

Secop is the first choice for partners looking for leading-edge refrigeration solutions and a premium customer experience.

Secop delivers advanced refrigeration compressors and controls, providing customers tailored sustainable solutions for light commercial, battery-driven, and special cooling applications.

# ENERGY-OPTIMIZED PROPANE COMPRESSORS



**R290**  
KLF Compressors  
NLE Compressors  
SCE Compressors

**3 GWP**  
Achievable with powerful efficient LBP/MBP compressors, designed for food retail, food service, and medical applications

Stationary Cooling

Medical Cooling

High Efficiency





# SECOP PROPANE SOLUTIONS

Tailored Solutions in Light Commercial Applications for Today and Tomorrow



Food Retail and Food Service



Medical Applications



For more than 25 years, Secop has been developing highly efficient compressors that use hydrocarbons (R290 and R600a) and since 2015, Secop has been improving its successful R290 compressor line with the release of a new generation of propane compressors for LBP and MBP applications.

Given their outstanding versatility and reliability, Secop's new generation of energy-optimized propane compressors achieve maximum performance for an array of refrigeration/freezer applications. The range was recently optimized to also meet the needs in food retail and medical applications and Secop is constantly developing models with higher capacities.

The KLF, NLE, and SCE compressor ranges are tailored for commercial use and capable of replacing products made for high global warming potential (GWP) refrigerants such as R404A and R134a. The efficiency can be further increased with optional run capacitors, if required.

A GWP of three is achievable with our powerful, efficient R290 KLF, NLE, and SCE compressors designed for LBP/MBP applications, such as bottle coolers, ice-cream cabinets, commercial refrigerators, or medical refrigerators and medical ultra low temperature freezers that are suitable for markets with a voltage range of 220V to 240V, 50/60 Hz as well as 115V to 127V, 60 Hz.

The KLF compressor includes an innovative patented hermetic terminal plug. Backed by years of experience with hydrocarbons refrigerants, testing of R290 solutions, and optimization of system conversion from HFC to HC refrigerants, Secop has developed a new design for terminal plugs to prevent root causes for electrical arcs injection with flammable refrigerants. This has set a benchmark in the industry to support the design of reliable systems with new flammable refrigerants.

Dual frequency (50/60 Hz) compressors ending in CNT, CNLT, or MNT are designed to support regions that experience harsh and challenging environments and where voltage fluctuations as well as high ambient temperatures need to be taken into account. The ability to start under low voltage conditions without stalling presents an outstanding solution for those harsh environments.

Make the switch now to replace R404A and R134a systems with environmentally friendly R290 and save on additional costs by utilizing smaller compressor platforms that provide unique opportunities in your market. Secop not only offers a complete range of highly efficient compressors that work with propane, Secop is also a solution provider that offers technical support and safety upgrades for any type of applications and compressors.



Replace R134a with Environmentally Friendly Natural Refrigerant R290

Save Additional Cost by Utilizing Smaller Compressor Platforms



## Conversion Examples from R134a to R290 (220-240 V/50 Hz)

MBP applications, e.g. beverage coolers, display cabinets, commercial chillers (at ASHRAE MBP conditions)

Evaporating temperature: -6.7°C | Condensing temperature: 54.4°C | Suction gas temperature: 35°C | Ambient temperature: 35°C | Liquid temperature: MBP: 46.1°C

| Compressor       | NL6.1MF   | NF7FX     | NF9FX     | NF10FX    | SC12G     | SC15G    | SC18G    | SC18MFX  | SC21MFX   | SC12/12G | GS26MFX  | SC18/18G |
|------------------|-----------|-----------|-----------|-----------|-----------|----------|----------|----------|-----------|----------|----------|----------|
| from...<br>R134a | 320 W     | 432 W     | 476 W     | 556 W     | 614 W     | 745 W    | 893 W    | 916 W    | 1114 W    | 1228 W   | 1446 W   | 1774 W   |
|                  | 1.61 COP  | 1.66 COP  | 1.59 COP  | 1.42 COP  | 1.60 COP  | 1.57 COP | 1.58 COP | 1.63 COP | 1.76 COP  | 1.60 COP | 1.82 COP | 1.63 COP |
|                  | ↓         | ↓         | ↓         | ↓         | ↓         | ↓        | ↓        | ↓        | ↓         | ↓        | ↓        | ↓        |
| Compressor       | KLF4.0CND | KLF4.8CND | KLF5.6CND | KLF6.6CND | KLF7.7CND | NLE8.8CN | NLE10CN  | NLE11MN  | NLE12.6MN | SCE15MNX | SCE18MNX | SCE21MNX |
| to...<br>R290    | 336 W     | 414 W     | 495 W     | 597 W     | 704 W     | 752 W    | 872 W    | 981 W    | 1060 W    | 1267 W   | 1501 W   | 1762 W   |
|                  | 2.08 COP  | 2.08 COP  | 2.10 COP  | 2.05 COP  | 1.97 COP  | 1.98 COP | 1.89 COP | 2.01 COP | 1.97 COP  | 2.04 COP | 1.98 COP | 2.12 COP |

## Conversion Examples from R134a to R290 (220-240 V/50 Hz)

LBP applications, e.g. commercial freezers, ice cream cabinets (at ASHRAE LBP conditions)

Evaporating temperature: -23.3 °C | Condensing temperature: 54.4°C | Suction gas temperature: 32.2°C | Ambient temperature: 32.2°C | Liquid temperature: MBP: 32.2°C

| Compressor       | NL7F      | NL9F      | NL11F     | SC15F     | SC15FT    | SC18FTX  | SC21G    | SC21FTX  | SC18/18G  | SC21/21G  |
|------------------|-----------|-----------|-----------|-----------|-----------|----------|----------|----------|-----------|-----------|
| from...<br>R134a | 187 W     | 213 W     | 274 W     | 324 W     | 386 W     | 448 W    | 462 W    | 569 W    | 783 W     | 921 W     |
|                  | 1.22 COP  | 1.21 COP  | 1.22 COP  | 1.11 COP  | 1.18 COP  | 1.17 COP | 1.23 COP | 1.27 COP | 1.12 COP  | 1.13 COP  |
|                  | ↓         | ↓         | ↓         | ↓         | ↓         | ↓        | ↓        | ↓        | ↓         | ↓         |
| Compressor       | KLF4.0CND | KLF4.8CND | KLF5.6CND | KLF6.6CND | KLF7.7CND | NLE8.8CN | NLE10CN  | NLE11CNL | SCE18CNLX | SCE21CNLX |
| to...<br>R290    | 183 W     | 230 W     | 273 W     | 337 W     | 385 W     | 431 W    | 486 W    | 540 W    | 793 W     | 953 W     |
|                  | 1.48 COP  | 1.50 COP  | 1.55 COP  | 1.51 COP  | 1.52 COP  | 1.57 COP | 1.47 COP | 1.52 COP | 1.51 COP  | 1.61 COP  |



# MORE DISPLACEMENT, SAME ICONIC SERIES

## SCE-Plus Compressors

The perfect solution for applications such as supermarket refrigerators / freezers, walk-in freezers, double glass door merchandizers, and many others.



New Hermetic Terminal Plug



Broad Application Range (LBP & MBP)



High Efficiency



Small Footprint



R290 Green Refrigerant



Max. Performance



The new **NLE Plus** and **SCE Plus** compressor ranges expand Secop's portfolio with compact, high-performance solutions optimized for R290 (propane). SCE Plus offers 23 and 25 cc displacement, while NLE Plus is available in up to 15 cc. Both series combine efficiency, robustness, and space-saving design, ensuring consistent energy performance. They are ideal for food retail and service applications and more.

SCE Plus and NLE Plus compressors are engineered for top-tier efficiency and durability.

**Secop NLE and SCE Plus compressors offer excellent efficiency, optimized start equipment, are resistant to extreme liquid refrigerant returns, and include a special solution for a safe use of flammable hydrocarbons refrigerants.**

### Leader in Efficiency and Dimensions

SCE Plus and NLE Plus compressors deliver strong, reliable performance across a wide range of operating conditions. Under low back pressure (LBP), both operate at evaporating temperatures from -40°C to -5°C, with cooling capacities of up to 1331 W (SCE Plus) and approx. 775 W (NLE Plus). At medium back pressure (MBP), they cover -25°C to up to +10°C, reaching up to 2440 W (SCE Plus) and 1137 W (NLE Plus). Together, they combine high efficiency with compact design, offering class-leading performance in their respective segments.

