



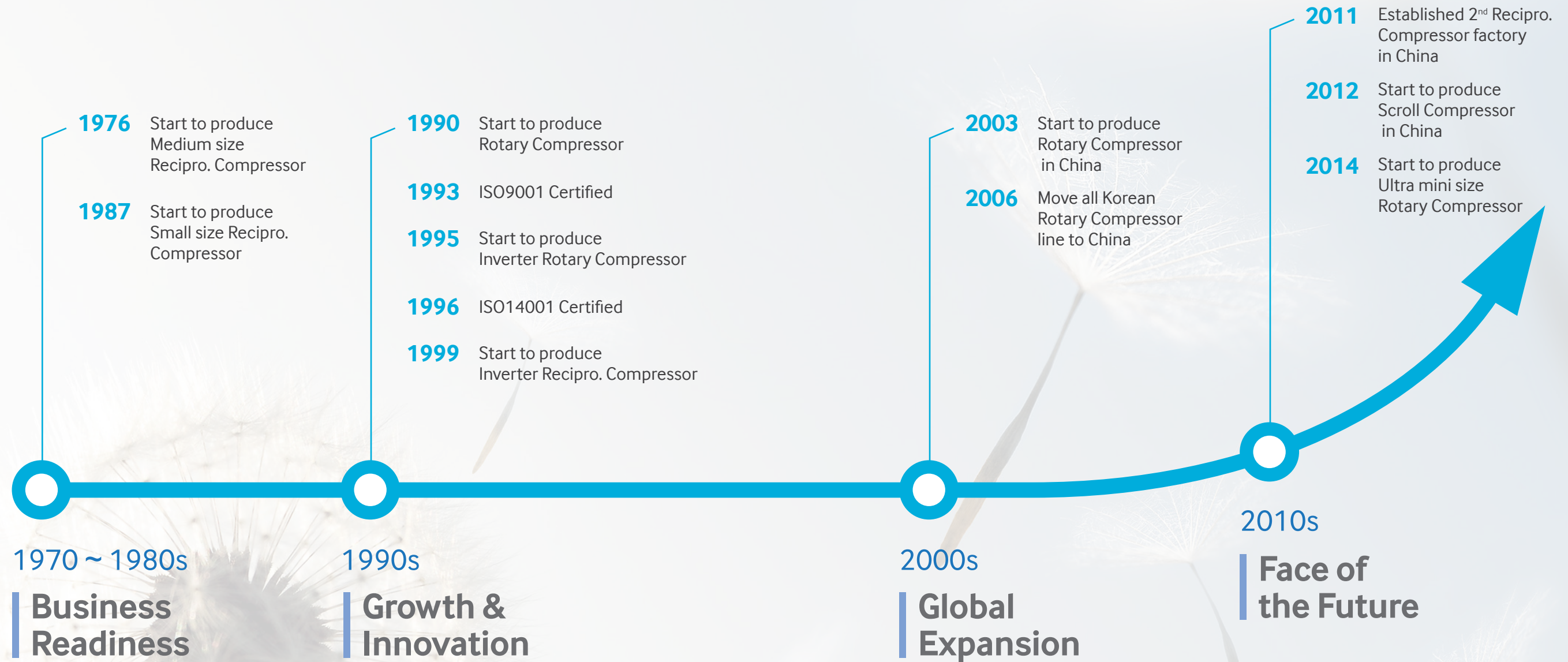
SAMSUNG COMPRESSOR

Imagine Sustainable Power



Unparalleled Performance
that's Environmental Friendly

BRIEF HISTORY



Reciprocating Compressor MODEL IDENTIFICATION



Reciprocating Compressor Ver. 01

NAME PLATE

SAMSUNG MK162Q-L1UA E01
 220-240V~50Hz 4.5 LRA
 RoHS Compliance

1PH THERMALLY PROTECTED
 2376CCAS500005

R-134a
 MADE IN KOREA

SAMSUNG ENV4A5G-L2J SJ1
 150-220V~82-190Hz

Use with Controller
 ISB-LC3
 THERMALLY PROTECTED
 1046CCAS500003

R-600a
 MADE IN KOREA

Caution : risk of fire

MK 1 62 Q - L 1 U A

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

1) Compressor model identification

| NUMBER | MEANING |
|--------|--|
| ① | Series CD, SD, MD, SK, MK, HK, MSS, MSA, MSE, ENV, MKV, MSV |
| ② | Refrigerant 1 : R134a (LBP) 4 : R600a (LBP) 6 : R134a (HBP) |
| ③ | Displacement (cc/Rev) x 10 24 : 2.40cc, 30 : 2.93cc, 37 : 3.71cc, 43 : 4.38cc, 50 : 5.21cc, 51 : 5.12cc, 52 : 5.21cc, 60 : 6.16cc, 62 : 6.16cc, 70 : 6.99cc, 72 : 7.21cc, 80 : 8.19cc, 82 : 8.19cc, 83 : 8.19cc, 88 : 8.80cc, 90 : 9.07cc, A1 : 10.68cc, A2 : 12.13cc, A3 : 12.52cc, A5 : 15.32cc |
| ④ | Rated voltage and frequency B : 220V ~ 60Hz C : 115V ~ 60Hz D : 115-127V ~ 60Hz E : 100V ~ 50/60Hz G : 220-240V ~ 50Hz, 220V ~ 60Hz H : 200-220V ~ 50Hz, 220V ~ 60Hz K : 200-220V ~ 50Hz P : 127V ~ 60Hz Q : 220-240V ~ 50Hz A : variable for BLDC |
| ⑤ | Application L/R/S : Low Back Pressure H : High Back Pressure |
| ⑥ | Cooling type 0 : Oil cooling 1 : Static 2 : Fan cooling |
| ⑦ | Motor type B/C/X : BLDC S : PTC or Current-CSIR U : PTC-RSCR (Optional RSIR) W : PTC-CSR Y : Current-RSIR Z : PTC-RSIR |
| ⑧ | Option |

2) Serial number

- ① Model code
- ② Production line
- ③ Year : 05 → Y, 06 → L, 07 → P, 08 → Q, 09 → S, 10 → Z, 11 → B, 12 → C, 13 → D, 14 → F, 15 → G
- ④ Month : 1 → Jan, 2 → Feb, ... A → Oct, B → Nov, C → Dec
- ⑤ Serial number

2376CC A S 5 00005

① ② ③ ④ ⑤

Reciprocating Compressor Ver. 02

| Comp Type | Refrigerant | Series | Application |
|-----------|--|---------------|--|
| NC | 1 R134a LBP 2 R22 4 R600a LBP 6 R134a MBP/HBP | EV MV A | L LBP (Low Starting Torque) H HBP (Low Starting Torque) T Tropical M MBP S HBP,LBP (High Starting Torque) R HIGH EFFICIENCY D DBP (Dehumidifier) |

NC 4 MV A1 A L P

| Displacement (x10 cc/rev) | Volts/Freq | Motor spec. |
|---------------------------|----------------------------|---|
| 24 | A BLDC | K BLDC, SPM-Core, CU, 6 Slot, SPM-Ferrite |
| 30 | B 220V~60Hz | L BLDC, SPM-Core, AL, 6 Slot, SPM-Ferrite |
| 43 | C 115V~60Hz | M BLDC, IPM-Core, CU, 9 Slot, IPM-Ferrite |
| 51 | D 115-127V~60Hz | N BLDC, IPM-Core, AL, 9 Slot, IPM-Ferrite |
| 52 | E 100V~50/60Hz, 110V~60Hz | P BLDC, AI-Core, CU, 9 Slot, IPM-Ferrite |
| 60 | F 220V~50Hz | R BLDC, AI-Core, AL, 9 Slot, IPM-Ferrite |
| 62 | G 220-240V~50Hz, 220V~60Hz | Z AC, MS-Core, CU, PTC-RSIR |
| 70 | H 200-220V~50Hz, 220V~60Hz | U AC, MS-Core, CU, PTC-RSCR |
| 72 | J 110-127V~60Hz, 100V~50Hz | S AC, MS-Core, CU, PTC-CSIR |
| 80 | K 200-220V~50Hz | W AC, MS-Core, CU, PTC-CSR |
| 82 | P 127V~60Hz | A AC, MS-Core, AL, PTC-RSIR |
| 88 | Q 220-240V~50Hz | B AC, MS-Core, AL, PTC-RSCR |
| 90 | S 200-230V~50Hz | C AC, MS-Core, AL, PTC-CSIR |
| A1 | X 230V~50Hz | D AC, MS-Core, AL, PTC-CSR |
| A3 | | |
| A5 | | |

Reciprocating Compressor Ver. 03

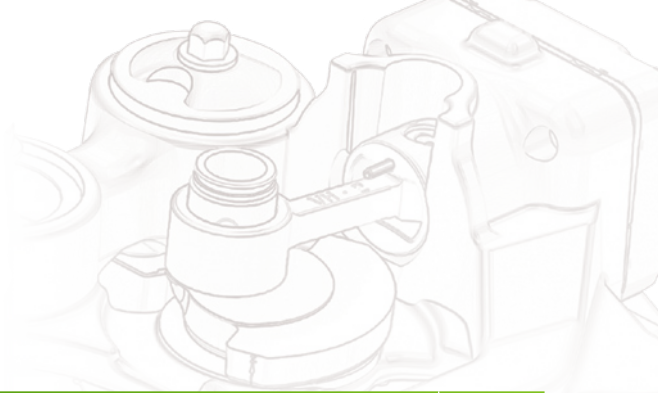
| Comp Type | General | Refrigerant | Launching Year | Series |
|----------------------|----------------------------------|--|--|--------|
| NF NO NN NI | 3,5,7,9 2,4,6,8 BLDC AC | 1 R134a LBP 2 R22 4 R600a LBP 5 R600a L/MBP 6 R134a HBP 7 R134a DBP | H 2014 J 2015 K 2016 L 2017 M 2018 | |

NF 3 4 H 9 11 1 A M

| Displacement | Minor change rev. | Power Source | Motor spec. |
|--------------|-------------------|----------------------------|---|
| 43 | 1 Basic | A BLDC | K BLDC, SPM-Core, CU, 6 Slot, SPM-Ferrite |
| 52 | 2 1st change | B 220V~60Hz | L BLDC, SPM-Core, AL, 6 Slot, SPM-Ferrite |
| 60 | 3 2nd change | C 115V~60Hz | M BLDC, IPM-Core, CU, 9 Slot, IPM-Ferrite |
| 90 | | D 115-127V~60Hz | N BLDC, IPM-Core, AL, 9 Slot, IPM-Ferrite |
| 11 | | E 100V~50/60Hz, 110V~60Hz | P BLDC, AI-Core, CU, 9 Slot, IPM-Ferrite |
| 13 | | F 220V~50Hz | R BLDC, AI-Core, AL, 9 Slot, IPM-Ferrite |
| 15 | | G 220-240V~50Hz, 220V~60Hz | Z AC, MS-Core, CU, PTC-RSIR |
| | | H 200-220V~50Hz, 220V~60Hz | U AC, MS-Core, CU, PTC-RSCR |
| | | J 110-127V~60Hz, 100V~50Hz | S AC, MS-Core, CU, PTC-CSIR |
| | | K 200-220V~50Hz | W AC, MS-Core, CU, PTC-CSR |
| | | P 127V~60Hz | A AC, MS-Core, AL, PTC-RSIR |
| | | Q 220-240V~50Hz | B AC, MS-Core, AL, PTC-RSCR |
| | | S 200-230V~50Hz | C AC, MS-Core, AL, PTC-CSIR |
| | | X 230V~50Hz | D AC, MS-Core, AL, PTC-CSR |

Reciprocating Compressor SPECIFICATIONS

R134a LBP



| RATED VOLTAGE | MODEL | VOLTAGE [V-Hz] | RUNNING RPM | ASHRAE | | | | | | | COOLING TYPE |
|-------------------------------------|-------------|-------------------|-------------|------------------|------|--------|------------|-----------------|------------|----------------|--------------|
| | | | | COOLING CAPACITY | | | INPUT W | EFFICIENCY | | | |
| | | | | Kcal/Hr | Watt | BTU/Hr | | EFF Kcal/WHr | COP W/W | EER BTU/WHr | |
| BLDC 115V~60Hz | MKV172C-L2J | 115-60 | 1,800 | 110 | 128 | 437 | 72 | 1.53 | 1.78 | 6.07 | FC |
| | | | 2,200 | 135 | 157 | 536 | 90 | 1.50 | 1.74 | 5.96 | |
| | | | 2,880 | 176 | 205 | 699 | 120 | 1.47 | 1.71 | 5.82 | |
| | | | 3,480 | 212 | 247 | 842 | 151 | 1.40 | 1.63 | 5.57 | |
| | | | 3,600 | 223 | 259 | 885 | 160 | 1.39 | 1.62 | 5.53 | |
| | MKV190C-L2B | 115-60 | 1,800 | 146 | 170 | 580 | 89 | 1.64 | 1.91 | 6.51 | FC |
| | | | 2,200 | 174 | 202 | 691 | 107 | 1.63 | 1.89 | 6.46 | |
| | | | 2,880 | 227 | 264 | 901 | 145 | 1.57 | 1.82 | 6.22 | |
| | | | 3,480 | 274 | 319 | 1,088 | 186 | 1.47 | 1.71 | 5.85 | |
| | | | 3,600 | 294 | 342 | 1,167 | 200 | 1.47 | 1.71 | 5.84 | |
| | MKV190C-L2J | 115-60 | 1,800 | 146 | 170 | 580 | 93 | 1.57 | 1.83 | 6.23 | FC |
| | | | 2,200 | 174 | 202 | 691 | 113 | 1.54 | 1.79 | 6.11 | |
| | | | 2,880 | 227 | 264 | 901 | 152 | 1.49 | 1.74 | 5.93 | |
| | | | 3,480 | 274 | 319 | 1,088 | 195 | 1.41 | 1.63 | 5.58 | |
| | | | 3,600 | 294 | 342 | 1,167 | 210 | 1.40 | 1.63 | 5.56 | |
| BLDC 220-240V~50Hz, 220V~60Hz | MKV172G-L2J | 220-60 | 1,800 | 110 | 128 | 437 | 72 | 1.53 | 1.78 | 6.07 | FC |
| | | | 2,200 | 135 | 157 | 536 | 90 | 1.50 | 1.74 | 5.96 | |
| | | | 2,880 | 176 | 205 | 699 | 120 | 1.47 | 1.71 | 5.82 | |
| | | | 3,480 | 212 | 247 | 842 | 151 | 1.40 | 1.63 | 5.57 | |
| | | | 3,600 | 223 | 259 | 885 | 160 | 1.39 | 1.62 | 5.53 | |
| | MKV190G-L2B | 220-60 | 1,800 | 146 | 170 | 580 | 89 | 1.64 | 1.91 | 6.51 | FC |
| | | | 2,200 | 174 | 202 | 691 | 107 | 1.63 | 1.89 | 6.46 | |
| | | | 2,880 | 227 | 264 | 901 | 145 | 1.57 | 1.82 | 6.22 | |
| | | | 3,480 | 274 | 319 | 1,088 | 186 | 1.47 | 1.71 | 5.85 | |
| | | | 3,600 | 294 | 342 | 1,167 | 200 | 1.47 | 1.71 | 5.84 | |
| | MKV190G-L2J | 220-60 | 1,800 | 146 | 170 | 580 | 93 | 1.57 | 1.83 | 6.23 | FC |
| | | | 2,200 | 174 | 202 | 691 | 113 | 1.54 | 1.79 | 6.11 | |
| | | | 2,880 | 227 | 264 | 901 | 152 | 1.49 | 1.74 | 5.93 | |
| | | | 3,480 | 274 | 319 | 1,088 | 195 | 1.41 | 1.63 | 5.58 | |
| | | | 3,600 | 294 | 342 | 1,167 | 210 | 1.40 | 1.63 | 5.56 | |
| BLDC 200-240V~50Hz, 220V~60Hz | *NC1MV43ALP | 220-60 | 1,200 | 45 | 52 | 179 | 31 | 1.45 | 1.69 | 5.76 | ST |
| | | | 2,000 | 76 | 88 | 302 | 50 | 1.52 | 1.77 | 6.03 | |
| | | | 3,000 | 112 | 130 | 445 | 76 | 1.47 | 1.71 | 5.85 | |
| | | | 4,300 | 146 | 170 | 580 | 110 | 1.33 | 1.54 | 5.27 | |
| | *NC1MV43ALR | 220-60 | 1,200 | 45 | 52 | 179 | 32 | 1.41 | 1.64 | 5.58 | ST |
| | | | 2,000 | 76 | 88 | 302 | 51 | 1.49 | 1.73 | 5.92 | |
| | | | 3,000 | 112 | 130 | 445 | 78 | 1.44 | 1.67 | 5.70 | |
| | | | 4,300 | 146 | 170 | 580 | 112 | 1.30 | 1.52 | 5.18 | |
| | *NC1MV60ALP | 220-60 | 1,200 | 65 | 76 | 258 | 41 | 1.59 | 1.84 | 6.29 | ST |
| | | | 2,000 | 111 | 129 | 441 | 69 | 1.61 | 1.87 | 6.39 | |
| | | | 3,000 | 158 | 184 | 627 | 102 | 1.55 | 1.80 | 6.15 | |
| | | | 4,300 | 211 | 245 | 838 | 143 | 1.48 | 1.72 | 5.86 | |
| *NC1MV60ALR | 220-60 | 1,200 | 65 | 76 | 258 | 42 | 1.55 | 1.80 | 6.14 | ST | |
| | | 2,000 | 111 | 129 | 441 | 71 | 1.56 | 1.82 | 6.21 | | |
| | | 3,000 | 158 | 184 | 627 | 104 | 1.52 | 1.77 | 6.03 | | |
| | | 4,300 | 211 | 245 | 838 | 145 | 1.46 | 1.69 | 5.78 | | |

| RATED VOLTAGE | MODEL | VOLTAGE [V-Hz] | RUNNING RPM | ASHRAE | | | | | | | COOLING TYPE |
|-------------------------------------|-------------|-------------------|-------------|------------------|-------|--------|------------|-----------------|------------|----------------|--------------|
| | | | | COOLING CAPACITY | | | INPUT W | EFFICIENCY | | | |
| | | | | Kcal/Hr | Watt | BTU/Hr | | EFF Kcal/WHr | COP W/W | EER BTU/WHr | |
| BLDC 200-240V~50Hz, 220V~60Hz | MSV162A-L1J | 220-60 | 1,400 | 80 | 93 | 318 | 56 | 1.43 | 1.66 | 5.67 | ST |
| | | | 2,000 | 105 | 122 | 417 | 70 | 1.50 | 1.74 | 5.96 | |
| | | | 3,000 | 155 | 180 | 615 | 105 | 1.48 | 1.72 | 5.86 | |
| | | | 4,000 | 210 | 244 | 834 | 143 | 1.47 | 1.71 | 5.83 | |
| | MSV162A-L1B | 220-60 | 1,200 | 60 | 70 | 238 | 43 | 1.40 | 1.62 | 5.54 | ST |
| | | | 2,000 | 105 | 122 | 417 | 68 | 1.54 | 1.80 | 6.13 | |
| | | | 3,000 | 155 | 180 | 615 | 103 | 1.50 | 1.75 | 5.97 | |
| | | | 4,300 | 225 | 262 | 893 | 160 | 1.41 | 1.64 | 5.58 | |
| | NC1MV72ALP | 220-60 | 1,200 | 80 | 93 | 318 | 51 | 1.57 | 1.82 | 6.23 | ST |
| | | | 2,000 | 137 | 159 | 544 | 84 | 1.63 | 1.90 | 6.47 | |
| | | | 3,000 | 193 | 224 | 766 | 125 | 1.54 | 1.80 | 6.13 | |
| | *NC1MV72ALR | 220-60 | 4,300 | 270 | 314 | 1,072 | 182 | 1.48 | 1.73 | 5.89 | ST |
| | | | 1,200 | 80 | 93 | 318 | 52 | 1.54 | 1.79 | 6.11 | |
| | | | 2,000 | 137 | 159 | 544 | 86 | 1.59 | 1.85 | 6.32 | |
| | MSV172A-L1B | 220-60 | 3,000 | 193 | 224 | 766 | 127 | 1.52 | 1.77 | 6.03 | ST |
| | | | 4,300 | 270 | 314 | 1,072 | 185 | 1.46 | 1.70 | 5.79 | |
| | | | 1,200 | 67 | 78 | 266 | 50 | 1.34 | 1.56 | 5.32 | |
| | | | 2,000 | 123 | 143 | 488 | 79 | 1.56 | 1.81 | 6.18 | |
| | NC1MV82ALP | 220-60 | 3,000 | 192 | 223 | 762 | 125 | 1.54 | 1.79 | 6.10 | ST |
| | | | 4,300 | 256 | 298 | 1,016 | 188 | 1.36 | 1.58 | 5.41 | |
| | | | 1,200 | 90 | 105 | 357 | 59 | 1.53 | 1.77 | 6.06 | |
| | | | 1,700 | 135 | 157 | 536 | 83 | 1.63 | 1.89 | 6.46 | |
| | *NC1MV82ALR | 220-60 | 3,000 | 221 | 257 | 877 | 143 | 1.55 | 1.80 | 6.14 | ST |
| | | | 4,300 | 307 | 357 | 1,219 | 209 | 1.47 | 1.71 | 5.83 | |
| 1,200 | | | 90 | 105 | 357 | 61 | 1.48 | 1.72 | 5.86 | | |
| 1,700 | | | 135 | 157 | 536 | 85 | 1.59 | 1.85 | 6.31 | | |
| *NC1MV82ALR | 220-60 | 3,000 | 221 | 257 | 877 | 146 | 1.51 | 1.76 | 6.01 | ST | |
| | | 4,300 | 307 | 357 | 1,219 | 213 | 1.44 | 1.68 | 5.72 | | |

Remark : * is under developed model

COOLING TYPE

FC : Fan cooling
OC : Oil cooling
ST : Static

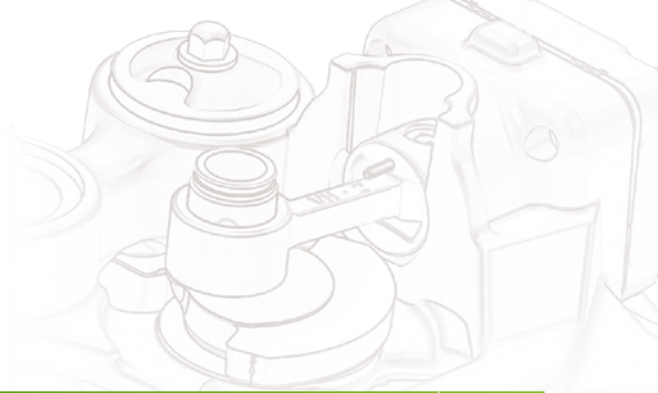
ASHRAE CONDITIONS (LBP)

Evaporating Temp. : -23.3°C (-10°F)
Condensing Temp. : 54.4°C (130°F)
Gas Superheated to : 32.2°C (90°F)
Liquid sub-cooled to : 32.2°C (90°F)
Ambient Temp. : 32.2°C (90°F)

UNIT CONVERSION TABLE

1 watt = 3.41 Btu/Hr
1 watt = 0.86 Kcal/Hr
1 Kcal/Hr = 3.97 Btu/Hr

Reciprocating Compressor SPECIFICATIONS



R134a DBP

| RATED VOLTAGE | MODEL | VOLTAGE [V-Hz] | RUNNING RPM | ASHRAE | | | | | | | COOLING TYPE |
|-------------------|----------------------------|----------------|-------------|------------------|-------|--------|---------|--------------|---------|-------------|--------------|
| | | | | COOLING CAPACITY | | | INPUT W | EFFICIENCY | | | |
| | | | | Kcal/Hr | Watt | BTU/Hr | | EFF Kcal/WHr | COP W/W | EER BTU/WHr | |
| BLDC 220V~60Hz | MSV672A-H1P MSV672B-D1P | 220-60 | 2,160 | 523 | 608 | 2,076 | 186 | 2.81 | 3.27 | 11.16 | ST |
| | | | 2,880 | 685 | 797 | 2,719 | 258 | 2.66 | 3.09 | 10.54 | |
| | | | 3,600 | 834 | 970 | 3,311 | 333 | 2.50 | 2.91 | 9.94 | |
| | | | 3,780 | 870 | 1,012 | 3,454 | 351 | 2.48 | 2.88 | 9.84 | |
| BLDC 220V~60Hz | *MSV572A-H1P | 220-60 | 2,160 | 523 | 608 | 2,076 | 199 | 2.63 | 3.06 | 10.43 | ST |
| | | | 2,880 | 685 | 797 | 2,719 | 263 | 2.60 | 3.03 | 10.34 | |
| | | | 3,600 | 834 | 970 | 3,311 | 353 | 2.36 | 2.75 | 9.38 | |
| | | | 3,780 | 870 | 1,012 | 3,454 | 379 | 2.30 | 2.67 | 9.11 | |

COOLING TYPE

FC : Fan cooling
OC : Oil cooling
ST : Static

ASHRAE CONDITIONS (HBP/DBP)

Evaporating Temp. : 7.2°C (45°F)
Condensing Temp. : 54.4°C(130°F)
Gas Superheated to : 35.0°C (95°F)
Liquid sub-cooled to : 46.1°C (115°F)
Ambient Temp. : 35.0°C (95°F)

UNIT CONVERSION TABLE

1 watt = 3.41 Btu/Hr
1 watt = 0.86 Kcal/Hr
1 Kcal/Hr = 3.97 Btu/Hr

R600a LBP

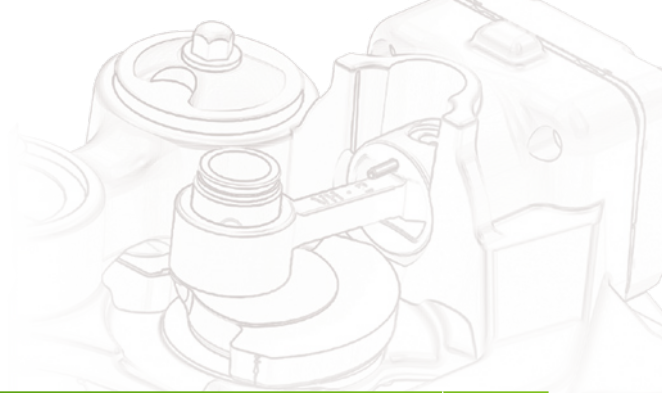
| RATED VOLTAGE | MODEL | VOLTAGE [V-Hz] | RUNNING RPM | ASHRAE | | | | | | | COOLING TYPE |
|-------------------------------------|-------------|----------------|-------------|------------------|-------|--------|---------|--------------|---------|-------------|--------------|
| | | | | COOLING CAPACITY | | | INPUT W | EFFICIENCY | | | |
| | | | | Kcal/Hr | Watt | BTU/Hr | | EFF Kcal/WHr | COP W/W | EER BTU/WHr | |
| BLDC 115-127V~60Hz | ENV4A5DL2B | 115-60 | 1,650 | 127 | 148 | 504 | 75 | 1.69 | 1.97 | 6.72 | FC |
| | | | 1,950 | 150 | 174 | 596 | 88 | 1.70 | 1.98 | 6.77 | |
| | | | 2,800 | 210 | 244 | 834 | 130 | 1.62 | 1.88 | 6.41 | |
| | | | 3,650 | 271 | 315 | 1,076 | 182 | 1.49 | 1.73 | 5.91 | |
| BLDC 200-220V~50Hz, 220V~60Hz | ENV4A5H-L2B | 220-60 | 1,650 | 127 | 148 | 504 | 75 | 1.69 | 1.97 | 6.72 | FC |
| | | | 1,950 | 150 | 174 | 596 | 88 | 1.70 | 1.98 | 6.77 | |
| | | | 2,800 | 210 | 244 | 834 | 130 | 1.62 | 1.88 | 6.41 | |
| | | | 3,650 | 271 | 315 | 1,076 | 182 | 1.49 | 1.73 | 5.91 | |
| BLDC 220-240V~50Hz, 220V~60Hz | ENV4A3G-L2J | 220-60 | 1,650 | 111 | 129 | 441 | 68 | 1.63 | 1.90 | 6.48 | FC |
| | | | 1,800 | 119 | 138 | 472 | 73 | 1.63 | 1.90 | 6.47 | |
| | | | 2,800 | 184 | 214 | 730 | 120 | 1.53 | 1.78 | 6.09 | |
| | | | 3,600 | 239 | 278 | 949 | 166 | 1.44 | 1.67 | 5.72 | |
| | ENV4A3G-L2B | 220-60 | 1,650 | 111 | 129 | 441 | 66 | 1.68 | 1.96 | 6.68 | FC |
| | | | 1,800 | 119 | 138 | 472 | 71.5 | 1.66 | 1.94 | 6.61 | |
| | | | 2,800 | 184 | 214 | 730 | 115 | 1.60 | 1.86 | 6.35 | |
| | | | 3,600 | 239 | 278 | 949 | 161 | 1.48 | 1.73 | 5.89 | |
| | ENV4A5G-L2B | 220-60 | 1,650 | 127 | 148 | 504 | 75 | 1.69 | 1.97 | 6.72 | FC |
| | | | 1,950 | 150 | 174 | 596 | 88 | 1.70 | 1.98 | 6.77 | |
| | | | 2,800 | 210 | 244 | 834 | 130 | 1.62 | 1.88 | 6.41 | |
| | | | 3,600 | 271 | 315 | 1,076 | 182 | 1.49 | 1.73 | 5.91 | |
| ENV4A5G-L2J | 220-60 | 1,650 | 127 | 148 | 504 | 78 | 1.63 | 1.89 | 6.46 | FC | |
| | | 1,950 | 150 | 174 | 596 | 91.5 | 1.64 | 1.91 | 6.51 | | |
| | | 2,800 | 210 | 244 | 834 | 139 | 1.51 | 1.76 | 6.00 | | |
| | | 3,600 | 271 | 315 | 1,076 | 193 | 1.40 | 1.63 | 5.57 | | |

