

## K and L Reciprocating Compressor Range

Small 2-cylinder semi-hermetic reciprocating compressors for medium and low temperature refrigeration applications and transport refrigeration.

Designed on the principle of standard reed valve type technology, these compressors feature an internal oil pump that guarantees optimum reliability in all operating conditions.

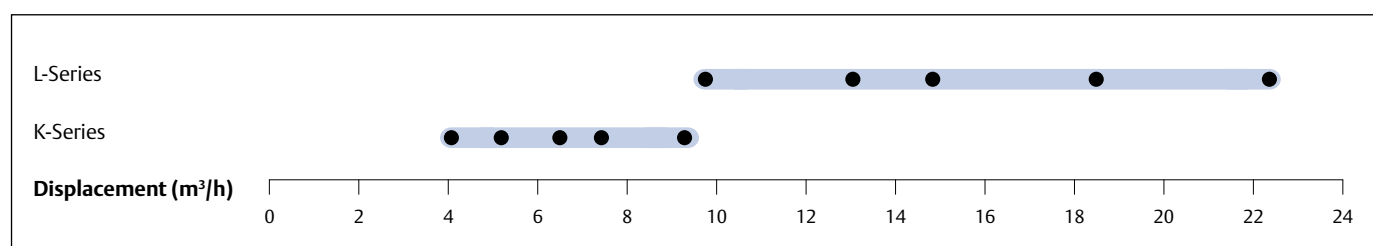
The K-series ranges from 0.5 to 2 hp and the L-series from 2 to 5 hp with a displacement of 4 to 22.5 m<sup>3</sup>/h.

These compressors are qualified for R407A/F/C, R448A/R449A, R404A and R134a.



K-Series Compressor

### K & L Compressor Line-up



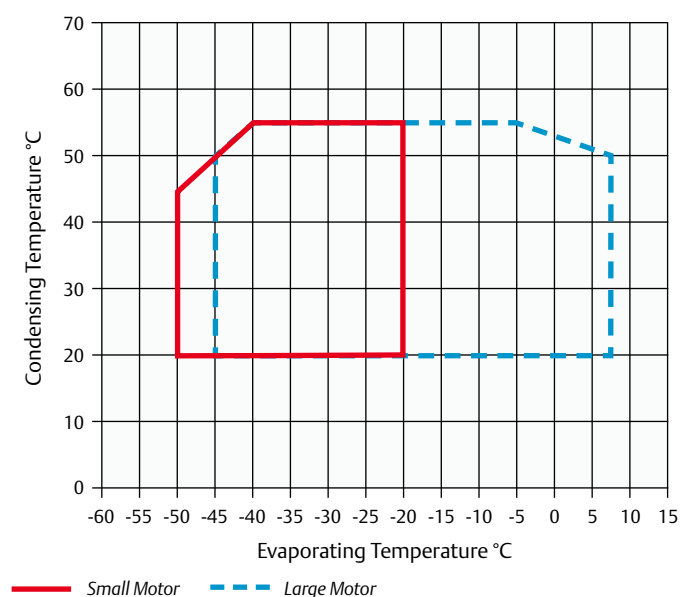
### Features and Benefits

- Large operating envelope from 5°C to -45°C evaporating and up to 55°C condensing
- Two motor sizes per displacement, optimized for different applications
- Compact and light compressors
- Ideal for refrigeration unit or transport applications
- Integrated oil pump for maximum reliability