(Test conditions: ASHRAE)

### Innovation in the Refrigeration Industry

Secop sets new standards in terms of compactness, cooling capacity and reliability with the SCE R290 Plus series. It has been specially developed to support the new IEC approvals for HC refrigerant charges from 150 g to 500 g in commercial refrigeration systems and offers an ultra-compact hermetic compressor solution.

### New Electrical Components

The latest starting accessories in the range include a highly integrated relay as well as starting and running capacitors. These components are compact and easy to install and come with integrated PTC and NTC to reduce peak currents and voltage spikes, which increases safety and service life. In addition, the series is equipped with a patented Secop hermetic terminal plug that ensures safe use of the R290 refrigerant to prevent root causes of electrical arcs injection with flammable refrigerants.



**The green and efficient SCE Plus range received the "China Refrigeration Innovation Award 2024"**

When starting the project, our internal technical-driven project name was "SCE Stretch" to describe the addition to the portfolio. After the development phase and after intensive testing we think that the name SCE Plus describes much better that these compressors offer much more benefits than just increasing the displacement.

# ENERGY-OPTIMIZED PROPANE (R290) COMPRESSORS: 220-240 V/50 Hz

| General                                     | KLF4.0CND | KLF4.0CNDS | KLF4.8CND | KLF4.8CNDS | KLF5.6CND | KLF5.6CNDS | KLF6.6CND | KLF6.6CNDS | KLF7.7CND | KLF7.7CNDS | KLF7.7CNQX | KLF8.6CND | KLF4.0CND (low) | KLF4.8CND (low) |
|---------------------------------------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|------------|-----------|-----------------|-----------------|
| Code number                                 | 106H2401  | 106H2403   | 106H2500  | 106H2503   | 106H2600  | 106H2603   | 106H2700  | 106H2703   | 106H2800  | 106H2803   | 106H2809   | 106H2900  | 106H2408        | 106H2508        |
| Code number (pre-assembled start equipment) | 106H2411  | -          | 106H2510  | -          | 106H2610  | -          | 106H2710  | -          | 106H2810  | -          | -          | 106H2910  | -               | 106H2518        |
| Approvals                                   | VDE, CCC  | VDE, CCC   | VDE, CCC  | VDE, CCC   | VDE, CCC  | VDE, CCC   | VDE, CCC  | VDE, CCC   | VDE, CCC  | VDE, CCC   | VDE        | VDE       | VDE, CCC        | VDE, CCC        |

| Application                     |              |              |              |              |              |              |              |              |              |              |              |              |              |              |
|---------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Application                     | LBP/MBP      | LBP/MBP      | LBP/MBP      | LBP/MBP      | LBP/MBP      | LBP/MBP      | LBP/MBP      | LBP/MBP      | LBP/MBP      | LBP/MBP      | LBP/MBP      | LBP/MBP      | LBP/MBP      | LBP/MBP      |
| Evaporating temperature °C      | -40 to 7.2   | -40 to 7.2   | -40 to 7.2   | -40 to 7.2   | -40 to 7.2   | -40 to 7.2   | -35 to 7.2   | -35 to 7.2   | -35 to 7.2   | -35 to 7.2   | -40 to 10    | -35 to 7.2   | -40 to 7.2   | -40 to 7.2   |
| Voltage range / frequency V/Hz  | 198-254 / 50 | 198-254 / 50 | 198-254 / 50 | 198-254 / 50 | 198-254 / 50 | 198-254 / 50 | 198-254 / 50 | 198-254 / 50 | 198-254 / 50 | 198-254 / 50 | 187-254 / 50 | 198-254 / 50 | 198-254 / 50 | 198-254 / 50 |
| Applicable motor configurations | CSIR, RSCR   | CSIR, RSCR   | CSIR, RSCR   | CSIR, RSCR   | CSIR, RSCR   | CSIR, RSCR   | CSIR, RSCR   | CSIR, RSCR   | CSIR, RSCR   | CSIR, RSCR   | CSIR, RSCR   | CSIR, RSCR   | CSIR, RSCR   | CSIR, RSCR   |

| Performance Data ASHRAE LBP   ASHRAE MBP - 220V/50Hz - fan cooling |                                                                                                                                                                                                          |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |      |      |
|--------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|------|------|
| Evaporating temperature °C                                         | -23.3                                                                                                                                                                                                    | -6.7 | -23.3 | -6.7 | -23.3 | -6.7 | -23.3 | -6.7 | -23.3 | -6.7 | -23.3 | -6.7 | -23.3 | -6.7 | -23.3 | -6.7 | -23.3 | -6.7 | -23.3 | -6.7 | -23.3 | -6.7 | -23.3 | -6.7 | -23.3 | -6.7 |      |      |
| Cooling capacity W                                                 | 183                                                                                                                                                                                                      | 336  | 177   | 324  | 230   | 414  | 222   | 395  | 273   | 495  | 265   | 477  | 337   | 597  | 326   | 574  | 385   | 704  | 372   | 663  | 389   | 687  | 456   | 792  | 183   | 336  | 230  | 414  |
| Power consumption W                                                | 124                                                                                                                                                                                                      | 162  | 123   | 160  | 153   | 199  | 152   | 197  | 177   | 236  | 175   | 236  | 223   | 291  | 221   | 293  | 254   | 357  | 251   | 339  | 242   | 333  | 284   | 396  | 124   | 162  | 153  | 199  |
| COP W/W                                                            | 1.48                                                                                                                                                                                                     | 2.08 | 1.44  | 2.03 | 1.50  | 2.08 | 1.46  | 2.01 | 1.55  | 2.10 | 1.51  | 2.02 | 1.51  | 2.05 | 1.47  | 1.96 | 1.52  | 1.97 | 1.48  | 1.95 | 1.61  | 2.06 | 1.64  | 2.00 | 1.48  | 2.08 | 1.50 | 2.08 |
| Test conditions                                                    | Condensing temperature: LBP: 54.4 °C, MBP: 54.4 °C   Suction gas temperature: LBP: 32.2 °C, MBP: 35 °C   Ambient temperature: LBP: 32.2 °C, MBP: 32.2 °C   Liquid temperature: LBP 32.2 °C, MBP: 46.1 °C |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |      |      |

| Performance Data EN 12900 LBP   EN 12900 MBP - 220V/50Hz - fan cooling |                                                                                                                                                                                                |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Evaporating temperature °C                                             | -35                                                                                                                                                                                            | -10  | -35  | -10  | -35  | -10  | -35  | -10  | -35  | -10  | -35  | -10  | -35  | -10  | -35  | -10  | -35  | -10  | -35  | -10  | -35  | -10  | -35  | -10  | -35  | -10  | -35  | -10  |
| Cooling capacity W                                                     | 100                                                                                                                                                                                            | 299  | 97   | 289  | 127  | 371  | 122  | 355  | 149  | 435  | 144  | 420  | 188  | 523  | 182  | 507  | 223  | 623  | 215  | 587  | 215  | 602  | 253  | 701  | 100  | 299  | 127  | 371  |
| Power consumption W                                                    | 88                                                                                                                                                                                             | 140  | 87   | 138  | 118  | 173  | 117  | 171  | 123  | 205  | 122  | 206  | 156  | 253  | 155  | 255  | 185  | 309  | 183  | 297  | 183  | 293  | 199  | 342  | 88   | 140  | 118  | 173  |
| COP W/W                                                                | 1.14                                                                                                                                                                                           | 2.14 | 1.11 | 2.09 | 1.07 | 2.14 | 1.05 | 2.08 | 1.21 | 2.12 | 1.18 | 2.04 | 1.20 | 2.07 | 1.17 | 1.99 | 1.20 | 2.01 | 1.18 | 1.98 | 1.17 | 2.06 | 1.27 | 2.05 | 1.14 | 2.14 | 1.07 | 2.14 |
| Test conditions                                                        | Condensing temperature: LBP: 40 °C, MBP: 45 °C   Suction gas temperature: LBP: 20 °C, MBP: 20 °C   Ambient temperature: LBP: 32.2 °C, MBP: 32.2 °C   Liquid temperature: LBP 40 °C, MBP: 45 °C |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |

| Dimensions                                                   |   |  |  |  |  |  |  |  |  |  |  |  |       |           |                      |           |                      |     |
|--------------------------------------------------------------|---|--|--|--|--|--|--|--|--|--|--|--|-------|-----------|----------------------|-----------|----------------------|-----|
| Height mm                                                    | A |  |  |  |  |  |  |  |  |  |  |  |       | 182       | B                    | 175       | C                    | 174 |
| Suction connector location/I.D. mm   angle material   seal   | C |  |  |  |  |  |  |  |  |  |  |  |       | 8.2   30° | Copper   Rubber plug | 8.2   30° | Copper   Rubber plug |     |
| Process connector location/I.D. mm   angle material   seal   | D |  |  |  |  |  |  |  |  |  |  |  |       | 6.2   35° | Copper   Rubber plug | 6.2   35° | Copper   Rubber plug |     |
| Discharge connector location/I.D. mm   angle material   seal | E |  |  |  |  |  |  |  |  |  |  |  |       | 6.2   40° | Copper   Rubber plug | 6.2   40° | Copper   Rubber plug |     |
| Connector tolerance I.D. mm                                  |   |  |  |  |  |  |  |  |  |  |  |  | ±0.09 |           |                      | ±0.09     |                      |     |

| General                                     | NLE8.8CN    | NLE10CN     | NLE11CNL    | NLE11MN     | NLE12.6CNL | NLE12.6MN | NLE11MNDX | NLE13LNDX | NLE13MNDX | NLE14LNDX | NLE15LNDX |
|---------------------------------------------|-------------|-------------|-------------|-------------|------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Code number                                 | 105H6880    | 105H6175    | 105H6174    | 105H6177    | 105H6378   | 105H6377  | 105H7103  | 105H7301  | 105H7302  | 105H7402  | 105H7500  |
| Code number (pre-assembled start equipment) | -           | 105H6176    | -           | -           | 105H6376   | 105H6379  | 105H7113  | 105H7311  | 105H7312  | 105H7412  | 105H7510  |
| Approvals                                   | VDE, UL CCC | VDE, UL CCC | VDE, UL CCC | VDE, UL CCC | VDE, CCC   | VDE, CCC  | VDE       | VDE       | VDE       | VDE       | VDE       |

| Application                     |                  |                  |              |                  |                  |                  |              |              |              |              |              |
|---------------------------------|------------------|------------------|--------------|------------------|------------------|------------------|--------------|--------------|--------------|--------------|--------------|
| Application                     | LBP/MBP          | LBP/MBP          | LBP          | MBP              | LBP              | MBP              | MBP          | LBP          | MBP          | LBP          | LBP          |
| Evaporating temperature °C      | -35 to 10        | -35 to 10        | -35 to -10   | -30 to 10        | -40 to -5        | -25 to 10        | -25 to 10    | -40 to -5    | -25 to 7.5   | -40 to -5    | -40 to -5    |
| Voltage range / frequency V/Hz  | 198-254 / 50     | 198-254 / 50     | 198-254 / 50 | 198-254 / 50     | 198-254 / 50     | 198-254 / 50     | 198-254 / 50 | 198-254 / 50 | 198-254 / 50 | 198-254 / 50 | 198-254 / 50 |
| Applicable motor configurations | CSIR, RSIR, RSCR | CSIR, RSIR, RSCR | CSIR, RSIR   | CSIR, RSIR, RSCR | CSIR, RSIR, RSCR | CSIR, RSIR, RSCR | CSCR         | CSCR         | CSCR         | CSCR         | CSCR         |

| Performance Data ASHRAE LBP   ASHRAE MBP - 220V/50Hz - fan cooling |                                                                                                                                                                                                          |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |
|--------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|
| Evaporating temperature °C                                         | -23.3                                                                                                                                                                                                    | -6.7 | -23.3 | -6.7 | -23.3 | -6.7 | -23.3 | -6.7 | -23.3 | -6.7 | -23.3 | -6.7 | -23.3 | -6.7 | -23.3 | -6.7 | -23.3 | -6.7 | -23.3 | -6.7 | -23.3 | -6.7 |
| Cooling capacity W                                                 | 430                                                                                                                                                                                                      | 751  | 486   | 872  | 540   | -    | 562   | 981  | 611   | 1069 | -     | 1060 | -     | 999  | 611   | -    | -     | 1137 | 714   | -    | 775   | -    |
| Power consumption W                                                | 275                                                                                                                                                                                                      | 380  | 331   | 462  | 356   | -    | 355   | 488  | 375   | 536  | -     | 537  | -     | 467  | 361   | -    | -     | 544  | 425   | -    | 452   | -    |
| COP W/W                                                            | 1.57                                                                                                                                                                                                     | 1.98 | 1.47  | 1.89 | 1.52  | -    | 1.58  | 2.01 | 1.63  | 2.00 | -     | 1.97 | -     | 2.14 | 1.69  | -    | -     | 2.09 | 1.68  | -    | 1.71  | -    |
| Test conditions                                                    | Condensing temperature: LBP: 54.4 °C, MBP: 54.4 °C   Suction gas temperature: LBP: 32.2 °C, MBP: 35 °C   Ambient temperature: LBP: 32.2 °C, MBP: 32.2 °C   Liquid temperature: LBP 32.2 °C, MBP: 46.1 °C |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |

| Performance Data EN 12900 LBP   EN 12900 MBP - 220V/50Hz - fan cooling |                                                                                                                                                                                                |      |      |      |      |      |     |      |      |      |     |      |     |      |      |     |     |      |      |     |      |     |
|------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------|------|------|------|-----|------|------|------|-----|------|-----|------|------|-----|-----|------|------|-----|------|-----|
| Evaporating temperature °C                                             | -35                                                                                                                                                                                            | -10  | -35  | -10  | -35  | -10  | -35 | -10  | -35  | -10  | -35 | -10  | -35 | -10  | -35  | -10 | -35 | -10  | -35  | -10 | -35  | -10 |
| Cooling capacity W                                                     | 256                                                                                                                                                                                            | 670  | 285  | 781  | 305  | 856  | -   | 869  | 354  | 945  | -   | 949  | -   | 874  | 355  | -   | -   | 1015 | 401  | -   | 438  | -   |
| Power consumption W                                                    | 203                                                                                                                                                                                            | 327  | 232  | 417  | 258  | 436  | -   | 423  | 266  | 458  | -   | 462  | -   | 404  | 256  | -   | -   | 463  | 297  | -   | 318  | -   |
| COP W/W                                                                | 1.26                                                                                                                                                                                           | 2.05 | 1.23 | 1.96 | 1.18 | 1.96 | -   | 2.06 | 1.33 | 2.06 | -   | 2.05 | -   | 2.17 | 1.38 | -   | -   | 2.19 | 1.35 | -   | 1.38 | -   |
| Test conditions                                                        | Condensing temperature: LBP: 40 °C, MBP: 45 °C   Suction gas temperature: LBP: 20 °C, MBP: 20 °C   Ambient temperature: LBP: 32.2 °C, MBP: 32.2 °C   Liquid temperature: LBP 40 °C, MBP: 45 °C |      |      |      |      |      |     |      |      |      |     |      |     |      |      |     |     |      |      |     |      |     |

| Dimensions                                                   |   |  |  |  |  |  |  |  |  |  |  |  |       |           |                      |           |                      |     |
|--------------------------------------------------------------|---|--|--|--|--|--|--|--|--|--|--|--|-------|-----------|----------------------|-----------|----------------------|-----|
| Height mm                                                    | A |  |  |  |  |  |  |  |  |  |  |  |       | 203       | B                    | 197       | C                    | 209 |
| Suction connector location/I.D. mm   angle material   seal   | C |  |  |  |  |  |  |  |  |  |  |  |       | 8.2   15° | Copper   Rubber plug | 8.2   15° | Copper   Rubber plug |     |
| Process connector location/I.D. mm   angle material   seal   | D |  |  |  |  |  |  |  |  |  |  |  |       | 6.2   25° | Copper   Rubber plug | 6.2   25° | Copper   Rubber plug |     |
| Discharge connector location/I.D. mm   angle material   seal | E |  |  |  |  |  |  |  |  |  |  |  |       | 6.2   21° | Copper   Rubber plug | 6.2   21° | Copper   Rubber plug |     |
| Connector tolerance I.D. mm                                  |   |  |  |  |  |  |  |  |  |  |  |  | ±0.09 |           |                      | ±0.09     |                      |     |