R600a LBP

| RATED VOLTAGE | MODEL | VOLTAGE [V-Hz] | RUNNING RPM | ASHRAE | | | | | | | COOLING TYPE |
|-------------------------------------|--------------|----------------|-------------|------------------|------|--------|---------|--------------|---------|-------------|--------------|
| | | | | COOLING CAPACITY | | | INPUT W | EFFICIENCY | | | |
| | | | | Kcal/Hr | Watt | BTU/Hr | | EFF Kcal/WHr | COP W/W | EER BTU/WHr | |
| BLDC 200-240V~50Hz, 220V~60Hz | *MSV460A-L1B | 220-60 | 1,200 | 42 | 49 | 167 | 28 | 1.50 | 1.74 | 5.96 | ST |
| | | | 2,000 | 55 | 64 | 218 | 40 | 1.38 | 1.60 | 5.46 | |
| | | | 3,000 | 90 | 105 | 357 | 66 | 1.36 | 1.59 | 5.41 | |
| | | | 4,300 | 106 | 123 | 421 | 84 | 1.26 | 1.47 | 5.01 | |
| | *MSV460A-L1J | 220-60 | 1,200 | 42 | 49 | 167 | 29 | 1.45 | 1.68 | 5.75 | ST |
| | | | 2,000 | 55 | 64 | 218 | 41 | 1.34 | 1.56 | 5.33 | |
| | | | 3,000 | 90 | 105 | 357 | 68 | 1.32 | 1.54 | 5.25 | |
| | | | 4,300 | 106 | 123 | 421 | 86 | 1.23 | 1.43 | 4.89 | |
| | *NC4MV60ALP | 220-60 | 1,100 | 33 | 38 | 131 | 21 | 1.57 | 1.83 | 6.24 | ST |
| | | | 1,400 | 44 | 51 | 175 | 27 | 1.63 | 1.89 | 6.47 | |
| | | | 3,000 | 90 | 105 | 357 | 58 | 1.55 | 1.80 | 6.16 | |
| | | | 4,300 | 120 | 140 | 476 | 82 | 1.46 | 1.70 | 5.81 | |
| | *NC4MV60ALR | 220-60 | 1,100 | 33 | 38 | 131 | 22 | 1.50 | 1.74 | 5.96 | ST |
| | | | 1,400 | 44 | 51 | 175 | 28 | 1.57 | 1.83 | 6.24 | |
| | | | 3,000 | 90 | 105 | 357 | 61 | 1.48 | 1.72 | 5.86 | |
| | | | 4,300 | 120 | 140 | 476 | 85 | 1.41 | 1.64 | 5.60 | |
| | MSV488A-L1B | 220-60 | 1,200 | 54 | 63 | 214 | 34 | 1.59 | 1.85 | 6.31 | ST |
| | | | 1,400 | 62 | 72 | 246 | 40 | 1.55 | 1.80 | 6.15 | |
| | | | 3,000 | 126 | 147 | 500 | 88 | 1.43 | 1.66 | 5.68 | |
| | | | 4,300 | 175 | 203 | 695 | 128 | 1.37 | 1.59 | 5.43 | |
| | MSV488A-L1J | 220-60 | 1,200 | 54 | 63 | 214 | 35 | 1.54 | 1.79 | 6.13 | ST |
| | | | 1,400 | 62 | 72 | 246 | 41 | 1.51 | 1.76 | 6.00 | |
| | | | 3,000 | 126 | 147 | 500 | 90 | 1.40 | 1.63 | 5.56 | |
| | | | 4,300 | 175 | 203 | 695 | 131 | 1.34 | 1.55 | 5.30 | |
| | MSV488A-L1P | 220-60 | 1,200 | 54 | 63 | 214 | 35 | 1.57 | 1.82 | 6.21 | ST |
| | | | 1,400 | 62 | 72 | 246 | 41 | 1.53 | 1.78 | 6.08 | |
| | | | 3,000 | 126 | 147 | 500 | 89 | 1.42 | 1.65 | 5.62 | |
| | | | 4,300 | 175 | 203 | 695 | 129 | 1.36 | 1.58 | 5.39 | |
| | MSV488A-L1R | 220-60 | 1,200 | 54 | 63 | 214 | 37 | 1.48 | 1.72 | 5.87 | ST |
| | | | 1,400 | 62 | 72 | 246 | 42 | 1.49 | 1.74 | 5.93 | |
| | | | 3,000 | 126 | 147 | 500 | 91 | 1.38 | 1.61 | 5.50 | |
| | | | 4,300 | 175 | 203 | 695 | 132 | 1.33 | 1.54 | 5.26 | |
| | NC4MV88ALP | 220-60 | 1,100 | 51 | 59 | 202 | 32 | 1.59 | 1.85 | 6.33 | ST |
| | | | 1,400 | 65 | 76 | 258 | 40 | 1.63 | 1.89 | 6.45 | |
| | | | 3,000 | 131 | 152 | 520 | 83 | 1.58 | 1.84 | 6.27 | |
| | | | 4,300 | 179 | 208 | 711 | 121 | 1.48 | 1.72 | 5.87 | |
| | *NC4MV88ALR | 220-60 | 1,100 | 51 | 59 | 202 | 33 | 1.55 | 1.80 | 6.14 | ST |
| | | | 1,400 | 65 | 76 | 258 | 41 | 1.59 | 1.84 | 6.29 | |
| | | | 3,000 | 131 | 152 | 520 | 85 | 1.54 | 1.79 | 6.12 | |
| | | | 4,300 | 179 | 208 | 711 | 123 | 1.46 | 1.69 | 5.78 | |
| | MSV4A1A-L1B | 220-60 | 1,200 | 64 | 74 | 254 | 41 | 1.56 | 1.82 | 6.20 | ST |
| | | | 1,400 | 80 | 93 | 318 | 51 | 1.57 | 1.82 | 6.23 | |
| | | | 3,000 | 162 | 188 | 643 | 111 | 1.46 | 1.70 | 5.79 | |
| | | | 4,300 | 210 | 244 | 834 | 151 | 1.39 | 1.62 | 5.52 | |

Remark : * is under developed model

Reciprocating Compressor SPECIFICATIONS



R600a LBP

| RATED VOLTAGE | MODEL | VOLTAGE [V-Hz] | RUNNING RPM | ASHRAE | | | | | | | COOLING TYPE |
|---|-------------|----------------|-------------|------------------|-------|--------|---------|--------------|---------|-------------|--------------|
| | | | | COOLING CAPACITY | | | INPUT W | EFFICIENCY | | | |
| | | | | Kcal/Hr | Watt | BTU/Hr | | EFF Kcal/WHr | COP W/W | EER BTU/WHr | |
| BLDC 200-240V ~ 50Hz, 220V ~ 60Hz | MSV4A1A-L1J | 220-60 | 1,200 | 64 | 74 | 254 | 42 | 1.52 | 1.77 | 6.05 | ST |
| | | | 1,400 | 80 | 93 | 318 | 52 | 1.54 | 1.79 | 6.11 | |
| | | | 3,000 | 162 | 188 | 643 | 113 | 1.43 | 1.67 | 5.69 | |
| | | | 4,300 | 210 | 244 | 834 | 154 | 1.36 | 1.59 | 5.41 | |
| | MSV4A1A-L1R | 220-60 | 1,200 | 64 | 74 | 254 | 43 | 1.51 | 1.75 | 5.98 | ST |
| | | | 1,400 | 80 | 93 | 318 | 53 | 1.52 | 1.77 | 6.05 | |
| | | | 3,000 | 162 | 188 | 643 | 114 | 1.42 | 1.65 | 5.64 | |
| | | | 4,300 | 210 | 244 | 834 | 155 | 1.35 | 1.58 | 5.38 | |
| | NC4MVA1ALP | 220-60 | 1,200 | 64 | 74 | 254 | 40 | 1.60 | 1.86 | 6.35 | ST |
| | | | 1,400 | 97 | 113 | 385 | 58 | 1.67 | 1.94 | 6.64 | |
| | | | 2,800 | 166 | 193 | 659 | 106 | 1.57 | 1.82 | 6.22 | |
| | | | 3,650 | 226 | 263 | 897 | 159 | 1.42 | 1.65 | 5.64 | |
| | *NC4MVA1ALR | 220-60 | 1,200 | 64 | 74 | 254 | 41 | 1.56 | 1.82 | 6.20 | ST |
| | | | 1,400 | 97 | 113 | 385 | 59 | 1.64 | 1.91 | 6.53 | |
| | | | 3,000 | 166 | 193 | 659 | 108 | 1.54 | 1.79 | 6.10 | |
| | | | 4,300 | 226 | 263 | 897 | 161 | 1.40 | 1.63 | 5.57 | |
| | NC4EVA3ALM | 220-60 | 1,450 | 98 | 114 | 389 | 59 | 1.66 | 1.93 | 6.59 | ST |
| | | | 1,650 | 110 | 128 | 437 | 65 | 1.69 | 1.97 | 6.72 | |
| | | | 2,800 | 178 | 207 | 707 | 111 | 1.60 | 1.86 | 6.37 | |
| | | | 3,600 | 240 | 279 | 953 | 151 | 1.59 | 1.85 | 6.31 | |
| | *NC4EVA3ALN | 220-60 | 1,450 | 98 | 114 | 389 | 60 | 1.63 | 1.90 | 6.48 | ST |
| | | | 1,650 | 110 | 128 | 437 | 67 | 1.64 | 1.91 | 6.52 | |
| | | | 2,800 | 178 | 207 | 707 | 113 | 1.58 | 1.83 | 6.25 | |
| | | | 3,600 | 240 | 279 | 953 | 153 | 1.57 | 1.82 | 6.23 | |
| | NC4EVA5ALM | 220-60 | 1,450 | 110 | 128 | 437 | 67 | 1.64 | 1.91 | 6.52 | ST |
| | | | 1,950 | 153 | 178 | 607 | 91 | 1.68 | 1.96 | 6.67 | |
| | | | 2,800 | 207 | 241 | 822 | 130 | 1.59 | 1.85 | 6.32 | |
| | | | 3,600 | 276 | 321 | 1,096 | 182 | 1.52 | 1.76 | 6.02 | |
| NC4EVA5ALN | 220-60 | 1,450 | 110 | 128 | 437 | 69 | 1.59 | 1.85 | 6.33 | ST | |
| | | 1,950 | 153 | 178 | 607 | 93 | 1.65 | 1.91 | 6.53 | | |
| | | 2,800 | 207 | 241 | 822 | 132 | 1.57 | 1.82 | 6.23 | | |
| | | 3,600 | 276 | 321 | 1,096 | 184 | 1.50 | 1.74 | 5.96 | | |
| NC4AV80ALR | 220-60 | 1,200 | 47 | 55 | 187 | 33 | 1.42 | 1.66 | 5.65 | ST | |
| | | 1,600 | 64 | 74 | 254 | 43.5 | 1.47 | 1.71 | 5.84 | | |
| | | 2,450 | 94 | 109 | 373 | 65 | 1.45 | 1.68 | 5.74 | | |
| | | 4,000 | 150 | 174 | 596 | 107 | 1.40 | 1.63 | 5.57 | | |
| *NF34J9131AM | 220-60 | 1,200 | 81 | 94 | 322 | 48 | 1.70 | 1.98 | 6.75 | ST | |
| | | 1,450 | 95 | 111 | 379 | 55 | 1.74 | 2.02 | 6.90 | | |
| | | 1,650 | 106 | 123 | 422 | 61 | 1.74 | 2.02 | 6.89 | | |
| | | 3,700 | 243 | 283 | 965 | 162 | 1.50 | 1.74 | 5.94 | | |
| *NF34J9131AN | 220-60 | 1,200 | 81 | 94 | 322 | 49 | 1.65 | 1.92 | 6.57 | ST | |
| | | 1,450 | 95 | 111 | 379 | 56 | 1.69 | 1.97 | 6.73 | | |
| | | 1,650 | 106 | 123 | 422 | 63 | 1.69 | 1.97 | 6.71 | | |
| | | 3,700 | 243 | 283 | 965 | 165 | 1.48 | 1.72 | 5.86 | | |

Remark : * is under developed model

R600a LBP

| RATED VOLTAGE | MODEL | VOLTAGE [V-Hz] | RUNNING RPM | ASHRAE | | | | | | | COOLING TYPE |
|---|--------------|----------------|-------------|------------------|------|--------|---------|--------------|---------|-------------|--------------|
| | | | | COOLING CAPACITY | | | INPUT W | EFFICIENCY | | | |
| | | | | Kcal/Hr | Watt | BTU/Hr | | EFF Kcal/WHr | COP W/W | EER BTU/WHr | |
| BLDC 200-240V ~ 50Hz, 220V ~ 60Hz | *NF34H9151AM | 220-60 | 1,200 | 92 | 107 | 364 | 54 | 1.69 | 1.96 | 6.69 | ST |
| | | | 1,450 | 112 | 130 | 443 | 66 | 1.70 | 1.98 | 6.76 | |
| | | | 1,850 | 145 | 168 | 575 | 83 | 1.74 | 2.02 | 6.90 | |
| | | | 3,700 | 288 | 335 | 1,143 | 193 | 1.49 | 1.74 | 5.93 | |
| | *NF34J9151AN | 220-60 | 1,200 | 92 | 107 | 364 | 57 | 1.61 | 1.87 | 6.40 | ST |
| | | | 1,450 | 112 | 130 | 443 | 67 | 1.66 | 1.93 | 6.60 | |
| | | | 1,850 | 145 | 168 | 575 | 86 | 1.69 | 1.97 | 6.72 | |
| | | | 3,700 | 288 | 335 | 1,143 | 195 | 1.48 | 1.72 | 5.87 | |

COOLING TYPE

FC : Fan cooling
OC : Oil cooling
ST : Static

ASHRAE CONDITIONS (LBP)

Evaporating Temp. : -23.3°C (-10°F)
Condensing Temp. : 54.4°C (130°F)
Gas Superheated to : 32.2°C (90°F)
Liquid sub-cooled to : 32.2°C (90°F)
Ambient Temp. : 32.2°C (90°F)

UNIT CONVERSION TABLE

1 watt = 3.41 Btu/Hr
1 watt = 0.86 Kcal/Hr
1 Kcal/Hr = 3.97 Btu/Hr

R600a MBP

| RATED VOLTAGE | MODEL | VOLTAGE [V-Hz] | RUNNING RPM | ASHRAE | | | | | | | COOLING TYPE |
|---------------------------------------|-------------|----------------|-------------|------------------|------|--------|---------|--------------|---------|-------------|--------------|
| | | | | COOLING CAPACITY | | | INPUT W | EFFICIENCY | | | |
| | | | | Kcal/Hr | Watt | BTU/Hr | | EFF Kcal/WHr | COP W/W | EER BTU/WHr | |
| AC 200-240V ~ 50Hz, 220V ~ 60Hz | MSV460A-M1B | 220-60 | 1,200 | 68 | 79 | 270 | 35 | 1.94 | 2.26 | 7.71 | ST |
| | | | 1,400 | 82 | 95 | 326 | 39.7 | 2.07 | 2.40 | 8.20 | |
| | | | 2,000 | 118 | 137 | 468 | 57.5 | 2.05 | 2.39 | 8.15 | |
| | | | 3,650 | 205 | 238 | 814 | 108 | 1.90 | 2.21 | 7.54 | |

COOLING TYPE

FC : Fan cooling
OC : Oil cooling
ST : Static

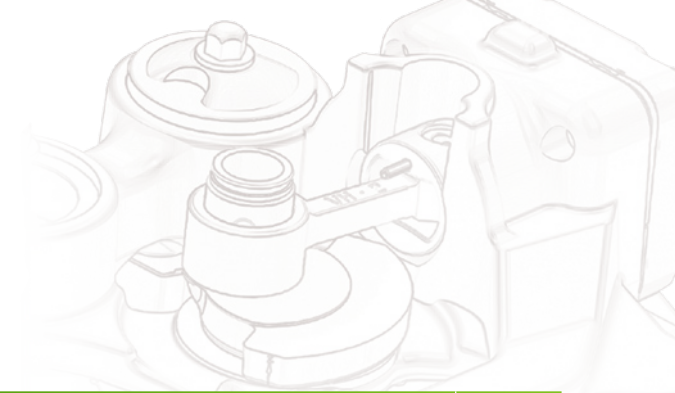
ASHRAE CONDITIONS (MBP)

Evaporating Temp. : -6.7°C (-20°F)
Condensing Temp. : 54.4°C (130°F)
Gas Superheated to : 35.0°C (95°F)
Liquid sub-cooled to : 46.1°C (115°F)
Ambient Temp. : 35.0°C (95°F)

UNIT CONVERSION TABLE

1 watt = 3.41 Btu/Hr
1 watt = 0.86 Kcal/Hr
1 Kcal/Hr = 3.97 Btu/Hr

Reciprocating Compressor SPECIFICATIONS



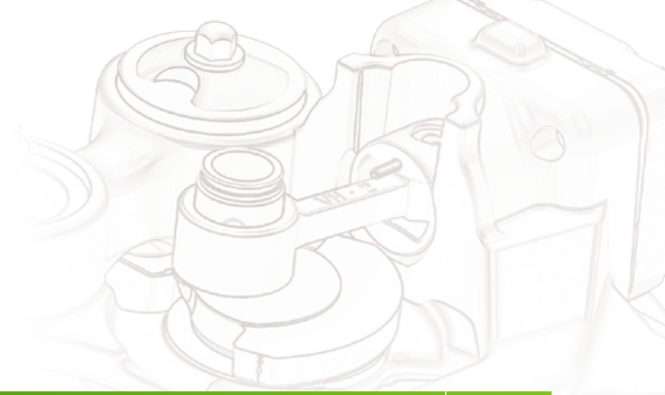
R134a LBP

| RATED VOLTAGE | MODEL | MOTOR TYPE | VOLTAGE [V-Hz] | ASHRAE | | | | | | | COOLING TYPE | |
|--------------------|-----------------|-------------|----------------|------------------|------|--------|-------|------------|------|------|--------------|-----|
| | | | | COOLING CAPACITY | | | INPUT | EFFICIENCY | | | | |
| | | | | Kcal/Hr | Watt | BTU/Hr | | W | EFF | COP | | EER |
| AC 100V~50/60Hz | CD124E-L1ZB | RSIR | 100-50 | 42 | 49 | 167 | 72 | 0.58 | 0.68 | 2.32 | ST | |
| | | | 100-60 | 50 | 58 | 199 | 68 | 0.74 | 0.85 | 2.92 | | |
| | CD130E-L1Z2 | RSIR | 100-50 | 58 | 67 | 230 | 76 | 0.76 | 0.89 | 3.03 | ST | |
| | | | 100-60 | 70 | 81 | 278 | 79 | 0.89 | 1.03 | 3.52 | | |
| | NC1A30ELA | RSIR | 100-50 | 68 | 79 | 270 | 69 | 0.99 | 1.15 | 3.91 | ST | |
| | | | 100-60 | 80 | 93 | 318 | 75 | 1.07 | 1.24 | 4.23 | | |
| | SD137E-L1U2 | RSCR | 100-50 | 72 | 84 | 286 | 91 | 0.79 | 0.92 | 3.14 | ST | |
| | | | 100-60 | 87 | 101 | 345 | 99 | 0.88 | 1.02 | 3.49 | | |
| | SD152E-L1W2 | CSR | 100-50 | 117 | 136 | 464 | 111 | 1.05 | 1.23 | 4.18 | ST | |
| | | | 100-60 | 135 | 157 | 536 | 121 | 1.12 | 1.30 | 4.43 | | |
| | SD162E-L1W2 | CSR | 100-50 | 144 | 167 | 572 | 141 | 1.02 | 1.19 | 4.05 | ST/OC | |
| | | | 100-60 | 170 | 198 | 675 | 147 | 1.16 | 1.34 | 4.59 | | |
| | SK170E-L2W | CSR | 100-50 | 168 | 195 | 667 | 149 | 1.13 | 1.31 | 4.48 | FC | |
| | | | 100-60 | 206 | 240 | 818 | 170 | 1.21 | 1.41 | 4.81 | | |
| | SK182E-L2W | CSR | 100-50 | 203 | 236 | 806 | 188 | 1.08 | 1.26 | 4.29 | FC/OC | |
| | | | 100-60 | 239 | 278 | 949 | 196 | 1.22 | 1.42 | 4.84 | | |
| | AC 115V~60Hz | CD124C-L1Z2 | RSIR | 115-60 | 52 | 60 | 206 | 65 | 0.80 | 0.93 | 3.18 | ST |
| | | CD124C-L1ZA | RSIR | 115-60 | 50 | 58 | 199 | 68 | 0.74 | 0.85 | 2.92 | ST |
| CD124C-S1Z2 | | RSIR | 115-60 | 52 | 60 | 206 | 57 | 0.91 | 1.06 | 3.62 | ST | |
| CD130C-L1Z2 | | RSIR | 115-60 | 70 | 81 | 278 | 76 | 0.92 | 1.07 | 3.66 | ST | |
| CD130C-S1Z2 | | RSIR | 115-60 | 70 | 81 | 278 | 73 | 0.96 | 1.12 | 3.81 | ST | |
| CD130C-S1ZA | | RSIR | 115-60 | 70 | 81 | 278 | 82 | 0.85 | 0.99 | 3.39 | ST | |
| SD137C-L1ZB | | RSIR | 115-60 | 93 | 108 | 369 | 102 | 0.91 | 1.06 | 3.62 | ST | |
| SD137C-L1UB | | RSCR | 115-60 | 93 | 108 | 369 | 96 | 0.97 | 1.13 | 3.85 | ST | |
| MSE140C-L1H | | RSCR | 115-60 | 126 | 147 | 500 | 84 | 1.50 | 1.74 | 5.95 | ST | |
| MSE140C-L1U | | RSCR | 115-60 | 126 | 147 | 500 | 81.3 | 1.55 | 1.80 | 6.15 | ST | |
| MSE140C-L1G | | RSCR | 115-60 | 126 | 147 | 500 | 87 | 1.45 | 1.68 | 5.75 | ST | |
| SD143C-L1U2 | | RSCR | 115-60 | 114 | 133 | 453 | 114 | 1.00 | 1.16 | 3.97 | ST | |
| MSA143C-S1A | | RSIR | 115-60 | 124 | 144 | 492 | 100 | 1.24 | 1.44 | 4.92 | ST | |
| MSA143C-S1B | | RSCR | 115-60 | 124 | 144 | 492 | 94 | 1.32 | 1.53 | 5.24 | ST | |
| MSE148C-L1H | | RSCR | 115-60 | 155 | 180 | 615 | 103.4 | 1.50 | 1.74 | 5.95 | ST | |
| MSE148C-L1U | | RSCR | 115-60 | 155 | 180 | 615 | 100 | 1.55 | 1.80 | 6.15 | ST | |
| MSE148C-L1G | | RSCR | 115-60 | 155 | 180 | 615 | 107 | 1.45 | 1.68 | 5.75 | ST | |
| SD152C-L1UA | | RSCR | 115-60 | 146 | 170 | 580 | 123 | 1.19 | 1.38 | 4.71 | ST | |
| MD152C-L1UB | | RSCR | 115-60 | 147 | 171 | 584 | 115 | 1.28 | 1.49 | 5.07 | ST | |
| MD152C-R1UA | | RSCR | 115-60 | 152 | 177 | 603 | 116 | 1.31 | 1.52 | 5.20 | ST | |
| MSS151C-L1U | | RSCR | 115-60 | 152 | 177 | 603 | 107 | 1.42 | 1.65 | 5.64 | ST | |
| MSA151C-L1U | | RSCR | 115-60 | 152 | 177 | 603 | 113 | 1.35 | 1.56 | 5.34 | ST | |
| MSA151C-L1G | | RSCR | 115-60 | 152 | 177 | 603 | 109 | 1.39 | 1.62 | 5.54 | ST | |
| MSA151C-L1B | | RSCR | 115-60 | 152 | 177 | 603 | 113 | 1.35 | 1.56 | 5.34 | ST | |
| MSE152C-L1H | | RSCR | 115-60 | 168 | 195 | 667 | 110.2 | 1.52 | 1.77 | 6.05 | ST | |
| MSE152C-L1U | | RSCR | 115-60 | 168 | 195 | 667 | 106.7 | 1.58 | 1.83 | 6.25 | ST | |
| MSE152C-L1G | | RSCR | 115-60 | 168 | 195 | 667 | 114 | 1.47 | 1.71 | 5.85 | ST | |
| MSE156C-L1H | | RSCR | 115-60 | 188 | 219 | 746 | 123.3 | 1.52 | 1.77 | 6.05 | ST | |
| MSE156C-L1U | | RSCR | 115-60 | 188 | 219 | 746 | 119.4 | 1.58 | 1.83 | 6.25 | ST | |
| MSE156C-L1G | | RSCR | 115-60 | 188 | 219 | 746 | 127.5 | 1.47 | 1.71 | 5.85 | ST | |

R134a LBP

| RATED VOLTAGE | MODEL | MOTOR TYPE | VOLTAGE [V-Hz] | ASHRAE | | | | | | | COOLING TYPE | |
|-----------------|---------------------|-------------|----------------|------------------|-------|--------|-------|------------|------|------|--------------|-----|
| | | | | COOLING CAPACITY | | | INPUT | EFFICIENCY | | | | |
| | | | | Kcal/Hr | Watt | BTU/Hr | | W | EFF | COP | | EER |
| AC 115V~60Hz | SD162C-L1U2 | RSIR | 115-60 | 170 | 198 | 675 | 157 | 1.08 | 1.26 | 4.30 | ST | |
| | | RSCR | 115-60 | 170 | 198 | 675 | 150 | 1.13 | 1.32 | 4.50 | | |
| | SD162C-L1UB | RSCR | 115-60 | 170 | 198 | 675 | 155 | 1.10 | 1.28 | 4.35 | ST | |
| | MD162C-S1U2 | RSCR | 115-60 | 166 | 193 | 659 | 146 | 1.14 | 1.32 | 4.51 | ST | |
| | MK162C-L1UA | RSCR | 115-60 | 184 | 214 | 730 | 134 | 1.37 | 1.60 | 5.45 | ST | |
| | MSS162C-L1U | RSCR | 115-60 | 182 | 212 | 723 | 129 | 1.41 | 1.64 | 5.60 | ST | |
| | MSA162C-L1U | RSCR | 115-60 | 182 | 212 | 723 | 136 | 1.34 | 1.56 | 5.31 | ST | |
| | MSA162C-L1B | RSCR | 115-60 | 187 | 217 | 742 | 145 | 1.29 | 1.50 | 5.12 | ST | |
| | MSE166C-L1H | RSCR | 115-60 | 225 | 262 | 893 | 150.1 | 1.50 | 1.74 | 5.95 | ST | |
| | MSE166C-L1U | RSCR | 115-60 | 225 | 262 | 893 | 145.2 | 1.55 | 1.80 | 6.15 | ST | |
| | MSE166C-L1G | RSCR | 115-60 | 225 | 262 | 893 | 155.3 | 1.45 | 1.68 | 5.75 | ST | |
| | SK170C-L2W | CSR | 115-60 | 206 | 240 | 818 | 170 | 1.21 | 1.41 | 4.81 | FC | |
| | MK172C-L2UA | RSCR | 115-60 | 224 | 260 | 889 | 159 | 1.41 | 1.64 | 5.59 | FC | |
| | MSS170C-L1U | RSCR | 115-60 | 222 | 258 | 881 | 152 | 1.46 | 1.70 | 5.80 | ST | |
| | MSA170C-L1U | RSCR | 115-60 | 222 | 258 | 881 | 160 | 1.39 | 1.61 | 5.51 | ST | |
| | MSA170C-L1B | RSCR | 115-60 | 222 | 258 | 881 | 160 | 1.39 | 1.61 | 5.51 | ST | |
| | SK182C-L2U | RSCR | 115-60 | 239 | 278 | 949 | 201 | 1.19 | 1.38 | 4.72 | FC | |
| | SK182C-L2W | CSR | 115-60 | 239 | 278 | 949 | 196 | 1.22 | 1.42 | 4.84 | FC | |
| | MK183C-L2U | RSCR | 115-60 | 258 | 300 | 1,024 | 179 | 1.44 | 1.68 | 5.72 | FC | |
| | MK183C-S2U | RSCR | 115-60 | 258 | 300 | 1,024 | 187 | 1.38 | 1.60 | 5.48 | FC | |
| | SK1A1C-L2W | CSR | 115-60 | 303 | 352 | 1,203 | 275 | 1.10 | 1.28 | 4.37 | FC | |
| | SK1A1C-L2WB | CSR | 115-60 | 312 | 363 | 1,239 | 290 | 1.08 | 1.25 | 4.27 | FC | |
| | AC 115-127V~60Hz | NC1A30DLA | RSIR | 115-60 | 80 | 93 | 318 | 79 | 1.01 | 1.18 | 4.02 | ST |
| | | | 127-60 | 80 | 93 | 318 | 82 | 0.98 | 1.13 | 3.87 | | |
| | | NC1A37DLB | RSCR | 115-60 | 108 | 126 | 429 | 100 | 1.08 | 1.26 | 4.29 | ST |
| | | NC1A43DLB | RSCR | 115-60 | 118 | 137 | 468 | 100 | 1.18 | 1.37 | 4.68 | ST |
| | | MSS143D-S1U | RSCR | 115-60 | 116 | 135 | 461 | 85 | 1.36 | 1.59 | 5.42 | ST |
| 127-60 | | | | 116 | 135 | 461 | 92 | 1.26 | 1.47 | 5.01 | | |
| MSA151D-L1B | | RSCR | 115-60 | 152 | 177 | 603 | 113 | 1.35 | 1.56 | 5.34 | ST | |
| | | | 127-60 | 152 | 177 | 603 | 120 | 1.27 | 1.47 | 5.03 | | |
| MSS162D-S1U | | RSCR | 115-60 | 187 | 217 | 742 | 135 | 1.39 | 1.61 | 5.50 | ST | |
| | | | 127-60 | 187 | 217 | 742 | 142 | 1.32 | 1.53 | 5.23 | | |
| MSA162D-L1B | | RSCR | 115-60 | 187 | 217 | 742 | 145 | 1.29 | 1.50 | 5.12 | ST | |
| | | | 127-60 | 187 | 217 | 742 | 150 | 1.25 | 1.45 | 4.95 | | |
| MK162D-L1U | | RSCR | 115-60 | 184 | 214 | 730 | 124 | 1.48 | 1.73 | 5.89 | ST | |
| | | | 127-60 | 184 | 214 | 730 | 126 | 1.46 | 1.70 | 5.80 | | |
| MK162D-S2UB | | RSCR | 115-60 | 184 | 214 | 730 | 135 | 1.36 | 1.58 | 5.41 | FC | |
| | | | 127-60 | 184 | 214 | 730 | 142 | 1.30 | 1.51 | 5.14 | | |
| MK172D-R2U | | RSCR | 115-60 | 224 | 260 | 889 | 149 | 1.50 | 1.75 | 5.97 | FC | |
| | | | 127-60 | 224 | 260 | 889 | 152 | 1.47 | 1.71 | 5.85 | | |
| MK183D-L2U | | RSCR | 115-60 | 258 | 300 | 1,024 | 179 | 1.44 | 1.68 | 5.72 | FC | |
| | 127-60 | | 258 | 300 | 1,024 | 182 | 1.42 | 1.65 | 5.63 | | | |
| MK183D-L2UB | RSCR | 115-60 | 258 | 300 | 1,024 | 185 | 1.39 | 1.62 | 5.54 | FC | | |
| | | 127-60 | 258 | 300 | 1,024 | 194 | 1.33 | 1.55 | 5.28 | | | |

