



**SIAM COMPRESSOR
INDUSTRY CO., LTD.**

 **GREENER**
SOLUTION PROVIDER



Air Conditioning

R32 Big-Sized Inverter Scroll Compressor

AVK

SCI has designed the AVK119 compressor with the following notable features:



1. Suitable for VRF systems of 24-26 HP and Chiller Heat Pump systems of 25 HP (65-75 kW).
2. Has a high cooling capacity, capable of replacing multiple compressors and connecting with other units for higher cooling capacity.
3. Enhances performance and heating capability in low ambient temperatures by Injection technology.
4. Features Oval Scroll technology to increase cooling capacity without changing the unit size, resulting in a compact design and reduced resource usage.
5. Supports R32, an environmentally friendly refrigerant with GWP less than 700 and zero ODP.

SCI Oil Level Sensor

SCI compressor comes with an SCI oil level sensor that can be used with the SCI oil supervisory unit (SOS) to improve oil level control within the compressor. This reduces oil management issues in the system, contributing to longer system lifespan and durability.



OIL SENSOR

OIL MANAGEMENT SOLUTION

OIL SENSOR + SOS



3. UNIT'S CONTROLLER

SOS

2.

SOS UNIT

1.

OIL SENSOR





SVB



R32 Inverter Twin Rotary Compressor

1. High efficiency motor by Joint lapped DC motor technology
2. Low noise and low vibration by twin mechanism
3. Patented Scrum m plate technology: enlarge stroke volume and increase efficiency
4. Environmentally friendly refrigerant (R32) : low GWP and ODP

R32 Inverter Rotary Compressor

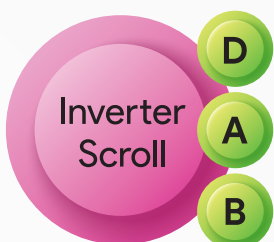
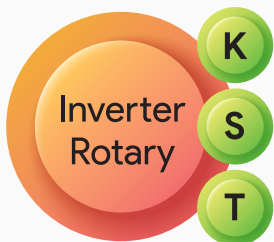


1. High efficiency motor by Joint lapped DC motor technology
2. Smaller size and light weight
3. Environmentally friendly refrigerant (R32) : Low GWP and ODP

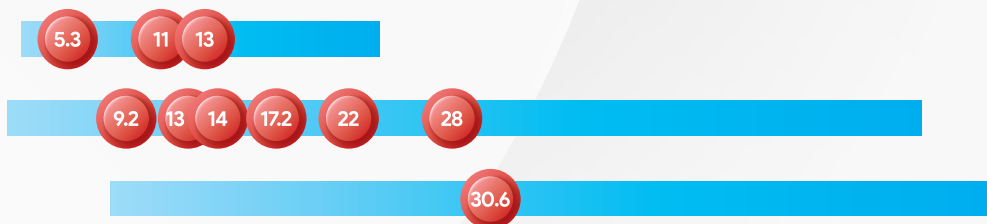
KVB



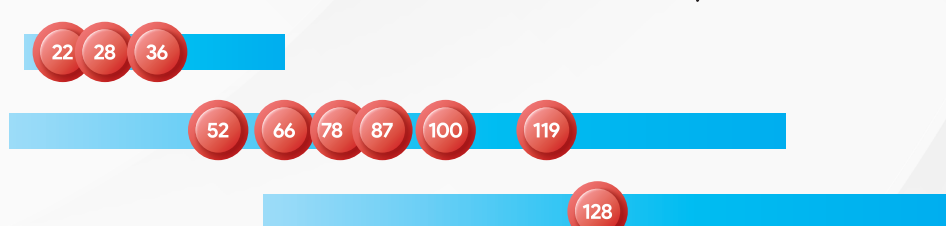
R32 Inverter Compressor Line-up



0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 kW



0 4 8 12 16 20 24 28 32 36 40 44 48 80 84 88 92 96 kW



60 rps at ARI Condition

Displacement



ARK

R454B Inverter Scroll Compressor



1. Optimized performance in low ambient conditions
2. Enhanced reliability with oil sensor technology
3. Increased efficiency by vapor injection technology

