# Copeland® Stream With CoreSense™ Diagnostics, Semi-Hermetic Reciprocating Compressors For HFC

Stream series 4 and 6 cylinder compressors provide best in class performance, thereby significantly reducing cost of operation and environmental impact compared to competing products. With advanced protection and diagnostics features for system reliabilty, reduced service costs and increased equipment uptime, Stream series is built to last in today's modern changing world.


***Copeland® Stream compressor***
*Designed to Deliver Best-in-Class Performance*

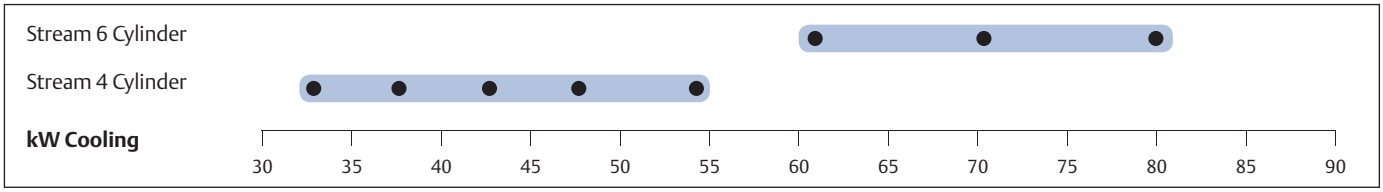
**Features and Benefits**

- Range of 16 models from 62 to 153m³/h
- Best-in-class seasonal efficiencies, up to 15% higher than market standard
- Multi-refrigerant compressor as it is compatible with R404A, R134a, R407A/C and R22
- Stepless capacity modulation by means of inverter or Digital modulation (see separate data sheet)
- Wide Operating Envelope covering Low and Medium Temperature Refrigeration without cooling fan
- Reduced sound level, dimensions and weight by up to 45 kg

**CoreSense™ Diagnostics Features**

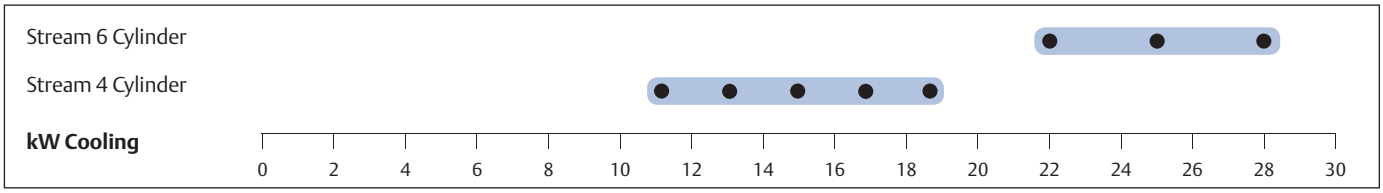
- Motor and oil protection
- Storage of compressor asset and advanced runtime information
- Runtime/alarm signalling using multi-colour LED flash-codes
- Communication to system controller via Modbus®
- Individual compressor power monitoring

