

BOCK® Condensing Units

BOCK® Condensing Units 50 Hz

With fans of the latest generation: the next level of energy efficiency.



Displacement
range up to
180 m³/h
and HP up to 50

Embracing every challenge

BOCK® Condensing Units

Global warming continues to intensify, causing already hot countries to experience even higher temperatures. In Central Europe, summer temperatures of 40°C are becoming increasingly common. This is where the advantages of BOCK condensing units become apparent. While others rely on adiabatic cooling and additional water spraying on heat exchangers, our units excel in these conditions.

The BOCK® condenser-fan unit is engineered to perform in cold climates, but it truly stands out in extremely hot and demanding regions.

Our philosophy of “one for all” has guided our design and manufacturing of air-cooled units for decades. With our condensing units, we aim to uphold this principle by surpassing the efficiency standards set in Europe, all while maintaining exceptional condensing performance.

We have successfully met our objectives by:

Adapting the heat exchangers to meet new challenges

- Ensuring no compromises in robustness and durability
- Utilizing the most efficient AC fans available on the market for heat exchanger cooling
- Leveraging these efficient AC fans to maintain an unbeatable price/performance ratio
- Relying on our two-, four-, and six-cylinder semi-hermetic BOCK® compressors

As a result, you, our customer, continue to receive **One Solution for All** your needs, whether you’re facing deep-freezing challenges in the Sahara or standard cooling requirements in the Arctic Circle.

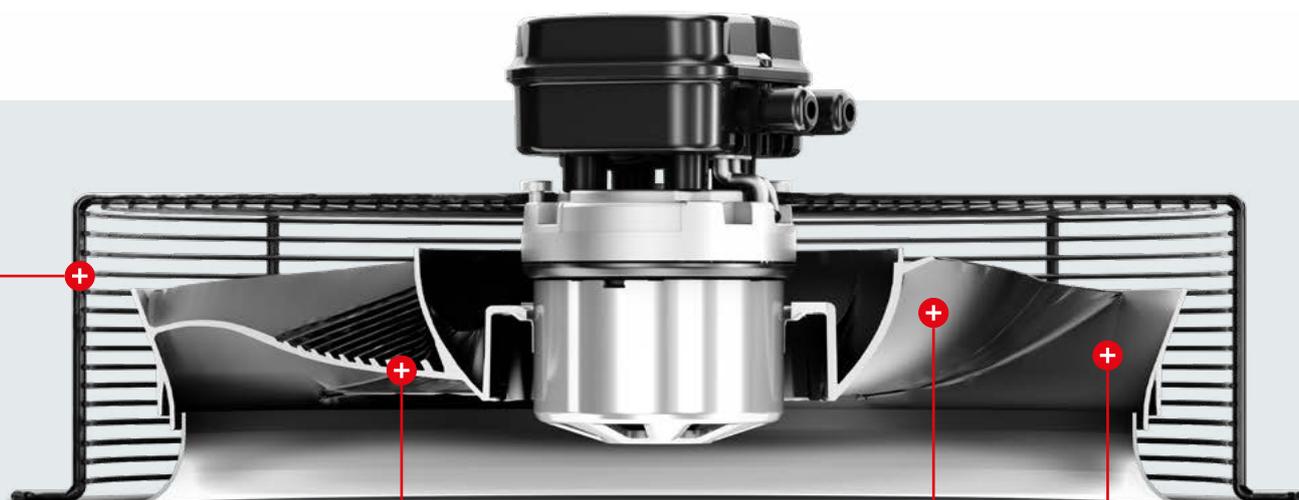
Efficient condensers +
Condenser in reliable fin-tube design
One condenser for low and high ambient temperatures

Optimized drive gear +
More resistant to lack of lubrication

Reliable and safe oil supply +

Service friendly design +
Easily to be replaced build-in motor due to slide fit (not press fit)
Easily removable oil strainer