Reciprocating Compressor SPECIFICATIONS



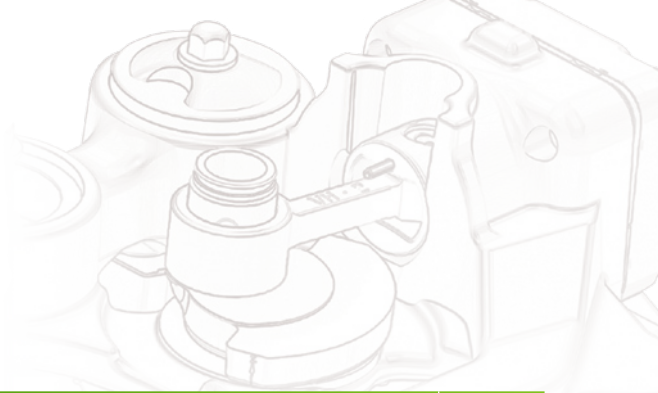
R134a LBP

| RATED VOLTAGE | MODEL | MOTOR TYPE | VOLTAGE [V-Hz] | ASHRAE | | | | | | | COOLING TYPE |
|-----------------------------|-------------|------------|----------------|------------------|------|--------|-------|------------|------|-------|--------------|
| | | | | COOLING CAPACITY | | | INPUT | EFFICIENCY | | | |
| | | | | Kcal/Hr | Watt | BTU/Hr | | W | EFF | COP | |
| AC 127V~60Hz | CD124P-L1Z2 | RSIR | 127-60 | 52 | 60 | 206 | 68 | 0.76 | 0.89 | 3.04 | ST |
| | CD124P-S1ZB | RSIR | 127-60 | 52 | 60 | 206 | 74 | 0.70 | 0.82 | 2.79 | ST |
| | CD130P-L1Z2 | RSIR | 127-60 | 70 | 81 | 278 | 76 | 0.92 | 1.07 | 3.66 | ST |
| | CD130P-S1ZB | RSIR | 127-60 | 70 | 81 | 278 | 76 | 0.92 | 1.07 | 3.66 | ST |
| | SD152P-L1W2 | CSR | 127-60 | 135 | 157 | 536 | 122 | 1.11 | 1.29 | 4.39 | ST |
| | MK152P-S1U | RSCR | 127-60 | 148 | 172 | 588 | 108 | 1.37 | 1.59 | 5.44 | ST |
| | SD162P-L1U2 | RSCR | 127-60 | 170 | 198 | 675 | 147 | 1.16 | 1.34 | 4.59 | ST |
| | MD162P-S1U2 | RSCR | 127-60 | 187 | 217 | 742 | 144 | 1.30 | 1.51 | 5.16 | ST |
| | MSA162P-S1B | RSCR | 127-60 | 187 | 217 | 742 | 147 | 1.27 | 1.48 | 5.05 | ST |
| | MK162P-S1UA | RSCR | 127-60 | 184 | 214 | 730 | 134 | 1.37 | 1.60 | 5.45 | ST |
| | MK172P-L2U | RSCR | 127-60 | 224 | 260 | 889 | 159 | 1.41 | 1.64 | 5.59 | FC |
| | SK182P-L2U | RSCR | 127-60 | 239 | 278 | 949 | 201 | 1.19 | 1.38 | 4.72 | FC |
| | MK183P-S2U | RSCR | 127-60 | 263 | 306 | 1,044 | 190 | 1.38 | 1.61 | 5.50 | FC |
| AC 200-220V~50Hz, 220V~60Hz | CD124H-L1Z2 | RSIR | 220-50 | 43 | 50 | 171 | 63 | 0.68 | 0.79 | 2.71 | ST |
| | | | 220-60 | 52 | 60 | 206 | 64 | 0.81 | 0.94 | 3.23 | |
| | CD124H-L1ZA | RSIR | 220-50 | 42 | 49 | 167 | 71 | 0.59 | 0.69 | 2.35 | ST |
| | | | 220-60 | 50 | 58 | 199 | 71 | 0.70 | 0.82 | 2.80 | |
| | CD130H-L1Z2 | RSIR | 220-50 | 58 | 67 | 230 | 73 | 0.79 | 0.92 | 3.15 | ST |
| | | | 220-60 | 70 | 81 | 278 | 76 | 0.92 | 1.07 | 3.66 | |
| | SD137H-L1ZB | RSIR | 220-50 | 75 | 87 | 298 | 93 | 0.81 | 0.94 | 3.20 | ST |
| | | | 220-60 | 93 | 108 | 369 | 98 | 0.95 | 1.10 | 3.77 | |
| | SD137H-L1UB | RSCR | 220-50 | 75 | 87 | 298 | 87 | 0.86 | 1.00 | 3.42 | ST |
| | | | 220-60 | 93 | 108 | 369 | 92 | 1.01 | 1.18 | 4.01 | |
| | NC1A37HLB | RSCR | 220-50 | 90 | 105 | 357 | 84 | 1.07 | 1.25 | 4.25 | ST |
| | | | 220-60 | 108 | 126 | 429 | 97 | 1.11 | 1.29 | 4.42 | |
| | SD143H-L1UA | RSCR | 220-50 | 98 | 114 | 389 | 109 | 0.90 | 1.05 | 3.57 | ST |
| | | | 220-60 | 118 | 137 | 468 | 114 | 1.04 | 1.20 | 4.11 | |
| | NC1A43HLB | RSCR | 220-50 | 102 | 119 | 405 | 91 | 1.12 | 1.30 | 4.45 | ST |
| | | | 220-60 | 118 | 137 | 468 | 100 | 1.18 | 1.37 | 4.68 | |
| | SD152H-S1UB | RSCR | 220-50 | 120 | 140 | 476 | 113 | 1.06 | 1.23 | 4.21 | ST |
| | | | 220-60 | 146 | 170 | 580 | 122 | 1.20 | 1.39 | 4.75 | |
| | SD162H-L1UB | RSCR | 220-50 | 146 | 170 | 580 | 139 | 1.05 | 1.22 | 4.17 | ST |
| | | | 220-60 | 182 | 212 | 723 | 152 | 1.20 | 1.39 | 4.75 | |
| | SK170H-L1UB | RSCR | 220-50 | 168 | 195 | 667 | 153 | 1.10 | 1.28 | 4.36 | ST |
| 220-60 | | | 206 | 240 | 818 | 164 | 1.26 | 1.46 | 4.99 | | |
| MSA170H-L1B | RSCR | 220-50 | 173 | 201 | 687 | 141 | 1.23 | 1.43 | 4.87 | ST | |
| | | 220-60 | 220 | 256 | 873 | 163 | 1.35 | 1.57 | 5.36 | | |
| MK172H-L1U | RSCR | 220-50 | 176 | 205 | 699 | 131 | 1.34 | 1.56 | 5.33 | ST/OC | |
| | | 220-60 | 224 | 260 | 889 | 159 | 1.41 | 1.64 | 5.59 | | |
| MK172H-L1UA | RSCR | 220-50 | 176 | 205 | 699 | 135 | 1.30 | 1.52 | 5.18 | ST/OC | |
| | | 220-60 | 224 | 260 | 889 | 159 | 1.41 | 1.64 | 5.59 | | |
| SK182H-L2UA | RSCR | 220-50 | 203 | 236 | 806 | 182 | 1.12 | 1.30 | 4.43 | FC/OC | |
| | | 220-60 | 239 | 278 | 949 | 191 | 1.25 | 1.46 | 4.97 | | |

R134a LBP

| RATED VOLTAGE | MODEL | MOTOR TYPE | VOLTAGE [V-Hz] | ASHRAE | | | | | | | COOLING TYPE |
|-----------------------------|-------------|------------|----------------|------------------|-------|--------|-------|------------|------|------|--------------|
| | | | | COOLING CAPACITY | | | INPUT | EFFICIENCY | | | |
| | | | | Kcal/Hr | Watt | BTU/Hr | | W | EFF | COP | |
| AC 200-220V~50Hz, 220V~60Hz | MK183H-L2UB | RSCR | 220-50 | 203 | 236 | 806 | 154 | 1.32 | 1.53 | 5.23 | FC |
| | | | 220-60 | 258 | 300 | 1024 | 179 | 1.44 | 1.68 | 5.72 | |
| | SK190H-S2U | RSCR | 220-50 | 227 | 264 | 901 | 233 | 0.97 | 1.13 | 3.87 | FC/OC |
| | | | 220-60 | 264 | 307 | 1,048 | 229 | 1.15 | 1.34 | 4.58 | |
| | SK190H-L2UA | RSCR | 220-50 | 227 | 264 | 901 | 208 | 1.09 | 1.27 | 4.33 | FC/OC |
| | | | 220-60 | 264 | 307 | 1,048 | 211 | 1.25 | 1.45 | 4.97 | |
| MK190H-L2U | RSCR | 220-50 | 225 | 262 | 893 | 168 | 1.34 | 1.56 | 5.32 | FC | |
| | | 220-60 | 285 | 331 | 1,131 | 200 | 1.43 | 1.66 | 5.66 | | |
| AC 220V~60Hz | CD124B-L1ZA | RSIR | 220-60 | 50 | 58 | 199 | 72 | 0.69 | 0.81 | 2.76 | ST |
| | CD130B-S1ZA | RSIR | 220-60 | 70 | 81 | 278 | 82 | 0.85 | 0.99 | 3.39 | ST |
| | CD130B-S1ZB | RSIR | 220-60 | 70 | 81 | 278 | 82 | 0.85 | 0.99 | 3.39 | ST |
| | NC1A37BLA | RSIR | 220-60 | 108 | 126 | 429 | 103 | 1.05 | 1.22 | 4.16 | ST |
| | MSE148B-L1U | PTC-RSCR | 220-60 | 155 | 180 | 615 | 100 | 1.55 | 1.80 | 6.15 | ST |
| | MD152B-L1UA | RSCR | 220-60 | 148 | 172 | 588 | 122 | 1.21 | 1.41 | 4.82 | ST |
| | MD152B-L1UB | RSCR | 220-60 | 131 | 152 | 520 | 117 | 1.12 | 1.30 | 4.45 | ST |
| | MSE156B-L1U | PTC-RSCR | 220-60 | 188 | 219 | 746 | 121 | 1.55 | 1.80 | 6.15 | ST |
| | MD162B-L1U2 | RSCR | 220-60 | 160 | 186 | 635 | 136 | 1.18 | 1.37 | 4.67 | ST |
| | MSE166B-L1U | PTC-RSCR | 220-60 | 225 | 262 | 893 | 145 | 1.55 | 1.80 | 6.15 | ST |
| | SK162B-L1UA | RSCR | 220-60 | 170 | 198 | 675 | 141 | 1.21 | 1.40 | 4.79 | ST |
| | MK162B-L1UB | RSCR | 220-60 | 184 | 214 | 730 | 134 | 1.37 | 1.60 | 5.45 | ST |
| | SK170B-L2W | CSR | 220-60 | 206 | 240 | 818 | 165 | 1.25 | 1.45 | 4.96 | FC |
| | MK172B-L2UA | RSCR | 220-60 | 224 | 260 | 889 | 159 | 1.41 | 1.64 | 5.59 | FC |
| | MK172B-L2UB | RSCR | 220-60 | 224 | 260 | 889 | 159 | 1.41 | 1.64 | 5.59 | FC |
| | SK182B-L2W | CSR | 220-60 | 239 | 278 | 949 | 186 | 1.28 | 1.49 | 5.10 | FC |
| | MK183B-L2U | RSCR | 220-60 | 258 | 300 | 1,024 | 179 | 1.44 | 1.68 | 5.72 | FC |
| | SK190B-L2W | CSR | 220-60 | 264 | 307 | 1,048 | 206 | 1.28 | 1.49 | 5.09 | FC |
| | MK190B-S2W | CSR | 220-60 | 285 | 331 | 1,131 | 200 | 1.43 | 1.66 | 5.66 | FC |
| | DK1A3B-L2WA | CSR | 220-60 | 385 | 448 | 1,528 | 335 | 1.15 | 1.34 | 4.56 | FC |
| | SK1A1B-L2W | CSR | 220-60 | 303 | 352 | 1,203 | 263 | 1.15 | 1.34 | 4.57 | FC |
| SK1A1B-L2WB | CSR | 220-60 | 330 | 384 | 1,310 | 283 | 1.17 | 1.36 | 4.63 | FC | |
| AC 220-240V~50Hz, 220V~60Hz | NC1A30GLA | RSIR | 220-50 | 68 | 79 | 270 | 71 | 0.96 | 1.11 | 3.80 | ST |
| | | | 220-60 | 80 | 93 | 318 | 77 | 1.04 | 1.21 | 4.12 | |
| | MSS151G-L1U | RSCR | 220-50 | 125 | 145 | 496 | 90 | 1.39 | 1.61 | 5.51 | ST |
| | | | 220-60 | 152 | 177 | 603 | 107 | 1.42 | 1.65 | 5.64 | |
| | MSA151G-L1B | RSCR | 220-50 | 125 | 145 | 496 | 96 | 1.30 | 1.51 | 5.17 | ST |
| | | | 220-60 | 152 | 177 | 603 | 114 | 1.33 | 1.55 | 5.29 | |
| | MSA162G-L1B | RSCR | 220-50 | 151 | 176 | 599 | 119 | 1.27 | 1.48 | 5.04 | ST |
| | | | 220-60 | 187 | 217 | 742 | 140 | 1.34 | 1.55 | 5.30 | |
| | MSS170G-L1U | RSCR | 220-50 | 178 | 207 | 707 | 124 | 1.44 | 1.67 | 5.70 | ST |
| | | | 220-60 | 222 | 258 | 881 | 151 | 1.47 | 1.71 | 5.84 | |
| | MK183G-L2U | RSCR | 220-50 | 203 | 236 | 806 | 149 | 1.36 | 1.58 | 5.41 | FC |
| | | | 220-60 | 258 | 300 | 1,024 | 179 | 1.44 | 1.68 | 5.72 | |
| MK190G-L2U | RSCR | 220-50 | 225 | 262 | 893 | 168 | 1.34 | 1.56 | 5.32 | FC | |
| | | 220-60 | 285 | 331 | 1,131 | 200 | 1.43 | 1.66 | 5.66 | | |

Reciprocating Compressor SPECIFICATIONS



R134a LBP

| RATED VOLTAGE | MODEL | MOTOR TYPE | VOLTAGE [V-Hz] | ASHRAE | | | | | | | COOLING TYPE |
|---------------------|-------------|------------|----------------|------------------|-------|--------|-------|------------|------|-------|--------------|
| | | | | COOLING CAPACITY | | | INPUT | EFFICIENCY | | | |
| | | | | Kcal/Hr | Watt | BTU/Hr | | W | EFF | COP | |
| AC 220-240V~50Hz | CD124Q-L1Z2 | RSIR | 220-50 | 43 | 50 | 171 | 57 | 0.75 | 0.88 | 2.99 | ST |
| | CD130Q-L1Z2 | RSIR | 220-50 | 58 | 67 | 230 | 65 | 0.89 | 1.04 | 3.54 | ST |
| | CD130Q-S1ZA | RSIR | 220-50 | 58 | 67 | 230 | 74 | 0.78 | 0.91 | 3.11 | ST |
| | SD137Q-L1ZB | RSIR | 220-50 | 75 | 87 | 298 | 86 | 0.87 | 1.01 | 3.46 | ST |
| | SD137Q-L1UB | RSCR | 220-50 | 75 | 87 | 298 | 80 | 0.94 | 1.09 | 3.72 | ST |
| | NC1A37QLB | RSCR | 220-50 | 90 | 105 | 357 | 80 | 1.13 | 1.31 | 4.47 | ST |
| | SD143Q-L1U2 | RSCR | 220-50 | 95 | 110 | 377 | 99 | 0.96 | 1.12 | 3.81 | ST |
| | MSA143Q-S1Z | RSIR | 220-50 | 96 | 112 | 381 | 83 | 1.16 | 1.34 | 4.59 | ST |
| | SD152Q-L1UB | RSCR | 220-50 | 120 | 140 | 476 | 104 | 1.15 | 1.34 | 4.58 | ST |
| | MD152Q-L1U2 | RSCR | 220-50 | 118 | 137 | 468 | 98 | 1.20 | 1.40 | 4.78 | ST |
| | SD162Q-L1UB | RSCR | 220-50 | 146 | 170 | 580 | 125 | 1.17 | 1.36 | 4.64 | ST |
| | MK162Q-L1UA | RSCR | 220-50 | 145 | 169 | 576 | 105 | 1.38 | 1.61 | 5.48 | ST |
| | MSS162Q-L1U | RSCR | 220-50 | 151 | 176 | 599 | 105 | 1.44 | 1.67 | 5.71 | ST |
| | MSA162Q-L1G | RSCR | 220-50 | 151 | 176 | 599 | 111 | 1.36 | 1.58 | 5.40 | ST |
| | SK170Q-L1U | RSCR | 220-50 | 168 | 195 | 667 | 141 | 1.19 | 1.39 | 4.73 | ST/OC |
| | MSA170Q-L1B | RSCR | 220-50 | 173 | 201 | 687 | 129 | 1.34 | 1.56 | 5.32 | ST |
| | MSA170Q-L1G | RSCR | 220-50 | 173 | 201 | 687 | 126 | 1.37 | 1.60 | 5.45 | ST |
| | MK172Q-L2UB | RSCR | 220-50 | 176 | 205 | 699 | 129 | 1.36 | 1.59 | 5.42 | FC |
| | SK182Q-L2U | RSCR | 220-50 | 203 | 236 | 806 | 164 | 1.24 | 1.44 | 4.91 | FC/OC |
| | MK183Q-L2UB | RSCR | 220-50 | 203 | 236 | 806 | 142 | 1.43 | 1.66 | 5.68 | FC |
| SK190Q-L2U | RSCR | 220-50 | 227 | 264 | 901 | 180 | 1.26 | 1.47 | 5.01 | FC/OC | |
| MK190Q-L2U | RSCR | 220-50 | 225 | 262 | 893 | 157 | 1.43 | 1.67 | 5.69 | FC | |
| SK1A1Q-L2UB | RSCR | 220-50 | 275 | 320 | 1,092 | 229 | 1.20 | 1.40 | 4.77 | FC | |
| AC 200-220V~50Hz | CD124K-S1ZA | RSIR | 220-50 | 42 | 49 | 167 | 71 | 0.59 | 0.69 | 2.35 | ST |
| | CD130K-S1ZA | RSIR | 220-50 | 58 | 67 | 230 | 79 | 0.73 | 0.85 | 2.91 | ST |
| | MSA143K-S1B | RSCR | 220-50 | 96 | 112 | 381 | 77 | 1.25 | 1.45 | 4.95 | ST |
| | NC1A43KLB | RSCR | 220-50 | 102 | 119 | 405 | 90 | 1.13 | 1.32 | 4.50 | ST |
| | NC1A43KLA | RSIR | 220-50 | 102 | 119 | 405 | 94 | 1.09 | 1.26 | 4.31 | ST |
| | SK170K-T1UA | RSCR | 220-50 | 168 | 195 | 667 | 137 | 1.23 | 1.43 | 4.87 | ST |
| | SK170K-S1UB | RSCR | 220-50 | 168 | 195 | 667 | 137 | 1.23 | 1.43 | 4.87 | ST |
| | MSA170K-S1G | RSCR | 220-50 | 173 | 201 | 687 | 135 | 1.28 | 1.49 | 5.09 | ST |
| | MK172K-S1U | RSCR | 220-50 | 176 | 205 | 699 | 124 | 1.42 | 1.65 | 5.63 | ST |

COOLING TYPE

FC : Fan cooling
OC : Oil cooling
ST : Static

MOTOR TYPE

RSIR : Resistance Start Induction Run
RSCR : Resistance Start Capacitor Run
CSIR : Capacitor Start Induction Run
CSR : Capacitor Start Capacitor Run

ASHRAE CONDITIONS (LBP)

Evaporating Temp. : -23.3°C (-10°F)
Condensing Temp. : 54.4°C (130°F)
Gas Superheated to : 32.2°C (90°F)
Liquid sub-cooled to : 32.2°C (90°F)
Ambient Temp. : 32.2°C (90°F)

UNIT CONVERSION TABLE

1 watt = 3.41 Btu/Hr
1 watt = 0.86 Kcal/Hr
1 Kcal/Hr = 3.97 Btu/Hr

R600a LBP

| RATED VOLTAGE | MODEL | MOTOR TYPE | VOLTAGE [V-Hz] | ASHRAE | | | | | | | COOLING TYPE |
|-----------------------------------|-------------|-------------|----------------|------------------|------|--------|-------|------------|------|------|--------------|
| | | | | COOLING CAPACITY | | | INPUT | EFFICIENCY | | | |
| | | | | Kcal/Hr | Watt | BTU/Hr | | W | EFF | COP | |
| AC 115V~60Hz | MSE482C-L1H | RSCR | 115-60 | 150 | 174 | 596 | 96 | 1.56 | 1.82 | 6.20 | ST |
| | MSE482C-S1H | RSCR | 115-60 | 150 | 174 | 596 | 97.6 | 1.54 | 1.79 | 6.10 | ST |
| | MSA488C-S1B | RSCR | 115-60 | 160 | 186 | 635 | 124.5 | 1.29 | 1.49 | 5.10 | ST |
| | MSE4A0C-L1H | RSCR | 115-60 | 186 | 216 | 738 | 123 | 1.51 | 1.76 | 6.00 | ST |
| | MSE4A0C-S1H | RSCR | 115-60 | 186 | 216 | 738 | 125.1 | 1.49 | 1.73 | 5.90 | ST |
| | MSA4A1C-S1B | RSCR | 115-60 | 197 | 229 | 782 | 156.3 | 1.26 | 1.47 | 5.00 | ST |
| | 220V~60Hz | MK490B-L1UA | RSCR | 220-60 | 152 | 177 | 603 | 114 | 1.33 | 1.55 | 5.29 |
| AC 220-240V~50Hz | MD462Q-L1UA | RSCR | 220-50 | 78 | 91 | 310 | 68 | 1.15 | 1.33 | 4.55 | ST |
| | MSS470Q-L1U | RSCR | 220-50 | 98 | 114 | 389 | 67 | 1.46 | 1.70 | 5.81 | ST |
| | MSE482Q-L1U | RSCR | 220-50 | 128 | 149 | 508 | 77 | 1.66 | 1.93 | 6.60 | ST |
| | MSE482Q-L1G | RSCR | 220-50 | 128 | 149 | 508 | 82.6 | 1.55 | 1.80 | 6.15 | ST |
| | MSE482Q-L1H | RSCR | 220-50 | 128 | 149 | 508 | 79.4 | 1.61 | 1.88 | 6.40 | ST |
| | MSS488Q-L1U | RSCR | 220-50 | 120 | 140 | 476 | 82 | 1.46 | 1.70 | 5.81 | ST |
| | MSA488Q-L1B | RSCR | 220-50 | 120 | 140 | 476 | 90 | 1.33 | 1.55 | 5.29 | ST |
| | MSE490Q-L1U | RSCR | 220-50 | 140 | 163 | 556 | 85.5 | 1.64 | 1.90 | 6.50 | ST |
| | MSE490Q-L1G | RSCR | 220-50 | 138 | 160 | 548 | 91.3 | 1.51 | 1.76 | 6.00 | ST |
| | MSE4A0Q-L1U | RSCR | 220-50 | 158 | 184 | 627 | 98 | 1.61 | 1.88 | 6.40 | ST |
| | MSE4A0Q-L1G | RSCR | 220-50 | 162 | 188 | 643 | 107.1 | 1.51 | 1.76 | 6.00 | ST |
| | MSE4A0Q-L1H | RSCR | 220-50 | 162 | 188 | 643 | 103.7 | 1.56 | 1.82 | 6.20 | ST |
| | MSS4A1Q-L1U | RSCR | 220-50 | 164 | 191 | 651 | 109 | 1.50 | 1.75 | 5.97 | ST |
| | MSA4A1Q-L1B | RSCR | 220-50 | 164 | 191 | 651 | 115 | 1.43 | 1.66 | 5.66 | ST |
| | MSE4A1Q-L1U | RSCR | 220-50 | 176 | 205 | 699 | 110.9 | 1.59 | 1.85 | 6.30 | ST |
| | MSE4A1Q-L1G | RSCR | 220-50 | 175 | 203 | 695 | 117.7 | 1.49 | 1.73 | 5.90 | ST |
| | MSS4A2Q-R1U | RSCR | 220-50 | 180 | 209 | 715 | 120 | 1.50 | 1.74 | 5.96 | ST |
| | MSE4A2Q-L1U | RSCR | 220-50 | 192 | 223 | 762 | 122.9 | 1.56 | 1.82 | 6.20 | ST |
| | MSE4A2Q-L1H | RSCR | 220-50 | 192 | 223 | 762 | 127 | 1.51 | 1.76 | 6.00 | ST |
| | MK4A3Q-L1UA | RSCR | 220-50 | 179 | 208 | 711 | 132 | 1.36 | 1.58 | 5.38 | ST |
| MK4A5Q-L1U | RSCR | 220-50 | 222 | 258 | 881 | 162 | 1.37 | 1.59 | 5.44 | ST | |
| MK4A5Q-R1U | RSCR | 220-50 | 230 | 267 | 913 | 160 | 1.44 | 1.67 | 5.71 | ST | |
| AC 200-220V~50Hz, 220V~60Hz | MSE482H-L1G | RSCR | 220-60 | 150 | 174 | 596 | 102 | 1.47 | 1.71 | 5.84 | ST |
| | | RSCR | 220-50 | 130 | 151 | 516 | 87 | 1.49 | 1.74 | 5.93 | |
| | MSE482H-L1H | RSCR | 220-50 | 124 | 144 | 492 | 82 | 1.51 | 1.76 | 6.00 | ST |
| | | RSCR | 220-60 | 143 | 166 | 568 | 93 | 1.54 | 1.79 | 6.10 | |
| | MSA488H-L1B | RSCR | 220-60 | 153 | 178 | 607 | 110 | 1.39 | 1.62 | 5.52 | ST |
| RSCR | | 220-50 | 120 | 140 | 476 | 90 | 1.33 | 1.55 | 5.29 | | |

COOLING TYPE

FC : Fan cooling
OC : Oil cooling
ST : Static

MOTOR TYPE

RSIR : Resistance Start Induction Run
RSCR : Resistance Start Capacitor Run
CSIR : Capacitor Start Induction Run
CSR : Capacitor Start Capacitor Run

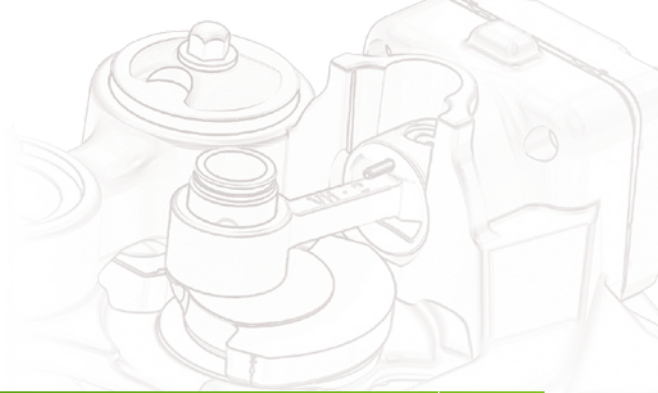
ASHRAE CONDITIONS (LBP)

Evaporating Temp. : -23.3°C (-10°F)
Condensing Temp. : 54.4°C (130°F)
Gas Superheated to : 32.2°C (90°F)
Liquid sub-cooled to : 32.2°C (90°F)
Ambient Temp. : 32.2°C (90°F)

UNIT CONVERSION TABLE

1 watt = 3.41 Btu/Hr
1 watt = 0.86 Kcal/Hr
1 Kcal/Hr = 3.97 Btu/Hr

Reciprocating Compressor SPECIFICATIONS



R600a L/MBP

| RATED VOLTAGE | MODEL | MOTOR TYPE | VOLTAGE [V-Hz] | ASHRAE | | | | | | | COOLING TYPE |
|-----------------------------------|-------------|------------|----------------|------------------|------|--------|-------|------------|------|------|--------------|
| | | | | COOLING CAPACITY | | | INPUT | EFFICIENCY | | | |
| | | | | Kcal/Hr | Watt | BTU/Hr | | W | EFF | COP | |
| AC 200-220V~50Hz, 220V~60Hz | MSE482H-M1H | RSCR | 220-50 | 242 | 281 | 961 | 121.6 | 1.99 | 2.32 | 7.90 | ST |
| | | RSCR | 220-60 | 290 | 337 | 1,151 | 142.1 | 2.04 | 2.37 | 8.10 | |
| | MSE482H-M1U | RSCR | 220-50 | 242 | 281 | 961 | 115.7 | 2.09 | 2.43 | 8.30 | ST |
| | | RSCR | 220-60 | 290 | 337 | 1,151 | 140.3 | 2.07 | 2.40 | 8.20 | |

COOLING TYPE

FC : Fan cooling
OC : Oil cooling
ST : Static

MOTOR TYPE

RSIR : Resistance Start Induction Run
RSCR : Resistance Start Capacitor Run
CSIR : Capacitor Start Induction Run
CSR : Capacitor Start Capacitor Run

ASHRAE CONDITIONS (MBP)

Evaporating Temp. : -6.7°C (-20°F)
Condensing Temp. : 54.4°C (130°F)
Gas Superheated to : 35.0°C (95°F)
Liquid sub-cooled to : 46.1°C (115°F)
Ambient Temp. : 35.0°C (95°F)

UNIT CONVERSION TABLE

1 watt = 3.41 Btu/Hr
1 watt = 0.86 Kcal/Hr
1 Kcal/Hr = 3.97 Btu/Hr

R134a DBP

| RATED VOLTAGE | MODEL | MOTOR TYPE | VOLTAGE [V-Hz] | ASHRAE | | | | | | | COOLING TYPE |
|---------------------|-------------|------------|----------------|------------------|------|--------|-------|------------|------|------|--------------|
| | | | | COOLING CAPACITY | | | INPUT | EFFICIENCY | | | |
| | | | | Kcal/Hr | Watt | BTU/Hr | | W | EFF | COP | |
| AC 220V~60Hz | MSA670B-D1B | RSCR | 220-60 | 810 | 942 | 3,216 | 361.1 | 2.24 | 2.61 | 8.90 | ST |
| AC 220-240V~50Hz | MSA670Q-D1B | RSCR | 220-50 | 665 | 773 | 2,640 | 277.8 | 2.39 | 2.78 | 9.50 | ST |

COOLING TYPE

FC : Fan cooling
OC : Oil cooling
ST : Static

MOTOR TYPE

RSIR : Resistance Start Induction Run
RSCR : Resistance Start Capacitor Run
CSIR : Capacitor Start Induction Run
CSR : Capacitor Start Capacitor Run

ASHRAE CONDITIONS (HBP/DBP)

Evaporating Temp. : 7.2°C (45°F)
Condensing Temp. : 54.4°C (130°F)
Gas Superheated to : 35.0°C (95°F)
Liquid sub-cooled to : 46.1°C (115°F)
Ambient Temp. : 35.0°C (95°F)

UNIT CONVERSION TABLE

1 watt = 3.41 Btu/Hr
1 watt = 0.86 Kcal/Hr
1 Kcal/Hr = 3.97 Btu/Hr

R134a HBP

| RATED VOLTAGE | MODEL | MOTOR TYPE | VOLTAGE [V-Hz] | ASHRAE | | | | | | | COOLING TYPE | |
|--------------------|---------------------|-------------|----------------|------------------|-------|--------|-------|------------|------|------|--------------|-----|
| | | | | COOLING CAPACITY | | | INPUT | EFFICIENCY | | | | |
| | | | | Kcal/Hr | Watt | BTU/Hr | | W | EFF | COP | | EER |
| AC 100V~50/60Hz | SD652E-S2W2 | CSR | 100-50 | 450 | 523 | 1,787 | 230 | 1.96 | 2.28 | 7.77 | FC | |
| | | | 100-60 | 550 | 640 | 2,184 | 262 | 2.10 | 2.44 | 8.33 | | |
| | HK690E2W | CSR | 100-50 | 780 | 907 | 3,097 | 390 | 2.00 | 2.33 | 7.94 | FC | |
| | | | 100-60 | 950 | 1,105 | 3,772 | 445 | 2.13 | 2.48 | 8.48 | | |
| AC 115V~60Hz | HK6A3E2W | CSR | 100-50 | 1,050 | 1,221 | 4,169 | 577 | 1.82 | 2.12 | 7.22 | FC | |
| | | | 100-60 | 1,250 | 1,453 | 4,963 | 644 | 1.94 | 2.26 | 7.71 | | |
| | AC 115V~60Hz | SD643C-H2U2 | RSCR | 115-60 | 450 | 523 | 1,787 | 220 | 2.05 | 2.38 | 8.12 | FC |
| | | SD652C-H2U2 | RSCR | 115-60 | 550 | 640 | 2,184 | 262 | 2.10 | 2.44 | 8.33 | FC |
| SK670C-H2Y | | RSIR | 115-60 | 720 | 837 | 2,858 | 390 | 1.85 | 2.15 | 7.33 | FC | |
| SK682C-H2Y | | RSIR | 115-60 | 830 | 965 | 3,295 | 460 | 1.80 | 2.10 | 7.16 | FC | |
| SK6A1C-H2Y | | RSIR | 115-60 | 1,080 | 1,256 | 4,288 | 630 | 1.71 | 1.99 | 6.81 | FC | |
| HK672C2Z | | RSIR | 115-60 | 750 | 872 | 2,978 | 370 | 2.03 | 2.36 | 8.05 | FC | |
| HK680C2Z | | RSIR | 115-60 | 850 | 988 | 3,375 | 430 | 1.98 | 2.30 | 7.85 | FC | |
| HK690C2Z | | RSIR | 115-60 | 950 | 1,105 | 3,772 | 490 | 1.94 | 2.25 | 7.70 | FC | |
| HK6A1C2U | | RSCR | 115-60 | 1,090 | 1,267 | 4,327 | 545 | 2.00 | 2.33 | 7.94 | FC | |
| HK6A3C2W | | CSR | 115-60 | 1,250 | 1,453 | 4,963 | 690 | 1.81 | 2.11 | 7.19 | FC | |
| AC 220V~60Hz | SD643B-H2U2 | RSCR | 220-60 | 450 | 523 | 1,787 | 220 | 2.05 | 2.38 | 8.12 | FC | |
| | SD643B-H2UB | RSCR | 220-60 | 480 | 558 | 1,906 | 238 | 2.02 | 2.35 | 8.01 | FC | |
| | SD652B-S2W2 | CSR | 220-60 | 550 | 640 | 2,184 | 255 | 2.16 | 2.51 | 8.56 | FC | |
| | SD652B-H2UB | RSCR | 220-60 | 570 | 663 | 2,263 | 270 | 2.11 | 2.45 | 8.38 | FC | |
| | SK670B-H2U | RSCR | 220-60 | 720 | 837 | 2,858 | 330 | 2.18 | 2.54 | 8.66 | FC | |
| | SK682B-H2U | RSCR | 220-60 | 830 | 965 | 3,295 | 405 | 2.05 | 2.38 | 8.14 | FC | |
| | SK6A1B-S2W | CSR | 220-60 | 1,080 | 1,256 | 4,288 | 560 | 1.93 | 2.24 | 7.66 | FC | |
| | HK672B2Z | RSIR | 220-60 | 750 | 872 | 2,978 | 370 | 2.03 | 2.36 | 8.05 | FC | |
| | HK680B2Z | RSIR | 220-60 | 850 | 988 | 3,375 | 430 | 1.98 | 2.30 | 7.85 | FC | |
| | HK690B2Z | RSIR | 220-60 | 950 | 1,105 | 3,772 | 490 | 1.94 | 2.25 | 7.70 | FC | |
| AC 220V~60Hz | HK6A1B2W | CSR | 220-60 | 1,090 | 1,267 | 4,327 | 520 | 2.10 | 2.44 | 8.32 | FC | |
| | HK6A3B2W | CSR | 220-60 | 1,250 | 1,453 | 4,963 | 650 | 1.92 | 2.24 | 7.63 | FC | |
| | AC 220-240V~50Hz | SD643Q-H2Z2 | RSIR | 230-50 | 370 | 430 | 1,469 | 197 | 1.88 | 2.18 | 7.46 | FC |
| | | SD652Q-H2Z2 | RSIR | 230-50 | 450 | 523 | 1,787 | 220 | 2.05 | 2.38 | 8.12 | FC |
| | | SK670Q-H2S | CSIR | 230-50 | 600 | 698 | 2,382 | 310 | 1.94 | 2.25 | 7.68 | FC |
| | | SK670Q-H2Z | RSIR | 230-50 | 595 | 692 | 2,362 | 310 | 1.92 | 2.23 | 7.62 | FC |
| | | SK682Q-H2Z | RSIR | 230-50 | 700 | 814 | 2,779 | 365 | 1.92 | 2.23 | 7.61 | FC |
| | | SK6A1Q-S2S | CSIR | 230-50 | 900 | 1,047 | 3,573 | 480 | 1.88 | 2.18 | 7.44 | FC |
| | | HK672Q2Z | RSIR | 220-50 | 610 | 709 | 2,422 | 305 | 2.00 | 2.33 | 7.94 | FC |
| | | HK680Q2Z | RSIR | 220-50 | 700 | 814 | 2,779 | 350 | 2.00 | 2.33 | 7.94 | FC |
| HK690Q2Z | | RSIR | 220-50 | 780 | 907 | 3,097 | 380 | 2.05 | 2.39 | 8.15 | FC | |
| HK6A1Q2Z | | RSIR | 220-50 | 910 | 1,058 | 3,613 | 465 | 1.96 | 2.28 | 7.77 | FC | |
| HK6A3Q2U | RSCR | 220-50 | 1,050 | 1,221 | 4,169 | 535 | 1.96 | 2.28 | 7.79 | FC | | |

