

Screw Compressors



40 ~ 180 HP

FEATURES

1 DURABILITY AND RELIABILITY

- Few moving
- Low bearing load
- Low wear
- No oil pump

2 COMPACT DESIGN

3 HIGH EFFICIENCY

- Engineering plastic gate rotors for tight seals

4 LOW VIBRATION AND NOISE

- Balanced compression

ACCESSORIES

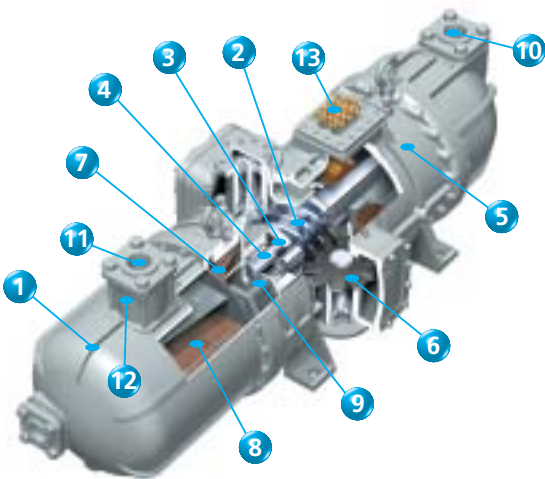
STANDARD ACCESSORIES

- Discharge check valve
- Suction blind flange
- Discharge blind flange
- Motor protector
- Oil (initial charge)

OPTIONAL ACCESSORIES

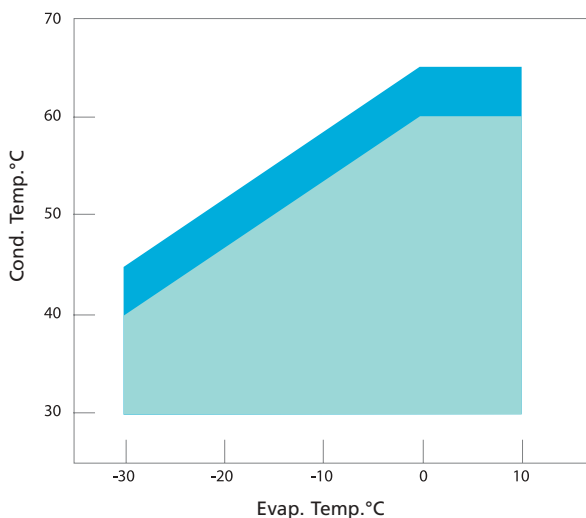
- Solenoid valve for capacity control
- Discharge thermistor
- Crankcase heater
- 4-way valve for heat pump chiller
- Suction flange
- Discharge flange

STRUCTURE



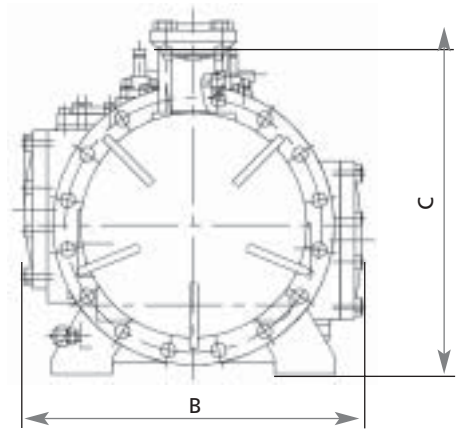
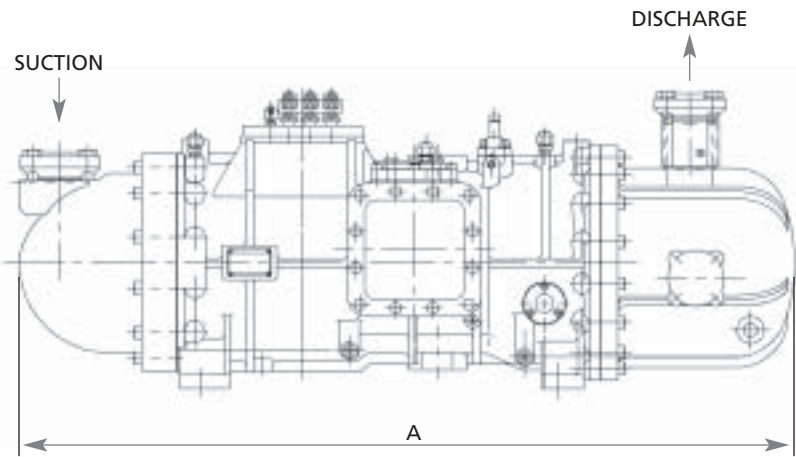
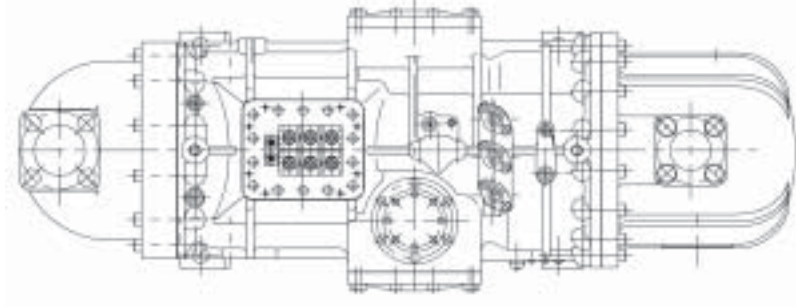
- 1 Casing
- 2 Screw rotor
- 3 Slide valve
- 4 Bearing
- 5 Motor
- 6 Gate rotor
- 7 Demister (oil separator)
- 8 2nd stage oil separator
- 9 Oil return filter
- 10 Refrigerant suction
- 11 Refrigerant discharge
- 12 Non-return valve
- 13 Compressor terminal + CTP