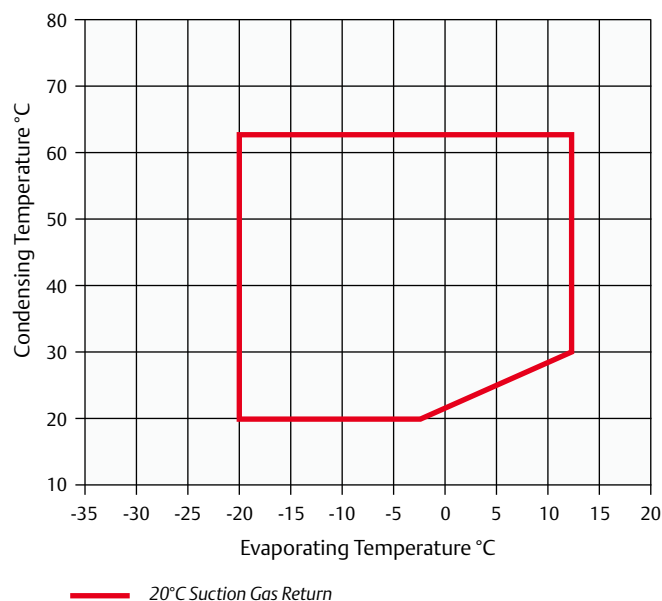
### Maximum Allowable Pressure (PS)

- Low Side PS 22.5 bar (g)/ High Side PS 28 bar (g)

### Operating Envelope R404A

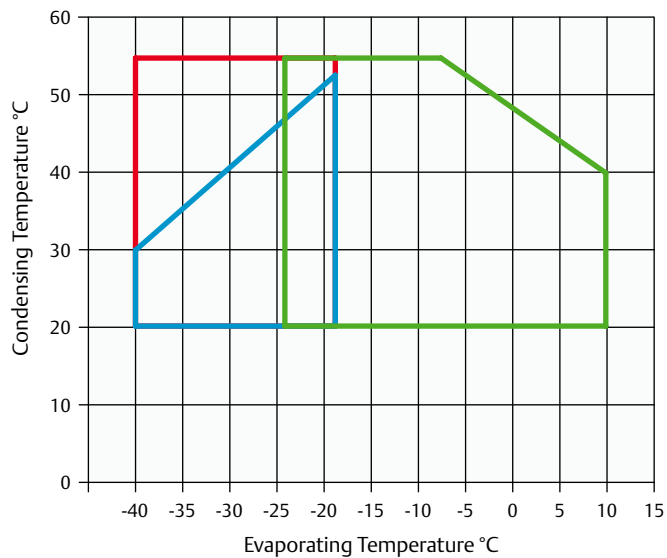


### Operating Envelope R134a



For individual model details please refer to Select Software.