COOLING TYPE

FC : Fan cooling
OC : Oil cooling
ST : Static

MOTOR TYPE

RSIR : Resistance Start Induction Run
RSCR : Resistance Start Capacitor Run
CSIR : Capacitor Start Induction Run
CSR : Capacitor Start Capacitor Run

ASHRAE CONDITIONS (HBP)

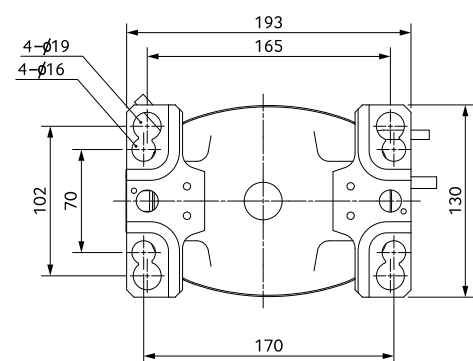
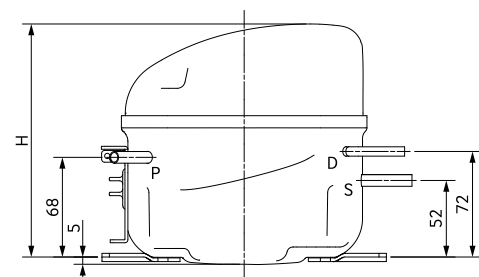
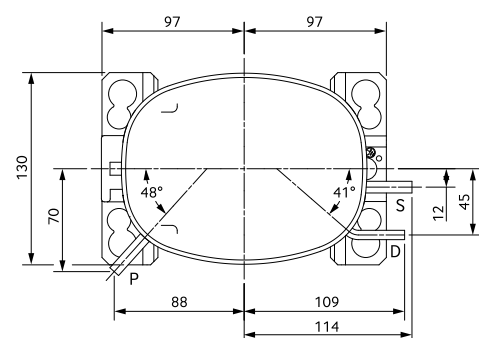
Evaporating Temp. : 7.2°C (45°F)
Condensing Temp. : 54.4°C (130°F)
Gas Superheated to : 35.0°C (95°F)
Liquid sub-cooled to : 46.1°C (115°F)
Ambient Temp. : 35.0°C (95°F)

UNIT CONVERSION TABLE

1 watt = 3.41 Btu/Hr
1 watt = 0.86 Kcal/Hr
1 Kcal/Hr = 3.97 Btu/Hr

DIMENSION

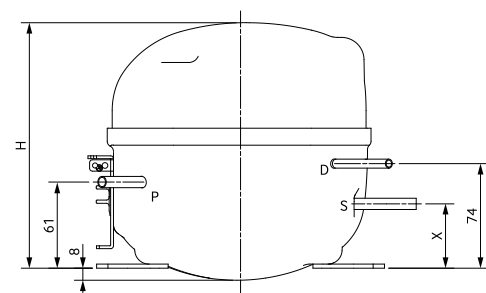
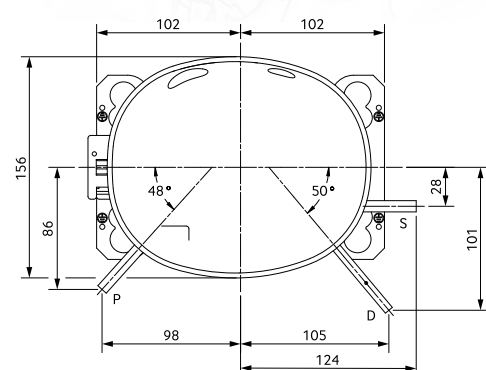
CD Series (Universal Type)



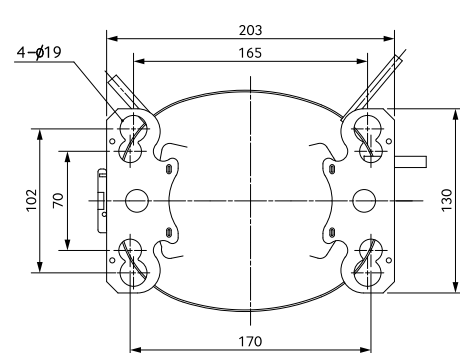
| Height [mm] | | |
|-------------|--------------|-----|
| Grade | Cooling Type | H |
| 24/30GR | Static | 157 |
| 37GR | | 162 |

| Tube Connection [mm] | | |
|----------------------|----------|------------|
| Tubing | Material | OD [T:0.7] |
| (D) Discharge | Copper | 6.35 |
| (S) Suction | | 7.94 |
| (P) Process | | 7.94 |

MS Series (Universal Type)



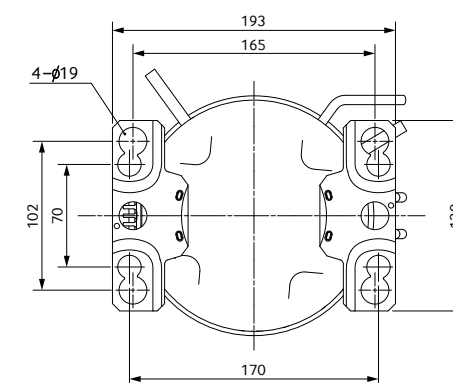
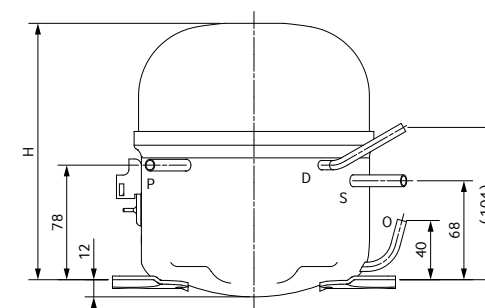
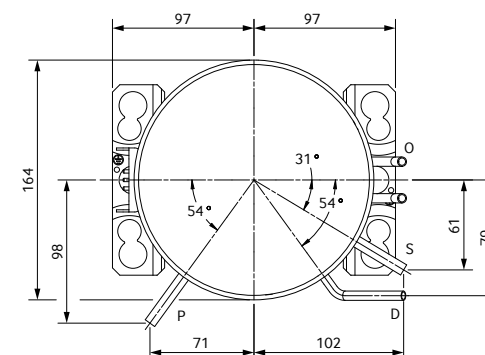
| MODEL | X(mm) |
|----------|-------|
| MSS, MSA | 45 |
| MSE | 61 |



| Height [mm] | | |
|-------------|--------------|-----|
| Grade | Cooling Type | H |
| 43/S1GR | Static | 169 |
| 62/70/A2GR | | 173 |

| Tube Connection [mm] | | |
|----------------------|----------|------------|
| Tubing | Material | OD [T:0.7] |
| (D) Discharge | Copper | 6.35 |
| (S) Suction | | 7.94 |
| (P) Process | | 7.94 |

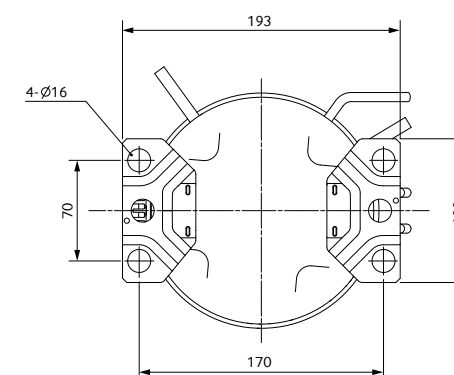
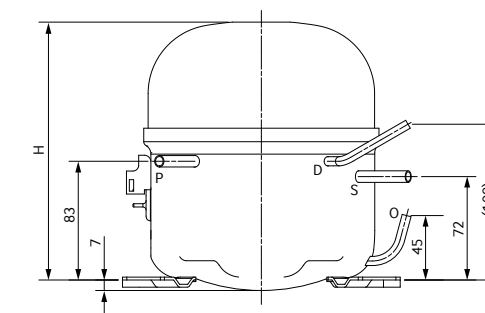
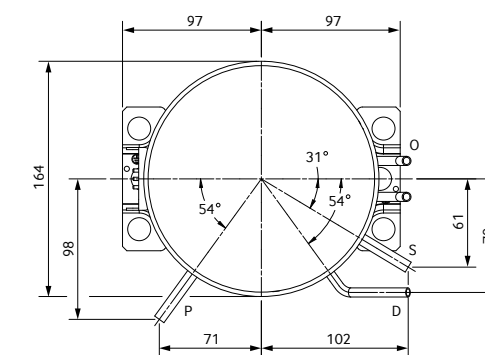
SD, MD Series (Universal Type)



| Height [mm] | | |
|-------------|--------------|-----|
| Grade | Cooling Type | H |
| 30GR | Static | 157 |
| 37/43GR | | 166 |
| 52GR | | 171 |
| 62GR | | 175 |
| 62GR | Oil Cooling | 178 |

| Tube Connection [mm] | | |
|----------------------|----------|------------|
| Tubing | Material | OD [T:0.7] |
| (D) Discharge | Copper | 6.35/6.50 |
| (S) Suction | | 7.94/7.60 |
| (P) Process | | 7.94/7.60 |
| (O) Oil Cooler | Steel | 6.35 |

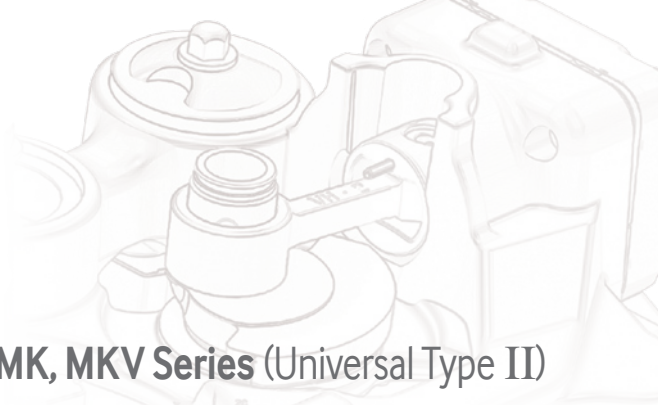
SD, MD Series (European Type)



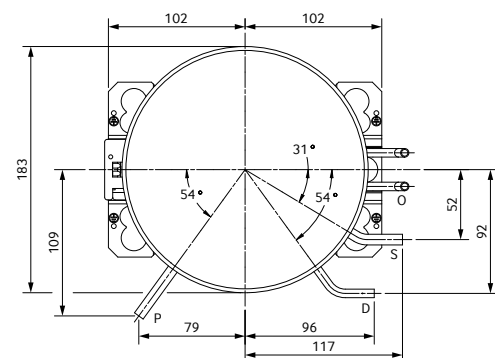
| Height [mm] | | |
|-------------|--------------|-----|
| Grade | Cooling Type | H |
| 30GR | Static | 161 |
| 37/43GR | | 170 |
| 52GR | | 175 |
| 62GR | | 179 |
| 62GR | Oil Cooling | 182 |

| Tube Connection [mm] | | |
|----------------------|----------|------------|
| Tubing | Material | OD [T:0.7] |
| (D) Discharge | Copper | 6.35/6.50 |
| (S) Suction | | 7.94/7.60 |
| (P) Process | | 7.94/7.60 |
| (O) Oil Cooler | Steel | 6.35 |

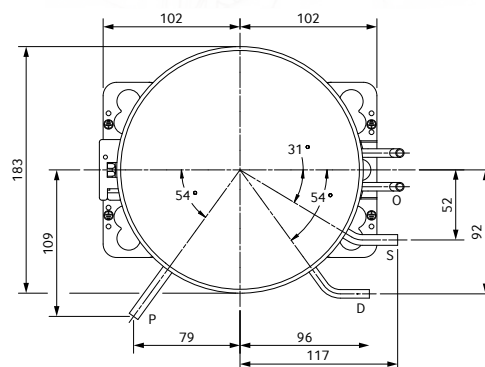
DIMENSION



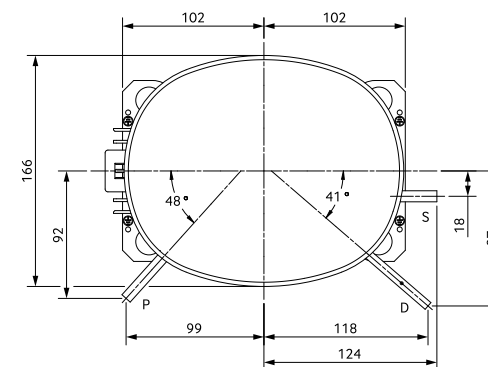
SK, MK, MKV Series (Universal Type I)



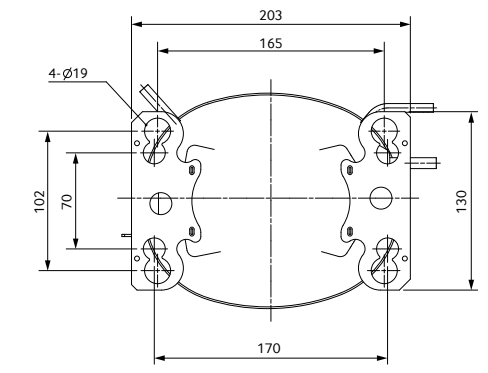
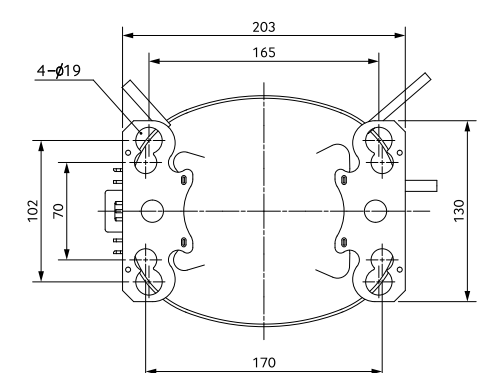
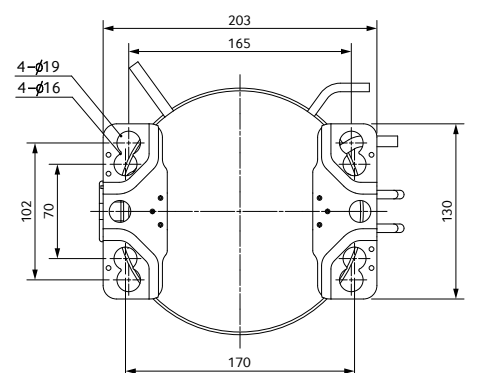
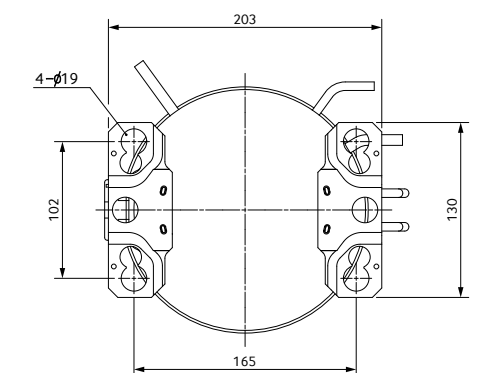
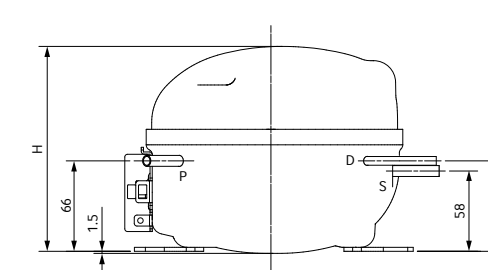
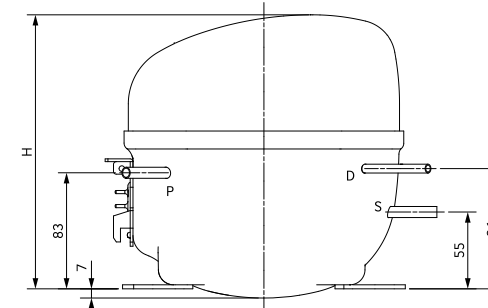
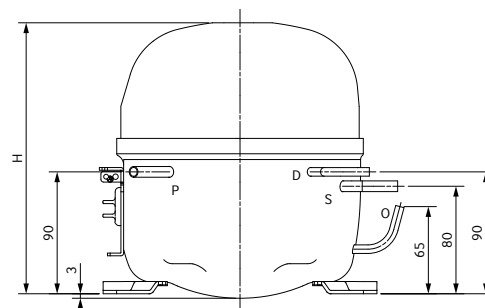
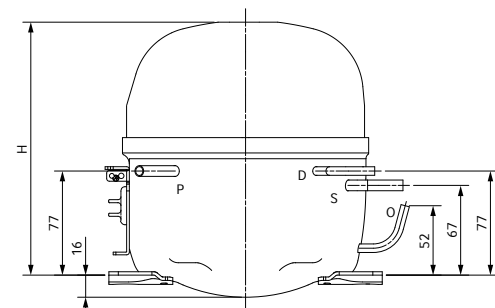
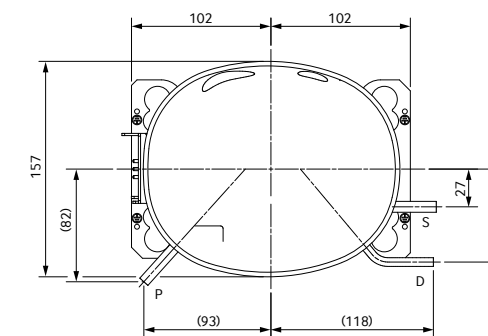
SK, MK, MKV Series (Universal Type II)



ENV Series (Universal Type)



MSV Series (Universal Type)



| Height [mm] | | |
|-----------------------------|------------------------|-----|
| Grade | Cooling Type | H |
| 62/70/82/90GR A1/A3/A5GR | Static/ Fan Cooling | 189 |
| 62/70/82/90GR A1/A3/A5GR | Oil Cooling | 196 |

| Height [mm] | | |
|-----------------------------|------------------------|-----|
| Grade | Cooling Type | H |
| 62/70/82/90GR A1/A3/A5GR | Static/ Fan Cooling | 202 |
| 62/70/82/90GR A1/A3/A5GR | Oil Cooling | 208 |

| Height [mm] | | |
|-------------|-----------------------|-----|
| Grade | Cooling Type | H |
| A3/A5GR | Fan Cooling Static | 183 |

| Height [mm] | | |
|---------------|--------------|-----|
| Grade | Cooling Type | H |
| 62/72/88/A1GR | Static | 149 |

| Tube Connection [mm] | | |
|----------------------|----------|------------|
| Tubing | Material | OD [T:0.7] |
| (D) Discharge | Copper | 6.35/6.50 |
| (S) Suction | | 7.94/7.60 |
| (P) Process | | 7.94/7.60 |
| (O) Oil Cooler | Steel | 6.35 |

| Tube Connection [mm] | | |
|----------------------|----------|------------|
| Tubing | Material | OD [T:0.7] |
| (D) Discharge | Copper | 6.35/6.50 |
| (S) Suction | | 7.94/7.60 |
| (P) Process | | 7.94/7.60 |
| (O) Oil Cooler | Steel | 6.35 |

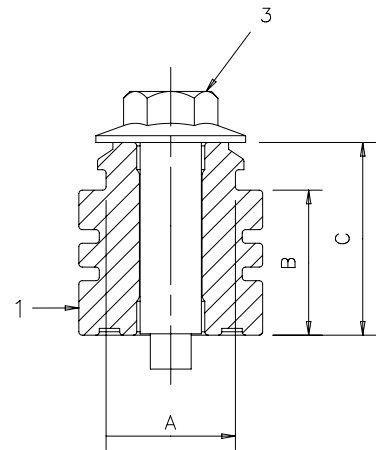
| Tube Connection [mm] | | |
|----------------------|----------|------------|
| Tubing | Material | OD [T:0.7] |
| (D) Discharge | Copper | 6.35 |
| (S) Suction | | 7.94 |
| (P) Process | | 7.94 |

| Tube Connection [mm] | | |
|----------------------|----------|------------|
| Tubing | Material | OD [T:0.7] |
| (D) Discharge | Copper | 6.35 |
| (S) Suction | | 7.94 |
| (P) Process | | 7.94 |

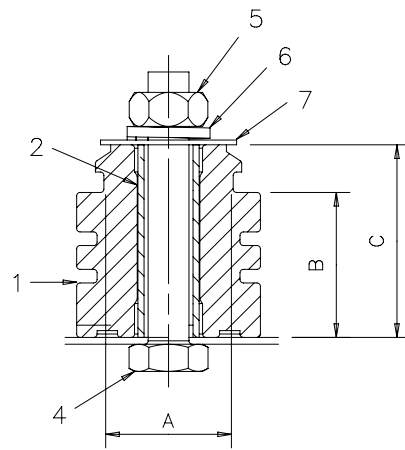
MOUNTING ACCESSORIES

BLDC Model

BOLT-HEX (Type I)

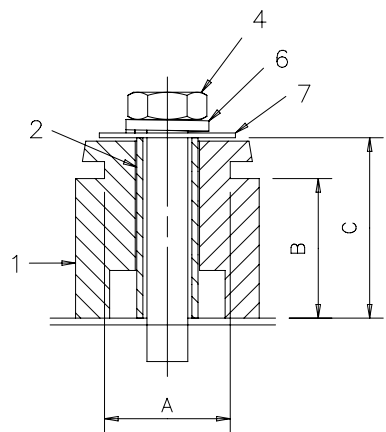


NUT-HEX (Type I)

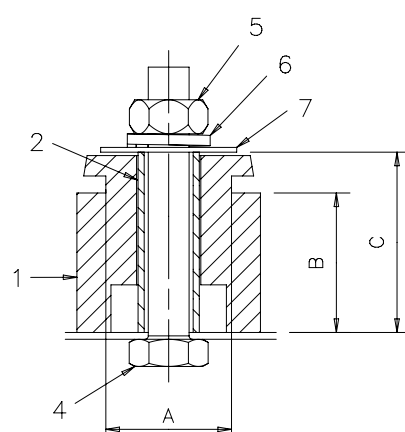


AC Model

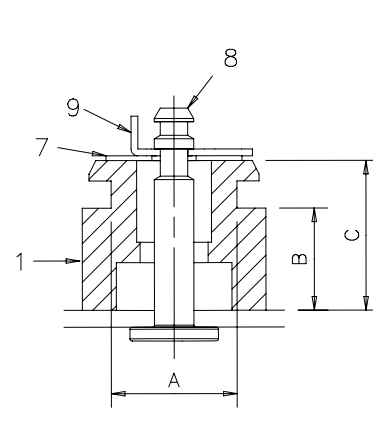
BOLT-HEX (Type II)



NUT-HEX (Type II)



SNAP-ON

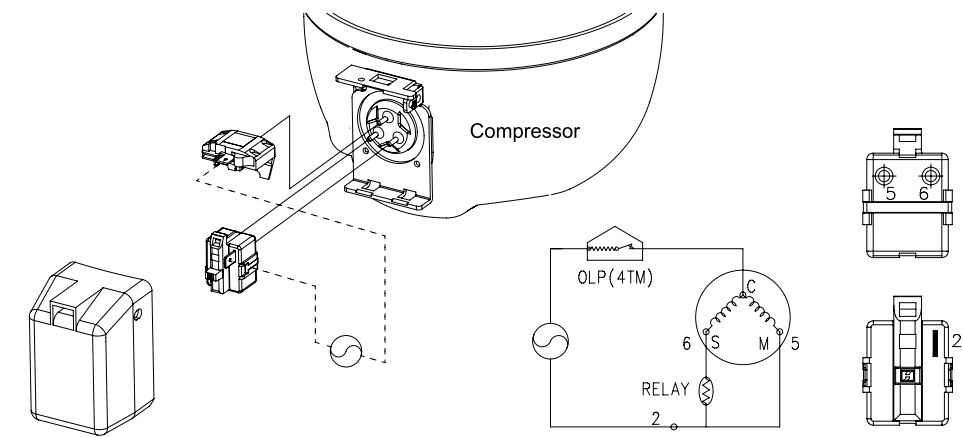


- 1. Grommet 2. Sleeve 3. Bolt-comp(M6) 4. Bolt-hex(M6) 5. Nut-hex(M6) 6. Washer spring
- 7. Washer plain 8. Bolt-stud 9. Retainer

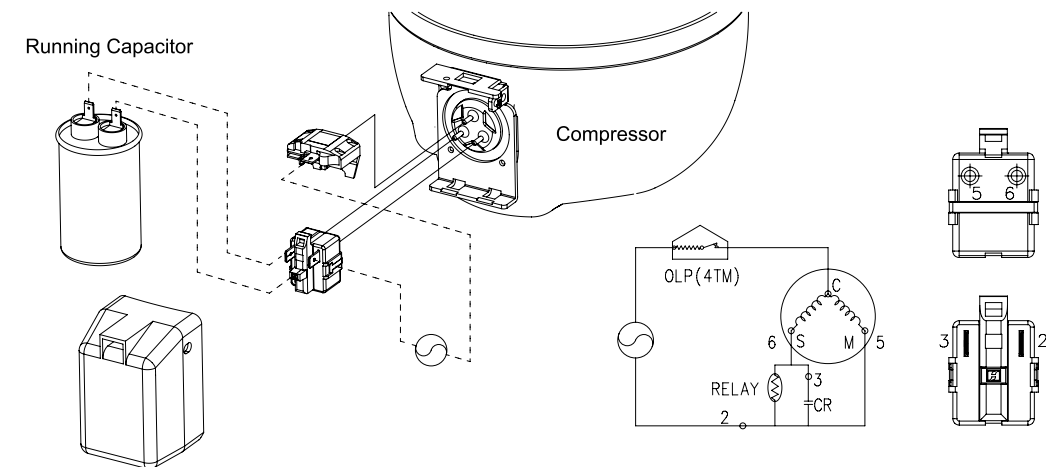
| MOUNTING TYPE | BOLT-HEX TYPE II | | | | | |
|------------------|------------------|------------|--------------|-----------|----------------|------|
| | NUT-HEX TYPE | | | | | |
| | BOLT-HEX TYPE I | | SNAP-ON TYPE | | | |
| Series | ENV, MKV, MSV | CD, SD, MD | | | SK, MK, HK, MS | |
| Mounting Bracket | Universal | Universal | European | Universal | European | |
| Hole Size | Ø19 | Ø19 | Ø16 | Ø16 | Ø19 | Ø16 |
| DIMENSION[mm] | A | 18.5 | 18.5 | 15.5 | 15.5 | 18.5 |
| | B | 21.3 | 15.0 | 15.0 | 9.0 | 20.5 |
| | C | 28.0 | 23.0 | 22.5 | 16.0 | 26.0 |

ASSEMBLY DIAGRAMS

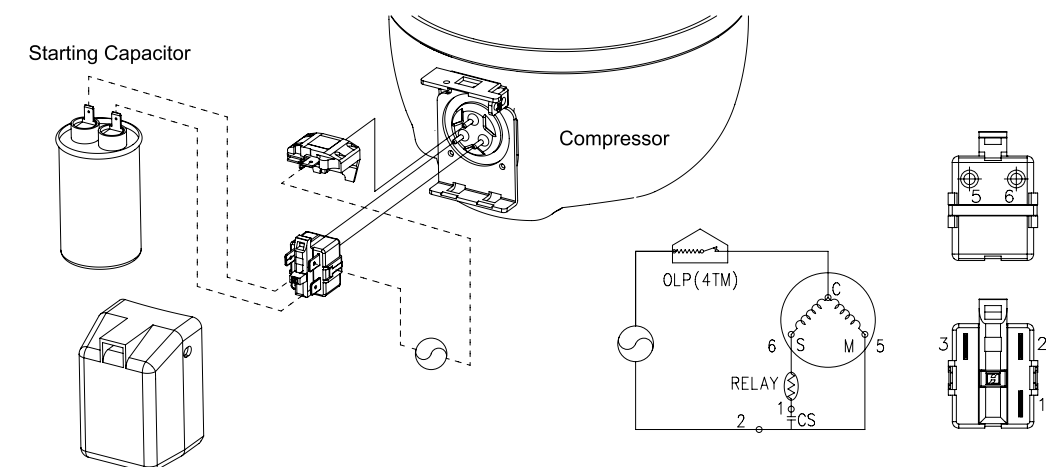
Assembly of OLP and PTC Relay in RSIR Motor (with S-HOOK Cover Type)



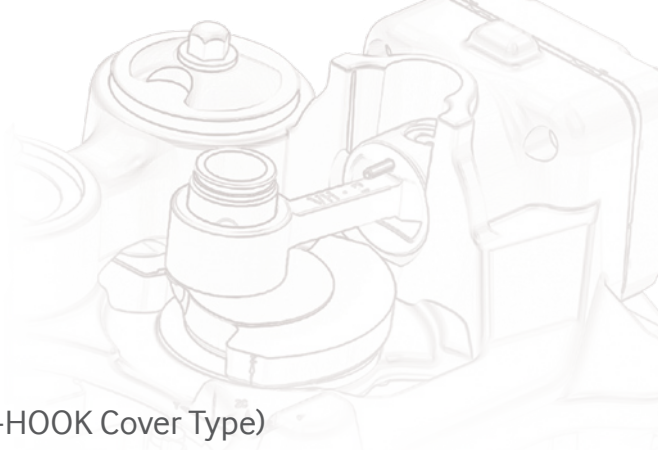
Assembly of OLP and PTC Relay in RSCR Motor (with S-HOOK Cover Type)



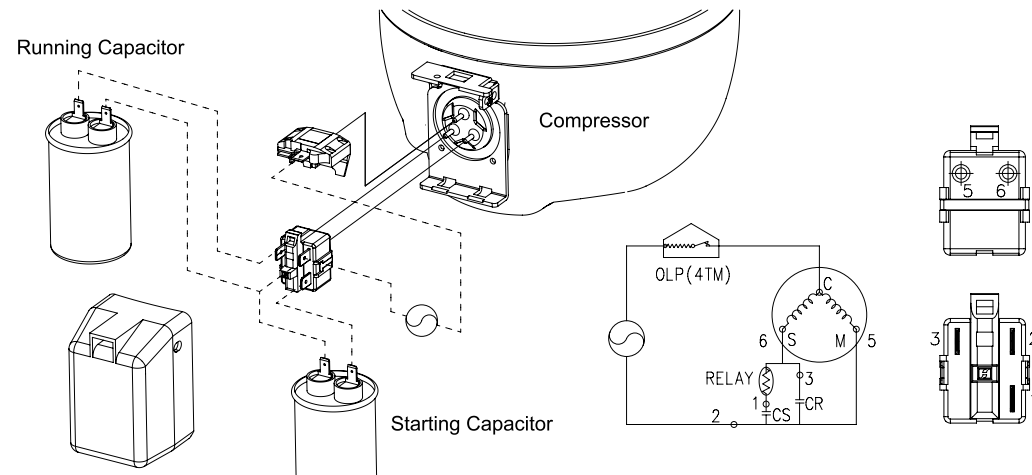
Assembly of OLP and PTC Relay in CSIR Motor (with S-HOOK Cover Type)



