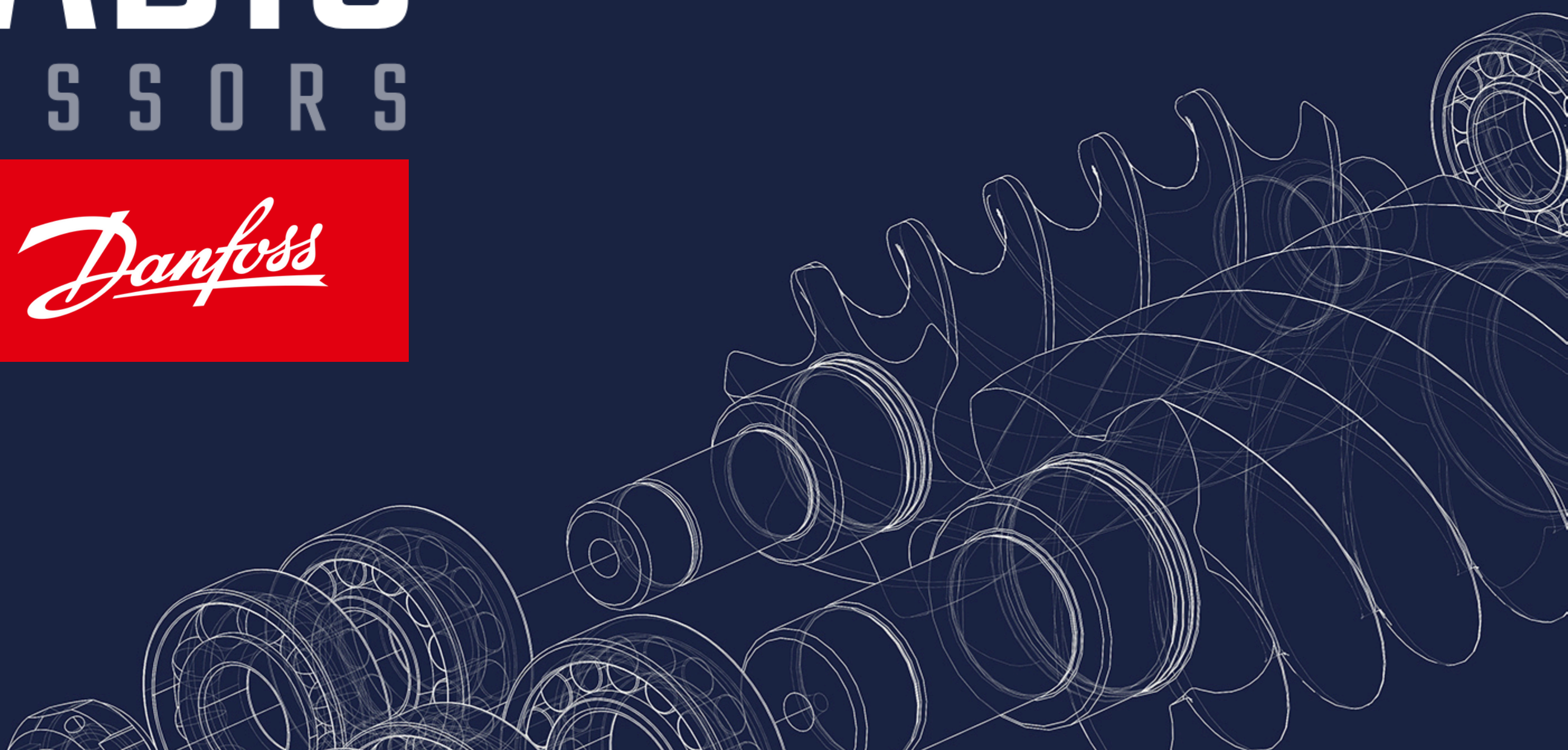


# PALLADIO

COMPRESSORS

Trusted By *Danfoss*



# Palladio - history and background

The Most advanced screw compressor technology, with a solid background

Eng. Gianni Candio starts RefComp, first company designing and producing screw compressors for AC&Ref in Italy.

1991

2014

2020

2023

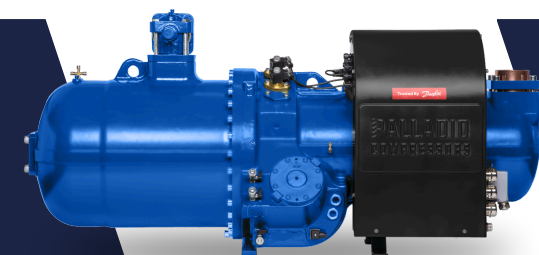
Refpower starts the project Palladio, new brand of high tech screw compressors.