OPERATION RANGE



- R-407C (mean point temperature)
- R-22 (dew point temperature)
- R-134a (dew point temperature)

DIMENSIONAL DRAWING



| PERFORMANCE DATA * | | | | | DIMENSIONS | | | | | |
|--------------------|---------------|------------------|-------|-------------|-----------------|-------|-----|------------------|-----------|------|
| Model | Capacity (kW) | Power input (kW) | EER | Current (A) | Dimensions (mm) | | | Connections (mm) | | |
| | | | | | A | B | C | Suction | Discharge | |
| R-407C | ZHC3UTG(U)YE | 96.7 | 371 | 2.63 | 64.9 | 1,139 | 416 | 437 | 50.8 | 44.5 |
| | ZHC3WLG(U)YE | 122.1 | 44.7 | 2.73 | 78.4 | 1,191 | 416 | 437 | 50.8 | 44.5 |
| | ZHC5LMG(U)YE | 151.0 | 54.1 | 2.79 | 88.8 | 1,277 | 480 | 490 | 63.5 | 50.8 |
| | ZHC5WLG(U)YE | 187.4 | 67.9 | 2.76 | 112.5 | 1,360 | 480 | 490 | 63.5 | 50.8 |
| | ZHC7LSG(U)YE | 252.0 | 88.9 | 2.83 | 149.6 | 1,499 | 548 | 566 | 76.2 | 63.5 |
| | ZHC7WSG(U)YE | 335.7 | 113.5 | 2.96 | 186.9 | 1,580 | 548 | 566 | 76.2 | 63.5 |
| | ZHC9LSG(U)YE | 360.5 | 131.6 | 2.74 | 215.1 | 1,752 | 596 | 624 | 114.3 | 76.2 |
| | ZHC9WSG(U)YE | 450.5 | 163.9 | 2.75 | 269.4 | 1,752 | 596 | 624 | 114.3 | 76.2 |
| R-22 | ZH3UTG(U)YE | 97.6 | 36.0 | 2.71 | 63.4 | 1,139 | 416 | 437 | 50.8 | 44.5 |
| | ZH3WLG(U)YE | 122.4 | 38.0 | 3.22 | 69.3 | 1,191 | 416 | 437 | 50.8 | 44.5 |
| | ZH5LMG(U)YE | 152.0 | 52.1 | 2.92 | 85.8 | 1,277 | 480 | 490 | 63.5 | 50.8 |
| | ZH5WLG(U)YE | 189.8 | 66.7 | 2.85 | 110.9 | 1,360 | 480 | 490 | 63.5 | 50.8 |
| | ZH7LSG(U)YE | 255.6 | 87.5 | 2.92 | 147.5 | 1,499 | 548 | 566 | 76.2 | 63.5 |
| | ZH7WSG(U)YE | 333.1 | 110.7 | 3.01 | 182.6 | 1,580 | 548 | 566 | 76.2 | 63.5 |
| | ZH9LSG(U)YE | 362.3 | 128.5 | 2.82 | 210.5 | 1,752 | 596 | 624 | 114.3 | 76.2 |
| | ZH9WSG(U)YE | 451.8 | 160.2 | 2.82 | 263.8 | 1,752 | 596 | 624 | 114.3 | 76.2 |
| R-134a | ZHA5LMG(U)YE | 101.2 | 34.8 | 2.91 | 58.2 | 1,247 | 480 | 490 | 63.5 | 50.8 |
| | ZHA5WLG(U)YE | 124.8 | 43.7 | 2.86 | 72.0 | 1,313 | 480 | 490 | 63.5 | 50.8 |
| | ZHA7MSG(U)YE | 154.1 | 54.5 | 2.83 | 92.0 | 1,399 | 548 | 566 | 76.2 | 63.5 |
| | ZHA7WSG(U)YE | 224.8 | 74.8 | 3.01 | 125.9 | 1,530 | 548 | 566 | 76.2 | 63.5 |
| | ZHA9LSG(U)YE | 240.2 | 83.9 | 2.86 | 142.1 | 1,683 | 596 | 624 | 114.3 | 76.2 |
| | ZHA9WSG(U)YE | 295.6 | 103.8 | 2.85 | 172.3 | 1,708 | 596 | 624 | 114.3 | 76.2 |

*Selection criteria: Condensing temperature: 50°C • Evaporating temperature: 0°C • Suction gas superheat: 8K • Liquid subcooling: 5K • Capacity regulation: 100%