ASSEMBLY DIAGRAMS

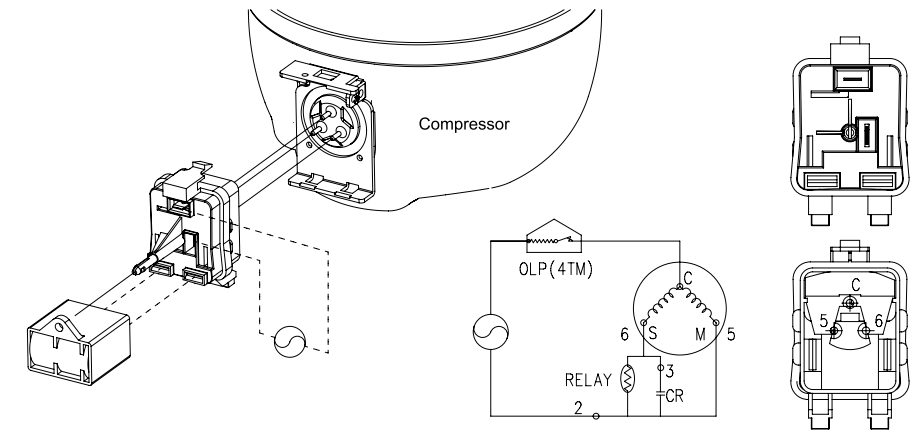


Assembly of OLP and PTC Relay in CSR Motor (with S-HOOK Cover Type)

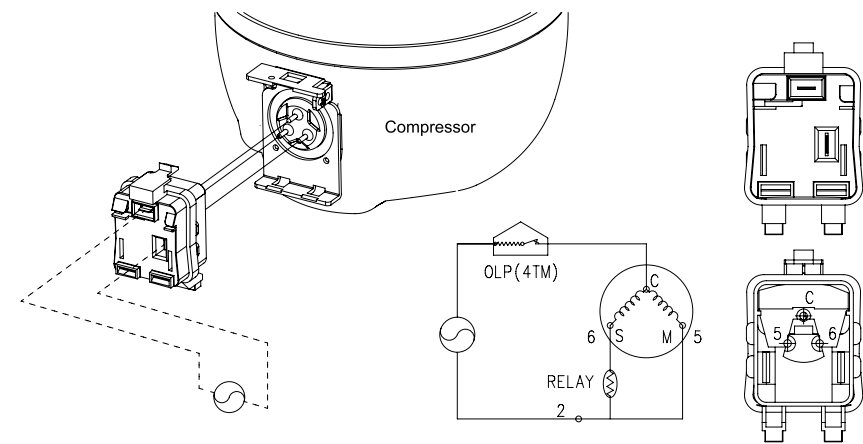


ASSEMBLY DIAGRAMS

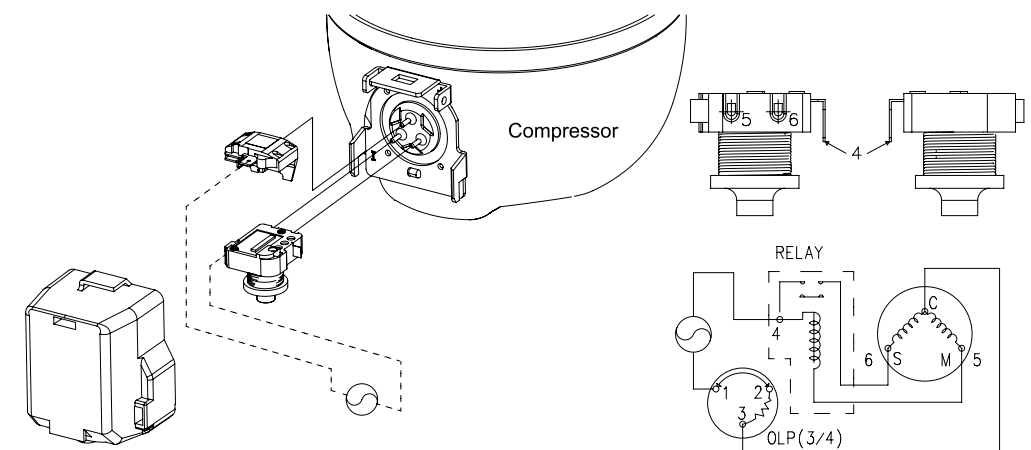
Assembly of Assy Combo in RSCR Motor (with Combo Type)



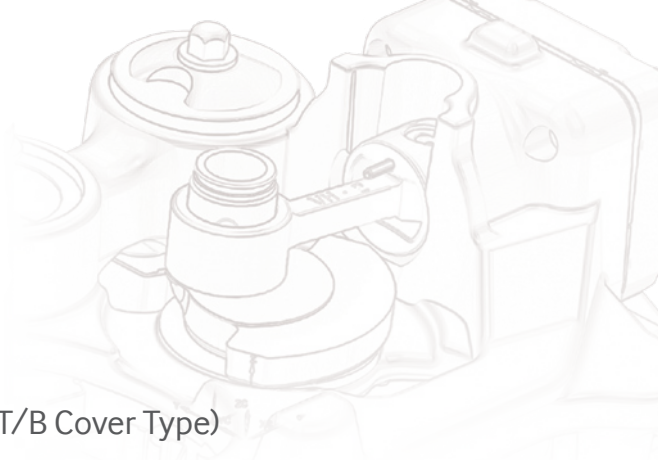
Assembly of Assy Combo in RSIR Motor (with Combo Type)



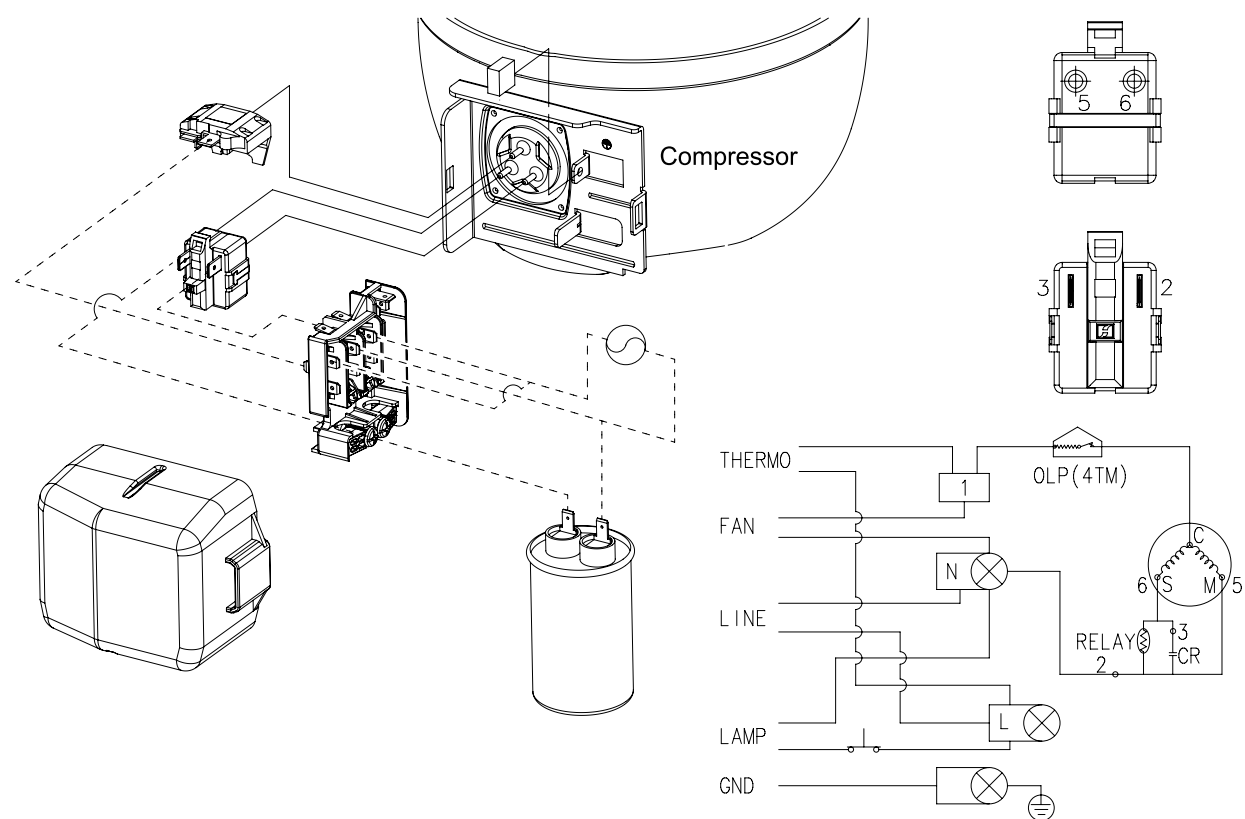
Assembly of OLP and Current Relay in RSIR Motor (with HOOK Cover Type)



ASSEMBLY DIAGRAMS

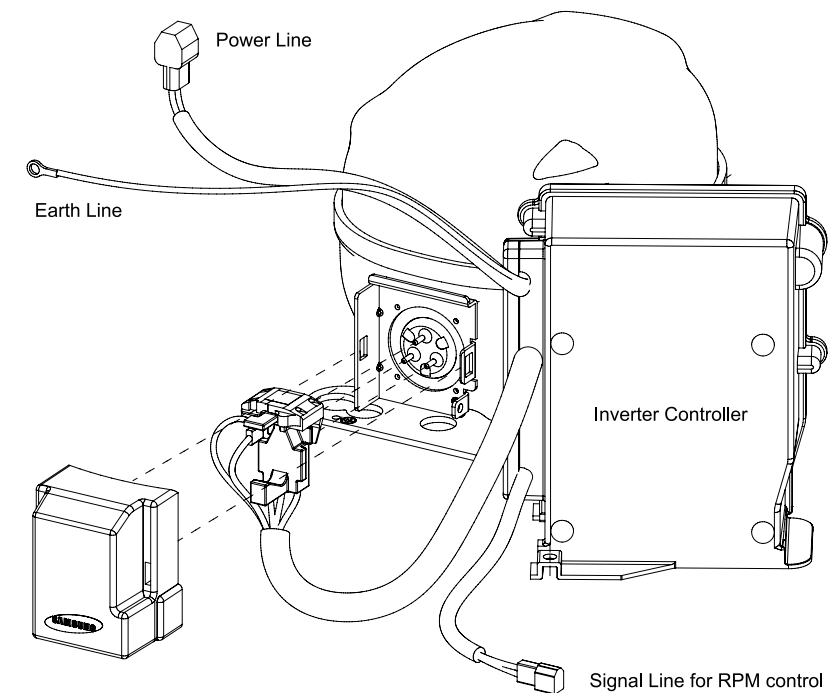


Assembly of OLP and PTC Relay in RSCR Motor (with T/B Cover Type)

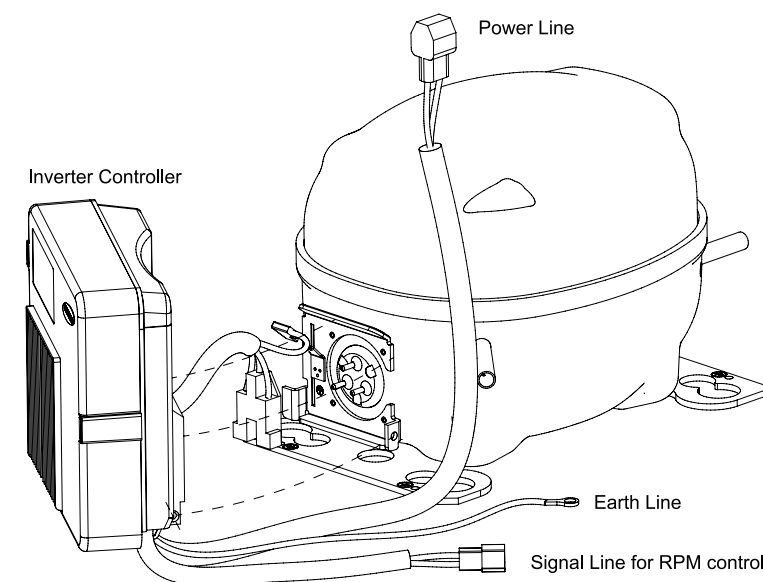


ASSEMBLY DIAGRAMS

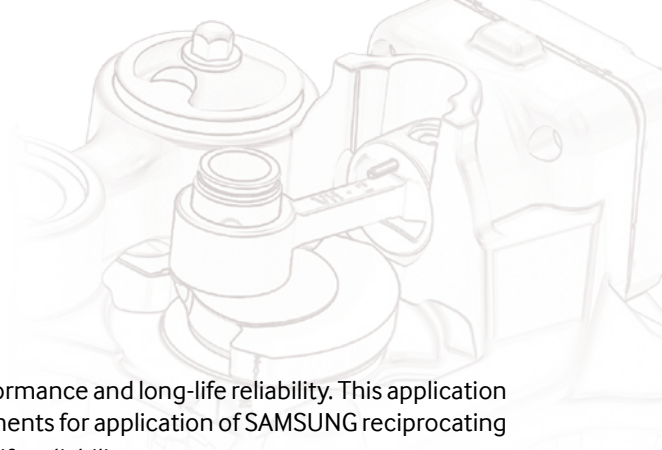
Assembly of Inverter Controller in BLDC Motor (with Separation Type)



Assembly of Inverter Controller in BLDC Motor (with Built-in Type)



APPLICATION GUIDE



Compressors under improper application can not achieve good performance and long-life reliability. This application guide provides the recommended handling techniques and requirements for application of SAMSUNG reciprocating compressor in order to help achieving good performance and long-life reliability.

1. Usable Refrigerant

| | LBP(Low Back Pressure) | | HBP(High Back Pressure) |
|-------------|------------------------|----------------------|-------------------------|
| REFRIGERANT | R134a | R600a | R134a |
| | Purity of 99.95% Min. | Purity of 99.5% Min. | Purity of 99.95% Min. |

2. Starting condition

The LBP type compressors start at 85% of the nominal voltage.

- Equalized pressure up to 70psig(4.9kgf/cm²) for R134a LBP compressors.
- Equalized pressure up to 40psig(2.8kgf/cm²) for R600a LBP compressors.

The HBP type compressors start at 90% of the nominal voltage.

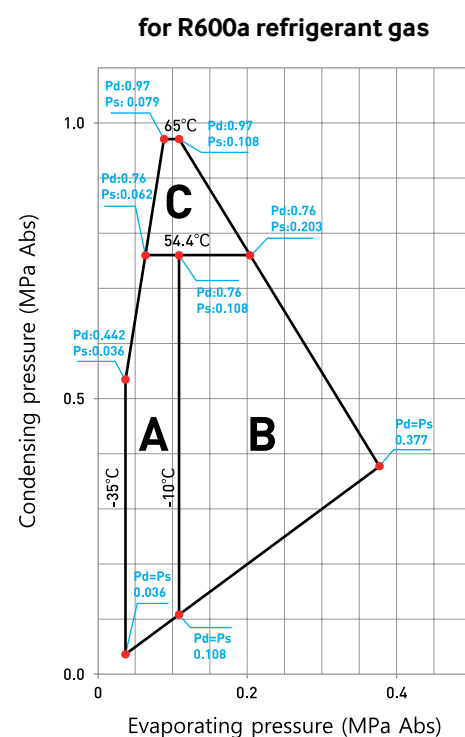
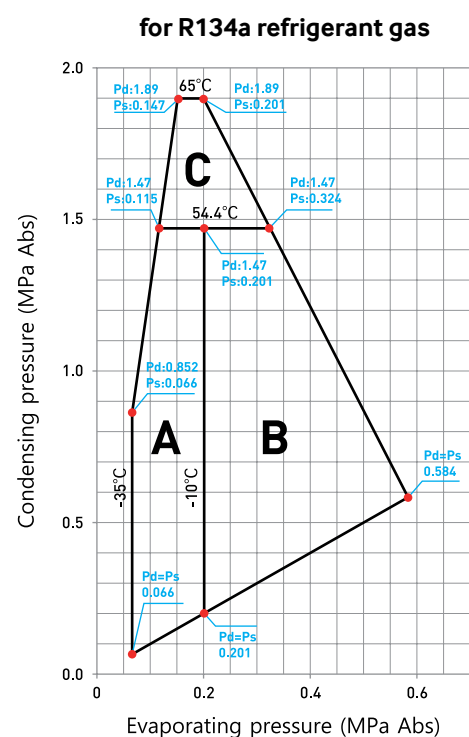
- Equalized pressure up to 90psig(6.3kgf/cm²) for R134a HBP compressors.

Depending on the operating condition and system characteristics, compressors can be started at lower voltages.

3. Temperature and Pressure of cycle

The refrigerant system must be used within the temperature and pressure range as below table.

In case of LBP refrigerant system with R134a and R600a refrigerant gas

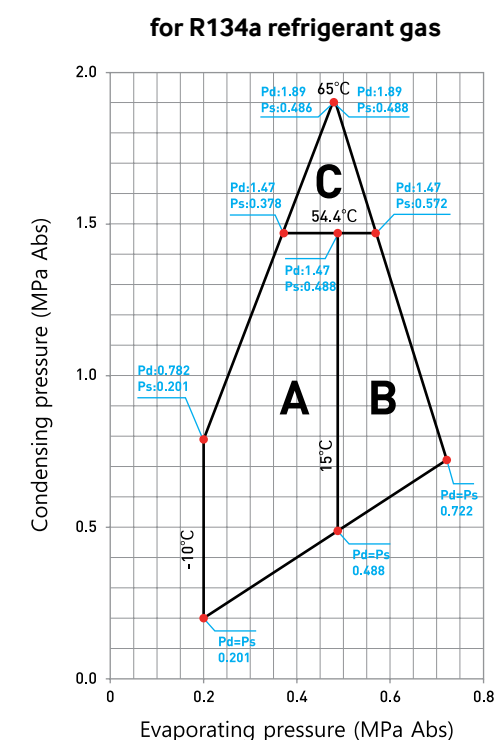


* Remarks

1. "A" area on chart : Stabilized running condition before stopping.
2. "B" area on chart : Transient running condition just after starting.
3. "C" area on chart : Compressor initial pull-down and restarting after defrost.

APPLICATION GUIDE

In case of HBP refrigerant system with R134a refrigerant gas



* Remarks

1. "A" area on chart : Stabilized running condition before stopping.
2. "B" area on chart : Transient running condition just after starting.
3. "C" area on chart : Compressor initial pull-down and restarting after defrost.

4. Motor Winding Temperature

In case of LBP refrigerant system

The motor winding temperature should not exceed 120°C(248°F) in the continuous operation and 130°C(266°F) in the Pull-Down operation at the expected ambient temperature(43°C)

In case of HBP refrigerant system

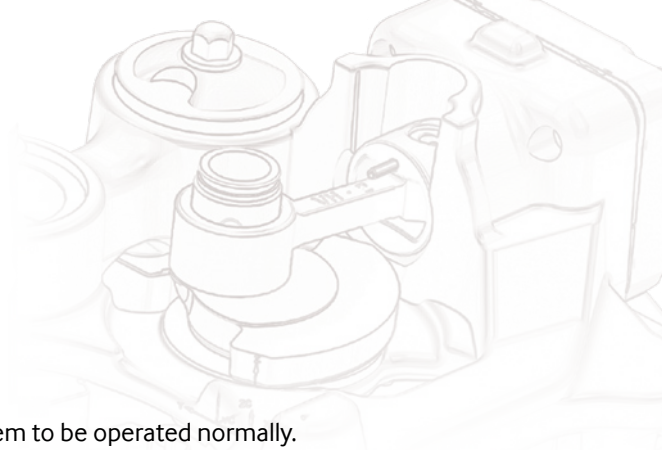
The motor winding temperature should not exceed 120°C(248°F) in the continuous operation and 130°C(266°F) in the Pull-Down operation at the expected ambient temperature(26.7°C, 81°F)
The limit motor winding temperature should not exceed 130°C(266°F) at the expected maximum ambient temperature(32.2°C, 90°F).

If the temperature exceeds, the motor is overloaded, then it shortens the motor life. The winding temperature of the motor can be calculated by below equation.

$$T2 = (R2-R1)/R1*(K+T1)+T1$$

- T1 : The room temperature at the beginning of the test
- T2 : The winding temperature(unknown) at the end of the test
- R1 : The resistance at the beginning of the test
- R2 : The resistance at the end of the test
- K : Temperature coefficient of resistance (Copper wire : 234.5, Aluminum wire : 225.0)

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5. Other Temperatures

Below temperatures should not be exceeded the refrigerant system to be operated normally.
If the test temperature is not indicated, it is measured at the ambient temperature.

| Application | Refrigerant | Suction Gas Temp | Discharge Gas Temp | Compressor Upper Surface Temp |
|-------------|-------------|---|--|--|
| LBP | R134a | Than the ambient temperature -2°C(28°F) ~ +1°C(34°F), to prevent dew formation. | Max. 100°C(212°F) Peak 115°C(239°F) | Max. 100°C(212°F) in the hot side Min. 5°C(41°F) in the low side at 43°C(109°F) ambient temp. |
| | R600a | | | |
| HBP | R134a | | Max. 100°C(212°F) at 26.7°C(80°F) ambient temperature Peak 115°C(239°F) at 32.3°C(90°F) ambient temperature | Max. 100°C(212°F) in the hot side Min. 5°C(41°F) in the low side at 32.2°C(90°F) ambient temp. |

※ Measurement location

Suction Gas Temperature is measured at the distance 15cm of the insulated surface suction pipe from welded case. Discharge Gas Temperature is measured at the distance 5cm of the insulated surface discharge pipe from welded case.

6. Refrigerant Charging

For each refrigerant system, the optimal refrigerant Charging amount should be determined in an appropriate test laboratory in order to obtain the best working condition.

If the refrigerant amount exceeds or lacks compared to the proper amount range, it'll be caused loss of cooling capacity, lowering of efficiency and damage of compressor life.

The refrigerant charge of the refrigerant system must not exceed above No.2 start condition as suction and discharge pressure.

7. Operating condition

The refrigerant system should be maintained as below table.

| Application | Refrigerant | Compression Ratio | Operated Ratio | Ambient Temperature | Refrigeration Oil | On/Off Cycle Time |
|-------------|-------------|-------------------|--|--|--|---|
| LBP | R134a | Max. 12.7 | Max. 65% Based on Ref. Normal-Normal Condition | Max. 5°C ~ 43°C (Max. 41°F ~ 109°F) | TAN 0.01mgKOH/ g max. Moisture 10ppm max. | Restarting time limit must be longer than 5 minutes |
| | R600a | Max. 12.4 | | | | |
| HBP | R134a | Max. 3.9 | Max. 65% Based on Normal-Normal Condition at 26.7°C ambient Temp. | | TAN 0.01mgKOH/ g max. Moisture 20ppm max. | Max. 6 times/ hours |

8. Evacuation of cycle

Prevent non-condensable gases, such as air, from permeating into the cycle.

Air or non-condensable gases in the refrigerant cause a decline in cooling capacity and a rise in input wattage due to high discharge pressure.

In particular, air(Oxygen) cause the generation of sludge and shortening of compressor life. Therefore, the non-condensable gas in R134a system must not exceed 1%(vol.)

The recommendable vacuum level is under 0.08 Torr(mmHg), and the evacuation time must be 40 minutes or more with the capacity of vacuum pump of 300 LT/min or more.

The vacuum pump should be used exclusively, and it is better to vacuum simultaneously in high and low pressure sides with a pump per system.

It is not allowed that putting electric power into the compressor with a vacuum condition, then electric spark will be occurred in the compressor and compressor can be damaged critically. (Vacuum Discharge)

9. Filter dryer

The filter dryer must be chosen with the molecular sieve suitable to the refrigerant type as below.

| | R134a | R600a |
|--------------|--------------|-------|
| FILTER DRYER | XH-7 or XH-9 | XH-5 |

※ If a filter dryer of the refrigerant system is not chosen properly, it can be a source of the indicated causes as below table.

| Problems | Appearances |
|-------------------|--|
| Ice build-up | The moisture in the capillary tube is frozen, then it reduces the cross-sectional area of capillary tube and finally obstruct the capillary tube. |
| Acid build-up | The moisture reacts with refrigeration oil and then creates acid. Acid is caused as bellow chemical typical marks and consequences. - Copper plating of valve plate, valve reeds, crankshaft, bearing, block, frame etc. - Etching of electric motor insulation with burning of motor winding. - Destruction of the filter with disintegration of molecular sieve and build-up of "dusts" |
| Oil contamination | The moisture causes acidification and reduction of the lube capability of the refrigeration oil with change of oil color as brown. It can cause build-up of sludge with subsequent poor lube of compressor. |

10. Notice in handling, storage and transportation of compressor

10-1. Compressor with the removal of rubber cap from tube should be assembled with the cycle as soon as possible. It is not allowed that the compressor without rubber-cap is left in the air more than 15 minutes.

10-2. Compressor might be affected by the environmental condition which it is stored.

So, compressor that is charged with nitrogen and sealed should be used within recommendation period.

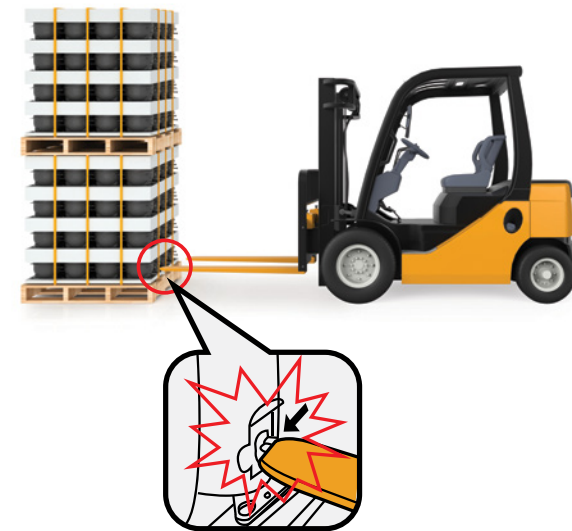
| | R134a | R600a |
|---------|----------|-----------|
| Storage | 8 months | 10 months |

After recommendation period, compressor can be used after validating the moisture level of compressor inside.

10-3. The finished product(compressor adopted to application) should be positioned upright during transportation. If the other transportation condition is needed, the discussion with SAMSUNG must be done in advance.

APPLICATION GUIDE

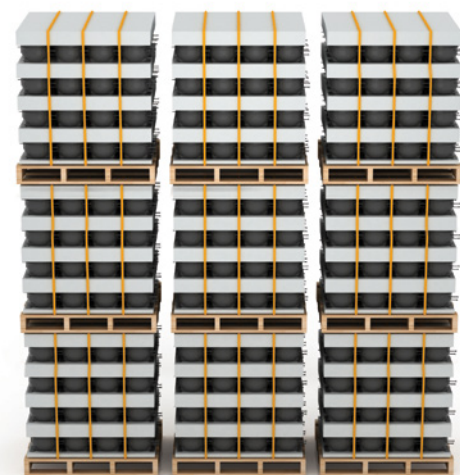
11. Handling



Handle with care



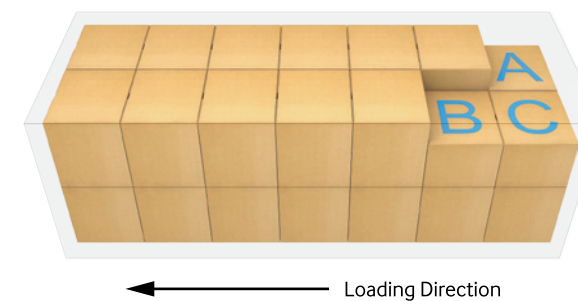
Max 3 Carton



PACKING INFORMATION

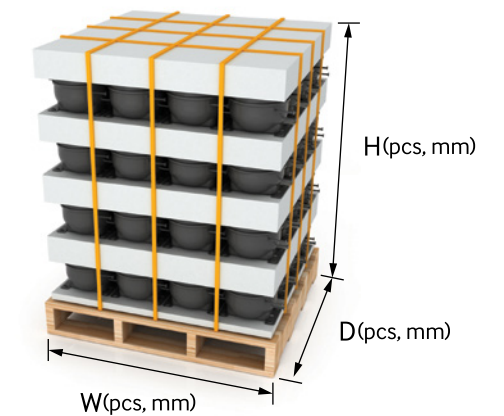
| SERIES | GRADE | Weight | Array | Pallet Height | Comp Q'ty/ Pallet | Pallet Q'ty/ CNTR | Loading Q'ty/ CNTR |
|------------|------------------------------|-----------|-----------|---------------|----------------------|----------------------|-----------------------|
| | | (kg) | (WxDxH) | (mm) | (pcs) | (pcs) | (pcs) |
| CD | 24GR | 6.3 | 7 x 4 x 5 | 1,114 | 140 | 20 | 2,800 |
| | 30GR | 6.4 | 7 x 4 x 5 | 1,114 | 140 | 19 | 2,660 |
| | 37GR | 6.6 | 7 x 4 x 5 | 1,114 | 140 | 18 | 2,520 |
| SD,MD | 37GR | 7.4 | 6 x 4 x 4 | 955 | 96 | 9 | 2,304 |
| | | | 6 x 4 x 5 | 1,140 | 120 | 12 | |
| | 43GR | 7.8 | 6 x 4 x 4 | 955 | 96 | 12 | 2,232 |
| | | | 6 x 4 x 5 | 1,140 | 120 | 9 | |
| | 52GR | 8.0 | 6 x 4 x 4 | 985 | 96 | 15 | 2,160 |
| | 62GR | 8.5 | 6 x 4 x 4 | 1,012 | 96 | 21 | 2,016 |
| 90GR | 8.1 | 6 x 4 x 4 | 1,040 | 96 | 21 | 2,016 | |
| SK, HK, MK | A1GR | 8.5 | 6 x 4 x 4 | 1,040 | 96 | 21 | 2,016 |
| | 52GR | 10.1 | 5 x 3 x 4 | 1,020 | 60 | 25 | 1,500 |
| | 62GR | 10.2 | 5 x 3 x 4 | 1,046 | 60 | 25 | 1,500 |
| | 70GR | 10.5 | 5 x 3 x 4 | 1,046 | 60 | 25 | 1,500 |
| | 82GR, 90GR | 10.8 | 5 x 3 x 4 | 1,046 | 60 | 25 | 1,500 |
| | A1GR, A3GR | 10.6 | 5 x 3 x 4 | 1,046 | 60 | 25 | 1,500 |
| MSS / MSA | A5GR | 10.9 | 5 x 3 x 4 | 1,046 | 60 | 25 | 1,500 |
| | 43GR | 8.3 | 6 x 3 x 4 | 990 | 72 | 11 | 2,052 |
| | | | 6 x 3 x 5 | 1,190 | 90 | 14 | |
| | 51GR | 8.3 | 6 x 3 x 4 | 990 | 72 | 25 | 1,800 |
| | 62GR | 8.6 | 6 x 3 x 4 | 1,006 | 72 | 25 | 1,800 |
| | 70GR, 88GR | 8.8 | 6 x 3 x 4 | 1,006 | 72 | 25 | 1,800 |
| MSE | A1GR, A2GR | 9.1 | 6 x 3 x 4 | 1,006 | 72 | 25 | 1,800 |
| | 82GR, 90GR, A0GR, A1GR, A2GR | 9.6 | 6 x 3 x 4 | 1,006 | 72 | 25 | 1,800 |
| MSV | 62GR, 88GR | 7.1 | 6 x 3 x 5 | 1,010 | 90 | 25 | 2,250 |
| | A1GR | 7.4 | 6 x 3 x 5 | 1,010 | 90 | 25 | 2,250 |
| ENV | A3GR | 9.6 | 5 x 3 x 4 | 1,038 | 60 | 25 | 1,500 |
| | A5GR | 9.6 | 5 x 3 x 4 | 1,038 | 60 | 25 | 1,500 |

Container Packing Method



※ A, B, C : Accessory Packing Box

Pallet Packing Method



※ Pallet Size
 CD, SD, MD : 1,090(W) * 946(D)
 SK, MK, HK, MS, ENV, MSV : 1,110(W) * 766(D)