## Operating Envelope R448A/R449A



## Technical Overview

| Models  | Nominal hp | Displacement (m <sup>3</sup> /h) | Oil Quantity (l) | Length/Width/Height (mm) | Net Weight (kg) | Motor Version/ Code |        | Maximum Operating Current (A) |        | Locked Rotor Current (A) |        | Sound Pressure @1 m - dB(A) *** |
|---------|------------|----------------------------------|------------------|--------------------------|-----------------|---------------------|--------|-------------------------------|--------|--------------------------|--------|---------------------------------|
|         |            |                                  |                  |                          |                 | 1 Ph*               | 3 Ph** | 1 Ph*                         | 3 Ph** | 1 Ph*                    | 3 Ph** |                                 |
| KM-5X   | 0.5        | 4.0                              | 0.7              | 365/235/280              | 39.0            | CAG                 | EWL    | 4.8                           | 1.8    | 24.0                     | 12.2   | 45.0                            |
| KM-7X   | 0.8        | 4.0                              | 0.7              | 365/235/280              | 39.0            | CAG                 | EWL    | 6.0                           | 2.4    | 34.5                     | 12.2   | 45.0                            |
| KJ-7X   | 0.8        | 5.1                              | 0.7              | 365/235/280              | 39.0            | CAG                 | EWL    | 5.8                           | 2.3    | 34.5                     | 12.2   | 45.0                            |
| KJ-10X  | 1.0        | 5.1                              | 0.7              | 365/235/280              | 39.0            | CAG                 | EWL    | 7.1                           | 3.2    | 32.4                     | 15.5   | 45.0                            |
| KSJ-10X | 1.0        | 6.3                              | 0.7              | 365/235/280              | 40.0            | CAG                 | EWL    | 6.7                           | 2.7    | 32.4                     | 15.5   | 50.0                            |
| KSJ-15X | 1.5        | 6.3                              | 0.7              | 365/235/280              | 40.0            | CAG                 | EWL    | 9.0                           | 3.4    | 43.0                     | 19.1   | 53.0                            |
| KL-15X  | 1.5        | 7.4                              | 0.7              | 365/235/280              | 39.0            | CAG                 | EWL    | 8.4                           | 3.4    | 43.0                     | 19.1   | 47.0                            |
| KL-20X  | 2.0        | 7.4                              | 0.7              | 365/235/280              | 39.0            |                     | EWL    |                               | 3.8    |                          | 20.4   |                                 |
| KSL-20X | 2.0        | 9.1                              | 0.7              | 365/235/280              | 40.0            |                     | EWL    |                               | 4.7    |                          | 20.4   |                                 |
| LE-20X  | 2.0        | 9.9                              | 2.0              | 470/330/385              | 78.0            |                     | EWL    |                               | 5.7    |                          | 37.6   | 51.0                            |
| LF-20X  | 2.0        | 12.9                             | 2.0              | 470/330/385              | 80.0            |                     | EWL    |                               | 5.5    |                          | 37.6   | 51.0                            |
| LF-30X  | 3.0        | 12.9                             | 2.0              | 470/330/385              | 80.0            |                     | EWL    |                               | 7.2    |                          | 53.0   | 51.0                            |
| LJ-20X  | 2.0        | 14.5                             | 2.0              | 470/330/385              | 78.0            |                     | EWL    |                               | 5.6    |                          | 37.6   | 52.0                            |
| LJ-30X  | 3.0        | 14.5                             | 2.0              | 470/330/385              | 83.0            |                     | EWL    |                               | 8.1    |                          | 53.0   | 52.0                            |
| LL-30X  | 3.0        | 18.2                             | 2.0              | 470/330/385              | 85.0            |                     | EWL    |                               | 7.3    |                          | 50.6   | 52.0                            |
| LL-40X  | 4.0        | 18.2                             | 2.0              | 470/330/385              | 87.0            |                     | EWL    |                               | 9.5    |                          | 58.9   | 63.0                            |
| LSG-40X | 4.0        | 22.5                             | 2.0              | 470/330/385              | 77.0            |                     | EWL    |                               | 8.9    |                          | 58.9   | 63.0                            |

\* 1 Ph: 230V/ 50Hz

\*\* 3 Ph: 380-420V/ 50Hz

\*\*\* @ 1m: sound pressure level at 1m distance from the compressor, free field condition