**Stream Line-up with R404A, Medium Temperature**



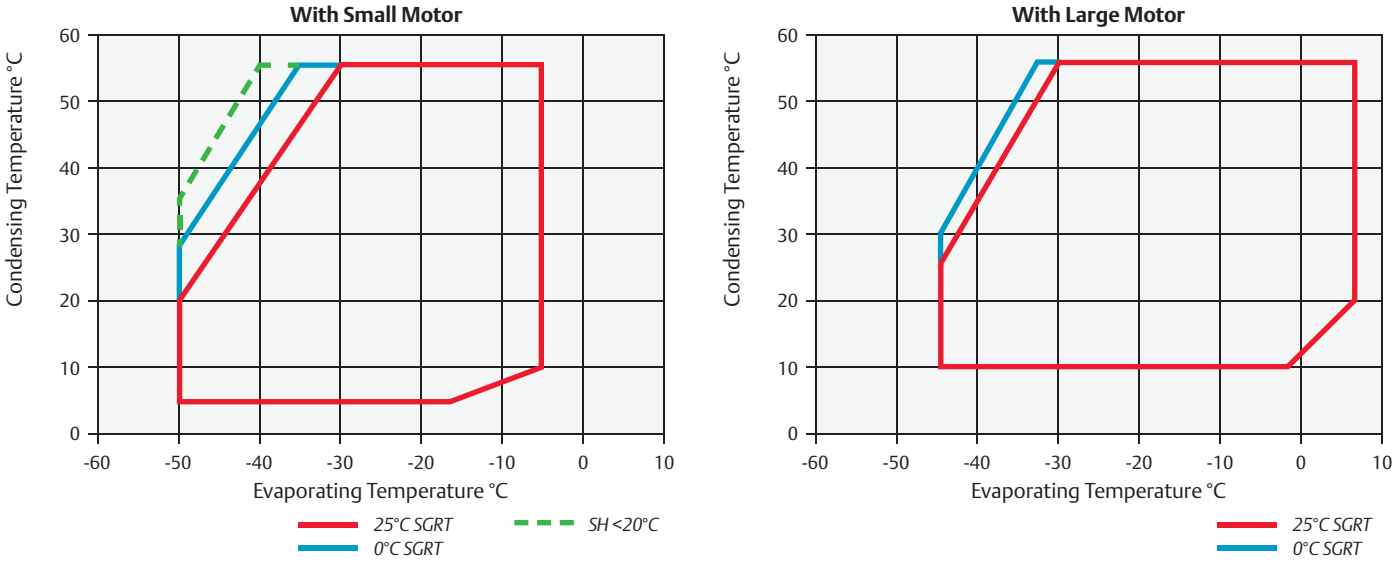

Conditions: EN12900 R404A: Evaporating -10° C, Condensing 45° C, Suction Gas Temperature 20° C, Subcooling 0K

**Stream Line-up with R404A, Low Temperature**




Conditions: EN12900 R404: Evaporating -35° C, Condensing 40° C, Suction Gas Temperature 20° C, Subcooling 0K

**Operating Envelope R404A**




**Maximum Allowable Pressure (PS)**

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

## Technical Overview

| R404A | Nominal hp | Capacity (kW) 1) | COP 1) | Capacity (kW) 2) | COP 2) | Displacement (m3/h) | Oil Quantity (l) | Length/ Width/Heigth (mm) | Net Weight (kg) | Motor Version / Code | Maximum Operating Current (A) | Locked Rotor Current (A) | Sound Pressure @1 m (dBA) ** | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | 3 Ph* | 3 Ph* | 3 Ph* | 1) | 2) |
| **All Preliminary Data** | | | | | | | | | | | | | | |
| **4MF-13X** | 13.0 | 33.4 | 2.4 | 11.4 | 1.4 | 61.7 | 3.30 | 636/503/450 | 177 | AWM | 26 | 105 | 69 | 73 |
| **4MA-22X** | 22.0 | 33.6 | 2.4 | 10.8 | 1.4 | 61.7 | 3.30 | 636/503/450 | 178 | AWM | 36 | 175 | 69 | 75 |
| **4ML-15X** | 15.0 | 38.7 | 2.3 | 13.2 | 1.5 | 71.4 | 3.30 | 636/503/450 | 180 | AWM | 35 | 156 | 70 | 72 |
| **4MH-25X** | 25.0 | 38.8 | 2.4 | 12.5 | 1.4 | 71.4 | 3.30 | 655/503/450 | 187 | AWM | 39 | 199 | 70 | 74 |
| **4MM-20X** | 20.0 | 42.6 | 2.3 | 14.7 | 1.5 | 78.0 | 3.30 | 655/503/450 | 182 | AWM | 39 | 175 | 71 | 73 |
| **4MI-30X** | 30.0 | 42.8 | 2.4 | 13.9 | 1.4 | 78.0 | 3.30 | 655/503/450 | 188 | AWM | 47 | 221 | 71 | 76 |
| **4MT-22X** | 22.0 | 47.8 | 2.3 | 16.5 | 1.5 | 87.7 | 3.30 | 655/503/450 | 183 | AWM | 45 | 175 | 72 | 74 |
| **4MJ-33X** | 33.0 | 48.0 | 2.3 | 16.0 | 1.4 | 87.7 | 3.30 | 655/503/450 | 190 | AWM | 53 | 221 | 72 | 75 |
| **4MU-25X** | 25.0 | 54.2 | 2.3 | 18.7 | 1.5 | 99.5 | 3.30 | 655/503/450 | 186 | AWM | 52 | 199 | 73 | 73 |
| **4MK-35X** | 35.0 | 54.4 | 2.3 | 17.7 | 1.4 | 99.5 | 3.30 | 687/503/450 | 202 | AWM | 61 | 255 | 73 | 75 |
| **6MM-30X** | 30.0 | 61.8 | 2.3 | 21.6 | 1.4 | 120.5 | 3.30 | 723/550/447 | 215 | AWM | 60 | 255 | 73 | 79 |
| **6MI-40X** | 40.0 | 64.2 | 2.4 | 20.3 | 1.4 | 120.5 | 3.30 | 723/550/447 | 219 | AWM | 71 | 304 | 73 | 79 |
| **6MT-35X** | 35.0 | 70.4 | 2.3 | 25.1 | 1.5 | 135.1 | 3.30 | 723/550/447 | 221 | AWM | 67 | 255 | 75 | 79 |
| **6MJ-45X** | 45.0 | 72.4 | 2.3 | 23.6 | 1.4 | 135.1 | 3.30 | 773/550/447 | 223 | AWM | 81 | 304 | 75 | 80 |
| **6MU-40X** | 40.0 | 79.8 | 2.2 | 28.4 | 1.4 | 153.2 | 3.30 | 773/550/447 | 225 | AWM | 75 | 306 | 77 | 81 |
| **6MK-50X** | 50.0 | 82.1 | 2.2 | 26.6 | 1.4 | 153.2 | 3.30 | 773/550/447 | 230 | AWM | 93 | 393 | 77 | 81 |