Rotary Compressor MODEL IDENTIFICATION



Rotary Compressor Ver. 01

| Comp Type | Frame | Cooling Capacity (x100 Btu/h) | Miscellaneous Change | Foot Position | |
|-----------|------------|----------------------------------|-------------------------|------------------|-------|
| UR R22 | 0 20 Frame | Ex.) 080 : 8,000 Btu/h | OLD | Tri-angle foot | |
| UG R410A | 9 39 Frame | | A : Basic | Rectangular foot | |
| UB R32 | 4 44 Frame | | B : 1st changed | E 30° | M 15° |
| UX R134a | 8 48 Frame | | C : 2nd changed | J 90° (-30°) | F 45° |
| UF R407C | 5 55 Frame | | | K 105° (-15°) | H 60° |
| | 3 63 Frame | | | | L 75° |

UR 4 A 080 H U A E B

| Major Change (Pump Ass'y) | |
|------------------------------|---------------------|
| A | Basic |
| B | Taller |
| C | Shorter |
| T | Twin |
| D | Improved Efficiency |
| V | Capacity Modulation |

| Power Source | |
|--------------|-------------------|
| H | 1φ 115V, 60Hz |
| I | 1φ 208-230V, 60Hz |
| M | 1φ 200-220V, 50Hz |
| J | 1φ 220-240V, 50Hz |
| D | 1φ 220V, 50Hz |
| G | 1φ 127V, 60Hz |
| K | 1φ 100V, 50/60Hz |
| Y | 1φ 265V, 60Hz |
| A | 3φ 380V, 60Hz |
| B | 3φ 380-420V, 50Hz |
| C | 3φ 220V, 60Hz |
| F | 3φ BLDC(Nd) |
| L | 3φ BLDC(Ferrite) |
| Z | 3φ BLDC, DC24V |

| Model Type | |
|------------|-----------|
| OLD | |
| V, S | High EER |
| U, X | Super EER |
| T | Tropical |

| Accumulator | | | | |
|-------------|---------------------------|-----------------|------------------|--------|
| | Out dia.(mm) x Height(mm) | Effective(cc) | Remark | |
| 20F | S φ31.8 x 87.0 | 20 | | |
| 39F | A φ31.8 x 172.8 | 50 | | |
| 44F | B φ41.3 x 190.3 | 87 | | |
| 44F | F φ47.6 x 204.5 | 160 | | |
| 48F | L φ58.4 x 237.0 | 340 | | |
| 48F | H φ77.4 x 260.0 | 620 | | |
| | W φ77.0 x 271.5 | 600 | Twin | |
| 48F | U φ77.0 x 282.0 | 580 | Twin | |
| | M φ77.4 x 290.0 | 750 | Split type A/C | |
| 48F | N φ77.4 x 264.0 | 620 | Package type A/C | |
| | S φ77.4 x 260.0 | 620 | | |
| 55F | K φ77.4 x 295.8 | 650 | Twin | |
| | X φ90.0 x 303.8 | 890 | Twin | |
| 55F | 2 φ90.0 x 270.9 | 855 | Split type A/C | |
| | 3 φ77.0 x 350.8 | 900 | Twin | |
| 55F | P φ58.4 x 223.0 | 300 | | |
| | R φ77.4 x 217.0 | 500 | G4C BLDC | |
| 55F | Q φ77.0 x 260.6 | 570 | G4T BLDC | |
| | 4 φ77.0 x 273.5 | 600 | Twin | |
| 55F | 6 φ77.0 x 260.6 | 570 | G4T HI-EER | |
| | V φ90.0 x 351.0 | 1100 | R22 | |
| 55F | Y φ90.0 x 344.8 | 1100 | R410A/R22 | |
| | 44F | Z φ15.9 x 190.0 | - | Tandem |
| 48F | Z φ15.9 x 225.0 | - | Tandem | |
| 55F | Z φ19.1 x 260.0 | - | Tandem | |

Rotary Compressor Ver. 02

| Comp Type | Frame | Launching Year | Cooling Capacity (x100 Btu/h) | Foot Position | |
|-----------|------------|--|----------------------------------|------------------|-------|
| UR R22 | 0 20 Frame | H 2014 J 2015 K 2016 L 2017 M 2018 | Ex.) 080 : 8,000 Btu/h | Tri-angle foot | |
| UG R410A | 9 39 Frame | | | Rectangular foot | |
| UB R32 | 4 44 Frame | | | E 30° | M 15° |
| UX R134a | 8 48 Frame | | | J 90° (-30°) | F 45° |
| UF R407C | 5 55 Frame | | | K 105° (-15°) | H 60° |
| | 3 63 Frame | | | L 75° | L 75° |

UR 4 A H 5 080 H E B

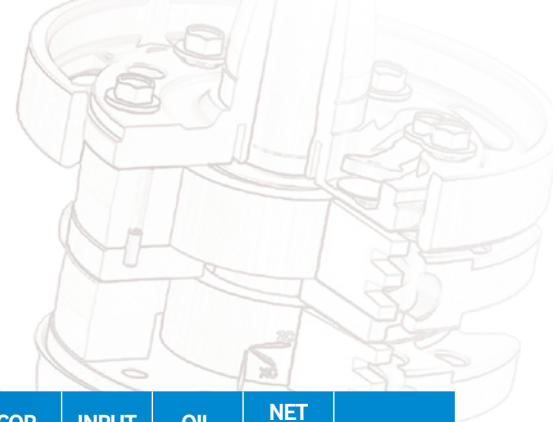
| Major Change (Pump Ass'y) | |
|------------------------------|---------------------|
| A | Basic |
| B | Taller |
| C | Shorter |
| T | Twin |
| D | Improved Efficiency |
| V | Capacity Modulation |

| Series |
|--------|
| |

| Power Source | |
|--------------|-------------------|
| H | 1φ 115V, 60Hz |
| I | 1φ 208-230V, 60Hz |
| M | 1φ 200-220V, 50Hz |
| J | 1φ 220-240V, 50Hz |
| D | 1φ 220V, 50Hz |
| G | 1φ 127V, 60Hz |
| K | 1φ 100V, 50/60Hz |
| Y | 1φ 265V, 60Hz |
| A | 3φ 380V, 60Hz |
| B | 3φ 380-420V, 50Hz |
| C | 3φ 220V, 60Hz |
| F | 3φ BLDC(Nd) |
| L | 3φ BLDC(Ferrite) |
| Z | 3φ BLDC, DC24V |
| Q | 3φ BLDC (AC100V) |

| Accumulator | | | | |
|-------------|---------------------------|-----------------|------------------|--------|
| | Out dia.(mm) x Height(mm) | Effective(cc) | Remark | |
| 20F | S φ31.8 x 87.0 | 20 | | |
| 39F | 9 φ31.8 x 172.8 | 50 | | |
| | A φ31.8 x 172.8 | 50 | | |
| 44F | B φ41.3 x 190.3 | 87 | | |
| | 7 φ31.8 x 114.7 | 24 | R134a | |
| 44F | F φ47.6 x 204.5 | 160 | | |
| | L φ58.4 x 237.0 | 340 | | |
| 48F | P φ58.4 x 223.0 | 300 | | |
| | 8 φ58.4 x 221.0 | 300 | | |
| 48F | H φ77.4 x 260.0 | 620 | | |
| | W φ77.0 x 271.5 | 600 | Twin | |
| 48F | U φ77.0 x 282.0 | 580 | Twin | |
| | M φ77.4 x 290.0 | 750 | Split type A/C | |
| 48F | N φ77.4 x 264.0 | 620 | Package type A/C | |
| | S φ77.4 x 260.0 | 620 | | |
| 55F | K φ77.4 x 295.8 | 650 | Twin | |
| | X φ90.0 x 303.8 | 890 | Twin | |
| 55F | 2 φ90.0 x 270.9 | 855 | Split type A/C | |
| | 3 φ77.0 x 350.8 | 900 | Twin | |
| 55F | R φ77.4 x 217.0 | 500 | G4C BLDC | |
| | Q φ77.0 x 260.6 | 570 | G4T BLDC | |
| 55F | 4 φ77.0 x 273.5 | 600 | Twin | |
| | 6 φ77.0 x 260.6 | 570 | G4T HI-EER | |
| 55F | V φ90.0 x 351.0 | 1100 | R22 | |
| | Y φ90.0 x 344.8 | 1100 | R22, R410A | |
| 55F | 44F | Z φ15.9 x 190.0 | - | Tandem |
| | 48F | Z φ15.9 x 225.0 | - | Tandem |
| 55F | Z φ19.1 x 260.0 | - | Tandem | |

Rotary Compressor SPECIFICATIONS



R410A 60Hz

| REF. | POWER SOURCE | MODEL | DISPLACEMENT | | COOLING CAPACITY | | EER | COP | INPUT | OIL | NET WEIGHT | TYPE |
|-----------|--------------|--------------|--------------|--------|------------------|--------|-------|-------|-------|------|------------|------|
| | | | CC/REV | BTU/H | W | BTU/WH | W/W | W | CC | KG | | |
| R410A | 60Hz | 1φ, 115V | UG9C050HS | 4.9 | 5,000 | 1,465 | 10.1 | 2.96 | 495 | 210 | 7.6 | 9 |
| | | | UG9C052HS | 5.0 | 5,200 | 1,524 | 10.1 | 2.96 | 515 | 210 | 7.5 | 9 |
| | | | UG9C060HS | 5.8 | 6,000 | 1,758 | 10.1 | 2.96 | 594 | 210 | 7.5 | 9 |
| | | | UG9C067HS | 6.6 | 6,750 | 1,978 | 10.1 | 2.96 | 668 | 270 | 8.1 | 10 |
| | | | UG9C076HS | 7.3 | 7,600 | 2,227 | 10.0 | 2.93 | 760 | 210 | 7.9 | 11 |
| | | | UG9C080HS | 7.6 | 8,000 | 2,345 | 10.0 | 2.93 | 800 | 210 | 7.9 | 11 |
| | | | UG4A098HU | 9.7 | 10,000 | 2,931 | 10.2 | 2.99 | 980 | 300 | 11.1 | 9 |
| | | | UG4A110HU | 10.9 | 11,500 | 3,370 | 10.5 | 3.08 | 1,095 | 300 | 11.7 | 6 |
| | | 1φ, 208-230V | UG9C060IS | 5.8 | 6,000 | 1,758 | 10.0 | 2.93 | 600 | 270 | 7.8 | 12 |
| | | | UG9C067IS | 6.6 | 6,750 | 1,978 | 10.2 | 3.00 | 660 | 210 | 7.9 | 11 |
| | | | UG9C076IS | 7.3 | 7,600 | 2,227 | 10.1 | 2.97 | 750 | 210 | 7.9 | 11 |
| | | | UG9C080IS | 7.6 | 7,800 | 2,286 | 10.1 | 2.97 | 770 | 210 | 7.9 | 11 |
| | | | UG4C085IU | 8.0 | 8,340 | 2,444 | 10.4 | 3.04 | 803 | 260 | 10.5 | 10 |
| | | | UG4C090IU | 8.9 | 9,000 | 2,638 | 10.3 | 3.02 | 874 | 260 | 10.5 | 11 |
| | | | UG4A098IU | 9.7 | 9,900 | 2,901 | 10.2 | 2.99 | 971 | 300 | 11.0 | 9 |
| | | | UG4A102IU | 10.3 | 10,900 | 3,194 | 10.4 | 3.05 | 1,048 | 300 | 11.2 | 9 |
| | | | UG4A110IU | 10.9 | 11,600 | 3,400 | 10.6 | 3.10 | 1,095 | 300 | 11.2 | 12 |
| | | | UG4AH5110I | 10.9 | 11,400 | 3,341 | 10.6 | 3.11 | 1,075 | 340 | 12.4 | 14 |
| | UG4A124IU | | 11.5 | 12,050 | 3,532 | 10.2 | 2.99 | 1,180 | 300 | 11.3 | 9 | |
| | UG4B135IX | | 13.2 | 13,780 | 4,039 | 10.1 | 2.96 | 1,365 | 340 | 12.5 | 13 | |
| | UG4B147IX | | 13.9 | 14,850 | 4,352 | 10.1 | 2.96 | 1,470 | 340 | 12.2 | 13 | |
| | UG8C155IU | | 15.2 | 16,300 | 4,777 | 10.6 | 3.11 | 1,538 | 540 | 15.5 | 6,7 | |
| | UG8C155IN | | 15.2 | 16,100 | 4,718 | 10.6 | 3.11 | 1,519 | 1,220 | 17.1 | 7 | |
| | UG8C180IU | | 17.0 | 18,100 | 5,305 | 10.6 | 3.11 | 1,708 | 540 | 15.5 | 6 | |
| | UG8CH5180I | | 17.0 | 18,100 | 5,305 | 10.8 | 3.17 | 1,676 | 540 | 16.8 | 8 | |
| | UG8C185IU | | 17.6 | 18,500 | 5,422 | 10.4 | 3.05 | 1,779 | 540 | 15.5 | 6 | |
| | UG8C200IN | | 19.0 | 20,400 | 5,979 | 10.6 | 3.11 | 1,925 | 540 | 15.4 | 6 | |
| | UG5C200IN | | 19.3 | 20,000 | 5,861 | 10.6 | 3.11 | 1,886 | 1,220 | 23.0 | 8 | |
| | UG5CH5200I | | 19.3 | 20,400 | 5,979 | 10.5 | 3.08 | 1,943 | 800 | 21.7 | 8 | |
| | UG5CH5240I | | 23.4 | 24,500 | 7,180 | 10.7 | 3.14 | 2,290 | 800 | 21.5 | 9 | |
| | UG5A240IU | | 23.4 | 24,500 | 7,180 | 10.1 | 2.96 | 2,425 | 750 | 21.2 | 10 | |
| | UG5C250IN | | 23.9 | 25,300 | 7,415 | 10.7 | 3.14 | 2,365 | 1,220 | 23.9 | 9 | |
| | UG5C260IN | 24.7 | 26,250 | 7,693 | 10.5 | 3.08 | 2,500 | 1,220 | 24.7 | 9 | | |
| | UG5A260IU | 25.4 | 26,300 | 7,708 | 10.1 | 2.96 | 2,600 | 750 | 21.2 | 9 | | |
| | UG5A280IU | 27.2 | 28,600 | 8,382 | 10.2 | 2.97 | 2,820 | 750 | 21.3 | 10 | | |
| | UG5A290IN | 27.9 | 29,500 | 8,646 | 10.6 | 3.11 | 2,783 | 1,220 | 24.5 | 11 | | |
| | UG5A300IU | 29.3 | 30,600 | 8,968 | 10.0 | 2.93 | 3,060 | 750 | 21.3 | 10 | | |
| | 1φ, 265V | UG9C060YS | 5.8 | 6,000 | 1,758 | 10.0 | 2.93 | 600 | 270 | 7.8 | 12 | |
| | | UG9C067YS | 6.6 | 6,750 | 1,978 | 9.9 | 2.89 | 685 | 210 | 7.5 | 9 | |
| | | UG9C076YS | 7.3 | 7,600 | 2,227 | 10.2 | 2.99 | 745 | 270 | 8.1 | 11 | |
| | | UG4C085YU | 8.0 | 8,100 | 2,374 | 10.2 | 2.99 | 794 | 320 | 10.7 | 10 | |
| | | UG4A102YU | 10.3 | 10,850 | 3,180 | 10.5 | 3.08 | 1,033 | 340 | 11.3 | 12 | |
| UG4A110YU | | 10.9 | 11,450 | 3,356 | 10.5 | 3.08 | 1,090 | 340 | 11.3 | 12 | | |
| UG4A124YU | 11.5 | 12,050 | 3,532 | 10.5 | 3.08 | 1,145 | 300 | 11.3 | 9 | | | |
| UG4B147YX | 13.9 | 14,800 | 4,337 | 10.3 | 3.02 | 1,435 | 340 | 12.5 | 13 | | | |

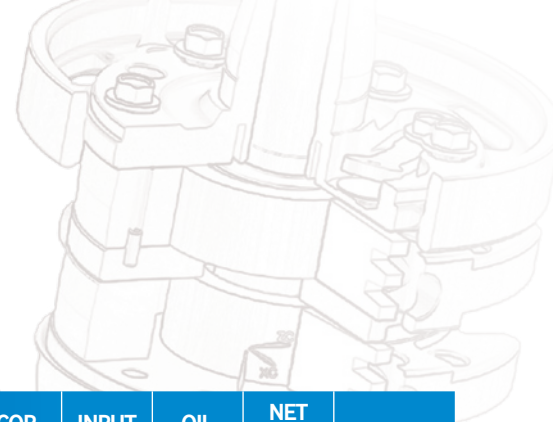
R410A 50Hz

| REF. | POWER SOURCE | MODEL | DISPLACEMENT | | COOLING CAPACITY | | EER | COP | INPUT | OIL | NET WEIGHT | TYPE |
|-------|--------------|--------------|--------------|-------|------------------|--------|------|------|-------|-----|------------|------|
| | | | CC/REV | BTU/H | W | BTU/WH | W/W | W | CC | KG | | |
| R410A | 50Hz | 1φ, 220-240V | UG4C065JN | 8.0 | 6,800 | 1,993 | 9.9 | 2.90 | 687 | 260 | 10.5 | 15 |
| | | | UG4B124JX | 14.1 | 12,000 | 3,517 | 9.5 | 2.78 | 1,263 | 340 | 12.2 | 5 |
| | | | UG8C124JU | 15.2 | 12,900 | 3,781 | 10.2 | 2.99 | 1,265 | 540 | 15.4 | 9 |
| | | 1φ, 220V | UG9CH8037D | 4.4 | 3,730 | 1,093 | 10.0 | 2.93 | 373 | 210 | 8.4 | 13 |
| | | | UG4AH8080D | 9.7 | 8,200 | 2,403 | 10.4 | 3.05 | 788 | 300 | 12.2 | 4 |
| | | | UG4A091DN | 10.9 | 9,300 | 2,726 | 10.0 | 2.93 | 930 | 300 | 11.6 | 4 |
| | | | UG8CH8180D | 21.0 | 18,500 | 5,422 | 10.5 | 3.08 | 1,762 | 540 | 16.8 | 8 |
| | | | UG8D185DN | 21.7 | 18,950 | 5,554 | 10.2 | 2.99 | 1,860 | 550 | 16.6 | 3 |
| | | | UG5CH8215D | 24.7 | 21,400 | 6,272 | 10.6 | 3.10 | 2,020 | 800 | 22.1 | 12 |
| | | | UG5A240DN | 27.9 | 24,100 | 7,063 | 9.9 | 2.90 | 2,435 | 750 | 21.7 | 2 |

<Rotary Compressor>



Rotary Compressor SPECIFICATIONS



BLDC (Single & Twin)

| REF. | POWER SOURCE | MODEL | DISPLACEMENT | | COOLING CAPACITY | | EER | COP | INPUT | OIL | NET WEIGHT | TYPE | |
|-------|----------------------------|---------------------|--------------|--------|------------------|--------|-------|-------|-------|-------|------------|------|-----|
| | | | CC/REV | BTU/H | W | BTU/WH | | | | | | | W/W |
| R410A | BLDC (Single Pump,Ferrite) | UG9A090LNA | 9.0 | 9,300 | 2,726 | 10.8 | 3.17 | 861 | 320 | 7.8 | 18 | | |
| | BLDC (Single Pump,Nd) | UG9C072FUA | 7.3 | 7,550 | 2,213 | 11.2 | 3.28 | 674 | 270 | 7.3 | 15 | | |
| | | UG9CJ3072F | 7.3 | 7,550 | 2,213 | 11.1 | 3.25 | 680 | 270 | 7.0 | 26 | | |
| | | UG9CJ5072F | 7.3 | 7,550 | 2,213 | 11.3 | 3.31 | 668 | 270 | 7.4 | 15 | | |
| | | UG9A090FUA | 9.0 | 9,300 | 2,726 | 11.1 | 3.25 | 837 | 320 | 7.5 | 16 | | |
| | | UG9AJ1090F | 9.0 | 9,300 | 2,726 | 10.8 | 3.17 | 861 | 320 | 6.5 | 22 | | |
| | | UG9AJ3090F | 9.0 | 9,300 | 2,726 | 11.1 | 3.25 | 838 | 320 | 7.1 | 23 | | |
| | | UG9AJ5090F | 9.0 | 9,300 | 2,726 | 11.3 | 3.31 | 823 | 350 | 7.5 | 16 | | |
| | | UG9A090FUB | 9.0 | 9,300 | 2,726 | 10.8 | 3.17 | 861 | 320 | 7.3 | 17 | | |
| | | UG9A090FUC | 9.0 | 9,300 | 2,726 | 10.8 | 3.17 | 861 | 320 | 6.9 | 18 | | |
| | | UG9BJ3102F | 10.2 | 10,350 | 3,033 | 10.9 | 3.19 | 950 | 340 | 7.2 | 24 | | |
| | | UG9BJ5102F | 10.2 | 10,350 | 3,033 | 11.1 | 3.25 | 932 | 340 | 7.6 | 25 | | |
| | | BLDC (Twin Pump,Nd) | UG9T115FUA | 11.6 | 11,800 | 3,458 | 11.2 | 3.31 | 1,054 | 380 | 9.0 | 14 | |
| | UG9TJ8115F | | 11.6 | 11,800 | 3,458 | 11.5 | 3.37 | 1,026 | 380 | 8.6 | 14 | | |
| | UG4T135FUA | | 13.1 | 13,200 | 3,869 | 11.1 | 3.25 | 1,189 | 500 | 10.4 | 18 | | |
| | UG4T150FUA | | 15.0 | 15,200 | 4,455 | 11.1 | 3.25 | 1,369 | 500 | 10.4 | 18 | | |
| | UG4T150FUC | | 15.0 | 15,200 | 4,455 | 11.0 | 3.22 | 1,380 | 500 | 10.4 | 18 | | |
| | UG4T150FUD | | 15.0 | 15,200 | 4,455 | 11.1 | 3.25 | 1,369 | 650 | 10.5 | 18 | | |
| | UG4T200FUA | | 19.5 | 20,200 | 5,920 | 11.3 | 3.31 | 1,788 | 650 | 11.2 | 19 | | |
| | UG4TH8200F | | 19.5 | 20,500 | 6,008 | 11.6 | 3.40 | 1,767 | 650 | 11.5 | 20 | | |
| | UG8T260FUA | | 25.2 | 26,500 | 7,766 | 11.1 | 3.25 | 2,387 | 700 | 14.0 | 13 | | |
| | UG8T265FUA | | 25.2 | 26,500 | 7,766 | 11.3 | 3.31 | 2,345 | 700 | 14.5 | 14 | | |
| | UG8T265FNF | | 25.2 | 26,700 | 7,825 | 11.5 | 3.37 | 2,322 | 700 | 15.6 | 15 | | |
| | UG8TH8265F | | 25.2 | 26,700 | 7,825 | 11.7 | 3.43 | 2,282 | 700 | 15.1 | 15 | | |
| | UG8T300FUA | | 30.0 | 31,300 | 9,173 | 11.1 | 3.25 | 2,820 | 750 | 14.6 | 16 | | |
| | UG8T300FUB | | 30.0 | 31,300 | 9,173 | 11.1 | 3.25 | 2,820 | 1,200 | 16.5 | 17 | | |
| | UG8T300FUC | | 30.0 | 31,300 | 9,173 | 11.1 | 3.25 | 2,820 | 1,200 | 16.5 | 17 | | |
| | UG5T360FUA | | 35.1 | 37,500 | 10,990 | 11.0 | 3.22 | 3,409 | 1,100 | 20.0 | 17 | | |
| | UG5T360FUE | | 35.1 | 37,500 | 10,990 | 11.0 | 3.22 | 3,409 | 1,700 | 21.6 | 18 | | |
| | UG5T450FUA | | 43.0 | 46,500 | 13,628 | 11.3 | 3.31 | 4,115 | 1,100 | 21.3 | 19 | | |
| | UG5T450FUE | | 43.0 | 46,500 | 13,628 | 11.3 | 3.31 | 4,115 | 1,700 | 23.0 | 20 | | |
| | UG5T450FUF | | 43.0 | 46,500 | 13,628 | 11.3 | 3.31 | 4,115 | 1,700 | 23.0 | 20 | | |
| | UG5T450FXA | | 43.0 | 46,500 | 13,628 | 11.6 | 3.40 | 4,009 | 1,700 | 23.8 | 21 | | |
| | UG5TH5450F | | 43.0 | 46,500 | 13,628 | 11.5 | 3.37 | 4,043 | 1,700 | 20.5 | 22 | | |
| | UG5TH8450F | | 43.0 | 46,500 | 13,628 | 11.8 | 3.46 | 3,941 | 1,700 | 22.5 | 20 | | |
| | UG5T520FUB | | 49.4 | 54,000 | 15,826 | 11.3 | 3.31 | 4,779 | 1,700 | 23.8 | 21 | | |
| | UG5TH5520F | 49.4 | 54,000 | 15,826 | 11.4 | 3.34 | 4,736 | 1,700 | 20.5 | 22 | | | |
| | UG5TH8520F | 49.4 | 54,000 | 15,826 | 11.7 | 3.43 | 4,615 | 1,700 | 22.5 | 20 | | | |
| | BLDC (Twin Pump,Ferrite) | UG4T150LNB | 15.0 | 15,200 | 4,455 | 10.9 | 3.19 | 1,395 | 500 | 11.3 | 21 | | |
| | | UG4T200LNE | 19.5 | 20,500 | 6,008 | 11.2 | 3.28 | 1,830 | 650 | 12.4 | 22 | | |
| | | UG4T200LNF | 19.5 | 20,500 | 6,008 | 11.2 | 3.28 | 1,830 | 700 | 12.4 | 22 | | |
| | | UG8T300LNB | 30.0 | 31,300 | 9,173 | 11.0 | 3.22 | 2,845 | 1,200 | 16.6 | 18 | | |
| | R32 | BLDC (Twin Pump,Nd) | UB9TJ5120F | 11.6 | 12,250 | 3,590 | 11.0 | 3.31 | 1,114 | 380 | 9.0 | 14 | |
| | R134a | BLDC (Twin Pump,Nd) | UX8TH5140F | 30.0 | 14,500 | 4,250 | 12.0 | 3.51 | 1,210 | 1,200 | 16.5 | 17 | |
| | | | UX5T210FUA | 43.0 | 21,500 | 6,301 | 11.6 | 3.40 | 1,853 | 1,100 | 21.6 | 19 | |
| | | | UX5T250FNB | 49.4 | 24,800 | 7,268 | 12.1 | 3.55 | 2,050 | 1,700 | 23.8 | 21 | |

R22 60Hz

| REF. | POWER SOURCE | MODEL | DISPLACEMENT | | COOLING CAPACITY | | EER | COP | INPUT | OIL | NET WEIGHT | TYPE |
|------|--------------|--------------|--------------|-------|------------------|--------|------|------|-------|-----|------------|------|
| | | | CC/REV | BTU/H | W | BTU/WH | | | | | | |
| R22 | 60Hz | 1φ, 115V | UR9C052HS | 7.6 | 5,300 | 1,553 | 10.8 | 3.16 | 491 | 210 | 7.3 | 1 |
| | | | UR9B072HS | 10.2 | 7,050 | 2,066 | 10.6 | 3.11 | 665 | 230 | 8.1 | 2 |
| | | | UR9B080HS | 11.3 | 8,000 | 2,345 | 10.6 | 3.11 | 755 | 230 | 8.3 | 3 |
| | | | UR4A092HU | 13.2 | 9,350 | 2,740 | 10.7 | 3.14 | 874 | 300 | 10.2 | 1 |
| | | | UR4B117HX | 16.6 | 11,900 | 3,488 | 10.7 | 3.14 | 1,112 | 340 | 11.9 | 2 |
| | | 1φ, 208-230V | UR9A052IS | 7.6 | 5,300 | 1,553 | 10.6 | 3.11 | 500 | 210 | 7.5 | 4 |
| | | | UR9B068IS | 9.6 | 6,700 | 1,964 | 10.7 | 3.14 | 626 | 230 | 8.4 | 5 |
| | | | UR9B072IS | 10.2 | 7,100 | 2,081 | 10.5 | 3.07 | 677 | 230 | 8.4 | 6 |
| | | | UR9B080IS | 11.3 | 8,000 | 2,345 | 10.7 | 3.13 | 748 | 230 | 8.4 | 3 |
| | | | UR4AH5092I | 13.2 | 9,400 | 2,755 | 10.6 | 3.11 | 886 | 300 | 11.1 | 3 |
| | | | UR4A098IN | 14.1 | 10,260 | 3,007 | 10.8 | 3.17 | 950 | 300 | 11.1 | 4 |
| | | | UR4B110IX | 16.1 | 11,500 | 3,370 | 10.7 | 3.14 | 1,075 | 340 | 12.1 | 5 |
| | | | UR4B124IX | 17.6 | 12,650 | 3,707 | 10.6 | 3.11 | 1,193 | 300 | 12.1 | 5 |
| | | | UR4B135IX | 18.7 | 13,400 | 3,927 | 10.5 | 3.08 | 1,276 | 340 | 11.8 | 2 |
| | | | UR8C155IU | 21.7 | 15,800 | 4,631 | 10.9 | 3.19 | 1,450 | 540 | 15.1 | 1 |
| | | | UR8C172IN | 24.0 | 17,500 | 5,129 | 10.9 | 3.19 | 1,606 | 540 | 15.6 | 2 |
| | | | UR8D185IN | 25.8 | 18,700 | 5,480 | 10.7 | 3.14 | 1,748 | 550 | 16.2 | 3 |
| | | | UR5A220IN | 30.6 | 22,500 | 6,594 | 10.9 | 3.19 | 2,065 | 500 | 21.1 | 1 |
| | | | UR5A240IN | 33.4 | 25,000 | 7,327 | 10.9 | 3.20 | 2,293 | 750 | 21.6 | 1,2 |
| | | | UR5A260IU | 36.2 | 26,700 | 7,825 | 11.0 | 3.22 | 2,430 | 750 | 20.1 | 3 |
| | | | UR5A280IU | 39.0 | 29,500 | 8,646 | 11.0 | 3.23 | 2,680 | 800 | 21.9 | 4 |
| | | | UR5A300IU | 41.8 | 31,500 | 9,232 | 10.9 | 3.19 | 2,890 | 800 | 21.8 | 4 |

R22 50Hz

| REF. | POWER SOURCE | MODEL | DISPLACEMENT | | COOLING CAPACITY | | EER | COP | INPUT | OIL | NET WEIGHT | TYPE |
|------|--------------|--------------|--------------|-------|------------------|--------|------|------|-------|-----|------------|------|
| | | | CC/REV | BTU/H | W | BTU/WH | | | | | | |
| R22 | 50Hz | 1φ, 220-240V | UR9A052JS | 9.0 | 5,200 | 1,524 | 10.2 | 2.99 | 510 | 210 | 7.7 | 7 |
| | | | UR5A250JN | 41.8 | 25,600 | 7,503 | 10.6 | 3.11 | 2,415 | 800 | 22.5 | 5 |
| | | 1φ, 220V | UR9C037DS | 6.6 | 3,700 | 1,084 | 10.1 | 2.97 | 365 | 210 | 7.7 | 8 |
| | | | UR9B066DS | 11.3 | 6,400 | 1,876 | 9.9 | 2.91 | 645 | 230 | 8.1 | 5 |
| | | | UR4A080DN | 14.1 | 8,300 | 2,432 | 11.0 | 3.22 | 755 | 300 | 11.5 | 4 |
| | | | UR4A085DU | 15.0 | 8,900 | 2,608 | 10.3 | 3.02 | 864 | 300 | 10.8 | 6 |
| | | | UR4B098DX | 16.6 | 9,700 | 2,843 | 10.3 | 3.02 | 940 | 340 | 11.9 | 5 |
| | | | UR4D115DN | 19.8 | 11,400 | 3,341 | 10.6 | 3.11 | 1,075 | 380 | 12.7 | 7 |
| | | | UR4D124DX | 21.0 | 12,200 | 3,575 | 10.5 | 3.08 | 1,161 | 450 | 12.8 | 8 |
| | | | UR8C110DN | 19.0 | 11,350 | 3,326 | 11.0 | 3.22 | 1,032 | 540 | 15.5 | 4 |
| | | | UR8C129DN | 21.7 | 12,900 | 3,781 | 10.8 | 3.17 | 1,194 | 540 | 15.5 | 4 |
| | | | UR8B170DN | 28.8 | 17,200 | 5,041 | 10.8 | 3.16 | 1,593 | 550 | 16.8 | 5 |
| | | | UR8B180DU | 30.4 | 18,100 | 5,305 | 10.5 | 3.08 | 1,724 | 550 | 16.8 | 5 |
| | | | UR8B200DU | 32.5 | 19,400 | 5,686 | 10.6 | 3.11 | 1,830 | 550 | 16.7 | 5 |
| | | | UR5A215DN | 36.2 | 21,800 | 6,389 | 11.2 | 3.28 | 1,945 | 750 | 22.0 | 6 |
| | | | UR5A260DN | 44.6 | 27,000 | 7,913 | 10.4 | 3.04 | 2,600 | 800 | 22.6 | 7 |