The Candio family starts RefPower, company specialized in compressor service.

Palladio becomes an independent company, starting a strategical global cooperation with Danfoss.

**PALLADIO**  
COMPRESSORS

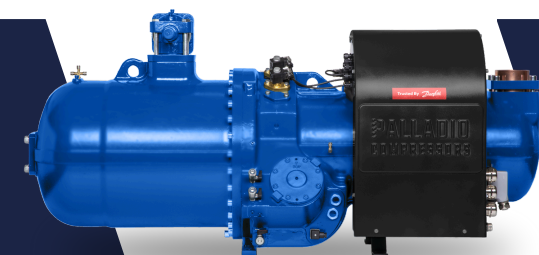
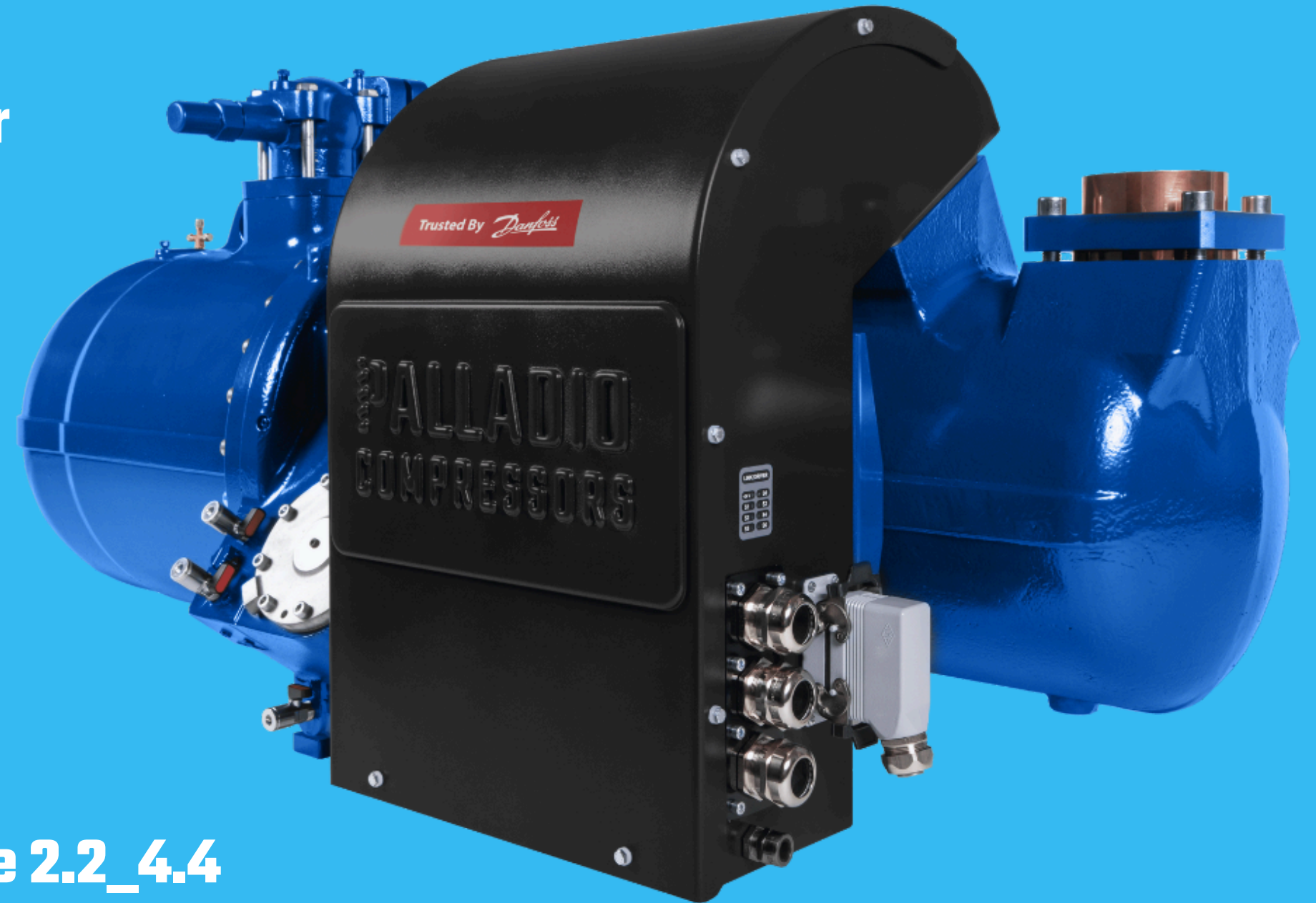
Trusted By *Danfoss*