R454B Inverter Twin Rotary Compressor

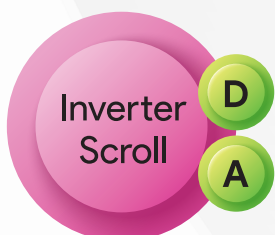
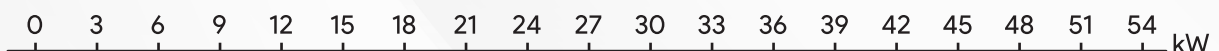
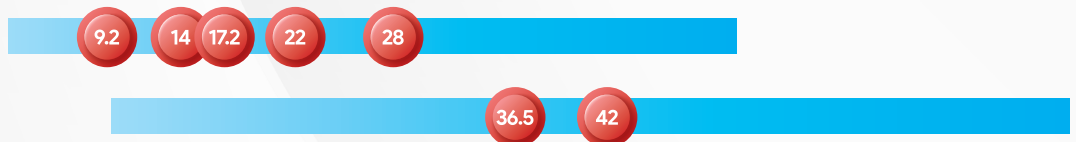
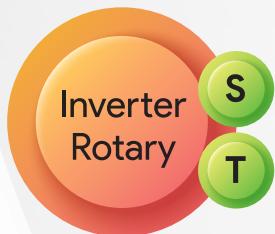
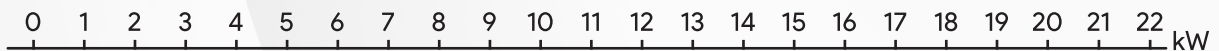


1. Compact size, suitable for residential
2. Patented scum m plate technology to increase capacity
3. High efficiency by Inverter technology
4. Environmentally friendly refrigerant (R454B): low GWP and ODP

TRB



R454B Inverter Compressor Line-up



60 rps at ARI Condition

Displacement

Heat Pump

R290 Large-Sized Inverter Scroll Compressor

APB

A large-sized **APB130** compressor with R290 refrigerant is developed utilizing cutting-edge technology to maximize efficiency in **heat pump application**. It covers up to 44 kW, delivering substantial energy savings and promoting environmental friendliness.



Key features and benefits of the APB130 Compressor



1. Energy efficiency
2. Maximized capacity in low ambient temperatures
3. Environmentally and user-friendly
4. Smooth operation
5. Superior safety

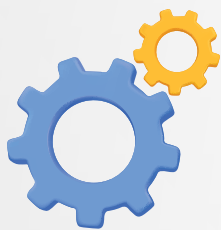


TPB

SPB



R290 Inverter Twin Rotary Compressor

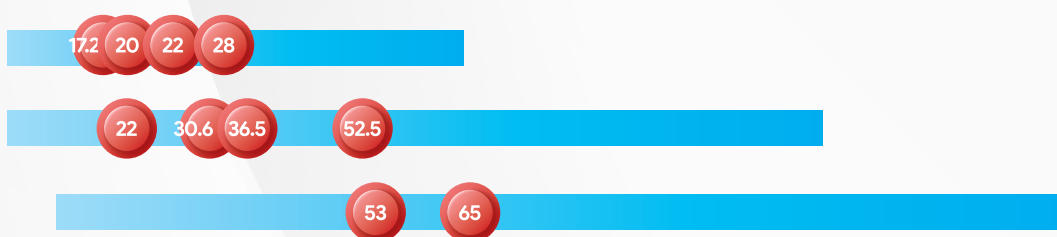


1. Compact size, suitable for residential
2. Patented scum m plate technology to increase capacity
3. Low noise and low vibration by twin mechanism
4. Environmentally friendly refrigerant (R290) : low GWP and ODP



R290 Inverter Compressor Line-up

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 kW



0 3 6 9 12 15 18 21 24 27 30 33 36 39 42 45 kW



60 rps at Heat Pump Condition: ET = -7 °C, CT = 50 °C, SH = 5K, SC = 4K

● Displacement

Refrigeration (Remote Condensing Unit)



Multi-refrigerant

**R454C / R455A / R448A
R449A / R407H / R404A**



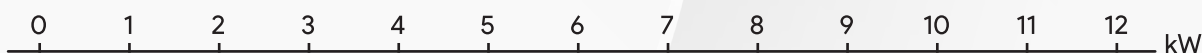
AGK



1. Energy saving by SCI BLDC Inverter
2. Low oil circulation, improve compressor reliability and unit performance
3. Smart Oil Management with Oil Sensor technology
4. Robust in all condition ET down to -45°C and CT up to 65°C

Line-up R454C / R455A / R448A / R449A / R407H / R404A

Low temperature for CDU



AGK

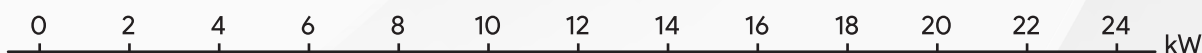
Max rps at Low Temperature Condition: ET = -35°C , CT = 40°C , SC = 5K, SH = 11.1K