Rotary Compressor SPECIFICATIONS

Tropical (UTR-Ultra Tropical Rotary)

| REF. | POWER SOURCE | MODEL | DISPLACEMENT | | COOLING CAPACITY | | EER | COP | INPUT | OIL | NET WEIGHT | | TYPE |
|-------|--------------|--------------|--------------|-------|------------------|--------|------|------|-------|---------|------------|----|------|
| | | | CC/REV | BTU/H | W | BTU/WH | | | | | W/W | W | |
| R22 | 60Hz | 1φ, 208-230V | UR4B124IT | 17.6 | 12,650 | 3,707 | 10.3 | 3.02 | 1,228 | 320 | 11.8 | 2 | |
| | | | UR4B135IT | 18.7 | 13,500 | 3,956 | 10.3 | 3.02 | 1,310 | 340 | 11.8 | 13 | |
| | | | UR8D190IH | 26.6 | 19,500 | 5,715 | 10.5 | 3.08 | 1,858 | 550 | 16.0 | 3 | |
| | | | UR8D200IH | 27.8 | 20,700 | 6,067 | 10.4 | 3.05 | 1,990 | 550 | 16.0 | 3 | |
| | | | UR5A240IH | 33.4 | 25,000 | 7,327 | 11.1 | 3.25 | 2,252 | 500/750 | 21.6/22.0 | 2 | |
| | | | UR5A260IH | 36.2 | 27,600 | 8,089 | 10.4 | 3.05 | 2,654 | 750 | 21.6 | 2 | |
| | 50Hz | 1φ, 220-240V | UR4B092JT | 16.1 | 9,300 | 2,726 | 10.0 | 2.93 | 930 | 340 | 11.8 | 2 | |
| | | | UR4D124JH | 21.0 | 12,400 | 3,634 | 9.7 | 2.84 | 1,278 | 380 | 12.7 | 7 | |
| | | | UR4D129JT | 21.7 | 12,800 | 3,751 | 9.6 | 2.81 | 1,333 | 380 | 12.7 | 16 | |
| | | | UR8B180JH | 30.4 | 18,400 | 5,393 | 9.4 | 2.76 | 1,957 | 550 | 16.4 | 10 | |
| | | | UR8B200JT | 32.5 | 19,500 | 5,715 | 9.3 | 2.73 | 2,097 | 550 | 16.5 | 11 | |
| | | | UR8D165JH | 27.8 | 16,500 | 4,836 | 10.2 | 2.99 | 1,618 | 550 | 16.5 | 12 | |
| R134a | 60Hz | 1φ, 115V | UX9BJ6056H | 11.3 | 5,780 | 1,694 | 10.8 | 3.17 | 535 | 230 | 8.3 | 11 | |
| | 50Hz | 1φ, 220-240V | UX9B042JH | 10.2 | 4,260 | 1,248 | 10.4 | 3.05 | 410 | 250 | 8.4 | 3 | |

Large Volume (TTR-Turbo Twin Rotary)

| REF. | POWER SOURCE | MODEL | DISPLACEMENT | | COOLING CAPACITY | | EER | COP | INPUT | OIL | NET WEIGHT | | TYPE |
|-------|--------------|--------------|--------------|-------|------------------|--------|------|------|-------|-------|------------|----|------|
| | | | CC/REV | BTU/H | W | BTU/WH | | | | | W/W | W | |
| R22 | 60Hz | 1φ, 208-230V | UR5T360IU | 49.4 | 36,500 | 10,697 | 10.9 | 3.19 | 3,349 | 900 | 23.9 | 13 | |
| | | | UR5T360AU | 49.4 | 36,000 | 10,551 | 10.9 | 3.19 | 3,303 | 1,000 | 23.8 | 14 | |
| | | 3φ, 380V | UR3T480AU | 65.8 | 49,850 | 14,610 | 11.2 | 3.28 | 4,450 | 1,700 | 33.5 | 1 | |
| | | | UR3T550AT | 72.6 | 55,500 | 16,265 | 11.0 | 3.23 | 5,040 | 1,700 | 34.3 | 2 | |
| | | | UR3T480CT | 65.8 | 49,850 | 14,610 | 10.8 | 3.17 | 4,615 | 1,700 | 33.5 | 1 | |
| | 50Hz | 3φ, 220V | UR3T550CT | 72.6 | 55,500 | 16,265 | 11.0 | 3.23 | 5,040 | 1,700 | 34.0 | 2 | |
| | | | UR5T300JT | 49.4 | 29,650 | 8,690 | 9.8 | 2.87 | 3,025 | 950 | 24.0 | 13 | |
| | | 1φ, 220-240V | UR3T480BU | 78.6 | 48,500 | 14,214 | 10.9 | 3.19 | 4,450 | 1,700 | 34.1 | 2 | |
| | | | UR3T510BU | 83.6 | 51,500 | 15,093 | 10.9 | 3.19 | 4,725 | 1,700 | 34.0 | 2 | |
| | | | UR3T510BT | 83.6 | 51,900 | 15,210 | 10.9 | 3.20 | 4,760 | 1,900 | 34.2 | 2 | |
| R410A | 60Hz | 1φ, 208-230V | UG5T320IU | 30.6 | 32,500 | 9,525 | 10.3 | 3.02 | 3,155 | 1,500 | 26.8 | 15 | |
| | | | UG5T360IN | 35.1 | 37,000 | 10,844 | 9.8 | 2.87 | 3,776 | 1,500 | 25.9 | 16 | |
| | | 3φ, 380V | UG3T480AN | 46.3 | 49,600 | 14,536 | 10.2 | 2.99 | 4,865 | 1,700 | 35.3 | 3 | |
| | | | UG3T650AN | 61.5 | 66,500 | 19,489 | 10.1 | 2.96 | 6,585 | 1,700 | 35.3 | 3 | |
| | | | UG3T480CN | 46.3 | 49,300 | 14,448 | 10.1 | 2.96 | 4,880 | 1,700 | 35.2 | 3 | |
| | | | UG3T650CN | 61.5 | 65,350 | 19,152 | 9.9 | 2.90 | 6,600 | 1,700 | 34.8 | 3 | |

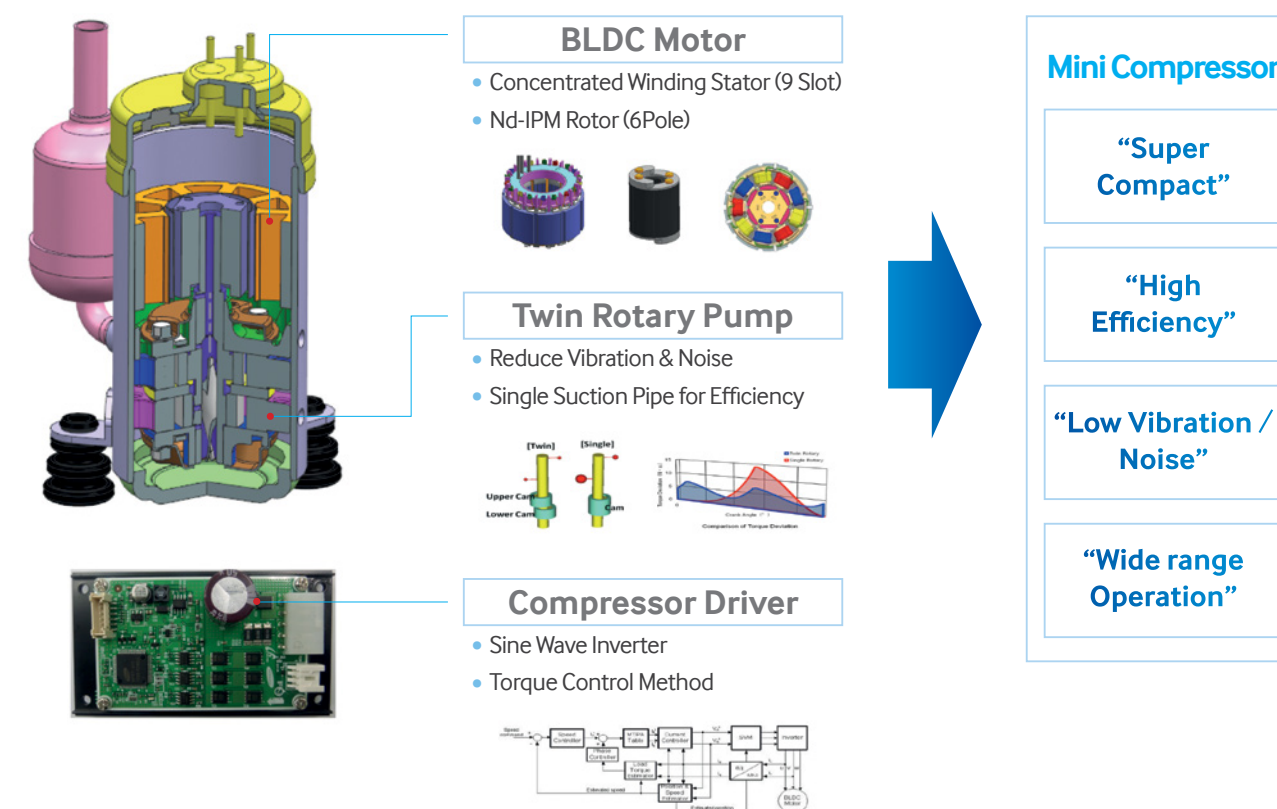
Mini Rotary Compressor SPECIFICATIONS

BLDC (Single)

| REF. | POWER SOURCE | MODEL | DISPLACEMENT | | COOLING CAPACITY | | EER | COP | INPUT | OIL | NET WEIGHT | | TYPE |
|-------|------------------------|--------------|--------------|-------|------------------|--------|------|------|-------|-----|------------|---|------|
| | | | CC/REV | BTU/H | W | BTU/WH | | | | | W/W | W | |
| R134a | BLDC (Single Pump, Nd) | UX9CJ5034F | 7.3 | 3,480 | 1,020 | 12.0 | 3.52 | 290 | 270 | 5.3 | 21 | | |
| | | UX0T011ZNA | 2.4 | 1,100 | 322 | 9.7 | 2.85 | 113 | 50 | 1.2 | 1 | | |
| | | UX0T011FNA | 2.4 | 1,100 | 322 | 10.0 | 2.93 | 110 | 50 | 1.2 | 1 | | |
| | | BLDC, AC220V | UX0T011QNA | 2.4 | 1,100 | 322 | 10.0 | 2.93 | 110 | 50 | 1.2 | 1 | |

BASIC STRUCTURE

Mini Compressor is Compact and provide the Outstanding Performance



APPLICATIONS

Portable Refrigerator

- Car Refrigerator
- Marine Refrigerator
- Water Purifier
- Wine Cellar

Personal Cooler

- Personal A/C
- Toilet A/C
- Desk Top Cooler
- Kitchen Cooler

Dryer/Washer

- Front Load Washer
- Top Load Washer
- Wardrobe Dehumidifier
- Dehumidifier

Wearable Cooler

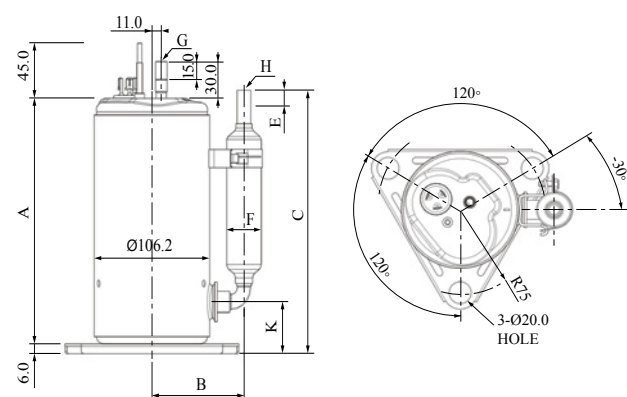
- Cooling Jacket
- Cooling Military Uniform
- Medical Cooler

DIMENSION

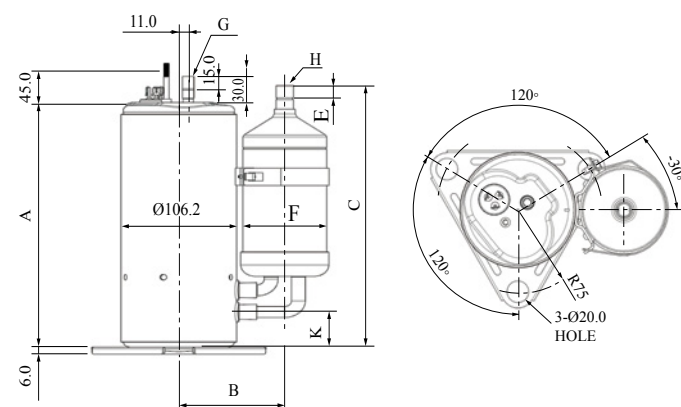
39 Frame

| (UNIT:mm) | | | | | | | | |
|-----------|-------|------|-------|------|------|------|-------|------|
| Type | A | B | C | E | F | G | H | K |
| 1 | 190.3 | 84.6 | 201.6 | 10.0 | 31.8 | 8.15 | 9.64 | 28.8 |
| 2 | 206.9 | 86.5 | 227.3 | 15.0 | 41.3 | 8.15 | 9.64 | 37.0 |
| 3 | 212.9 | 84.6 | 209.8 | 10.0 | 31.8 | 8.15 | 9.64 | 37.0 |
| 4 | 193.3 | 86.5 | 220.6 | 15.0 | 41.3 | 8.15 | 9.64 | 30.3 |
| 5 | 212.9 | 86.5 | 227.3 | 15.0 | 41.3 | 8.15 | 9.64 | 37.0 |
| 6 | 218.9 | 86.5 | 227.3 | 15.0 | 41.3 | 8.15 | 9.64 | 37.0 |
| 7 | 197.3 | 84.6 | 203.1 | 10.0 | 31.8 | 8.15 | 9.64 | 30.3 |
| 8 | 200.3 | 86.5 | 219.1 | 15.0 | 41.3 | 8.15 | 9.64 | 28.8 |
| 9 | 194.3 | 84.6 | 201.6 | 10.0 | 31.8 | 8.15 | 9.64 | 28.8 |
| 10 | 207.8 | 86.5 | 226.6 | 15.0 | 41.3 | 8.15 | 9.64 | 36.3 |
| 11 | 200.3 | 84.6 | 201.6 | 10.0 | 31.8 | 8.15 | 9.64 | 28.8 |
| 12 | 201.8 | 86.5 | 226.6 | 15.0 | 41.3 | 8.15 | 9.64 | 36.3 |
| 13 | 206.3 | 86.5 | 219.1 | 15.0 | 41.3 | 8.15 | 9.64 | 28.8 |
| 14 | 283.7 | 97.2 | 303.1 | 15.0 | 77.4 | 8.15 | 12.85 | 42.5 |
| 15 | 237.3 | 97.2 | 253.3 | 15.0 | 77.4 | 8.15 | 12.85 | 36.3 |
| 16 | 246.5 | 97.2 | 261.0 | 15.0 | 77.4 | 8.15 | 12.85 | 44.0 |
| 17 | 261.5 | 87.9 | 267.0 | 15.0 | 58.4 | 8.15 | 12.85 | 44.0 |
| 18 | 236.5 | 87.9 | 267.0 | 15.0 | 58.4 | 8.15 | 12.85 | 44.0 |
| 19 | 245.9 | 97.2 | 267.7 | 15.0 | 77.4 | 8.15 | 12.85 | 50.7 |
| 20 | 223.7 | 87.9 | 259.3 | 15.0 | 58.4 | 8.15 | 12.85 | 36.3 |
| 21 | 174.3 | 84.6 | 151.0 | 10.0 | 31.8 | 8.15 | 9.64 | 36.3 |
| 22 | 226.5 | 97.2 | 261.0 | 15.0 | 77.4 | 8.15 | 12.85 | 44.0 |
| 23 | 236.5 | 97.2 | 261.0 | 15.0 | 77.4 | 8.15 | 12.85 | 44.0 |
| 24 | 246.5 | 97.2 | 267.7 | 15.0 | 77.4 | 8.15 | 12.85 | 50.7 |
| 25 | 256.5 | 97.2 | 267.7 | 15.0 | 77.4 | 8.15 | 12.85 | 50.7 |
| 26 | 227.3 | 97.2 | 253.3 | 15.0 | 77.4 | 8.15 | 12.85 | 36.3 |

< 39 Frame Single >



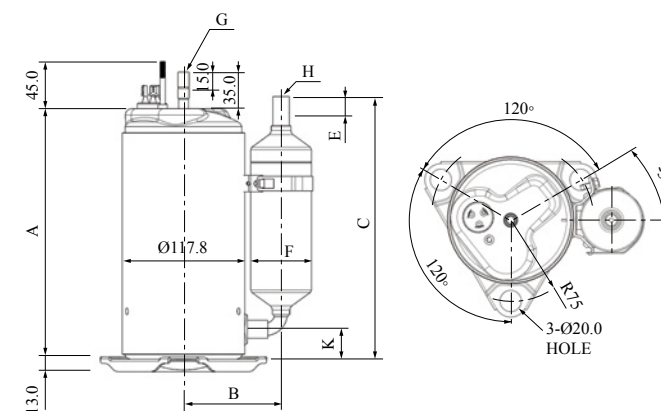
< 39 Frame Twin >



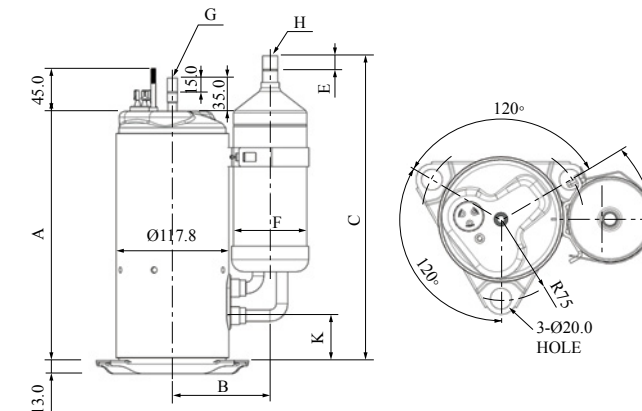
44 Frame

| (UNIT:mm) | | | | | | | | |
|-----------|-------|-------|-------|------|------|------|-------|------|
| Type | A | B | C | E | F | G | H | K |
| 1 | 215.1 | 93.7 | 251.6 | 15.0 | 58.4 | 8.15 | 12.85 | 28.6 |
| 2 | 240.7 | 93.7 | 274.0 | 15.0 | 58.4 | 8.15 | 12.85 | 37.0 |
| 3 | 240.1 | 93.7 | 249.8 | 15.0 | 58.4 | 8.15 | 9.64 | 28.6 |
| 4 | 240.1 | 93.7 | 251.6 | 15.0 | 58.4 | 8.15 | 12.85 | 28.6 |
| 5 | 252.7 | 93.7 | 274.0 | 15.0 | 58.4 | 8.15 | 12.85 | 37.0 |
| 6 | 235.1 | 93.7 | 251.6 | 15.0 | 58.4 | 8.15 | 12.85 | 28.6 |
| 7 | 257.4 | 93.7 | 276.2 | 15.0 | 58.4 | 8.15 | 12.85 | 39.2 |
| 8 | 270.8 | 93.7 | 289.6 | 15.0 | 58.4 | 8.15 | 12.85 | 52.6 |
| 9 | 226.1 | 93.7 | 251.6 | 15.0 | 58.4 | 8.15 | 12.85 | 28.6 |
| 10 | 222.8 | 93.7 | 257.3 | 15.0 | 58.4 | 8.15 | 12.85 | 34.3 |
| 11 | 215.1 | 95.9 | 231.1 | 15.0 | 47.6 | 8.15 | 12.85 | 26.6 |
| 12 | 233.2 | 93.7 | 258.7 | 15.0 | 58.4 | 8.15 | 12.85 | 35.7 |
| 13 | 247.7 | 93.7 | 274.0 | 15.0 | 58.4 | 8.15 | 12.85 | 37.0 |
| 14 | 247.2 | 102.6 | 252.7 | 15.0 | 77.4 | 8.15 | 12.85 | 35.7 |
| 15 | 222.1 | 92.1 | 216.9 | 15.0 | 41.3 | 8.15 | 9.64 | 26.6 |
| 16 | 252.4 | 93.7 | 276.2 | 15.0 | 58.4 | 8.15 | 12.85 | 39.2 |
| 17 | 243.2 | 102.6 | 294.9 | 15.0 | 77.0 | 8.15 | 12.85 | 34.3 |
| 18 | 246.5 | 102.6 | 308.2 | 15.0 | 77.0 | 8.15 | 12.85 | 47.6 |
| 19 | 259.5 | 102.6 | 322.2 | 15.0 | 77.0 | 8.15 | 12.85 | 49.0 |
| 20 | 264.5 | 102.6 | 322.2 | 15.0 | 77.0 | 8.15 | 12.85 | 49.0 |
| 21 | 263.5 | 102.6 | 308.2 | 15.0 | 77.0 | 8.15 | 12.85 | 47.6 |
| 22 | 281.0 | 102.6 | 322.2 | 15.0 | 77.0 | 8.15 | 12.85 | 49.0 |

< 44 Frame Single >



< 44 Frame Twin >

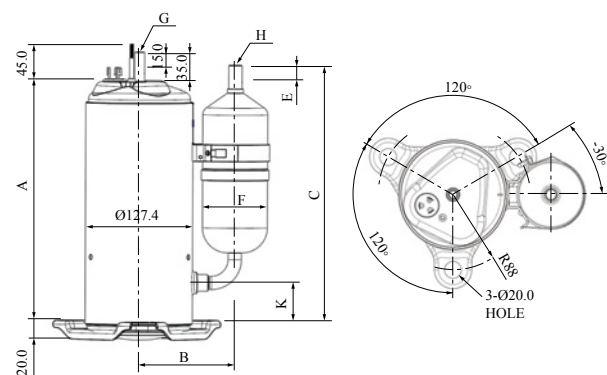


DIMENSION

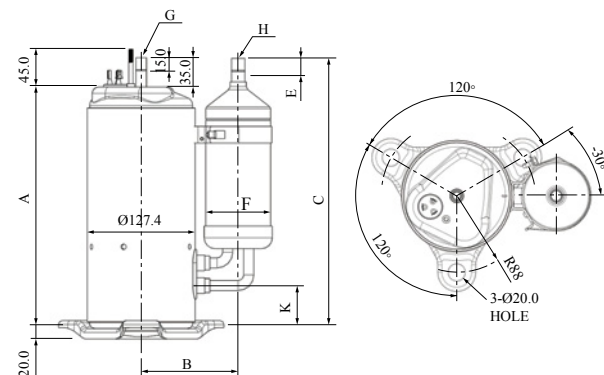
48 Frame

| (UNIT:mm) | | | | | | | | |
|-----------|-------|-------|-------|------|------|------|-------|-------|
| Type | A | B | C | E | F | G | H | K |
| 1 | 285.8 | 98.0 | 285.4 | 15.0 | 58.4 | 9.70 | 12.85 | 48.4 |
| 2 | 285.8 | 114.5 | 308.4 | 15.0 | 77.4 | 9.70 | 12.85 | 48.4 |
| 3 | 300.3 | 114.5 | 310.6 | 15.0 | 77.4 | 9.70 | 12.85 | 50.6 |
| 4 | 295.8 | 98.0 | 285.4 | 15.0 | 58.4 | 9.70 | 12.85 | 48.4 |
| 5 | 301.3 | 114.5 | 310.6 | 15.0 | 77.4 | 9.70 | 12.85 | 50.2 |
| 6 | 275.8 | 114.5 | 308.4 | 15.0 | 77.4 | 9.70 | 12.85 | 48.4 |
| 7 | 342.0 | 114.5 | 369.6 | 15.0 | 77.4 | 9.70 | 12.85 | 109.6 |
| 8 | 290.8 | 114.5 | 308.4 | 15.0 | 77.4 | 9.70 | 12.85 | 48.4 |
| 9 | 275.8 | 98.0 | 285.4 | 15.0 | 58.4 | 9.70 | 12.85 | 48.4 |
| 10 | 306.3 | 114.5 | 310.6 | 15.0 | 77.4 | 9.70 | 12.85 | 50.2 |
| 11 | 291.3 | 114.5 | 310.6 | 15.0 | 77.4 | 9.70 | 12.85 | 50.2 |
| 12 | 295.3 | 114.5 | 310.6 | 15.0 | 77.4 | 9.70 | 12.85 | 50.6 |
| 13 | 266.1 | 115.2 | 316.0 | 15.0 | 77.0 | 9.70 | 12.85 | 44.5 |
| 14 | 271.1 | 115.2 | 316.0 | 15.0 | 77.0 | 9.70 | 12.85 | 44.5 |
| 15 | 281.1 | 115.2 | 316.0 | 15.0 | 77.0 | 9.70 | 12.85 | 44.5 |
| 16 | 286.1 | 115.2 | 329.9 | 15.0 | 77.0 | 9.70 | 12.85 | 47.8 |
| 17 | 325.0 | 115.2 | 368.8 | 15.0 | 77.0 | 9.70 | 12.85 | 86.8 |
| 18 | 332.5 | 115.2 | 368.8 | 15.0 | 77.0 | 9.70 | 12.85 | 86.8 |

< 48 Frame Single >

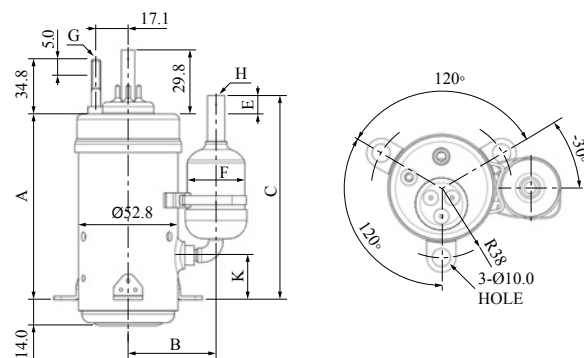


< 48 Frame Twin >



20 Frame

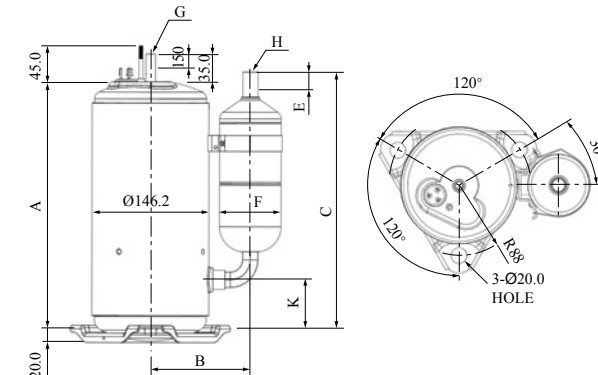
| (UNIT:mm) | | | | | | | | |
|-----------|-------|------|-------|-----|------|------|------|------|
| Type | A | B | C | E | F | G | H | K |
| 1 | 101.3 | 48.4 | 111.3 | 5.0 | 31.8 | 4.95 | 6.54 | 24.3 |



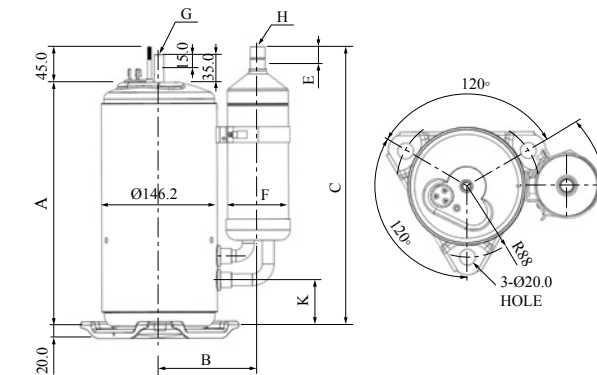
55 Frame

| (UNIT:mm) | | | | | | | | |
|-----------|-------|-------|-------|------|------|------|-------|-------|
| Type | A | B | C | E | F | G | H | K |
| 1 | 294.4 | 124.8 | 306.7 | 15.0 | 77.4 | 9.70 | 16.03 | 42.7 |
| 2 | 311.4 | 124.8 | 349.7 | 15.0 | 77.4 | 9.70 | 16.03 | 59.7 |
| 3 | 286.4 | 124.8 | 349.7 | 15.0 | 77.4 | 9.70 | 16.03 | 59.7 |
| 4 | 303.7 | 124.8 | 349.7 | 15.0 | 77.4 | 9.70 | 16.03 | 59.7 |
| 5 | 318.7 | 124.8 | 349.7 | 15.0 | 77.4 | 9.70 | 16.03 | 59.7 |
| 6 | 301.4 | 124.8 | 349.7 | 15.0 | 77.4 | 9.70 | 16.03 | 59.7 |
| 7 | 323.8 | 124.8 | 349.7 | 15.0 | 77.4 | 9.70 | 16.03 | 59.7 |
| 8 | 345.9 | 132.4 | 358.7 | 15.0 | 90.0 | 9.70 | 19.20 | 87.8 |
| 9 | 370.8 | 132.4 | 370.0 | 15.0 | 90.0 | 9.70 | 19.20 | 99.1 |
| 10 | 296.4 | 124.8 | 349.7 | 15.0 | 77.4 | 9.70 | 16.03 | 59.7 |
| 11 | 360.9 | 132.4 | 360.1 | 15.0 | 90.0 | 9.70 | 19.20 | 89.2 |
| 12 | 306.4 | 124.8 | 348.3 | 15.0 | 77.4 | 9.70 | 16.03 | 58.3 |
| 13 | 323.4 | 132.4 | 362.2 | 15.0 | 90.0 | 9.70 | 19.20 | 58.3 |
| 14 | 341.2 | 132.4 | 361.0 | 15.0 | 90.0 | 9.70 | 19.20 | 57.2 |
| 15 | 395.8 | 125.5 | 455.4 | 15.0 | 77.0 | 9.70 | 16.03 | 104.6 |
| 16 | 386.0 | 125.5 | 445.6 | 15.0 | 77.0 | 9.70 | 16.03 | 94.8 |
| 17 | 311.5 | 125.5 | 351.0 | 15.0 | 77.0 | 9.70 | 16.03 | 55.2 |
| 18 | 371.0 | 125.5 | 390.5 | 15.0 | 77.0 | 9.70 | 16.03 | 94.8 |
| 19 | 323.5 | 132.4 | 362.1 | 15.0 | 90.0 | 9.70 | 19.20 | 58.3 |
| 20 | 383.0 | 132.4 | 401.6 | 15.0 | 90.0 | 9.70 | 19.20 | 97.8 |
| 21 | 393.0 | 132.4 | 401.6 | 15.0 | 90.0 | 9.70 | 19.20 | 97.8 |
| 22 | 363.0 | 132.4 | 401.6 | 15.0 | 90.0 | 9.70 | 19.20 | 97.8 |

< 55 Frame Single >

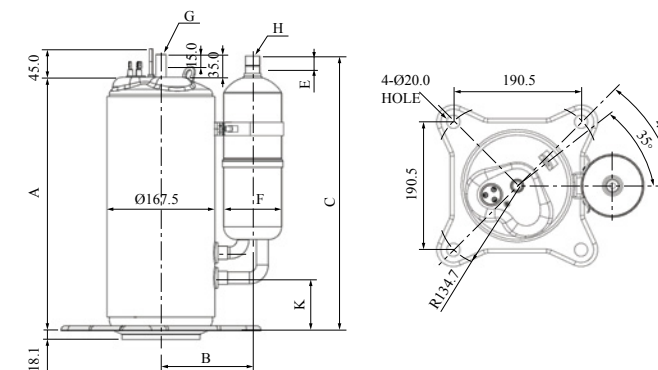


< 55 Frame Twin >



63 Frame

| (UNIT:mm) | | | | | | | | |
|-----------|-------|-------|-------|------|------|-------|-------|------|
| Type | A | B | C | E | F | G | H | K |
| 1 | 379.8 | 142.2 | 422.5 | 15.0 | 90.0 | 12.90 | 19.20 | 77.7 |
| 2 | 392.7 | 142.2 | 432.5 | 15.0 | 90.0 | 12.90 | 19.20 | 81.5 |
| 3 | 389.8 | 142.2 | 455.5 | 15.0 | 90.0 | 12.90 | 19.20 | 77.7 |



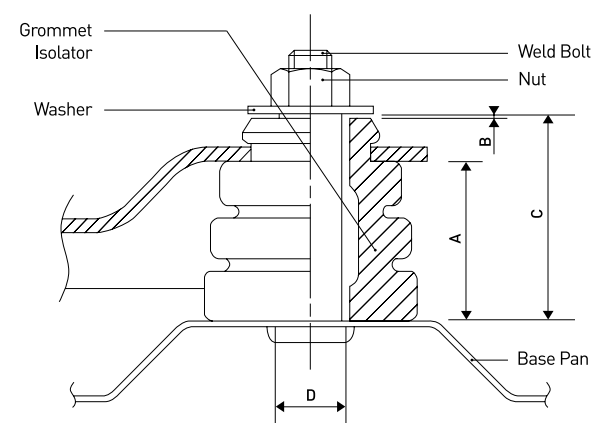
MOUNTING SYSTEM & WIRING DIAGRAM

MOUNTING SYSTEM

Remark

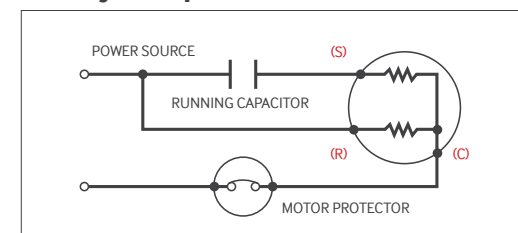
Keep the Clearance between Washer and Grommet Isolator by 0.5-2.0mm

| FRAME / PARTS | A | B | C | D |
|-----------------|------|---------|------|------|
| 20F | 18.0 | 0.5~2.0 | 23.7 | 6.6 |
| 39F | 14.0 | 0.5~2.0 | 21.0 | 10.5 |
| 44, 48, 55, 63F | 25.5 | 0.5~2.0 | 33.5 | 11.5 |

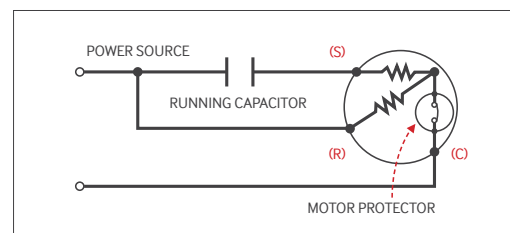


WIRING DIAGRAM

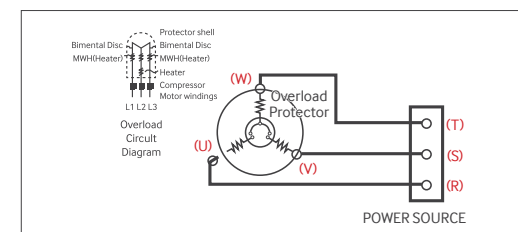
Rotary compressor



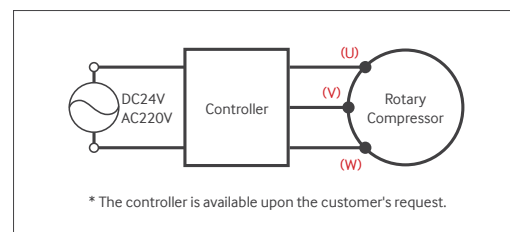
External OLP Type



Internal OLP Type



3 Phase Internal OLP Type



Miniature Rotary Compressor

* The controller is available upon the customer's request.