### Electrical Equipment: Motor Systems

**RSIR:**  
Resistant Start, Induction Run (ePTC)

**RSCR:**  
Resistant Start, Capacitor Run (PTC/ePTC + run capacitor)

**CSIR:**  
Capacitor Start, Induction Run (relay + start capacitor)

**CSCR:**  
Capacitor Start, Capacitor Run (relay + start capacitor + run capacitor)



# ENERGY-OPTIMIZED PROPANE (R290) COMPRESSORS: 220-240 V/50 Hz

| General     | SCE15CNLX    | SCE15CNX | SCE15MNX     | SCE18CNLX    | SCE18CNX | SCE18MNX     | SCE21CNLX    | SCE21CNLX    | SCE21MNX | SCE23LNDX    | SCE23MNDX    | SCE25LNDX    | SCE25MNDX    |
|-------------|--------------|----------|--------------|--------------|----------|--------------|--------------|--------------|----------|--------------|--------------|--------------|--------------|
| Code number | 104H8548     | 104H8540 | 104H8549     | 104H8848     | 104H8840 | 104H8849     | 104H8163     | 104H8164     | 104H8160 | 104H8320     | 104H8300     | 104H8420     | 104H8400     |
| Approvals   | VDE, UL, CCC | VDE, CCC | VDE, UL, CCC | VDE, UL, CCC | VDE, CCC | VDE, UL, CCC | VDE, UL, CCC | VDE, UL, CCC | VDE, CCC | CB, VDE, CCC | CB, VDE, CCC | CB, VDE, CCC | CB, VDE, CCC |

| Application                     |      | LBP          | LBP/MBP      | MBP          | LBP          | LBP/MBP      | MBP          | LBP          | LBP          | MBP          | LBP        | MBP        | LBP        | MBP        |           |
|---------------------------------|------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|------------|------------|------------|------------|-----------|
| Application                     |      | LBP          | LBP/MBP      | MBP          | LBP          | LBP/MBP      | MBP          | LBP          | LBP          | MBP          | LBP        | MBP        | LBP        | MBP        |           |
| Evaporating temperature         | °C   | -40 to -5    | -40 to 7.2   | -25 to 10    | -40 to -5    | -40 to 7.2   | -23 to 7.2   | -40 to -5    | -45          | -5           | -25 to 7.2 | -40 to -5  | -25 to 10  | -40 to -5  | -25 to 10 |
| Voltage range / frequency       | V/Hz | 198-254 / 50 | 198-254 / 50 | 198-254 / 50 | 198-254 / 50 | 198-254 / 50 | 198-254 / 50 | 198-254 / 50 | 207-242 / 50 | 198-254 / 50 | 198-254/50 | 198-254/50 | 198-254/50 | 198-254/50 |           |
| Applicable motor configurations |      | CSIR         | CSCR         | CSIR         | CSIR         | CSCR         | CSIR         | CSCR         | CSIR         | CSCR         | CSCR       | CSCR       | CSCR       | CSCR       |           |

| Performance Data ASHRAE LBP   ASHRAE MBP - 220V/50Hz - fan cooling                                                                                                                                       |                     |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|
| Evaporating temperature                                                                                                                                                                                  | °C                  | -23.3 | -6.7 | -23.3 | -6.7 | -23.3 | -6.7 | -23.3 | -6.7 | -23.3 | -6.7 | -23.3 | -6.7 | -23.3 | -6.7 | -23.3 | -6.7 | -23.3 | -6.7 | -23.3 | -6.7 | -23.3 | -6.7 | -23.3 | -6.7 | -23.3 | -6.7 |
| Cooling capacity                                                                                                                                                                                         | W                   | 667   | -    | 664   | 1277 | -     | 1267 | 793   | -    | 809   | 1525 | -     | 1501 | 953   | -    | 939   | -    | -     | 1762 | 1041  | -    | -     | 1909 | 1178  | -    | -     | 2077 |
| Power consumption                                                                                                                                                                                        | W                   | 438   | -    | 410   | 572  | -     | 622  | 525   | -    | 495   | 681  | -     | 760  | 591   | -    | 630   | -    | -     | 833  | 661   | -    | -     | 915  | 728   | -    | -     | 1036 |
| COP                                                                                                                                                                                                      | W/W                 | 1.53  | -    | 1.62  | 2.23 | -     | 2.04 | 1.51  | -    | 1.63  | 2.24 | -     | 1.98 | 1.61  | -    | 1.49  | -    | -     | 2.12 | 1.58  | -    | -     | 2.09 | 1.62  | -    | -     | 2.01 |
| Test conditions                                                                                                                                                                                          | motor configuration | CSIR  |      | CSCR  |      | CSIR  |      | CSIR  |      | CSCR  |      | CSIR  |      | CSCR  |      | CSIR  |      | CSCR  |      | CSCR  |      | CSCR  |      | CSCR  |      | CSCR  |      |
| Condensing temperature: LBP: 54.4 °C, MBP: 54.4 °C   Suction gas temperature: LBP: 32.2 °C, MBP: 35 °C   Ambient temperature: LBP: 32.2 °C, MBP: 32.2 °C   Liquid temperature: LBP 32.2 °C, MBP: 46.1 °C |                     |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |

| Performance Data EN 12900 LBP   EN 12900 MBP - 220V/50Hz - fan cooling                                                                                                                         |                     |      |     |      |      |      |      |      |     |      |      |      |      |      |     |      |     |      |      |      |     |      |      |      |     |      |      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|------|-----|------|------|------|------|------|-----|------|------|------|------|------|-----|------|-----|------|------|------|-----|------|------|------|-----|------|------|
| Evaporating temperature                                                                                                                                                                        | °C                  | -35  | -10 | -35  | -10  | -35  | -10  | -35  | -10 | -35  | -10  | -35  | -10  | -35  | -10 | -35  | -10 | -35  | -10  | -35  | -10 | -35  | -10  | -35  | -10 | -35  | -10  |
| Cooling capacity                                                                                                                                                                               | W                   | 357  | -   | 356  | 1130 | -    | 1122 | 440  | -   | 436  | 1348 | -    | 1321 | 543  | -   | 545  | -   | -    | 1572 | 614  | -   | -    | 1698 | 676  | -   | -    | 1850 |
| Power consumption                                                                                                                                                                              | W                   | 308  | -   | 296  | 501  | -    | 543  | 361  | -   | 353  | 596  | -    | 665  | 428  | -   | 449  | -   | -    | 724  | 469  | -   | -    | 810  | 511  | -   | -    | 874  |
| COP                                                                                                                                                                                            | W/W                 | 1.16 | -   | 1.20 | 2.26 | -    | 2.07 | 1.22 | -   | 1.24 | 2.26 | -    | 1.98 | 1.27 | -   | 1.22 | -   | -    | 2.17 | 1.31 | -   | -    | 2.10 | 1.32 | -   | -    | 2.12 |
| Test conditions                                                                                                                                                                                | motor configuration | CSIR |     | CSCR |      | CSIR |      | CSIR |     | CSCR |      | CSIR |      | CSCR |     | CSIR |     | CSCR |      | CSCR |     | CSCR |      | CSCR |     | CSCR |      |
| Condensing temperature: LBP: 40 °C, MBP: 45 °C   Suction gas temperature: LBP: 20 °C, MBP: 20 °C   Ambient temperature: LBP: 32.2 °C, MBP: 32.2 °C   Liquid temperature: LBP 40 °C, MBP: 45 °C |                     |      |     |      |      |      |      |      |     |      |      |      |      |      |     |      |     |      |      |      |     |      |      |      |     |      |      |

| Dimensions          |                                          |                      |  |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |  |                      |  |  |  |                      |  |  |  |
|---------------------|------------------------------------------|----------------------|--|--|--|--|--|--|--|--|--|--|----------------------|--|--|--|--|--|--|--|--|--|--|----------------------|--|--|--|----------------------|--|--|--|
| Height              | mm                                       | A                    |  |  |  |  |  |  |  |  |  |  | B                    |  |  |  |  |  |  |  |  |  |  | 219                  |  |  |  | 236                  |  |  |  |
|                     |                                          | 213                  |  |  |  |  |  |  |  |  |  |  | 231                  |  |  |  |  |  |  |  |  |  |  | 213                  |  |  |  | 231                  |  |  |  |
| Suction connector   | location/I.D. mm   angle material   seal | C                    |  |  |  |  |  |  |  |  |  |  | D                    |  |  |  |  |  |  |  |  |  |  | 10.2   37°           |  |  |  | 12.9   37°           |  |  |  |
|                     |                                          | Copper   Rubber plug |  |  |  |  |  |  |  |  |  |  | Copper   Rubber plug |  |  |  |  |  |  |  |  |  |  | Copper   Rubber plug |  |  |  | Copper   Rubber plug |  |  |  |
| Process connector   | location/I.D. mm   angle material   seal | D                    |  |  |  |  |  |  |  |  |  |  | E                    |  |  |  |  |  |  |  |  |  |  | 6.2   37°            |  |  |  | 6.2   37°            |  |  |  |
|                     |                                          | Copper   Rubber plug |  |  |  |  |  |  |  |  |  |  | Copper   Rubber plug |  |  |  |  |  |  |  |  |  |  | Copper   Rubber plug |  |  |  | Copper   Rubber plug |  |  |  |
| Discharge connector | location/I.D. mm   angle material   seal | E                    |  |  |  |  |  |  |  |  |  |  | F                    |  |  |  |  |  |  |  |  |  |  | 6.2   37°            |  |  |  | 8.2   37°            |  |  |  |
|                     |                                          | Copper   Rubber plug |  |  |  |  |  |  |  |  |  |  | Copper   Rubber plug |  |  |  |  |  |  |  |  |  |  | Copper   Rubber plug |  |  |  | Copper   Rubber plug |  |  |  |
| Connector tolerance | I.D. mm                                  | ±0.09                |  |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |  |                      |  |  |  |                      |  |  |  |