## Capacity Data

| Condensing Temperature: 40°C |                              |      |      |      |       |       |       |         |                              |      |      |      |      |      |      |
|------------------------------|------------------------------|------|------|------|-------|-------|-------|---------|------------------------------|------|------|------|------|------|------|
| R404A                        | Cooling Capacity (kW)        |      |      |      |       |       |       | R404A   | Power Input (kW)             |      |      |      |      |      |      |
|                              | Evaporating Temperature (°C) |      |      |      |       |       |       |         | Evaporating Temperature (°C) |      |      |      |      |      |      |
| Model                        | -45                          | -35  | -30  | -20  | -10   | -5    | +5    | Model   | -45                          | -35  | -30  | -20  | -10  | -5   | +5   |
| KM-5X                        | 0.2°                         | 0.6° | 0.8° | 1.3° |       |       |       | KM-5X   | 0.3°                         | 0.5° | 0.6° | 0.7° |      |      |      |
| KM-7X                        | 0.2°                         | 0.5° | 0.8° | 1.3° | 2.0°  | 2.5°  | 3.6°  | KM-7X   | 0.3°                         | 0.5° | 0.6° | 0.8° | 0.9° | 1.0° | 1.0° |
| KJ-7X                        | 0.4°                         | 0.8° | 1.1° | 1.8° |       |       |       | KJ-7X   | 0.5°                         | 0.7° | 0.8° | 1.0° |      |      |      |
| KJ-10X                       | 0.3°                         | 0.8° | 1.0° | 1.8° | 2.8°  | 3.4°  | 4.9°  | KJ-10X  | 0.4°                         | 0.7° | 0.8° | 1.0° | 1.2° | 1.3° | 1.4° |
| KSJ-10X                      | 0.5°                         | 1.0° | 1.4° | 2.3° |       |       |       | KSJ-10X | 0.7°                         | 0.9° | 1.1° | 1.3° |      |      |      |
| KSJ-15X                      | 0.5°                         | 1.0° | 1.4° | 2.3° | 3.5°  | 4.2°  | 6.1°  | KSJ-15X | 0.6°                         | 0.9° | 1.0° | 1.3° | 1.6° | 1.7° | 1.8° |
| KL-15X                       | 0.6°                         | 1.2° | 1.6° | 2.6° |       |       |       | KL-15X  | 0.8°                         | 1.0° | 1.2° | 1.5° |      |      |      |
| KL-20X                       | 0.5°                         | 1.1° | 1.5° | 2.6° | 4.1°  | 5.0°  |       | KL-20X  | 0.6°                         | 0.9° | 1.1° | 1.4° | 1.7° | 1.8° |      |
| KSL-20X                      | 0.8°                         | 1.5° | 2.0° | 3.3° | 5.1°  | 6.1°  |       | KSL-20X | 0.8°                         | 1.2° | 1.4° | 1.9° | 2.3° | 2.5° |      |
| LE-20X                       |                              | 1.1° | 1.7° | 3.2° | 5.1°  | 6.4°  | 9.4°  | LE-20X  |                              | 1.0° | 1.2° | 1.6° | 2.0° | 2.2° | 2.5° |
| LF-20X                       |                              | 1.8° | 2.3° | 4.0° |       |       |       | LF-20X  |                              | 1.4° | 1.7° | 2.2° |      |      |      |
| LF-30X                       | 0.7°                         | 1.9° | 2.6° | 4.6° | 7.2°  | 8.8°  | 12.8° | LF-30X  | 1.0°                         | 1.6° | 1.9° | 2.4° | 2.9° | 3.1° | 3.4° |
| LJ-20X                       |                              | 1.9° | 2.8° | 5.0° |       |       |       | LJ-20X  |                              | 1.6° | 1.9° | 2.6° |      |      |      |
| LJ-30X                       | 0.8°                         | 2.1° | 2.9° | 5.1° | 8.0°  | 9.8°  | 14.2° | LJ-30X  | 1.1°                         | 1.8° | 2.1° | 2.8° | 3.3° | 3.6° | 3.9° |
| LL-30X                       | 0.9°                         | 2.6° | 3.7° | 6.5° |       |       |       | LL-30X  | 1.1°                         | 2.0° | 2.4° | 3.3° |      |      |      |
| LL-40X                       | 1.1°                         | 2.7° | 3.7° | 6.4° | 10.2° | 12.6° | 18.4° | LL-40X  | 1.4°                         | 2.2° | 2.6° | 3.3° | 4.0° | 4.3° | 4.9° |
| LSG-40X                      | 1.4°                         | 3.5° | 4.8° | 8.2° |       |       |       | LSG-40X | 1.6°                         | 2.6° | 3.1° | 4.1° |      |      |      |