TEST CONDITION

| REFRIGERANT | ROTARY COMP | |
|-----------------------|-----------------------|--|
| | R22/R407C/R410A/R134A | |
| Condensing Temp.(°C) | 54.4 | |
| Evaporating Temp.(°C) | 7.2 | |
| Ambient Temp.(°C) | 35.0 | |
| Return Gas Temp.(°C) | 35.0 | |
| Liquid Temp.(°C) | 46.1 | |

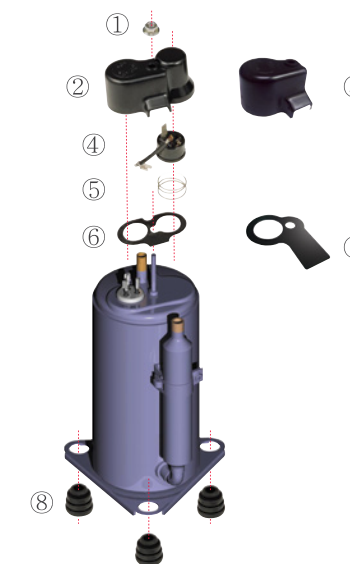
APPLICATION ENVELOPES

| REFRIGERANT | ROTARY COMP | | MINI ROTARY COMP |
|-----------------------|-------------|-----------|------------------|
| | NORMAL | TROPICAL | TROPICAL |
| Condensing Temp.(°C) | 28.0~65.0 | 28.0~74.5 | 8.6~74.5 |
| Evaporating Temp.(°C) | -25.0~12.7 | | -25.0~20.0 |
| Discharge Temp.(°C) | Max. 115.0 | | Max. 120 |

ACCESSORY & PACKING

STANDARD ACCESSORY PARTS

| ITEMS | APPLICATION | | | | QUANTITY (PCS) |
|--------------------|-------------------------|-------------------------|-----------------|--------|----------------|
| | COMP. WITH EXTERNAL OLP | COMP. WITH INTERNAL OLP | BLDC COMPRESSOR | | |
| | | | TYPE 1 | TYPE 2 | |
| Nut | | ① | | | 1 |
| Cover Terminal | ② | ③ | ② | ③ | 1 |
| Overload Protector | ④ | - | - | - | 1 |
| Spring etc OLP | ⑤ | - | - | - | 1 |
| Gasket | ⑥ | ⑦ | ⑥ | ⑦ | 1 |
| Grommet Isolator | | ⑧ | | | 3 (63F 4Pcs) |



STANDARD EXPORT PACKING & LOADING QUANTITY (20FT CONTAINER)

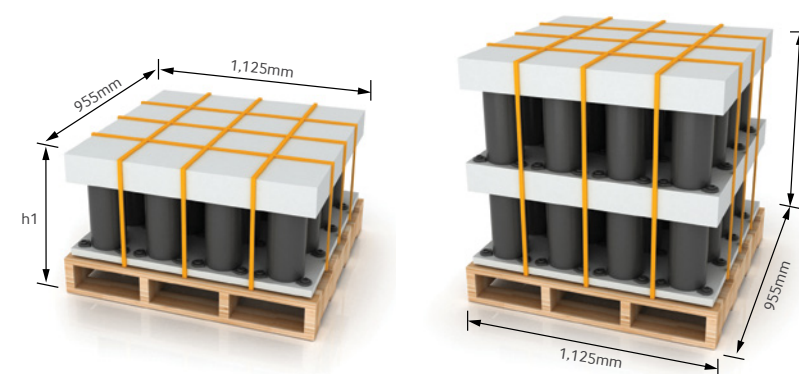
| FRAME | COMPRESSOR QUANTITY/CARTON(PCS) | | CARTON QUANTITY (CARTON) | | ACCESSORY BOX (E) | LOADING QUANTITY (T) (PCS) | PACKING HEIGHT | |
|----------------|---------------------------------|------------|--------------------------|------------|-------------------|----------------------------|----------------|-------------|
| | TYPE 1 (A) | TYPE 2 (B) | TYPE 1 (C) | TYPE 2 (D) | | | TYPE 1 (H1) | TYPE 2 (H2) |
| 20F | 182 | 364 | 6 | 12 | 42 | 5,460 | 418 | 630 |
| 39F | 36 | 72 | 2 | 24 | 6 | 1,800 | 477 | 788 |
| 39 BLDC | 35 | 70 | 2 | 22 | 5 | 1,610 | 562 | 962 |
| 44F Ex(In) OLP | 36 | 72 | 4 | 16 | 6(5) | 1,296 | 521 | 880 |
| 44 BLDC | 30 | 60 | 5 | 19 | 4 | 1,290 | 559 | 956 |
| 48F Ex(In) OLP | 30 | 60 | 4 | 14 | 4(3) | 960 | 611 | 1,059 |
| 55F | 20 | 40 | 4 | 16 | 2 | 720 | 671 | 1,180 |
| 55F(4Foot) | 12 | 24 | 12 | 12 | 2 | 432 | 681 | 1,200 |
| 63F | 12 | 24 | 12 | 12 | 2 | 432 | 676 | 1,190 |

ex.) Compressor Total Quantity of 44Frame Model : (a)X(c)+(b)X(d)= (t) / 1,296 pcs

ex.) Carton Total Quantity of 44Frame Model : (c)+(d)+(e)= 26 / (25) Cartons

* 20 Frame is 1 type of 2 stacks. (Packed in boxes)

* Korean sale is exception in upside standard.



TYPE 1 PACKING

TYPE 2 PACKING

WARNING / DANGER

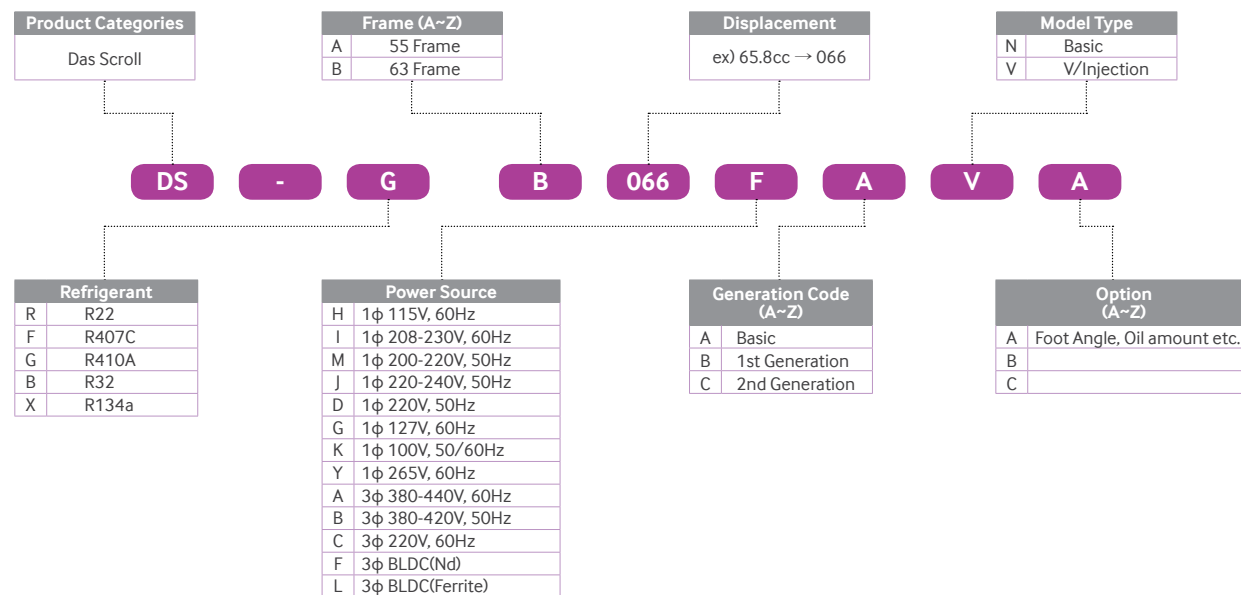
FAILURE TO FOLLOW THESE INSTRUCTIONS COULD RESULT IN SERIOUS PERSONAL INJURY.

1. Ground the equipment securely.
2. Turn off power before servicing.
3. Mount the terminal cover in place whenever Power is applied to this compressor.
4. Wear protective goggles when servicing.
5. Before brazing, remove pressure from both High and low side.
6. Do not use this compressor to compress air.
7. Use only approved refrigerants and lubricants.
8. Do not touch with bare hands during running Or after stopping instantly.

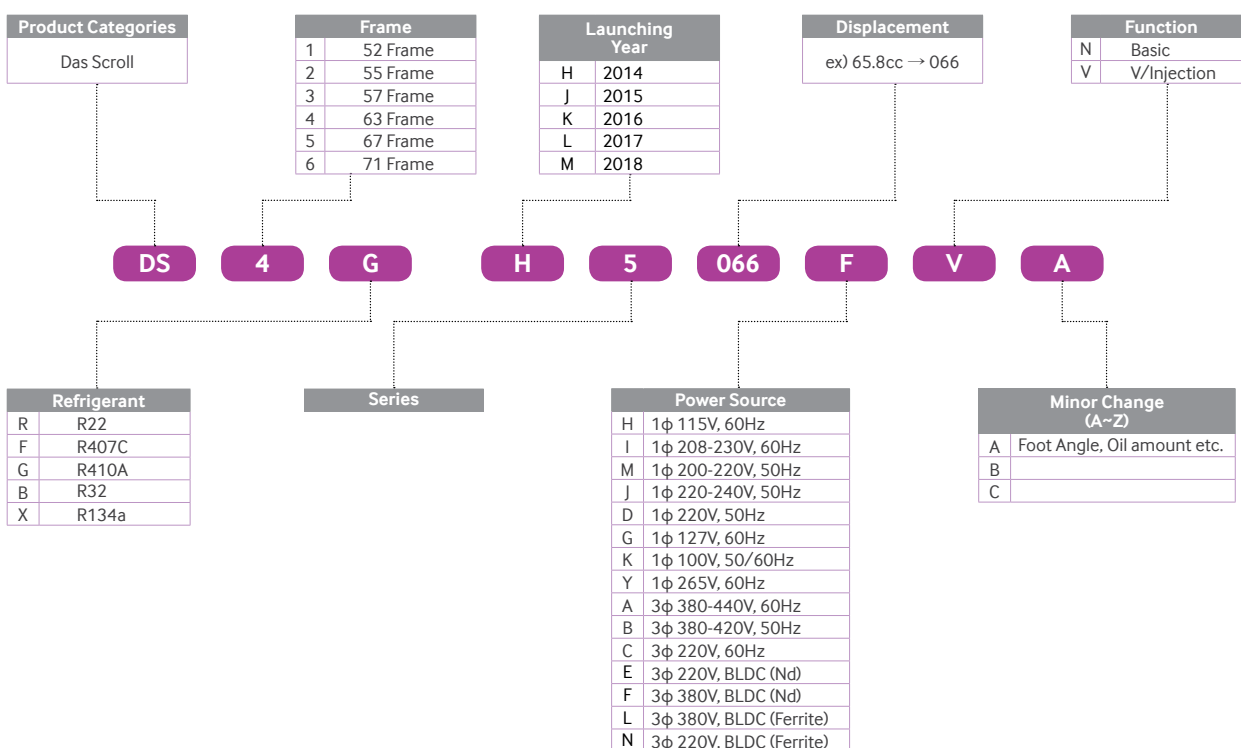
Scroll Compressor MODEL IDENTIFICATION



Scroll Compressor Ver. 01



Scroll Compressor Ver. 02



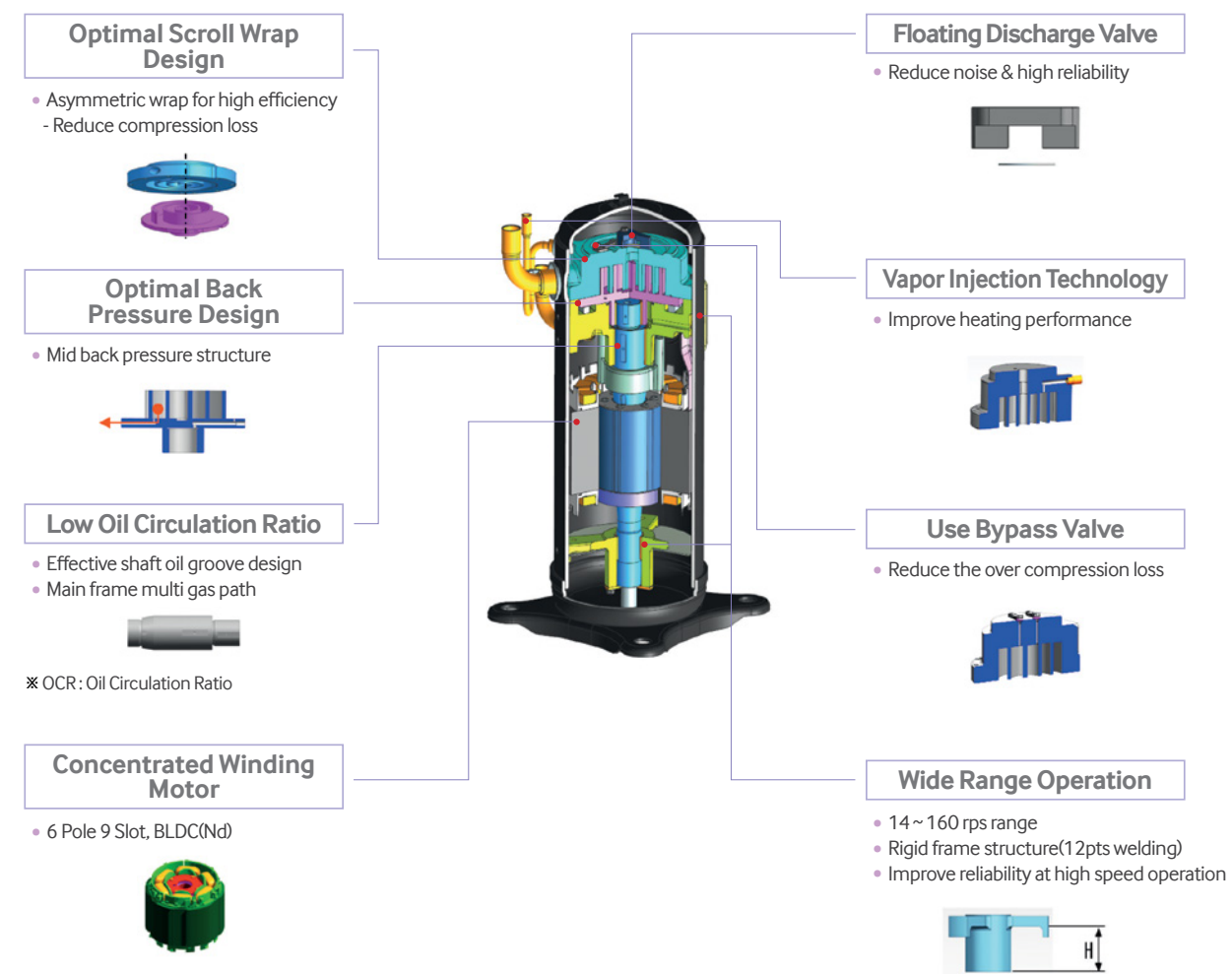
Scroll Compressor SPECIFICATIONS

BLDC

| REF. | DRIVER INPUT POWER SOURCE | MODEL | DISPLACEMENT | | COOLING CAPACITY | | EER | COP | INPUT | OIL | NET WEIGHT | TYPE |
|-------|---------------------------|-------------|--------------|-------|------------------|--------|------|------|-------|-------|------------|------|
| | | | CC/REV | BTU/H | W | BTU/WH | | | | | | |
| R410A | 50/60Hz | 3φ 380~460V | DS-GB052FAVB | 52.0 | 58,500 | 17,145 | 11.2 | 3.28 | 5,223 | 1,100 | 31.8 | 2 |
| | | | DS-GB066FAVB | 65.8 | 73,500 | 21,541 | 11.5 | 3.37 | 6,390 | 1,100 | 35.4 | 1 |
| | | | DS-GB070FAVA | 70.0 | 77,700 | 22,772 | 11.5 | 3.37 | 6,757 | 1,100 | 36.7 | 1 |
| | | 3φ 208~460V | DS-GA046FAVA | 45.7 | 50,500 | 14,800 | 11.5 | 3.37 | 4,390 | 900 | 24.3 | 3 |
| | | | DS-GB052FBVA | 52.0 | 58,500 | 17,145 | 11.5 | 3.37 | 5,087 | 1,100 | 31.6 | 2 |
| | | | DS4GJ5066EVA | 65.8 | 73,500 | 21,541 | 11.3 | 3.31 | 6,504 | 1,100 | 35.4 | 1 |

KEY FEATURE

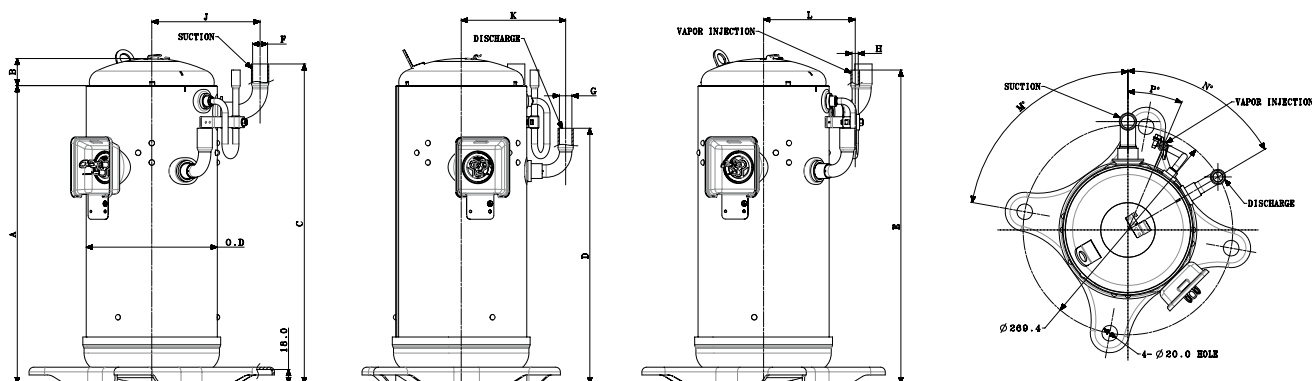
: SSC(Samsung Scroll Compressor) is innovative, has a robust structure and provides unparalleled performances



DIMENSION

Scroll

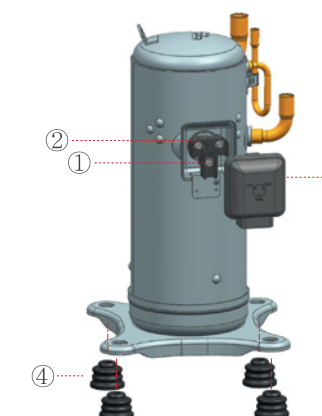
| (UNIT:mm) | | | | | | | | | | | | | | | |
|-----------|--------|-------|------|-------|-------|-------|-------|-------|------|-------|-------|-------|-----|-------|-------|
| Type | O.D | A | B | C | D | E | F | G | H | J | K | L | M | N | P |
| 1 | Φ168.4 | 419.8 | 34.8 | 441.4 | 358.8 | 439.8 | 19.20 | 16.05 | 8.15 | 139.2 | 134.2 | 116.8 | 80° | 59.5° | 22.8° |
| 2 | Φ168.4 | 382.8 | 34.8 | 410.6 | 328.0 | 402.8 | 19.20 | 16.05 | 8.15 | 139.2 | 134.2 | 116.8 | 80° | 59.5° | 22.8° |
| 3 | Φ146.2 | 379.8 | 29.1 | 406.5 | 327.8 | 399.8 | 19.20 | 16.05 | 8.15 | 127.9 | 123.6 | 106.8 | 80° | 59.5° | 21.4° |



ACCESSORY & PACKING

STANDARD ACCESSORY PARTS

| ITEMS | APPLICATION | | QUANTITY (PCS) |
|--------------------------|-----------------------------|------------------------|-----------------------------|
| | ALL SCROLL COMPRESSOR MODEL | | |
| Terminal Block Connector | ① | Attached to Compressor | 1 |
| Screw-Hex | ② | | 3 |
| Cover Terminal | ③ | | 1 |
| Grommet Isolator | ④ | | Supplied in accessory boxes |



STANDARD EXPORT PACKING & LOADING QUANTITY (20FT CONTAINER)

| MODEL | COMPRESSOR QUANTITY/CARTON(PCS) | | CARTON QUANTITY (CARTON) | | ACCESSORY BOX (E) | LOADING QUANTITY(T) (PCS) | PACKING HEIGHT | |
|--------------|---------------------------------|------------|--------------------------|------------|-------------------|---------------------------|----------------|-------------|
| | TYPE 1 (A) | TYPE 2 (B) | TYPE 1 (C) | TYPE 1 (D) | | | TYPE 1 (H1) | TYPE 2 (H2) |
| DS-GB052FAVB | 12 | 24 | 4 | 20 | 5 | 528 | 631 | 1,094 |
| DS-GB052FBVA | | | | | | | | |
| DS-GB066FAVB | | | | | | | | |
| DS-GB070FAVA | 12 | 24 | 11 | 12 | 4 | 420 | 672 | 1,169 |
| DS4GJ5066EVA | | | | | | | | |
| DS-GA046FAVA | 12 | 24 | 1 | 23 | 5 | 564 | 628 | 1,090 |

ex.) Compressor Total Quantity of 'DS-GB052FAVB' Model : (a)X(c)+(b)X(d)= (t) / 528 pcs

ex.) Carton Total Quantity of 'DS-GB052FAVB' Model : (c)+(d)+(e)= 29 Cartons

* Korean sale is exception in upside standard.

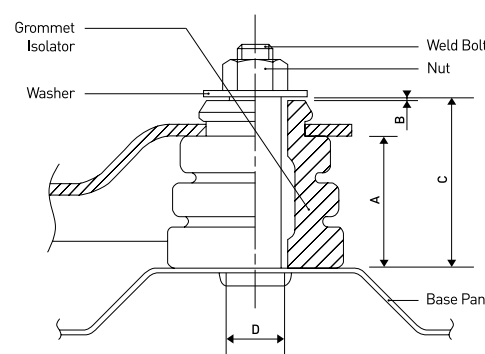
MOUNTING SYSTEM & WIRING DIAGRAM

MOUNTING SYSTEM

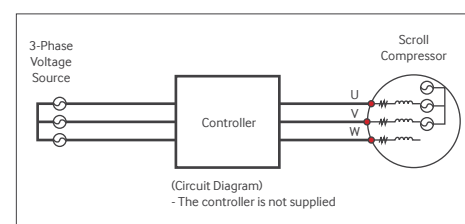
Remark

Keep the Clearance between Washer and Grommet Isolator by 0.5-2.0mm

| FRAME / PARTS | A | B | C | D |
|---------------|------|---------|------|------|
| 55, 63F | 25.5 | 0.5~2.0 | 33.5 | 11.5 |



WIRING DIAGRAM

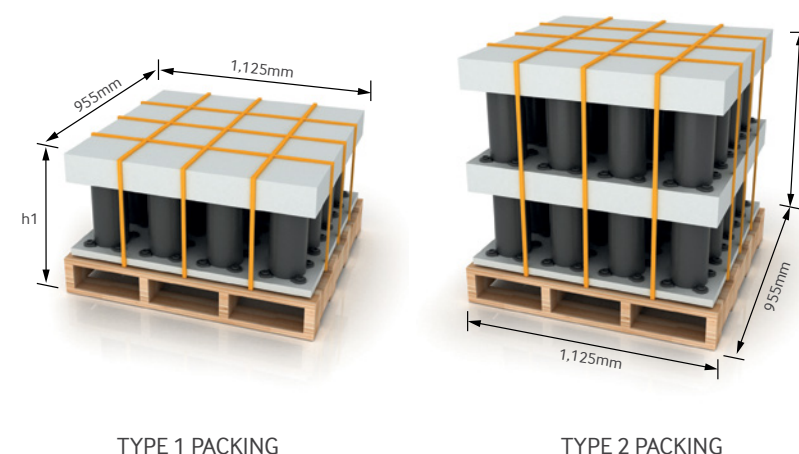


TEST CONDITION

| REFRIGERANT | SCROLL COMP |
|-----------------------|-------------|
| | R410A |
| Condensing Temp.(°C) | 54.4 |
| Evaporating Temp.(°C) | 7.2 |
| Ambient Temp.(°C) | 35.0 |
| Return Gas Temp.(°C) | 18.3 |
| Liquid Temp.(°C) | 46.1 |

APPLICATION ENVELOPES

| REFRIGERANT | SCROLL COMP |
|-----------------------|-------------|
| | NORMAL |
| Condensing Temp.(°C) | 10.0~65.0 |
| Evaporating Temp.(°C) | -35.0~23.5 |
| Discharge Temp.(°C) | Max. 120 |



TYPE 1 PACKING

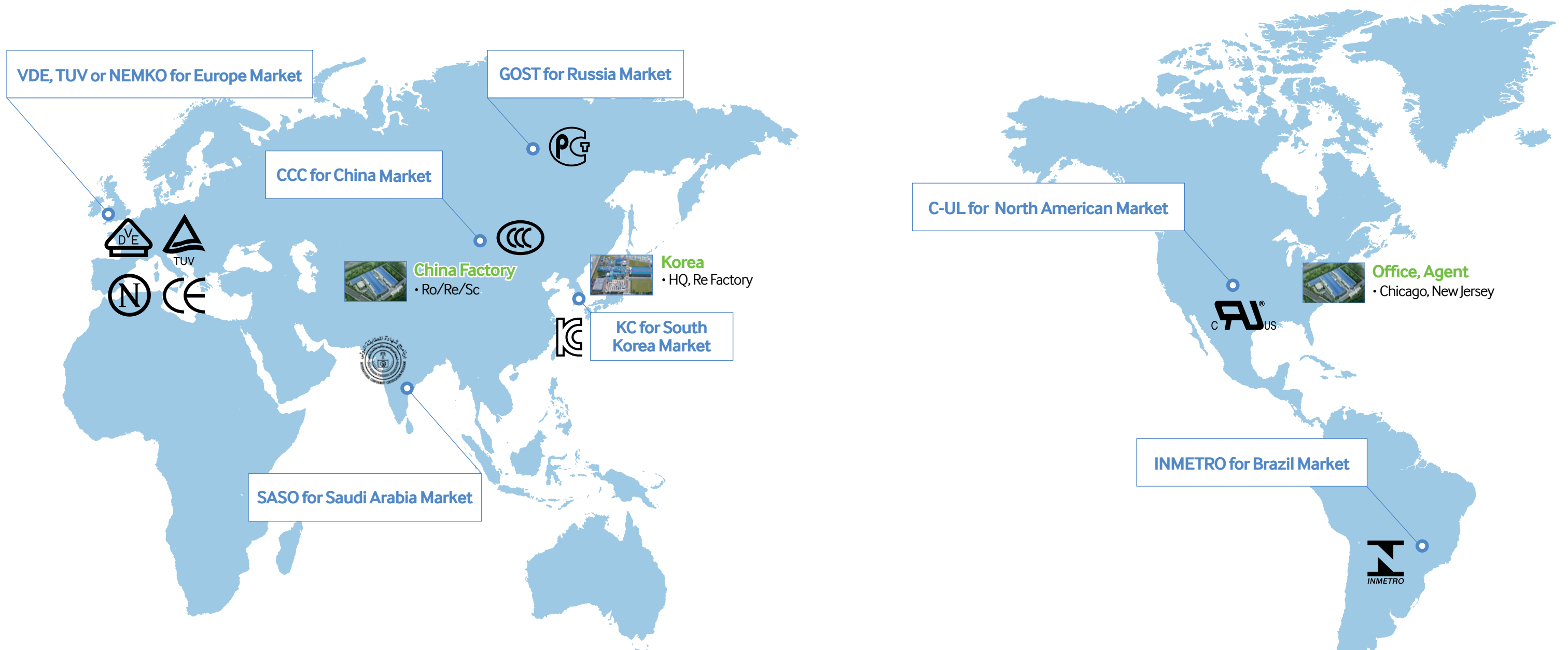
TYPE 2 PACKING

WARNING / DANGER

FAILURE TO FOLLOW THESE INSTRUCTIONS COULD RESULT IN SERIOUS PERSONAL INJURY.

1. Ground the equipment securely.
2. Turn off power before servicing.
3. Mount the terminal cover in place whenever Power is applied to this compressor.
4. Wear protective goggles when servicing.
5. Before brazing, remove pressure from both High and low side.
6. Do not use this compressor to compress air.
7. Use only approved refrigerants and lubricants.
8. Do not touch with bare hands during running Or after stopping instantly.

APPROVED LICENSES



SEC Suwon / Gwangju City Korea



Head Office (Suwon)
- Marketing, R&D, Quality, Global Manufacturing Technology

Factory (Gwangju)
- Equipment Status
- Processing Line 8, Assembly Line 6, Motor Line 5

SSEC Suzhou City, China



Factory (Rotary & Scroll Comp)
- Marketing, R&D, Quality, Global Manufacturing Technology

Equipment Status
- Processing Line 8, Assembly Line 6, Motor Line 5



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