**Electrical Equipment: Motor Systems**

**RSIR:**  
Resistant Start, Induction Run (ePTC)

**RSCR:**  
Resistant Start, Capacitor Run (PTC/ePTC + run capacitor)

**CSIR:**  
Capacitor Start, Induction Run (relay + start capacitor)

**CSCR:**  
Capacitor Start, Capacitor Run (relay + start capacitor + run capacitor)

# ENERGY-OPTIMIZED PROPANE (R290) COMPRESSORS: 208-230 V / 60 Hz · 220-240 V / 50/60 Hz

| General                                  | KLF4.0CNT | KLF4.8CNT       | KLF5.6CNT       | KLF6.6CNT       | KLF7.7CNT       | KLF4.0CNT (low) | NLE8.0CNT | NLE8.8CNT | NLE10CNT | NLE11CNLT | NLE11MNT |
|------------------------------------------|-----------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------|-----------|----------|-----------|----------|
| Code number                              | 106H2402  | 106H2502        | 106H2602        | 106H2702        | 106H2808        | 106H2409        | 105H6073  | 105H6088  | 105H6179 | 105H6109  | 105H6199 |
| Code no. (pre-assembled start equipment) | 106H2412  | 106H2512        | 106H2612        | 106H2712        | 106H2818        | 106H2419        | -         | 105H6078  | -        | -         | -        |
| Approvals                                | UL, VDE   | UL, KC, CCC, CB | UL, KC, CCC, CB | UL, KC, CCC, CB | UL, KC, CCC, CB | UL              | CB, UL    | CB, UL    | CB, UL   | CB, UL    | CB, UL   |

| Application                     |              |              |              |              |              |              |                  |                  |                  |                  |                  |                  |
|---------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Application                     | LBP/MBP      | LBP/MBP      | LBP/MBP      | LBP/MBP      | LBP/MBP      | LBP/MBP      | LBP/MBP          | LBP/MBP          | LBP/MBP          | LBP/MBP          | LBP              | MBP              |
| Evaporating temperature °C      | -35 to 10    | -35 to 7.2   | -35 to 7.2   | -35 to 7.2   | -35 to 7.2   | -35 to 10    | -35 to 7.2       | -35 to 7.2       | -35 to 7.2       | -35 to 7.2       | -40 to -10       | -20 to 7.2       |
| Voltage range/frequency V/Hz    | 187-254 / 50 | 187-254 / 50 | 187-254 / 50 | 187-254 / 50 | 187-254 / 50 | 187-254 / 50 | 187-242 / 50     | 187-253 / 60     | 187-242 / 50     | 187-253 / 60     | 187-242 / 60     |                  |
|                                 | 195-253 / 60 | 198-253 / 60 | 198-253 / 60 | 198-253 / 60 | 198-253 / 60 | 195-253 / 60 | 187-253 / 60     |                  | 187-253 / 60     |                  |                  |                  |
| Applicable motor configurations | CSIR, RSCR   | CSIR, RSCR   | CSIR, RSCR   | CSIR, RSCR   | CSIR, RSCR   | CSIR, RSCR   | CSIR, RSIR, RSCR | CSIR, RSIR, RSCR | CSIR, RSIR, RSCR | CSIR, RSIR, RSCR | CSIR, RSIR, RSCR | CSIR, RSIR, RSCR |

| Performance Data (ASHRAE LBP   ASHRAE MBP · 230V/60Hz · fan cooling) |                                                                                                                                                                                                |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |
|----------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|
| Evaporating temperature °C                                           | -23.3                                                                                                                                                                                          | -6.7 | -23.3 | -6.7 | -23.3 | -6.7 | -23.3 | -6.7 | -23.3 | -6.7 | -23.3 | -6.7 | -23.3 | -6.7 | -23.3 | -6.7 | -23.3 | -6.7 | -23.3 | -6.7 | -23.3 | -6.7 |
| Cooling capacity W                                                   | 236                                                                                                                                                                                            | 425  | 285   | 519  | 332   | 604  | 408   | 702  | 485   | 834  | 236   | 425  | 441   | 808  | 511   | 914  | 607   | 1077 | 670   | -    | -     | 1176 |
| Power consumption W                                                  | 145                                                                                                                                                                                            | 196  | 181   | 248  | 210   | 296  | 262   | 352  | 298   | 403  | 145   | 196  | 291   | 397  | 328   | 447  | 372   | 513  | 405   | -    | -     | 583  |
| COP W/W                                                              | 1.63                                                                                                                                                                                           | 2.18 | 1.58  | 2.09 | 1.58  | 2.07 | 1.56  | 2.00 | 1.63  | 2.07 | 1.63  | 2.18 | 1.52  | 2.04 | 1.56  | 2.05 | 1.63  | 2.10 | 1.65  | -    | -     | 2.02 |
| Test conditions (without run capacitor)                              | Condensing temperature: LBP: 54.4°C, MBP: 54.4°C   Suction gas temperature: LBP: 32.2°C, MBP: 35°C   Ambient temperature: LBP: 32.2°C, MBP: 35°C   Liquid temperature: LBP 32.2°C, MBP: 46.1°C |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |

| Performance Data (EN 12900 LBP   EN 12900 MBP · 230V/60Hz · fan cooling) |                                                                                                                                                                                        |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |     |     |      |
|--------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|------|
| Evaporating temperature °C                                               | -35                                                                                                                                                                                    | -10  | -35  | -10  | -35  | -10  | -35  | -10  | -35  | -10  | -35  | -10  | -35  | -10  | -35  | -10  | -35  | -10  | -35  | -10 | -35 | -10  |
| Cooling capacity W                                                       | 130                                                                                                                                                                                    | 372  | 161  | 463  | 189  | 538  | 217  | 615  | 270  | 733  | 130  | 372  | 244  | 718  | 299  | 807  | 347  | 947  | 383  | -   | -   | 1038 |
| Power consumption W                                                      | 102                                                                                                                                                                                    | 168  | 135  | 222  | 156  | 261  | 179  | 306  | 215  | 350  | 102  | 168  | 203  | 341  | 245  | 393  | 269  | 448  | 291  | -   | -   | 512  |
| COP W/W                                                                  | 1.27                                                                                                                                                                                   | 2.22 | 1.19 | 2.09 | 1.21 | 2.06 | 1.21 | 2.00 | 1.26 | 2.10 | 1.27 | 2.22 | 1.20 | 2.10 | 1.22 | 2.05 | 1.29 | 2.12 | 1.32 | -   | -   | 2.03 |
| Test conditions (without run capacitor)                                  | Condensing temperature: LBP: 40°C, MBP: 45°C   Suction gas temperature: LBP: 20°C, MBP: 20°C   Ambient temperature: LBP: 32.2°C, MBP: 32.2°C   Liquid temperature: LBP 40°C, MBP: 45°C |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |     |     |      |

| Dimensions                                                   |       |                      |       |                      |       |                      |  |
|--------------------------------------------------------------|-------|----------------------|-------|----------------------|-------|----------------------|--|
| Height mm                                                    | A     | 182                  |       | 174                  |       | 203                  |  |
|                                                              | B     | 175                  |       | 167                  |       | 197                  |  |
| Suction connector location/I.D. mm   angle material   seal   | C     | 8.2   30°            |       | 8.2   30°            |       | 8.2   15°            |  |
|                                                              |       | Copper   Rubber plug |       | Copper   Rubber plug |       | Copper   Rubber plug |  |
| Process connector location/I.D. mm   angle material   seal   | D     | 6.2   35°            |       | 6.2   35°            |       | 6.5   25°            |  |
|                                                              |       | Copper   Rubber plug |       | Copper   Rubber plug |       | Copper   Rubber plug |  |
| Discharge connector location/I.D. mm   angle material   seal | E     | 6.2   40°            |       | 6.2   40°            |       | 6.5   21°            |  |
|                                                              |       | Copper   Rubber plug |       | Copper   Rubber plug |       | Copper   Rubber plug |  |
| Connector tolerance I.D. mm                                  | ±0.09 |                      | ±0.09 |                      | ±0.09 |                      |  |