Suction Gas Return 20°C / Subcooling 0K

° High Discharge Temp - Additional Cooling Required

| Condensing Temperature: 40°C |                              |     |     |      |      |      |       |         |                              |     |     |      |      |      |      |
|------------------------------|------------------------------|-----|-----|------|------|------|-------|---------|------------------------------|-----|-----|------|------|------|------|
| R134a                        | Cooling Capacity (kW)        |     |     |      |      |      |       | R134a   | Power Input (kW)             |     |     |      |      |      |      |
|                              | Evaporating Temperature (°C) |     |     |      |      |      |       |         | Evaporating Temperature (°C) |     |     |      |      |      |      |
| Model                        | -45                          | -35 | -30 | -20  | -10  | -5   | +5    | Model   | -45                          | -35 | -30 | -20  | -10  | -5   | +5   |
| KM-5X                        |                              |     |     | 0.7° | 1.2° | 1.5° | 2.3°  | KM-5X   |                              |     |     | 0.5° | 0.6° | 0.6° | 0.7° |
| KJ-7X                        |                              |     |     | 0.9° | 1.6° | 2.0° | 3.0°  | KJ-7X   |                              |     |     | 0.6° | 0.7° | 0.8° | 0.8° |
| KSJ-10X                      |                              |     |     | 1.2° | 2.0° | 2.5° | 3.8°  | KSJ-10X |                              |     |     | 0.7° | 0.8° | 0.9° | 1.0° |
| KL-15X                       |                              |     |     | 1.4° | 2.2° | 2.8° | 4.3°  | KL-15X  |                              |     |     | 0.8° | 1.0° | 1.1° | 1.3° |
| KSL-15X                      |                              |     |     | 1.7° | 2.8° | 3.5° | 5.3°  | KSL-15X |                              |     |     | 1.0° | 1.3° | 1.4° | 1.6° |
| KSL-20X                      |                              |     |     | 1.7° | 2.9° | 3.7° | 5.6°  | KSL-20X |                              |     |     | 1.0° | 1.2° | 1.4° | 1.6° |
| LE-20X                       |                              |     |     | 1.5° | 2.8° | 3.6° | 5.6°  | LE-20X  |                              |     |     | 1.0° | 1.3° | 1.4° | 1.5° |
| LF-20X                       |                              |     |     | 2.2° | 3.8° | 4.9° | 7.5°  | LF-20X  |                              |     |     | 1.2° | 1.6° | 1.7° | 1.9° |
| LJ-20X                       |                              |     |     | 2.6° | 4.3° | 5.4° | 8.3°  | LJ-20X  |                              |     |     | 1.6° | 1.9° | 2.1° | 2.4° |
| LL-30X                       |                              |     |     | 3.2° | 5.5° | 7.0° | 10.9° | LL-30X  |                              |     |     | 1.9° | 2.4° | 2.6° | 3.0° |
| LSG-40X                      |                              |     |     | 4.3° | 7.2° | 9.0° | 13.7° | LSG-40X |                              |     |     | 2.3° | 2.9° | 3.2° | 3.7° |

Suction Gas Return 20°C / Subcooling 0K

° High Discharge Temp - Additional Cooling Required

For more details about other refrigerants please refer to Select software.