High efficient fans



Fan blades with grooves on the rear

Increase in mechanical stability
Higher power density

Optimum flow through impeller with improved geometry

Three-dimensional improvement of the blade shape and optimization of the impeller

Optimum flow through the fan due to immersed inlet ring and larger outlet opening

Increased efficiency due to pressure-boosting diffuser

Diffuser ring integrated directly in the impeller, where it assumes the function of a diffuser

Largest possible outflow angle

Increased efficiency of the fan:

Reduction of outlet losses due to pressure-increasing effect of the diffuser

Noise reduction

SHG range:

Air-cooled single and two-stage condensing units

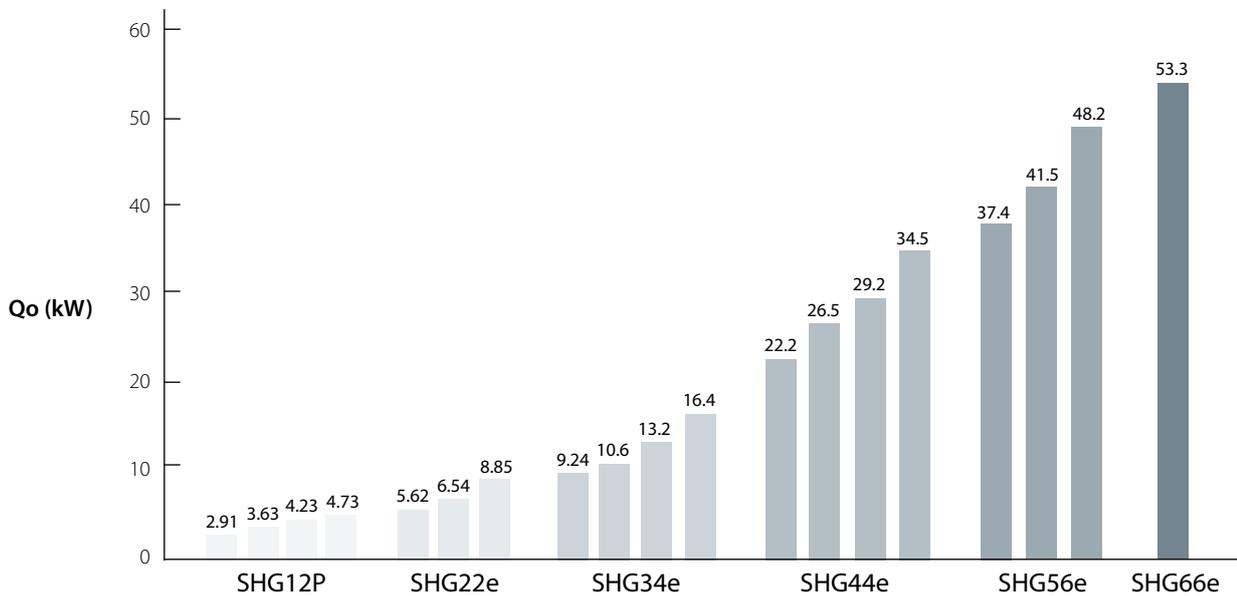


Medium temperature applications

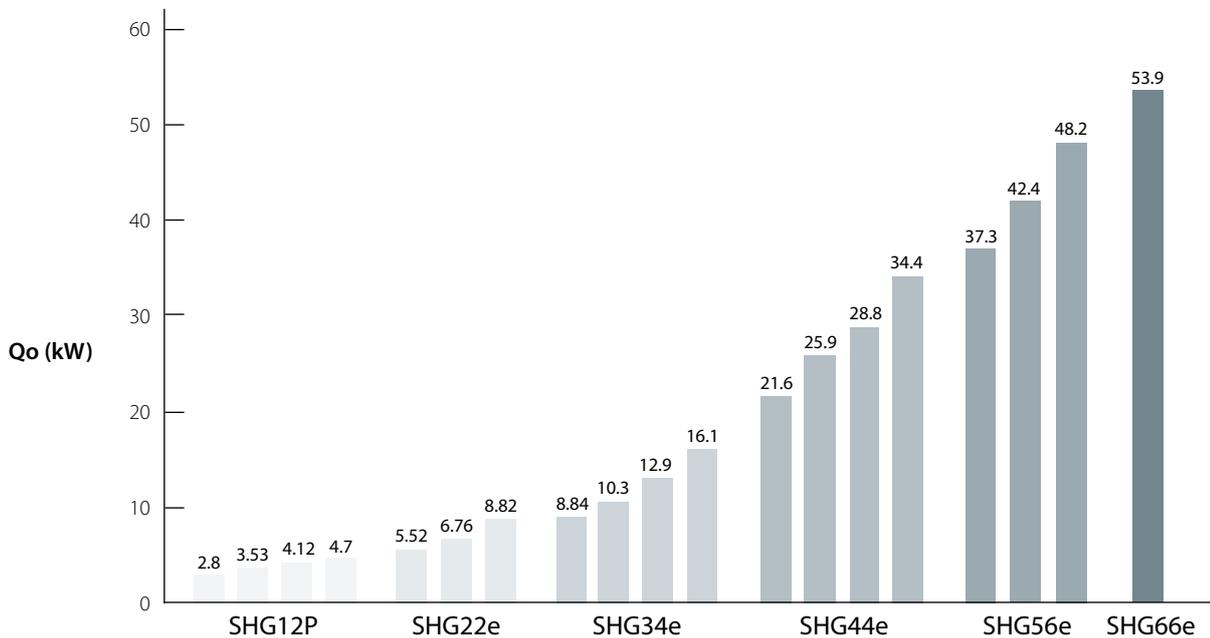
Conditions: t_o -5°C / t_{amb} +43°C / t_{oh} 10 K / 50 Hz

R404A

7 model sizes with 22 capacity stages from 5.4 to 180 m³/h (50 Hz)