| General     | SCE15CNLX | SCE15CNLX | SCE15MNX | SCE15MNX | SCE18CNLX | SCE18CNLX | SCE18MNX | SCE18MNX | SCE21CNLX | SCE21CNLX | SCE21MNX | SCE23LNIX | SCE23MNX | SCE25LNIX | SCE25MNX |
|-------------|-----------|-----------|----------|----------|-----------|-----------|----------|----------|-----------|-----------|----------|-----------|----------|-----------|----------|
| Code number | 104H8577  | 104H8588  | 104H8579 | 104H8589 | 104H8878  | 104H8888  | 104H8879 | 104H8889 | 104H8173  | 104H8174  | 104H8151 | 104H8350  | 104H8340 | 104H8440  | 104H8450 |
| Approvals   | CB, UL    | CB, UL    | CB, UL   | CB, UL   | CB, UL    | CB, UL    | CB, UL   | CB, UL   | CB, UL    | CB, UL    | UL       | UL        | UL       | UL        | UL       |

| Application                     |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |
|---------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Application                     | LBP          | LBP          | MBP          | MBP          | LBP          | LBP          | MBP          | MBP          | LBP          | LBP          | MBP          | LBP          | MBP          | LBP          | MBP          |
| Evaporating temperature °C      | -40 to -5    | -40 to -5    | -23.3 to 7.2 | -23.3 to 7.2 | -40 to -5    | -40 to -5    | -23.3 to 7.2 | -23.3 to 7.2 | -40 to -5    | -40 to -5    | -25 to 10    | -40 to -5    | -25 to 10    | 40 to -5     | -25 to 10    |
| Voltage range/frequency V/Hz    | 187-253 / 60 | 187-253 / 60 | 187-253 / 60 | 187-253 / 60 | 187-253 / 60 | 187-253 / 60 | 187-253 / 60 | 187-253 / 60 | 187-253 / 60 | 187-253 / 60 | 198-254 / 60 | 195-254 / 60 | 195-254 / 60 | 195-254 / 60 | 195-254 / 60 |
| Applicable motor configurations | CSCR         | CSIR         | CSCR         | CSIR         | CSCR         | CSIR         | CSCR         | CSIR         | CSCR         | CSIR         | CSCR         | CSIR         | CSCR         | CSIR         | CSCR         |

| Performance Data (ASHRAE LBP   ASHRAE MBP · 230V/60Hz · fan cooling) |                                                                                                                                                                                                |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |
|----------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|
| Evaporating temperature °C                                           | -23.3                                                                                                                                                                                          | -6.7 | -23.3 | -6.7 | -23.3 | -6.7 | -23.3 | -6.7 | -23.3 | -6.7 | -23.3 | -6.7 | -23.3 | -6.7 | -23.3 | -6.7 | -23.3 | -6.7 | -23.3 | -6.7 | -23.3 | -6.7 | -23.3 | -6.7 | -23.3 | -6.7 |
| Cooling capacity W                                                   | 769                                                                                                                                                                                            | -    | 766   | -    | -     | 1552 | -     | 1534 | 910   | -    | 896   | -    | -     | 1802 | -     | 1795 | 1102  | -    | 1088  | -    | -     | 2069 | 1226  | -    | -     | 2233 |
| Power consumption W                                                  | 470                                                                                                                                                                                            | -    | 498   | -    | -     | 689  | -     | 743  | 544   | -    | 580   | -    | -     | 817  | -     | 879  | 669   | -    | 710   | -    | -     | 1005 | 783   | -    | -     | 1072 |
| COP W/W                                                              | 1.64                                                                                                                                                                                           | -    | 154   | -    | -     | 2.25 | -     | 2.07 | 1.67  | -    | 1.55  | -    | -     | 2.21 | -     | 2.04 | 1.65  | -    | 1.53  | -    | -     | 2.06 | 1.57  | -    | -     | 2.08 |
| Test conditions (without run capacitor)                              | Condensing temperature: LBP: 54.4°C, MBP: 54.4°C   Suction gas temperature: LBP: 32.2°C, MBP: 35°C   Ambient temperature: LBP: 32.2°C, MBP: 35°C   Liquid temperature: LBP 32.2°C, MBP: 46.1°C |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |

| Performance Data (EN 12900 LBP   EN 12900 MBP · 230V/60Hz · fan cooling) |                                                                                                                                                                                        |     |      |     |     |      |     |      |      |     |      |     |     |      |     |      |      |     |      |     |     |      |      |     |     |      |
|--------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------|-----|-----|------|-----|------|------|-----|------|-----|-----|------|-----|------|------|-----|------|-----|-----|------|------|-----|-----|------|
| Evaporating temperature °C                                               | -35                                                                                                                                                                                    | -10 | -35  | -10 | -35 | -10  | -35 | -10  | -35  | -10 | -35  | -10 | -35 | -10  | -35 | -10  | -35  | -10 | -35  | -10 | -35 | -10  | -35  | -10 | -35 | -10  |
| Cooling capacity W                                                       | 416                                                                                                                                                                                    | -   | 416  | -   | -   | 1376 | -   | 1361 | 495  | -   | 490  | -   | -   | 1594 | -   | 1589 | 602  | -   | 594  | -   | -   | 1991 | 710  | -   | -   | 1998 |
| Power consumption W                                                      | 342                                                                                                                                                                                    | -   | 353  | -   | -   | 621  | -   | 668  | 387  | -   | 405  | -   | -   | 730  | -   | 785  | 482  | -   | 509  | -   | -   | 875  | 541  | -   | -   | 930  |
| COP W/W                                                                  | 1.22                                                                                                                                                                                   | -   | 1.18 | -   | -   | 2.22 | -   | 2.04 | 1.28 | -   | 1.21 | -   | -   | 2.19 | -   | 2.03 | 1.25 | -   | 1.17 | -   | -   | 2.17 | 1.31 | -   | -   | 2.15 |
| Test conditions (without run capacitor)                                  | Condensing temperature: LBP: 40°C, MBP: 45°C   Suction gas temperature: LBP: 20°C, MBP: 20°C   Ambient temperature: LBP: 32.2°C, MBP: 32.2°C   Liquid temperature: LBP 40°C, MBP: 45°C |     |      |     |     |      |     |      |      |     |      |     |     |      |     |      |      |     |      |     |     |      |      |     |     |      |

| Dimensions                                                   |       |                      |       |                      |       |                      |  |
|--------------------------------------------------------------|-------|----------------------|-------|----------------------|-------|----------------------|--|
| Height mm                                                    | A     | 219                  |       | 219                  |       | 236                  |  |
|                                                              | B     | 213                  |       | 213                  |       | 231                  |  |
| Suction connector location/I.D. mm   angle material   seal   | C     | 9.63   37°           |       | 9.63   37°           |       | 12.9   37°           |  |
|                                                              |       | Copper   Rubber plug |       | Copper   Rubber plug |       | Copper   Rubber plug |  |
| Process connector location/I.D. mm   angle material   seal   | D     | 6.5   37°            |       | 6.5   37°            |       | 6.5   37°            |  |
|                                                              |       | Copper   Rubber plug |       | Copper   Rubber plug |       | Copper   Rubber plug |  |
| Discharge connector location/I.D. mm   angle material   seal | E     | 6.5   37°            |       | 6.5   37°            |       | 8.2   37°            |  |
|                                                              |       | Copper   Rubber plug |       | Copper   Rubber plug |       | Copper   Rubber plug |  |
| Connector tolerance I.D. mm                                  | ±0.09 |                      | ±0.09 |                      | ±0.09 |                      |  |