## Capacity Data

| Condensing Temperature 40°C |                              |      |       |       |       |       |     |         |                              |      |      |      |      |      |     |
|-----------------------------|------------------------------|------|-------|-------|-------|-------|-----|---------|------------------------------|------|------|------|------|------|-----|
| R407A                       | Cooling Capacity (kW)        |      |       |       |       |       |     | R407A   | Power Input (kW)             |      |      |      |      |      |     |
|                             | Evaporating Temperature (°C) |      |       |       |       |       |     |         | Evaporating Temperature (°C) |      |      |      |      |      |     |
| Model                       | -30                          | -20  | -10   | -5    | +5    | +10   | +15 | Model   | -30                          | -20  | -10  | -5   | +5   | +10  | +15 |
| KM-5X                       | 0.5°                         | 1.1° | 1.8°  | 2.3°  |       |       |     | KM-5X   | 0.5°                         | 0.7° | 0.8° | 0.9° |      |      |     |
| KM-7X                       |                              | 1.0° | 1.7°  | 2.2°  | 3.5°  | 4.2°  |     | KM-7X   |                              | 0.7° | 0.8° | 0.9° | 1.0° | 1.0° |     |
| KJ-7X                       | 0.8°                         | 1.5° | 2.4°  | 3.0°  |       |       |     | KJ-7X   | 0.7°                         | 0.9° | 1.1° | 1.2° |      |      |     |
| KJ-10X                      |                              | 1.5° | 2.5°  | 3.2°  | 4.8°  | 5.8°  |     | KJ-10X  |                              | 0.9° | 1.1° | 1.2° | 1.4° | 1.4° |     |
| KSJ-10X                     | 1.1°                         | 1.9° | 3.1°  | 3.8°  |       |       |     | KSJ-10X | 0.9°                         | 1.1° | 1.4° | 1.5° |      |      |     |
| KSJ-15X                     |                              | 1.9° | 3.2°  | 4.0°  | 6.0°  | 7.2°  |     | KSJ-15X |                              | 1.2° | 1.5° | 1.6° | 1.8° | 1.8° |     |
| KL-15X                      | 1.2°                         | 2.2° | 3.6°  | 4.5°  |       |       |     | KL-15X  | 0.9°                         | 1.2° | 1.6° | 1.7° |      |      |     |
| KL-20X                      |                              | 2.5° | 3.9°  | 4.8°  | 7.0°  | 8.4°  |     | KL-20X  |                              | 1.3° | 1.6° | 1.7° | 1.9° | 2.0° |     |
| KSL-20X                     |                              | 2.9° | 4.5°  | 5.6°  | 8.3°  | 10.1° |     | KSL-20X |                              | 1.6° | 1.9° | 2.1° | 2.4° | 2.4° |     |
| LE-20X                      | 1.5°                         | 2.8° | 4.8°  | 6.0°  | 9.0°  | 10.9° |     | LE-20X  | 1.2°                         | 1.6° | 2.1° | 2.3° | 2.6° | 2.7° |     |
| LF-20X                      | 2.1°                         | 3.9° | 6.4°  | 8.0°  |       |       |     | LF-20X  | 1.6°                         | 2.2° | 2.7° | 2.9° |      |      |     |
| LF-30X                      |                              | 4.2° | 6.7°  | 8.2°  | 12.2° | 14.7° |     | LF-30X  |                              | 2.3° | 2.8° | 3.0° | 3.5° | 3.6° |     |
| LJ-20X                      | 2.5°                         | 4.7° | 7.7°  | 9.6°  |       |       |     | LJ-20X  | 1.9°                         | 2.5° | 3.1° | 3.4° |      |      |     |
| LJ-30X                      |                              | 5.0° | 7.8°  | 9.5°  | 13.9° | 16.6° |     | LJ-30X  |                              | 2.6° | 3.1° | 3.4° | 3.8° | 4.0° |     |
| LL-30X                      | 2.9°                         | 5.5° | 9.1°  | 11.4° |       |       |     | LL-30X  | 2.1°                         | 2.9° | 3.6° | 4.0° |      |      |     |
| LL-40X                      |                              | 5.5° | 9.1°  | 11.4° | 16.9° | 20.4° |     | LL-40X  |                              | 2.8° | 3.5° | 3.8° | 4.4° | 4.6° |     |
| LSG-40X                     | 3.9°                         | 7.0° | 11.3° | 14.0° |       |       |     | LSG-40X | 2.7°                         | 3.7° | 4.7° | 5.2° |      |      |     |

