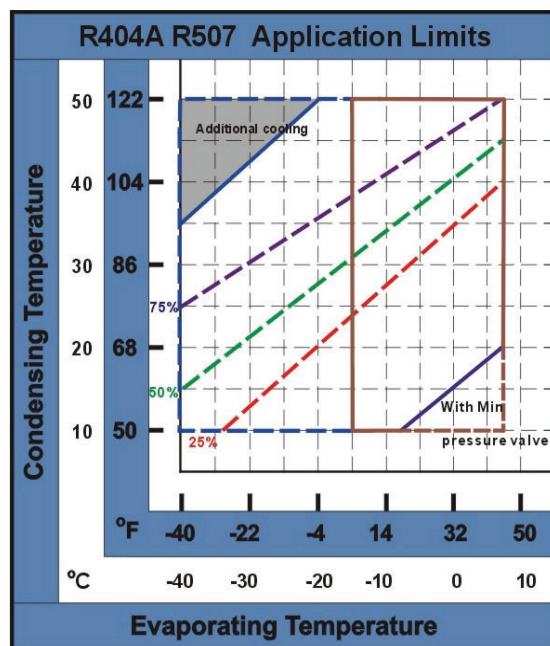
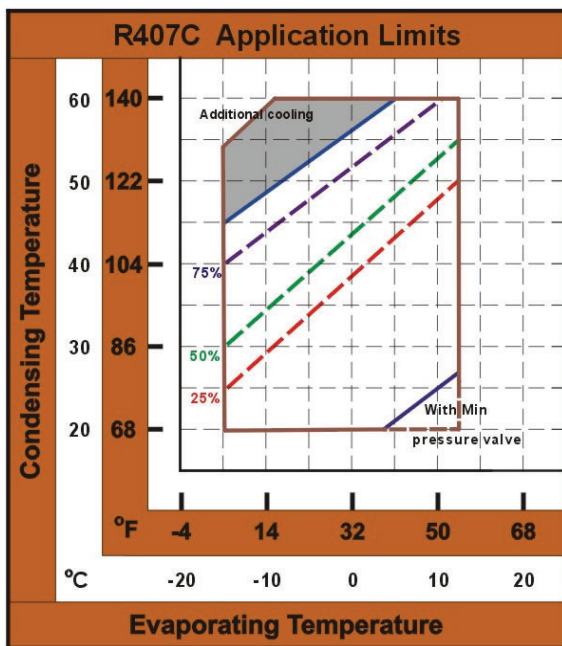
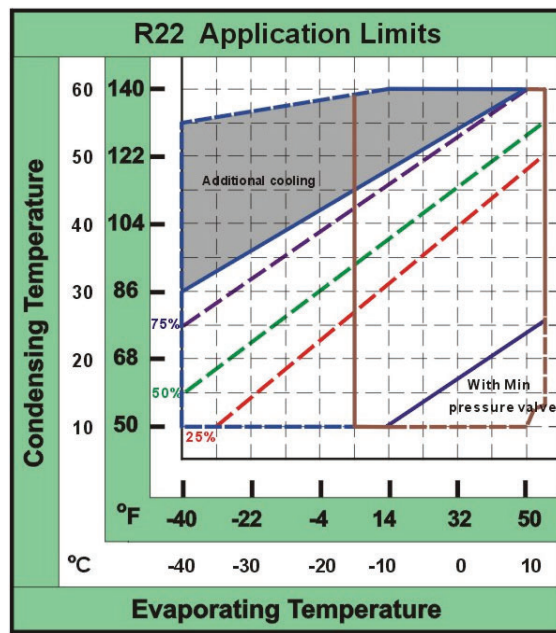
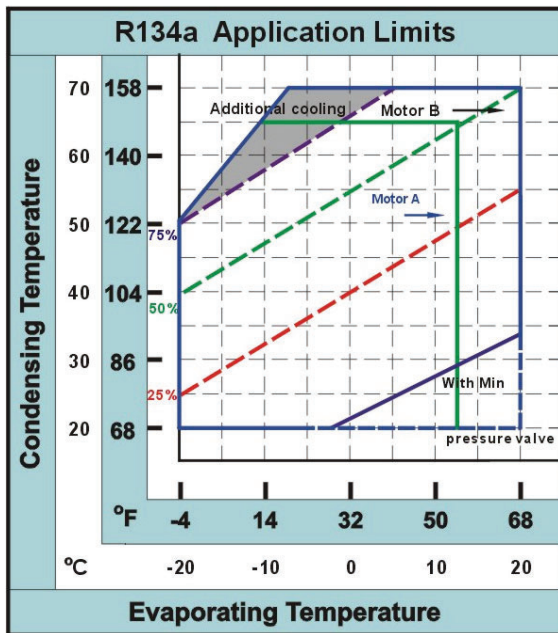
| MODEL | Dimensions | | | | | | | | | | | | | | | | | | | | Unit: mm |
|---------|------------|-----|-------|-----|-----|-----|-----|-------|------|----|-----|-----|---------|-----|-----|-------|-----|-----|-----|-----|----------|
| | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U |
| RC2-200 | 345 | 229 | 378 | 75 | 82 | 69 | 447 | 101 | 57 | 53 | 536 | 228 | 341/386 | 225 | 245 | 362 | 592 | 225 | 225 | 95 | 196 |
| RC2-230 | 365 | 250 | 405 | 86 | 97 | 85 | 502 | 106 | 67 | 61 | 567 | 251 | 399 | 257 | 289 | 391 | 624 | 240 | 240 | 107 | 225 |
| RC2-260 | 365 | 250 | 405 | 86 | 97 | 85 | 502 | 106 | 67 | 61 | 567 | 251 | 399 | 257 | 289 | 391 | 624 | 240 | 240 | 107 | 225 |
| RC2-300 | 408 | 250 | 405 | 86 | 97 | 85 | 502 | 106 | 67 | 61 | 610 | 285 | 399/444 | 257 | 289 | 391 | 624 | 240 | 240 | 107 | 229 |
| RC2-310 | 408 | 250 | 405 | 86 | 97 | 85 | 502 | 106 | 67 | 61 | 610 | 251 | 444 | 257 | 289 | 391 | 624 | 240 | 240 | 107 | 225 |
| RC2-340 | 408 | 250 | 405 | 95 | 103 | 105 | 502 | 121 | 81 | 69 | 610 | 285 | 447/492 | 257 | 310 | 391 | 624 | 240 | 240 | 130 | 228 |
| RC2-370 | 408 | 250 | 405 | 95 | 103 | 105 | 502 | 121 | 81 | 69 | 610 | 285 | 447/492 | 257 | 310 | 391 | 624 | 240 | 240 | 130 | 228 |
| RC2-410 | 392 | 275 | 453 | 95 | 103 | 105 | 553 | 120 | 81 | 69 | 613 | 288 | 433 | 275 | 315 | 413 | 655 | 270 | 230 | 130 | 255 |
| RC2-470 | 440 | 275 | 453 | 95 | 103 | 105 | 553 | 120 | 81 | 69 | 661 | 320 | 433/478 | 275 | 315 | 413 | 655 | 270 | 230 | 130 | 255 |