**Electrical Equipment: Motor Systems**

**RSIR:**  
Resistant Start, Induction Run (ePTC)

**RSCR:**  
Resistant Start, Capacitor Run (PTC/ePTC + run capacitor)

**CSIR:**  
Capacitor Start, Induction Run (relay + start capacitor)

**CSCR:**  
Capacitor Start, Capacitor Run (relay + start capacitor + run capacitor)

# ENERGY-OPTIMIZED PROPANE (R290) COMPRESSORS: 115-127 V/60 Hz

| General                                     | KLF4.0CNH | KLF4.0CNHS | KLF4.8CNH | KLF4.8CNHS | KLF5.6CNH | KLF5.6CNHS | KLF6.6CNH | KLF6.6CNHS | KLF7.7CNH | KLF7.7CNHS | KLF4.0CNH (low) |
|---------------------------------------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------------|
| Code number                                 | 106H3401  | 106H3403   | 106H3500  | 106H3503   | 106H3601  | 106H3603   | 106H3700  | 106H3703   | 106H3802  | 106H3803   | 106H3408        |
| Code number (pre-assembled start equipment) | 106H3411  | 106H3413   | 106H3510  | 106H3513   | 106H3611  | 106H3613   | 106H3710  | 106H3713   | 106H3812  | 106H3813   | -               |
| Approvals                                   | UL, CCC   | UL, CCC    | UL, CCC   | UL, CCC    | UL, CCC   | UL, CCC    | UL, CCC   | UL, CCC    | UL        | UL         | UL, CCC         |

| Application                     |             |             |             |             |             |             |             |             |             |             |             |
|---------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Application                     | LBP/MBP     | LBP/MBP     | LBP/MBP     | LBP/MBP     | LBP/MBP     | LBP/MBP     | LBP/MBP     | LBP/MBP     | LBP/MBP     | LBP/MBP     | LBP/MBP     |
| Evaporating temperature         | -40 to 45   | -40 to 45   | -40 to 45   | -40 to 45   | -40 to 45   | -40 to 45   | -40 to 45   | -40 to 45   | -40 to 45   | -40 to 45   | -40 to 45   |
| Voltage range/frequency         | 95-140 / 60 | 95-140 / 60 | 95-140 / 60 | 95-140 / 60 | 95-140 / 60 | 95-140 / 60 | 95-140 / 60 | 95-140 / 60 | 95-140 / 60 | 95-140 / 60 | 95-140 / 60 |
| Applicable motor configurations | CSIR, RSCR  | CSIR, RSCR  | CSIR, RSCR  | CSIR, RSCR  | CSIR, RSCR  | CSIR, RSCR  | CSIR, RSCR  | CSIR, RSCR  | CSIR, RSCR  | CSIR, RSCR  | CSIR, RSCR  |

| Performance Data ASHRAE LBP   MBP - 115V/60Hz - fan cooling                                                                                                                           |                     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Evaporating temperature                                                                                                                                                               | °F                  | -10  | 20   | -10  | 20   | -10  | 20   | -10  | 20   | -10  | 20   | -10  | 20   | -10  | 20   | -10  | 20   | -10  | 20   |      |      |      |      |
| Cooling capacity                                                                                                                                                                      | BTU/h               | 779  | 1429 | 751  | 1379 | 950  | 1735 | 918  | 1672 | 1157 | 2080 | 1118 | 2004 | 1355 | 2451 | 1310 | 2362 | 1626 | 2873 | 1514 | 2678 | 779  | 1429 |
| Power consumption                                                                                                                                                                     | W                   | 153  | 200  | 152  | 198  | 179  | 245  | 177  | 243  | 211  | 289  | 209  | 286  | 246  | 346  | 244  | 342  | 294  | 409  | 297  | 403  | 153  | 200  |
| EER                                                                                                                                                                                   | BTU/Wh              | 5.08 | 7.14 | 4.96 | 6.96 | 5.31 | 7.07 | 5.18 | 6.89 | 5.49 | 7.20 | 5.35 | 7.01 | 5.51 | 7.09 | 5.38 | 6.91 | 5.53 | 7.02 | 5.10 | 6.64 | 5.08 | 7.14 |
| Test conditions                                                                                                                                                                       | motor configuration | CSIR |      | CSIR |      | CSIR |      | CSIR |      | CSIR |      | CSIR |      | CSIR |      | CSIR |      | CSIR |      | CSIR |      | CSIR |      |
| Condensing temperature: LBP: 130°F, MBP: 130°F   Suction gas temperature: LBP: 90°F, MBP: 95°F   Ambient temperature: LBP: 90°F, MBP: 90°F   Liquid temperature: LBP 90°F, MBP: 115°F |                     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |

| Dimensions        |                                           |   |                                           |                                           |
|-------------------|-------------------------------------------|---|-------------------------------------------|-------------------------------------------|
| Height            | inch                                      | A | 7.17                                      | 6.85                                      |
|                   |                                           | B | 6.89                                      | 6.57                                      |
| Suction connector | location/I.D. in.   angle material   seal | C | 0.320-0.330   30°<br>Copper   Rubber plug | 0.320-0.330   30°<br>Copper   Rubber plug |
|                   |                                           | D | 0.250-0.260   35°<br>Copper   Rubber plug | 0.250-0.260   35°<br>Copper   Rubber plug |
| Process connector | location/I.D. in.   angle material   seal | D | 0.250-0.260   40°<br>Copper   Rubber plug | 0.250-0.260   40°<br>Copper   Rubber plug |
|                   |                                           | E | 0.250-0.260   40°<br>Copper   Rubber plug | 0.250-0.260   40°<br>Copper   Rubber plug |

| General                                     | NLE8.0CN | NLE8.8CN | NLE10CN  | NLE11CNL | NLE11MN  | NLE12.6CNS | SCE15CNLX | SCE15MNX | SCE18CNLX | SCE18CNLX | SCE18MNX | SCE21CNLX |
|---------------------------------------------|----------|----------|----------|----------|----------|------------|-----------|----------|-----------|-----------|----------|-----------|
| Code number                                 | 105H6093 | 105H6094 | 105H6194 | 105H5981 | 105H5980 | 105H6392   | 104H7578  | 104H7579 | 104H7878  | 104H7888  | 104H7879 | 104H7178  |
| Code number (pre-assembled start equipment) | 105H6095 | 105H6096 | 105H6195 | 105H5983 | 105H5982 | -          | -         | -        | -         | -         | -        | -         |
| Approvals                                   | UL, CCC  | UL       | UL, CCC  | UL, CCC  | UL, CCC  | UL         | UL        | UL       | UL        | UL        | UL       | UL        |

| Application                     |                    |                    |                    |              |              |              |              |              |              |              |              |              |
|---------------------------------|--------------------|--------------------|--------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Application                     | LBP/MBP            | LBP/MBP            | LBP/MBP            | LBP          | MBP          | LBP/MBP      | LBP          | MBP          | LBP          | LBP          | MBP          | LBP          |
| Evaporating temperature         | -31 to 45          | -31 to 45          | -31 to 45          | -31 to 14    | -13 to 50    | -40 to 50    | -40 to 20    | -13 to 50    | -40 to 20    | -40 to 20    | -13 to 50    | -40 to 20    |
| Voltage range/frequency         | 95-135 / 60        | 95-135 / 60        | 103-127 / 60       | 95-135 / 60  | 95-135 / 60  | 103-135 / 60 | 103-127 / 60 | 103-127 / 60 | 103-127 / 60 | 103-127 / 60 | 103-127 / 60 | 103-127 / 60 |
| Applicable motor configurations | CSIR, RSIR<br>RSCR | CSIR, RSIR<br>RSCR | CSIR, RSIR<br>RSCR | CSIR<br>RSCR | CSIR<br>RSCR | CSIR<br>RSCR | CSIR<br>CSCR | CSIR<br>CSCR | CSCR         | CSIR         | CSIR<br>CSCR | CSCR         |

| Performance Data ASHRAE LBP   MBP - 115V/60Hz - fan cooling                                                                                                                           |                     |              |      |              |      |              |      |      |    |      |      |      |    |      |    |      |      |      |      |     |      |      |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|--------------|------|--------------|------|--------------|------|------|----|------|------|------|----|------|----|------|------|------|------|-----|------|------|--|
| Evaporating temperature                                                                                                                                                               | °F                  | -10          | 20   | -10          | 20   | -10          | 20   | -10  | 20 | -10  | 20   | -10  | 20 | -10  | 20 | -10  | 20   | -10  | 20   | -10 | 20   |      |  |
| Cooling capacity                                                                                                                                                                      | BTU/h               | 1545         | 2754 | 1749         | 3122 | 2071         | 3648 | 2288 | -  | 2289 | 4113 | 750  | -  | 2778 | -  | 5236 | 3220 | -    | 3209 | -   | 6129 | 3715 |  |
| Power consumption                                                                                                                                                                     | W                   | 288          | 389  | 326          | 439  | 399          | 523  | 413  | -  | 437  | 589  | 468  | -  | 508  | -  | 750  | 579  | -    | 615  | -   | 845  | 679  |  |
| EER                                                                                                                                                                                   | BTU/Wh              | 5.36         | 7.07 | 5.38         | 7.10 | 5.19         | 6.98 | 5.53 | -  | 5.24 | 6.96 | 1.60 | -  | 5.39 | -  | 6.99 | 5.56 | -    | 5.22 | -   | 7.25 | 5.47 |  |
| Test conditions                                                                                                                                                                       | motor configuration | CSIR or RSIR |      | CSIR or RSIR |      | CSIR or RSIR |      | CSIR |    | CSIR |      | CSIR |    | CSIR |    | CSCR |      | CSIR |      | -   |      | CSCR |  |
| Condensing temperature: LBP: 130°F, MBP: 130°F   Suction gas temperature: LBP: 90°F, MBP: 95°F   Ambient temperature: LBP: 90°F, MBP: 90°F   Liquid temperature: LBP 90°F, MBP: 115°F |                     |              |      |              |      |              |      |      |    |      |      |      |    |      |    |      |      |      |      |     |      |      |  |