TECHNICAL SPECIFICATIONS - R-407C/R-22

| MODEL (1) | R-407C | ZHC3LTG(U)YE | ZHC3WLG(U)YE | ZHC5LMG(U)YE | ZHC5WLG(U)YE | ZHC7LSG(U)YE | ZHC7WSG(U)YE | ZHC9LSG(U)YE | ZHC9WSG(U)YE |
|--|--------------------|--------------------------------------|--------------|--------------|--------------|--------------|--------------|-------------------------------------|--------------|
| | R-22 | ZH3LTG(U)YE | ZH3WLG(U)YE | ZH5LMG(U)YE | ZH5WLG(U)YE | ZH7LSG(U)YE | ZH7WSG(U)YE | ZH9LSG(U)YE | ZH9WSG(U)YE |
| Screw diameter | mm | 132 | | 147 | | 175 | | 196 | |
| Gate rotor diameter | mm | 135 | | 154 | | 183 | | 203 | |
| Displacement (50Hz) | m ³ /h | 123.20 | 158.72 | 189.06 | 239.87 | 302.96 | 365.92 | 420.53 | 536.75 |
| Step capacity control | % | 100,70,40,12 (starting position) | | | | | | 100,70,40,25,12 (starting position) | |
| Stepless capacity control | % | infinite 15 --> 100% | | | | | | | |
| Refrigerant oil | | FVC68D (R-407C) / SUNISO 4GSD (R-22) | | | | | | | |
| Oil charged | l | 55 | | 75 | | 10 | | 14 | |
| Motor type | | 2 pole, 3 phase, induction motor | | | | | | | |
| Motor revolution (50Hz) | rpm | 2,880 | | | | | | | |
| Rated output | kW (HP) | 30 (40) | 37 (50) | 45 (60) | 60 (80) | 75 (100) | 90 (120) | 110 (150) | 135 (180) |
| Power supply (2) | V | 380 ~ 415 / 50Hz | | | | | | | |
| Net weight (3) | kg | 355 | 365 | 445 | 460 | 570 | 595 | 760 | 790 |
| Airtight test pressure (Design pressure) | kg/cm ² | 2.98 (R-407C) / 2.8 (R-22) | | | | | | | |
| Hydrostatic test pressure | kg/cm ² | 4.47 (R-407C) / 4.2 (R-22) | | | | | | | |

TECHNICAL SPECIFICATIONS - R-134a

| MODEL (1) | R-134a | ZHA5LMG(U)YE | ZHA5WLG(U)YE | ZHA7MSG(U)YE | ZHA7WSG(U)YE | ZHA9LSG(U)YE | ZHA9WSG(U)YE |
|--|--------------------|----------------------------------|--------------|--------------|--------------|-------------------------------------|--------------|
| Screw diameter | mm | 147 | | 175 | | 196 | |
| Gate rotor diameter | mm | 154 | 154 | 175 | 183 | 203 | 203 |
| Displacement (50Hz) | m ³ /h | 189.06 | 239.87 | 270.42 | 365.92 | 420.53 | 536.75 |
| Step capacity control | % | 100,70,40,12 (starting position) | | | | 100,70,40,25,12 (starting position) | |
| Stepless capacity control | % | infinite 15 --> 100% | | | | | |
| Refrigerant oil | | FVC68D | | | | | |
| Oil charged | l | 75 | | 10 | | 14 | |
| Motor type | | 2 pole, 3 phase, induction motor | | | | | |
| Motor revolution (50Hz) | rpm | 2,880 | | | | | |
| Rated output | kW (HP) | 30 (40) | 37 (50) | 45 (60) | 60 (80) | 75 (100) | 90 (120) |
| Power supply (2) | V | 380 ~ 415 / 50Hz | | | | | |
| Net weight (3) | kg | 425 | 440 | 515 | 540 | 690 | 730 |
| Airtight test pressure (Design pressure) | kg/cm ² | 2.0 | | | | | |
| Hydrostatic test pressure | kg/cm ² | 3.0 | | | | | |

- Notes:**
1. U = stepless capacity control
 2. For other power supply, please contact Daikin
 3. Net weight includes charged oil
 4. The standard colour is ivory white (Munsell code 5Y7.5/1)



Single screw compressor with 4-way valve for heat pump application

Daikin products are distributed by:



Daikin Europe N.V. is approved by LRQA for its Quality Management System in accordance with the ISO9001 standard. ISO9001 pertains to quality assurance regarding design, development, manufacturing as well as to services related to the product.



ISO14001 assures an effective environmental management system in order to help protect human health and the environment from the potential impact of our activities, products and services and to assist in maintaining and improving the quality of the environment.



Daikin units comply with the European regulations that guarantee the safety of the product. Daikin compressors are conform PED regulations.



Daikin Europe N.V. is participating in the EUROVENT Certification Programme. Products are as listed in the EUROVENT Directory of Certified Products.

Specifications are subject to change without prior notice.

DAIKIN EUROPE N.V.

Zandvoordestraat 300
B-8400 Oostende, Belgium
Internet: <http://www.daikineurope.com>
e-mail: compressor@daikineurope.com