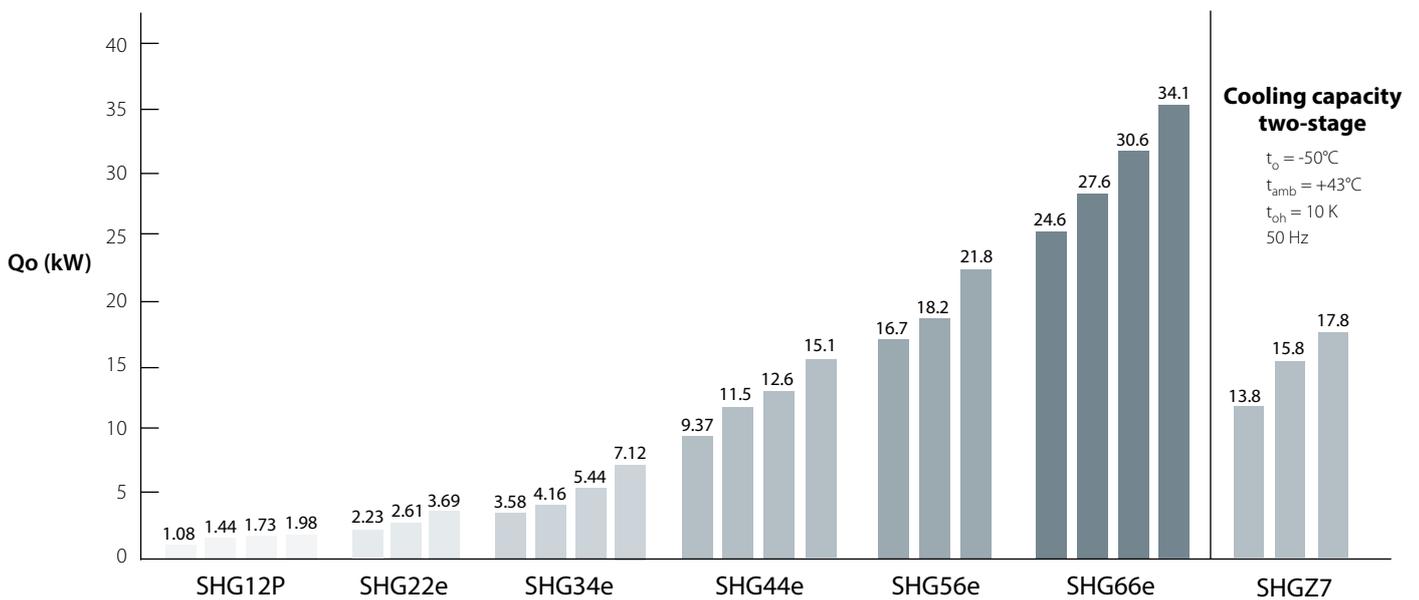
R449A



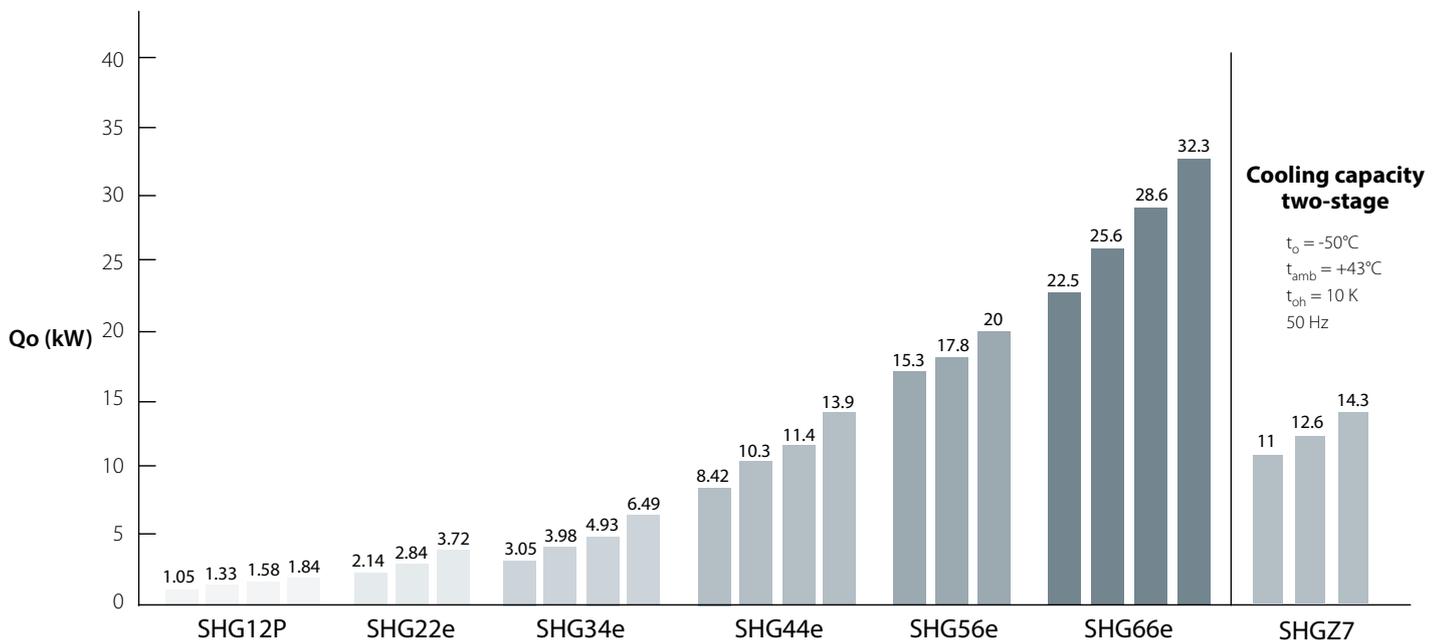
Low temperature applications

Conditions: t_o -25°C / t_{amb} +43°C / t_{oh} 10 K / 50 Hz

R404A



R449A



SHA range:

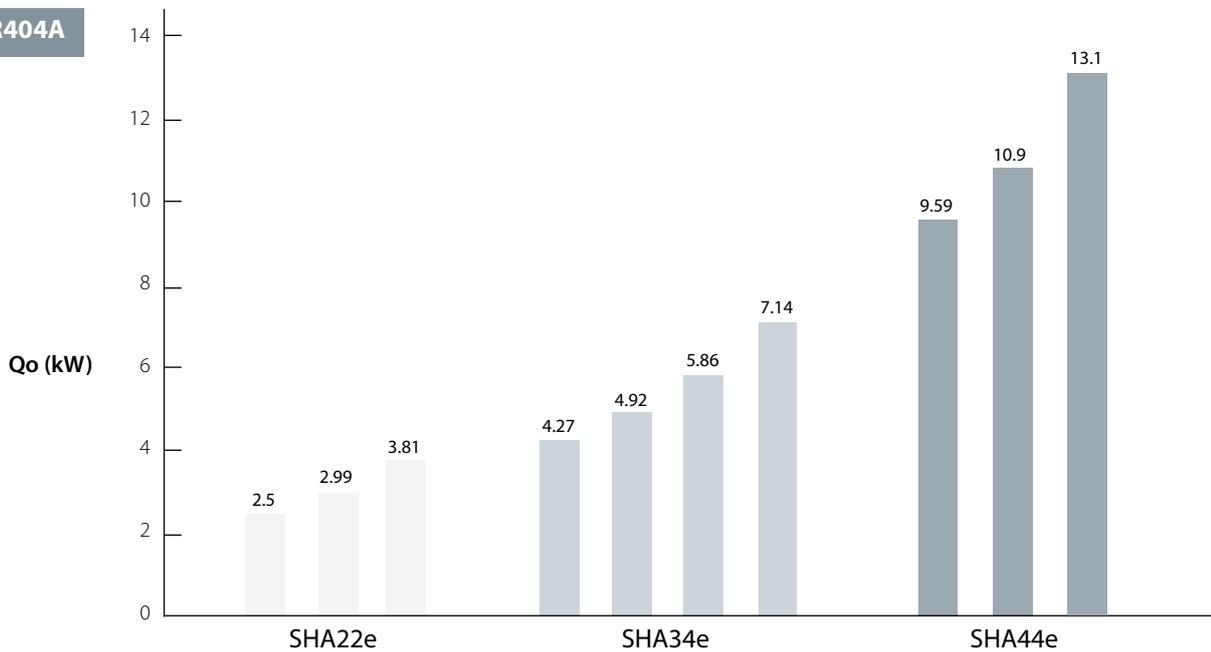
Air-cooled single-stage condensing units