(1) MT= Conditions EN12900 : Evaporating -10°C, Condensing 45°C, Suction Gas Temperature 20°C, Subcooling 0K
(2) LT= Conditions EN12900 : Evaporating -35°C, Condensing 40°C, Suction Gas Temperature 20°C, Subcooling 0K
* 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)** | | | | | | |
| | **Evaporating Temperature (°C)** | | | | | | |
| **Model** | **-45** | **-35** | **-30** | **-20** | **-10** | **-5** | **5** |
| **All preliminary data** | | | | | | | |
| **4MA-22X** | | 10.2 | 14.2 | 24.0 | 37.0 | 45.0 | 64.4 |
| **4MF-13X** | 3.5* | 10.8 | 14.3 | 23.3 | 35.5 | 43.1 | |
| **4MH-25X** | | 12.4 | 16.9 | 28.1 | 43.2 | 52.5 | 75.1 |
| **4ML-15X** | 4.7* | 13.3 | 17.4 | 28.0 | 42.4 | 51.2 | |
| **4MI-30X** | | 14.3 | 19.3 | 31.5 | 47.5 | 57.3 | 81.1 |
| **4MM-20X** | 5.6* | 15.1 | 19.7 | 31.4 | 47.1 | 56.8 | |
| **4MJ-33X** | | 16.1 | 21.6 | 35.3 | 53.3 | 64.3 | 90.9 |
| **4MT-22X** | 6.3* | 17.0 | 22.1 | 35.2 | 52.9 | 63.8 | |
| **4MK-35X** | | 18.1 | 24.3 | 39.6 | 59.8 | 72.2 | 102.0 |
| **4MU-25X** | 7.1* | 19.1 | 24.8 | 39.6 | 59.5 | 71.7 | |
| **6MI-40X** | | 21.4 | 28.8 | 46.8 | 70.7 | 85.4 | 121.4 |
| **6MM-30X** | 7.9* | 22.6 | 29.6 | 46.9 | 69.3 | 82.6 | |
| **6MJ-45X** | | 24.0 | 32.3 | 52.8 | 80.3 | 97.4 | 139.7 |
| **6MT-35X** | 8.9* | 25.3 | 33.1 | 52.4 | 77.5 | 92.4 | |
| **6MK-50X** | | 26.9 | 36.2 | 59.2 | 90.1 | 109.3 | 156.6 |
| **6MU-40X** | 9.9* | 28.4 | 37.2 | 58.9 | 87.1 | 103.9 | |

| **R404A** | **Power Input (kW)** | | | | | | |
|---|---|---|---|---|---|---|---|
| | **Evaporating Temperature (°C)** | | | | | | |
| **Model** | **-45** | **-35** | **-30** | **-20** | **-10** | **-5** | **5** |
| **All preliminary data** | | | | | | | |
| 4MA-22X | | 7.1 | 8.5 | 11.0 | 13.0 | 13.7 | 14.5 |
| 4MF-13X | 4.8* | 7.4 | 8.7 | 11.1 | 13.1 | 13.8 | |
| 4MH-25X | | 8.7 | 10.3 | 13.1 | 15.4 | 16.3 | 17.4 |
| 4ML-15X | 6.2* | 9.1 | 10.5 | 13.2 | 15.6 | 16.6 | |
| 4MI-30X | | 9.7 | 11.4 | 14.6 | 17.2 | 18.2 | 19.6 |
| 4MM-20X | 7.1* | 10.3 | 11.9 | 14.9 | 17.4 | 18.4 | |
| 4MJ-33X | | 10.9 | 12.8 | 16.3 | 19.2 | 20.4 | 21.9 |
| 4MT-22X | 7.9* | 11.5 | 13.3 | 16.6 | 19.5 | 20.6 | |
| 4MK-35X | | 12.5 | 14.6 | 18.7 | 22.0 | 23.4 | 25.1 |
| 4MU-25X | 9.1* | 13.1 | 15.2 | 19.0 | 22.3 | 23.6 | |
| 6MI-40X | | 14.6 | 17.2 | 21.9 | 25.7 | 27.2 | 29.3 |
| 6MM-30X | 10.7* | 15.4 | 17.8 | 22.2 | 26.2 | 28.0 | |
| 6MJ-45X | | 16.6 | 19.6 | 24.9 | 29.5 | 31.4 | 34.5 |
| 6MT-35X | 11.9* | 17.3 | 19.9 | 24.9 | 29.4 | 31.4 | |
| 6MK-50X | | 19.0 | 22.4 | 28.5 | 33.8 | 36.0 | 39.6 |
| 6MU-40X | 13.6* | 19.7 | 22.7 | 28.5 | 33.6 | 35.9 | |