Conditions: Suction Gas Return 20°C / Subcooling 0K

Preliminary data

° High Discharge Temp - Additional Cooling Required

| Condensing Temperature 40°C |                              |      |       |       |       |       |     |         |                              |      |      |      |      |      |     |
|-----------------------------|------------------------------|------|-------|-------|-------|-------|-----|---------|------------------------------|------|------|------|------|------|-----|
| R407F                       | Cooling Capacity (kW)        |      |       |       |       |       |     | R407F   | Power Input (kW)             |      |      |      |      |      |     |
|                             | Evaporating Temperature (°C) |      |       |       |       |       |     |         | Evaporating Temperature (°C) |      |      |      |      |      |     |
| Model                       | -30                          | -20  | -10   | -5    | +5    | +10   | +15 | Model   | -30                          | -20  | -10  | -5   | +5   | +10  | +15 |
| KM-5X                       | 0.6°                         | 1.1° | 1.9°  |       |       |       |     | KM-5X   | 0.5°                         | 0.7° | 0.9° |      |      |      |     |
| KM-7X                       |                              | 1.1° | 1.9°  | 2.4°  | 3.8°  | 4.6°  |     | KM-7X   |                              | 0.7° | 0.9v | 0.9° | 1.1° | 1.1° |     |
| KJ-7X                       | 0.9°                         | 1.6° | 2.6°  | 3.2°  |       |       |     | KJ-7X   | 0.7°                         | 0.9° | 1.2° | 1.3° |      |      |     |
| KJ-10X                      |                              | 1.6° | 2.7°  | 3.4°  | 5.1°  | 6.2°  |     | KJ-10X  |                              | 1.0° | 1.2° | 1.3° | 1.5° | 1.5° |     |
| KSJ-10X                     | 1.2°                         | 2.1° | 3.3°  | 4.1°  |       |       |     | KSJ-10X | 0.9°                         | 1.2° | 1.5° | 1.6° |      |      |     |
| KSJ-15X                     |                              | 2.0° | 3.4°  | 4.2°  | 6.3°  | 7.5°  |     | KSJ-15X |                              | 1.2° | 1.5° | 1.7° | 1.9° | 1.9° |     |
| KL-15X                      | 1.3°                         | 2.4° | 3.9°  | 4.9°  |       |       |     | KL-15X  | 1.0°                         | 1.3° | 1.7° | 1.8° |      |      |     |
| KL-20X                      |                              | 2.6° | 4.1°  | 5.1°  | 7.5°  | 8.9°  |     | KL-20X  |                              | 1.4° | 1.7° | 1.8° | 2.0° | 2.1° |     |
| KSL-20X                     |                              | 3.1° | 4.9°  | 6.0°  | 8.9°  | 10.7° |     | KSL-20X |                              | 1.7° | 2.1° | 2.2° | 2.5° | 2.6° |     |
| LE-20X                      | 1.6°                         | 3.1° | 5.2°  | 6.4°  | 9.6°  | 11.6° |     | LE-20X  | 1.3°                         | 1.8° | 2.2° | 2.4° | 2.7° | 2.9° |     |
| LF-20X                      | 2.3°                         | 4.2° | 6.9°  | 8.6°  |       |       |     | LF-20X  | 1.7°                         | 2.3° | 2.8° | 3.1° |      |      |     |
| LF-30X                      |                              | 4.6° | 7.2°  | 8.9°  | 13.0° | 15.6° |     | LF-30X  |                              | 2.4° | 2.9° | 3.1° | 3.5° | 3.7° |     |
| LJ-20X                      | 2.7°                         | 5.1° | 8.3°  | 10.4° |       |       |     | LJ-20X  | 2.0°                         | 2.7° | 3.3° | 3.6° |      |      |     |
| LJ-30X                      |                              | 5.3° | 8.3°  | 10.2° | 14.8° | 17.7° |     | LJ-30X  |                              | 2.8° | 3.4° | 3.6° | 4.1° | 4.3° |     |
| LL-30X                      | 3.2°                         | 5.8° | 9.5°  | 11.9° |       |       |     | LL-30X  | 2.3°                         | 3.1° | 4.0° | 4.4° |      |      |     |
| LL-40X                      |                              | 5.9° | 9.7°  | 12.1° | 18.0° | 21.7° |     | LL-40X  |                              | 3.0° | 3.7° | 4.1° | 4.7° | 4.9° |     |
| LSG-40X                     | 4.3°                         | 7.6° | 12.2° |       |       |       |     | LSG-40X | 2.9°                         | 4.0° | 5.0° |      |      |      |     |