● Displacement

Line-up capacity is based on R404A testing

Line-up R454C / R455A / R448A / R449A / R407H / R404A

Medium temperature for CDU



AGK

Max rps at Medium Temperature Condition: ET = -10°C , CT = 45°C , SC = 0K, SH = 30K

● Displacement

Line-up capacity is based on R404A testing

Refrigeration (Plug-in)



Multi-refrigerant

R448A / R449A / R404A

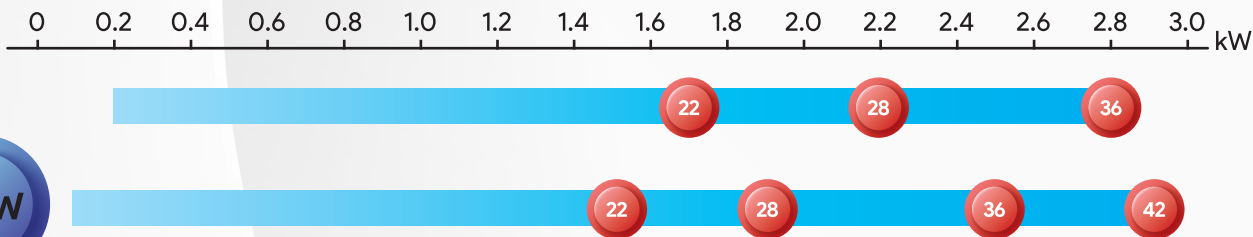
1. Less than 180 mm height, more shelf capacity, more money
2. Save more than 27% by BLDC inverter, a better seasonal performance

R290

DPW

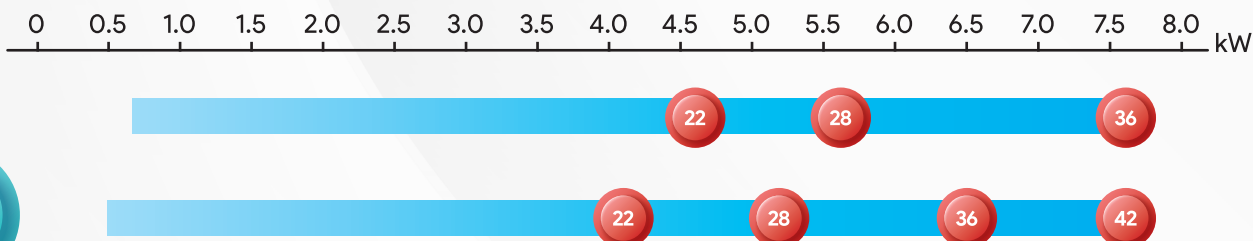
1. Class B, EEL : Save more energy
2. R290, the natural 500g regulation compliance
3. Oval scroll technology, more capacity in original body

Line-up Low Temperature for Plug-in unit



Max rps at Low Temperature Condition: ET = -35 °C, CT = 40 °C, SC = 0K, SH = 55K ● Displacement
Line-up capacity is based on R404A testing (only for DGW)

Line-up Medium Temperature for Plug-in unit



Max rps at Medium Temperature Condition: ET = -10 °C, CT = 45 °C, SC = 0K, SH = 30K ● Displacement
Line-up capacity is based on R404A testing (only for DGW)

**COMING
SOON**

Horizontal Twin
Rotary Compressor



Refrigeration (Transportation)



Multi-refrigerant

R407H / R452A / R404A

AGK



SCI refrigeration compressors are also suitable for transportation such as reefer container and truck. Not only inverter technology, dual injection port and multi-refrigerant feature but also extremely external vibration shock load strength will be provided.

Line-up R407H / R452A / R404A

Low temperature for Transportation

0 1 2 3 4 5 6 7 8 9 10 11 12 kW

AGK

66

87

100

Max rps at Low Temperature Condition: ET = -35 °C, CT = 40 °C, SC = 5K, SH = 5K

● Displacement

Line-up capacity is based on R404A testing

Line-up R407H / R452A / R404A

Medium temperature for Transportation

0 4 8 12 16 20 24 28 32 36 40 kW

AGK

66

87

100

Max rps at Medium Temperature Condition: ET = -15 °C, CT = 40 °C, SC = 5K, SH = 5K

● Displacement

Line-up capacity is based on R404A testing

SCI Integrated Solution

INVERTER DRIVER

For superior operation and full effectiveness of Inverter Compressors



SCI driver is well-developed to support large capacity up to 34kW, available in 2 heat exchanging systems; liquid cooling and air cooling.

Our driver offers longer lifetime and higher safety standard making it one of the worthiest in the market.