Suction Gas Return 20°C / Subcooling 0K
*Suction Superheat 10K / Subcooling 0K

## Capacity Data

| Condensing Temperature 40°C | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| R134a | Cooling Capacity (kW) | | | | | | | R134a | 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 |
| All preliminary data | | | | | | | | All preliminary data | | | | | | | |
| 4MA-22X | | 12.2* | 20.7* | 26.2* | 40.7 | 49.3 | 59.2 | 4MA-22X | | 5.6* | 7.0* | 7.6* | 8.7 | 9.0 | 9.2 |
| 4MF-13X | | 12.4 | 20.7 | 26.0 | 39.7 | 48.3 | | 4MF-13X | | 6.0 | 7.2 | 7.8 | 8.6 | 8.8 | |
| 4MH-25X | | 13.8* | 23.3* | 29.5* | 45.7 | 55.3 | 66.4 | 4MH-25X | | 7.0* | 8.7* | 9.4* | 10.4 | 10.6 | 10.5 |
| 4ML-15X | | 15.3 | 24.9 | 31.0 | 46.5 | 56.1 | | 4ML-15X | | 7.0 | 8.7 | 9.4 | 10.5 | 10.9 | |
| 4MI-30X | | 15.4* | 25.9* | 32.7* | 50.6 | 61.3 | 73.5 | 4MI-30X | | 7.6* | 9.5* | 10.5* | 12.1 | 12.8 | 13.3 |
| 4MM-20X | | 17.1 | 27.7 | 34.5 | 51.6 | 62.3 | | 4MM-20X | | 7.9 | 9.6 | 10.4 | 11.6 | 12.0 | |
| 4MJ-33X | | 17.3* | 29.0* | 36.7* | 56.8 | 68.7 | 82.4 | 4MJ-33X | | 8.5* | 10.7* | 11.7* | 13.6 | 14.3 | 14.8 |
| 4MT-22X | | 19.2 | 31.1 | 38.6 | 57.9 | 69.9 | | 4MT-22X | | 8.8 | 10.8 | 11.7 | 13.0 | 13.4 | |
| 4MK-35X | | 19.4* | 32.6* | 41.2* | 63.7 | 77.1 | 92.5 | 4MK-35X | | 9.7* | 12.2* | 13.4* | 15.5 | 16.3 | 17.0 |
| 4MU-25X | | 21.5 | 34.9 | 43.4 | 65.0 | 78.5 | | 4MU-25X | | 10.1 | 12.3 | 13.3 | 14.9 | 15.4 | |
| 6MI-40X | | 22.6* | 38.3* | 48.5* | 75.6 | 91.8 | 110.4 | 6MI-40X | | 11.7* | 14.7* | 16.0* | 17.9 | 18.5 | 18.6 |
| 6MM-30X | | 25.7 | 41.4 | 51.4 | 76.7 | 92.4 | | 6MM-30X | | 11.9 | 14.6 | 15.9 | 18.0 | 18.7 | |
| 6MJ-45X | | 26.4* | 43.5* | 54.7* | 84.3 | 101.8 | 122.0 | 6MJ-45X | | 12.8* | 16.1* | 17.7* | 20.6 | 21.7 | 22.4 |
| 6MT-35X | | 28.8 | 46.4 | 57.6 | 85.9 | 103.4 | | 6MT-35X | | 13.3 | 16.4 | 17.8 | 20.1 | 20.9 | |
| 6MK-50X | | 29.7* | 48.8* | 61.4* | 94.5 | 114.2 | 136.8 | 6MK-50X | | 14.7* | 18.4* | 20.3* | 23.6 | 24.8 | 25.5 |
| 6MU-40X | | 32.3 | 52.1 | 64.7 | 96.5 | 116.2 | | 6MU-40X | | 15.2 | 18.8 | 20.4 | 23.0 | 23.9 | |

Suction Gas Return 20°C / Subcooling 0K
*Suction Superheat 10K / Subcooling 0K