Conditions: Suction Gas Return 20°C / Subcooling 0K

Preliminary data

° High Discharge Temp - Additional Cooling Required

Capacity Data

| Condensing Temperature 40°C |                              |      |      |       |       |       |     |                |                              |      |      |      |      |      |     |
|-----------------------------|------------------------------|------|------|-------|-------|-------|-----|----------------|------------------------------|------|------|------|------|------|-----|
| R448A/<br>R449              | Cooling Capacity (kW)        |      |      |       |       |       |     | R448A/<br>R449 | Power Input (kW)             |      |      |      |      |      |     |
|                             | Evaporating Temperature (°C) |      |      |       |       |       |     |                | Evaporating Temperature (°C) |      |      |      |      |      |     |
| Model                       | -30                          | -20  | -10  | -5    | +5    | +10   | +15 | Model          | -30                          | -20  | -10  | -5   | +5   | +10  | +15 |
| KM-5X                       | 0.7°                         | 1.2° |      |       |       |       |     | KM-5X          | 0.5°                         | 0.6° |      |      |      |      |     |
| KM-7X                       |                              | 1.2° | 1.9° | 2.4°  | 3.5°  | 4.3°  |     | KM-7X          |                              | 0.7° | 0.8° | 0.9° | 1.0° | 1.0° |     |
| KJ-7X                       | 0.9°                         | 1.6° |      |       |       |       |     | KJ-7X          | 0.7°                         | 0.9° |      |      |      |      |     |
| KJ-10X                      |                              | 1.6° | 2.6° | 3.2°  | 4.8°  | 5.7°  |     | KJ-10X         |                              | 1.0° | 1.1° | 1.2° | 1.3° | 1.4° |     |
| KSJ-10X                     | 1.3°                         | 2.1° |      |       |       |       |     | KSJ-10X        | 1.0°                         | 1.2° |      |      |      |      |     |
| KSJ-15X                     |                              | 2.1° | 3.3° | 4.1°  | 6.0°  | 7.1°  |     | KSJ-15X        |                              | 1.2° | 1.5° | 1.6° | 1.7° | 1.7° |     |
| KL-15X                      | 1.5°                         | 2.4° |      |       |       |       |     | KL-15X         | 1.0°                         | 1.3° |      |      |      |      |     |
| LE-20X                      |                              | 3.0° | 5.0° | 6.2°  | 5.3°  | 11.3° |     | LE-20X         |                              | 1.5° | 1.9° | 2.0° | 2.3° | 2.4° |     |
| LF-30X                      |                              | 4.4° | 6.9° | 8.4°  | 12.4° | 14.8° |     | LF-30X         |                              | 2.4° | 2.9° | 3.1° | 3.5° | 3.6° |     |
| LF-20X                      | 2.1°                         | 3.8° |      |       |       |       |     | LF-20X         | 1.5°                         | 2.0° |      |      |      |      |     |
| LJ-20X                      | 2.6°                         | 4.7° |      |       |       |       |     | LJ-20X         | 1.7°                         | 2.3° |      |      |      |      |     |
| LJ-30X                      |                              | 4.7° | 7.6° | 9.4°  | 13.9° | 16.6° |     | LJ-30X         |                              | 2.5° | 3.1° | 3.3° | 3.6° | 3.7° |     |
| LL-30X                      |                              | 6.1° |      |       |       |       |     | LL-30X         | 2.1°                         | 3.0° |      |      |      |      |     |
| LL-40X                      |                              | 5.9° | 9.7° | 12.0° | 18.0° | 21.7° |     | LL-40X         |                              | 3.0° | 3.6° | 4.0° | 4.5° | 4.8° |     |
| LSG-40X                     | 4.4°                         | 7.6° |      |       |       |       |     | LSG-40X        | 2.7°                         | 3.7° |      |      |      |      |     |

Conditions: Suction Gas Return 20°C / Subcooling 0K  
Preliminary data  
° High Discharge Temp - Additional Cooling Required