PALLADIOCOMPRESSORS.COM

# K1 series: variable speed

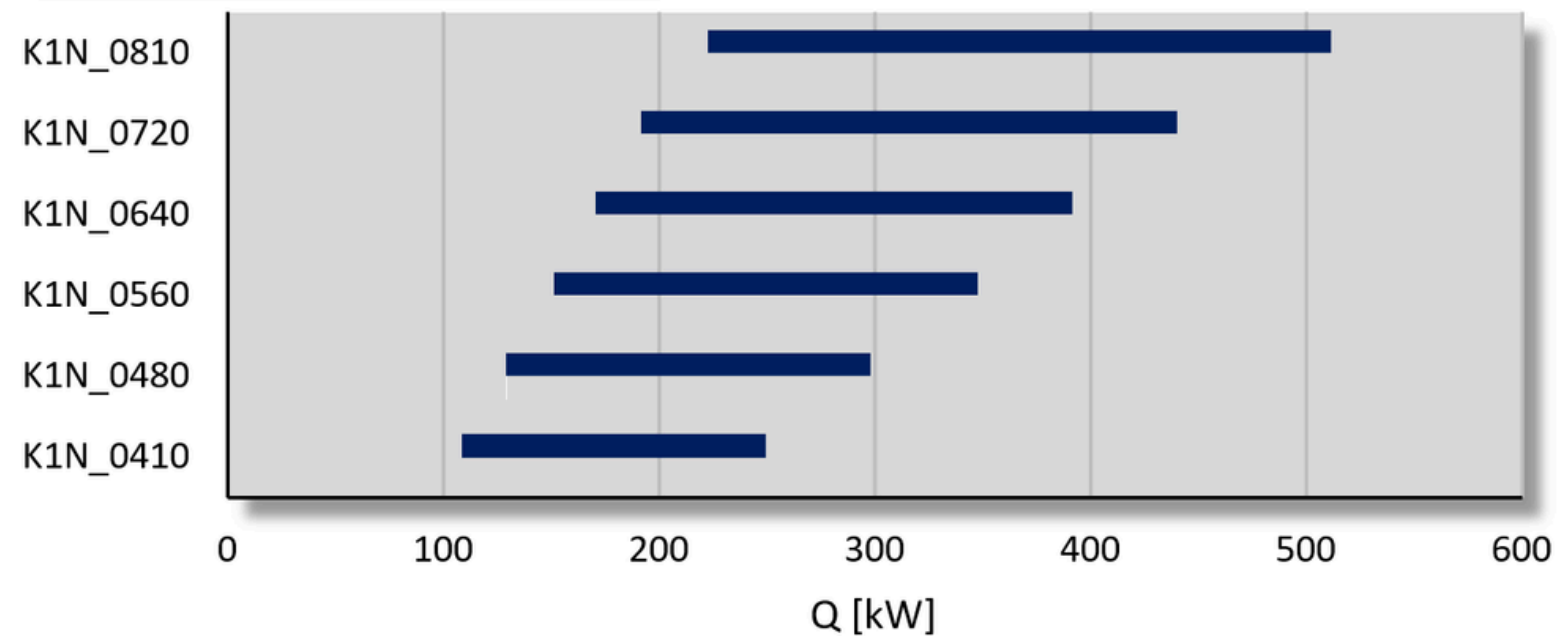
- + Capacity control set by integrated inverter
- + Available in **Coolselector<sup>®</sup>2**
- + R134a, R513A, R1234ze, Hydrocarbons
- + Speed range: 1200...4200 rpm
- + Inverter cooled down by refrigerant
- + Fix Vi: 2.6 or 3.2
- + Automatic Vi control available in the range 2.2\_4.4