| RC2-510 | 465 | 275 | 453 | 107 | 103 | 105 | 560 | 131.5 | 96.5 | 88 | 696 | 288 | 484 | 275 | 331 | 413 | 655 | 270 | 230 | 130 | 254 |
| RC2-550 | 484 | 275 | 451.5 | 107 | 103 | 105 | 572 | 131.5 | 96.5 | 88 | 720 | 320 | 580/536 | 280 | 331 | 411.5 | 659 | 270 | 230 | 130 | 112 |
| RC2-580 | 465 | 275 | 453 | 107 | 103 | 105 | 560 | 131.5 | 96.5 | 88 | 696 | 320 | 484 | 275 | 331 | 413 | 655 | 270 | 230 | 130 | 255 |
| RC2-620 | 484 | 275 | 451.5 | 107 | 220 | 124 | 572 | 131.5 | 96.5 | 88 | 720 | 320 | 525 | 280 | 331 | 411.5 | 659 | 270 | 230 | 161 | 112 |

RC2-1020~RC2-1530 Outline


| MODEL | Dimensions | | | | | | | | | | | Unit: mm |
|---------------|------------|-----|-----|----|-----|-----|-----|-----|-----|------|-----|----------|
| | A | B | C | D | E | F | G | H | I | J | K | |
| RC2-1020/1130 | 1120 | 350 | 480 | 45 | 656 | 325 | 410 | 365 | 350 | 1000 | 470 | |
| RC2-1270/1530 | 1112 | 445 | 575 | 50 | 677 | 325 | 430 | 505 | 395 | 1020 | 550 | |

| MODEL | Dimensions | | | | | | | | | | | Unit: mm |
|---------------|------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------|
| | L | M | N | O | P | Q | R | S | T | U | V | |
| RC2-1020/1130 | 723 | 370 | 451 | 499 | 715 | 728 | 325 | 275 | 100 | 100 | 60 | |
| RC2-1270/1530 | 768 | 370 | 590 | 480 | 825 | 770 | 325 | 275 | 100 | 90 | 115 | |

RC2-100~RC2-930 Application Limits



To apply the refrigerant not listed above, please contact Hanbell for application guide.



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HBCE-RC2-20-A(500)