| Dimensions        |                                           |   |                                           |                                           |
|-------------------|-------------------------------------------|---|-------------------------------------------|-------------------------------------------|
| Height            | inch                                      | A | 7.99                                      | 8.60                                      |
|                   |                                           | B | 7.76                                      | 8.40                                      |
| Suction connector | location/I.D. in.   angle material   seal | C | 0.320-0.327   15°<br>Copper   Rubber plug | 0.378-0.385   37°<br>Copper   Rubber plug |
|                   |                                           | D | 0.252-0.259   25°<br>Copper   Rubber plug | 0.252-0.259   37°<br>Copper   Rubber plug |
| Process connector | location/I.D. in.   angle material   seal | D | 0.252-0.259   21°<br>Copper   Rubber plug | 0.252-0.259   37°<br>Copper   Rubber plug |
|                   |                                           | E | 0.252-0.259   21°<br>Copper   Rubber plug | 0.252-0.259   37°<br>Copper   Rubber plug |



### Electrical Equipment: Motor Systems

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**CSIR:**  
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Capacitor Start, Capacitor Run (relay + start capacitor + run capacitor)

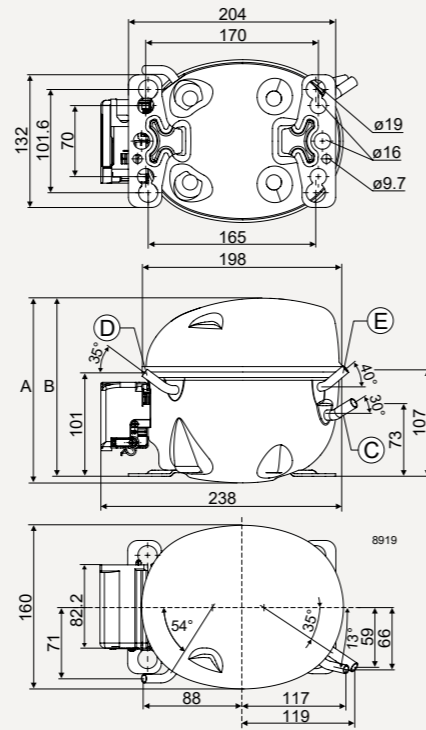
# SECOP SUSTAINABLE COOLING SOLUTIONS



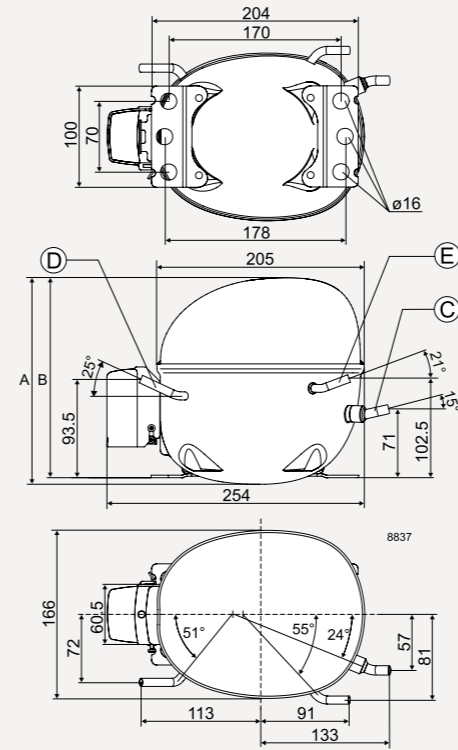
Sustainability



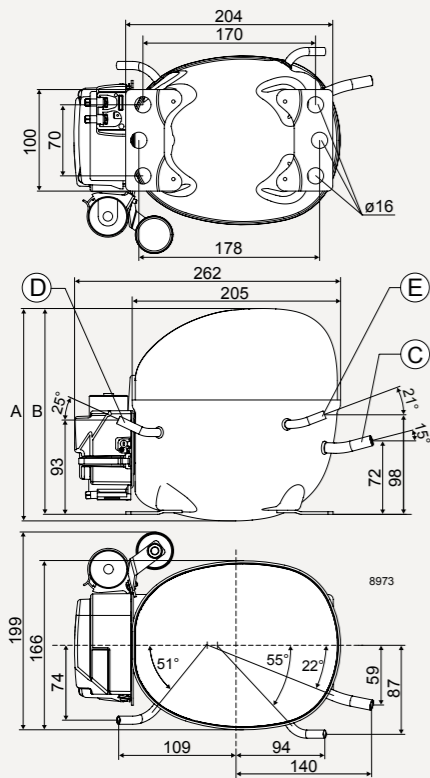
High Efficiency



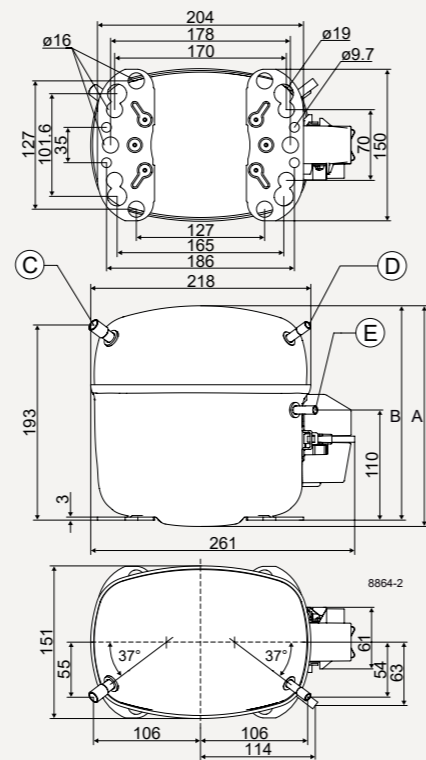
**KLF: 200/220-240 V/50 Hz · 208-230 V/60 Hz · 115-127 V/60 Hz**



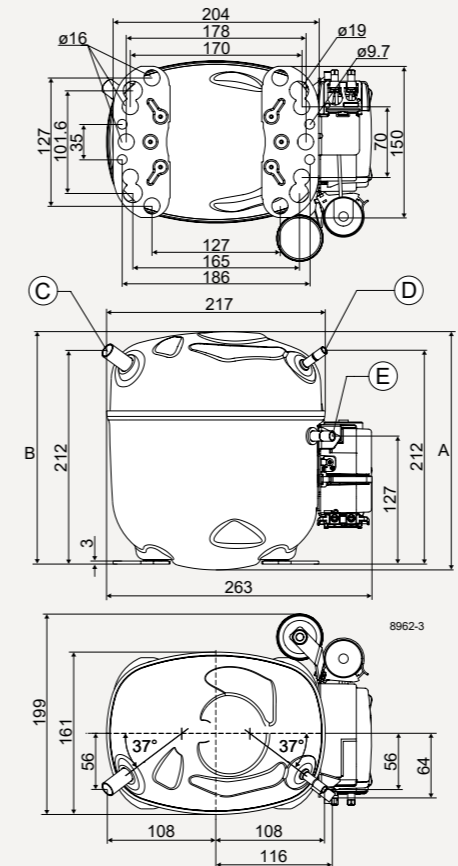
**NLE: 220-240 V/50 Hz · 208-230 V/60 Hz · 115-127 V/60 Hz**



**NLE Plus: 220-240 V/50 Hz**



**SCE: 220-240 V/50 Hz · 208-230 V/60 Hz · 115-127 V/60 Hz**



**SCE Plus: 220-240 V/50 Hz · 208-230 V/60 Hz**



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- Turin:** Sales
- Tianjin:** Sales, R&D, Logistics, and Manufacturing
- Atlanta:** Sales and Logistics



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