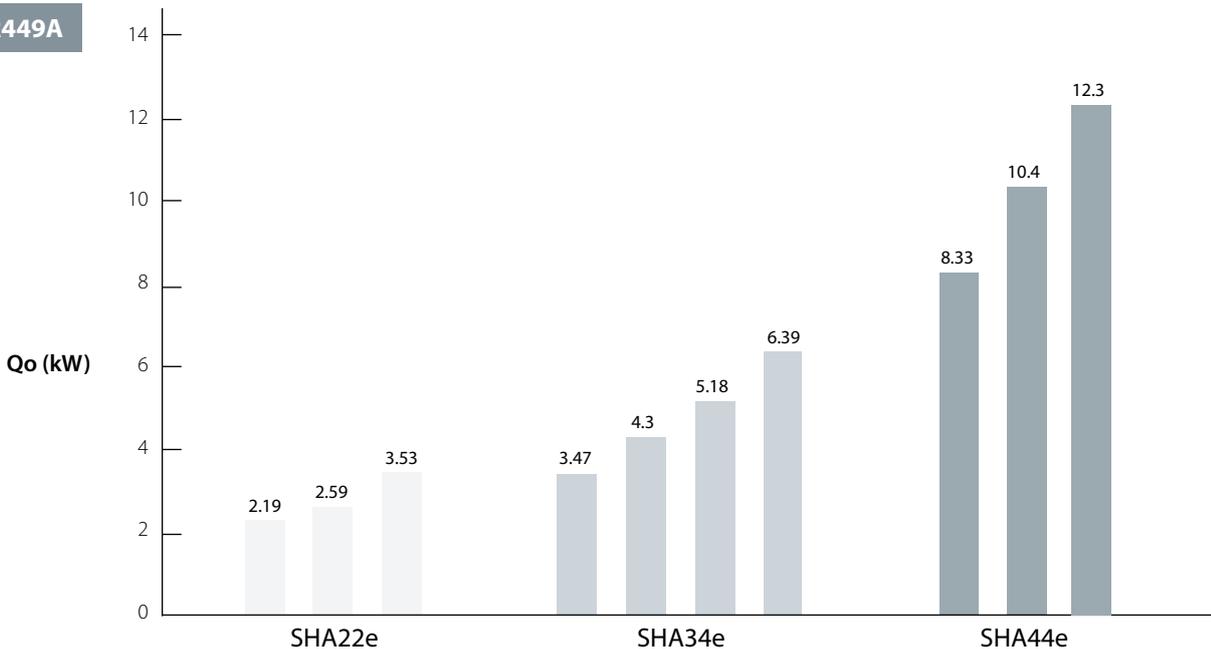
Low temperature applications

Conditions: $t_o -25^\circ\text{C} / t_{\text{amb}} +43^\circ\text{C} / t_{\text{oh}} 10 \text{ K} / 50 \text{ Hz}$

R404A



R449A



Designation

114B16194

1 2 3

BOCK® legacy part numbers =
5 digits

Accessory level

B = Bare condensing unit with oil sump heater (1st level)

C = 1st level CU equipped in additional with high-/low pressure switch (2nd level)

D = 2nd level CU equipped in additional with oil differential pressure switch or sensor (3rd level)

Y = 2nd level CU equipped in additional with oil differential sensor (3rd level)

E = 3rd level CU equipped in additional with oil separator & oil differential pressure switch (4th level)

Z = 3rd level CU equipped in additional with oil separator & oil differential sensor (4th level)

SAP code

114 = 50Hz/400V - 60Hz/460V

115 = 60Hz/230-400V



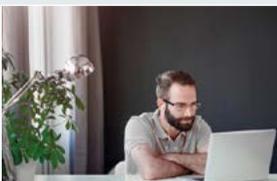
SELECT

Go to vap.bock.de, download VAP – compressor selection tool, and select the appropriate compressors or condensing units.



ORDER

Order BOCK® products at store.danfoss.com or buy the spare parts from BOCKshop via bockshop.bock.de



LEARN

Learn about the Danfoss BOCK® portfolio and get product training via learning.danfoss.com



GET PRODUCT SUPPORT

Get product support from our certified Service Partners via refcare.danfoss.com



ENGINEERING
TOMORROW



Any information, including, but not limited to information on selection of product, its application or use, product design, weight, dimensions, capacity or any other technical data in product manuals, catalogues descriptions, advertisements, etc. and whether made available in writing, orally, electronically, online or via download, shall be considered informative, and is only binding if and to the extent, explicit reference is made in a quotation or order confirmation. Danfoss cannot accept any responsibility for possible errors in catalogues, brochures, videos and other material. Danfoss reserves the right to alter its products without notice. This also applies to products ordered but not delivered provided that such alterations can be made without changes to form, fit or function of the product. All trademarks in this material are property of Danfoss A/S or Danfoss group companies. Danfoss and the Danfoss logo are trademarks of Danfoss A/S. All rights reserved.