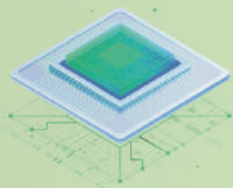
WORLDWIDE SAFETY STANDARD



HIGH RELIABILITY

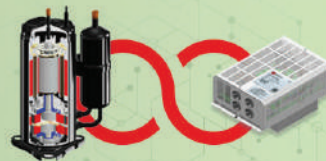


HIGH EFFICIENCY > 95%



INTELLIGENT RS485 PROTOCOL

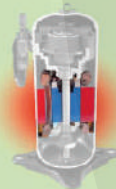
It can be programmed to match with user controller and there is no need for new software development



PERFECTLY MATCHING WITH SCI COMPRESSOR



OIL RETURN FUNCTION

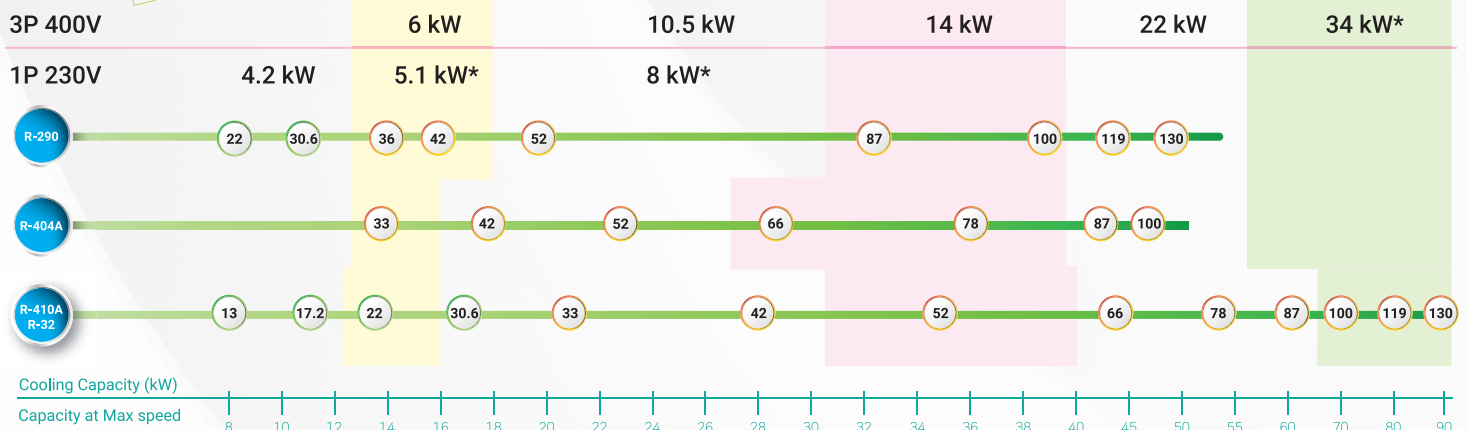


MOTOR HEATING FUNCTION



COMPRESSOR'S ENVELOP CONTROL

Inverter Driver Line-up



Testing condition : ARI
* Under development

Rotary

Scroll

Number : Displacement (cm³ / rev.)

SCI Integrated Solution

THERMOACOUSTIC SHELL



10dBA sound reduction compare with same compressor model without thermoacoustic shell

- ⚙ Easy to fit
- ⚙ Optional for sound sensitive application such as metropolitan shops and retailers in residential areas
- ⚙ Stable compressor operation and performance reliability for heating application (Heat pump)
- ⚙ Increase efficiency for heating application



OIL SEPARATOR

Features

- ⚙ Easy installation and service
- 🏆 **Superior efficiency 99%**
- ⚙ Light weight
- ⚙ No pre-charge oil
- ⚙ Use centrifugal principle
- ⚙ External oil return management

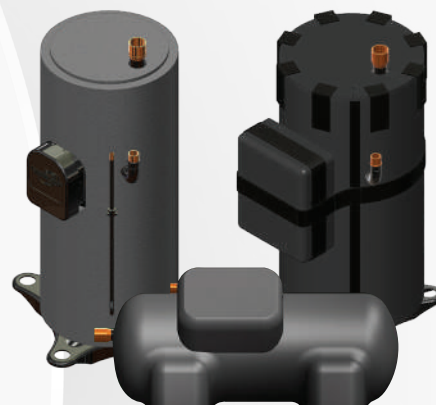
Specifications

- ⚙ Maximum working pressure 5 MPaG
- ⚙ CE marked per PED 97/83EC
- ⚙ Certified by UL certification (MUTO-A4053N)

Rotary



Scroll





GREENER

SOLUTION PROVIDER

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SCI Website



SCI Facebook