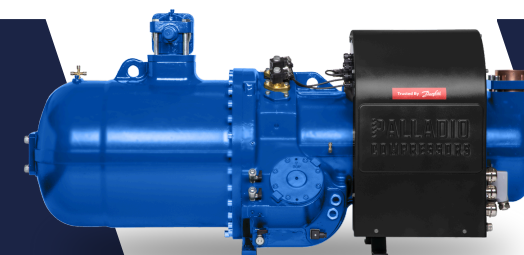
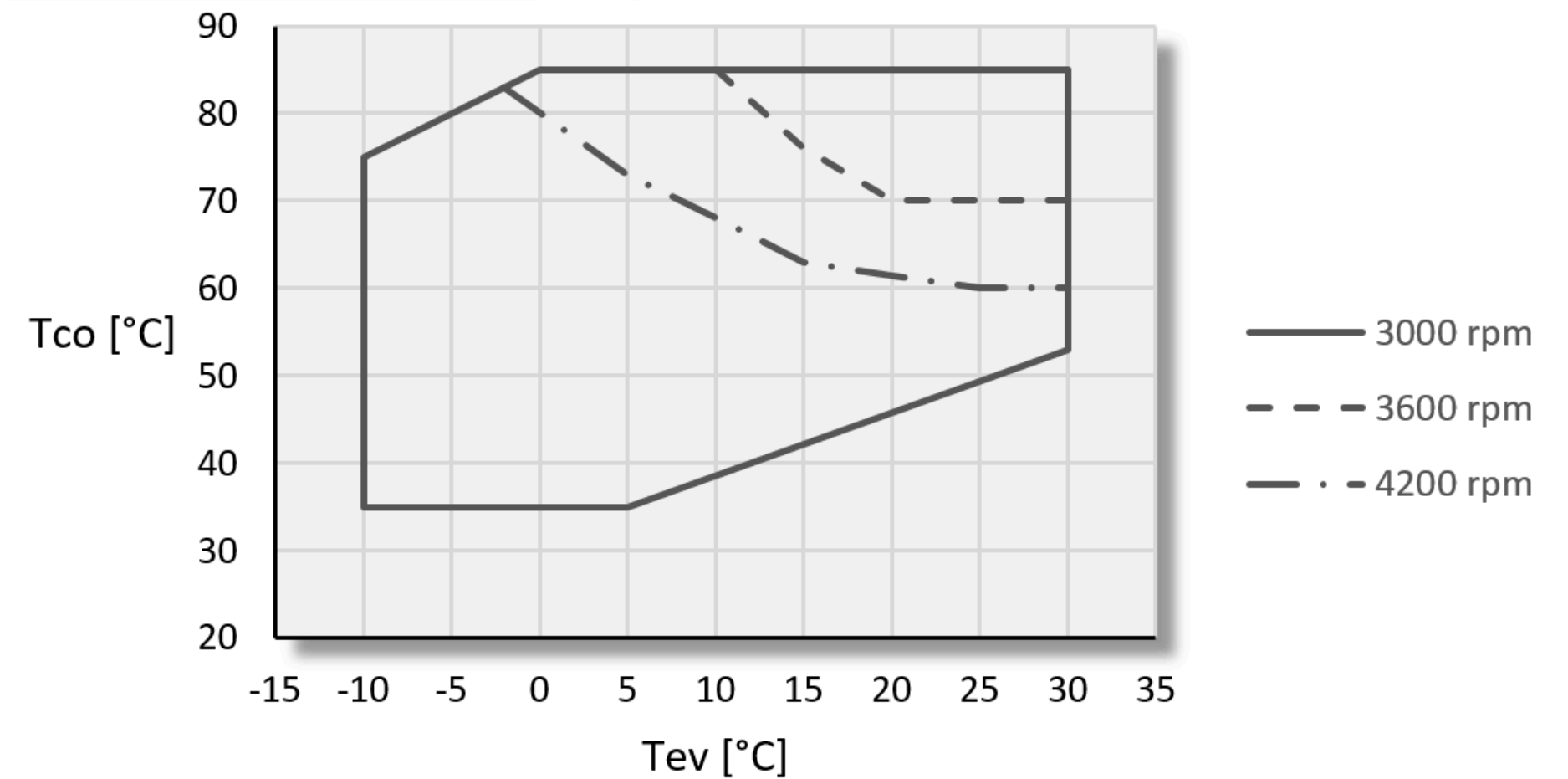
# K1 series

## R1234ze

K1 Series - R1234ze(E)  
Tev/Tco = 5/50 °C  
Speed Range 1800 - 4200 rpm



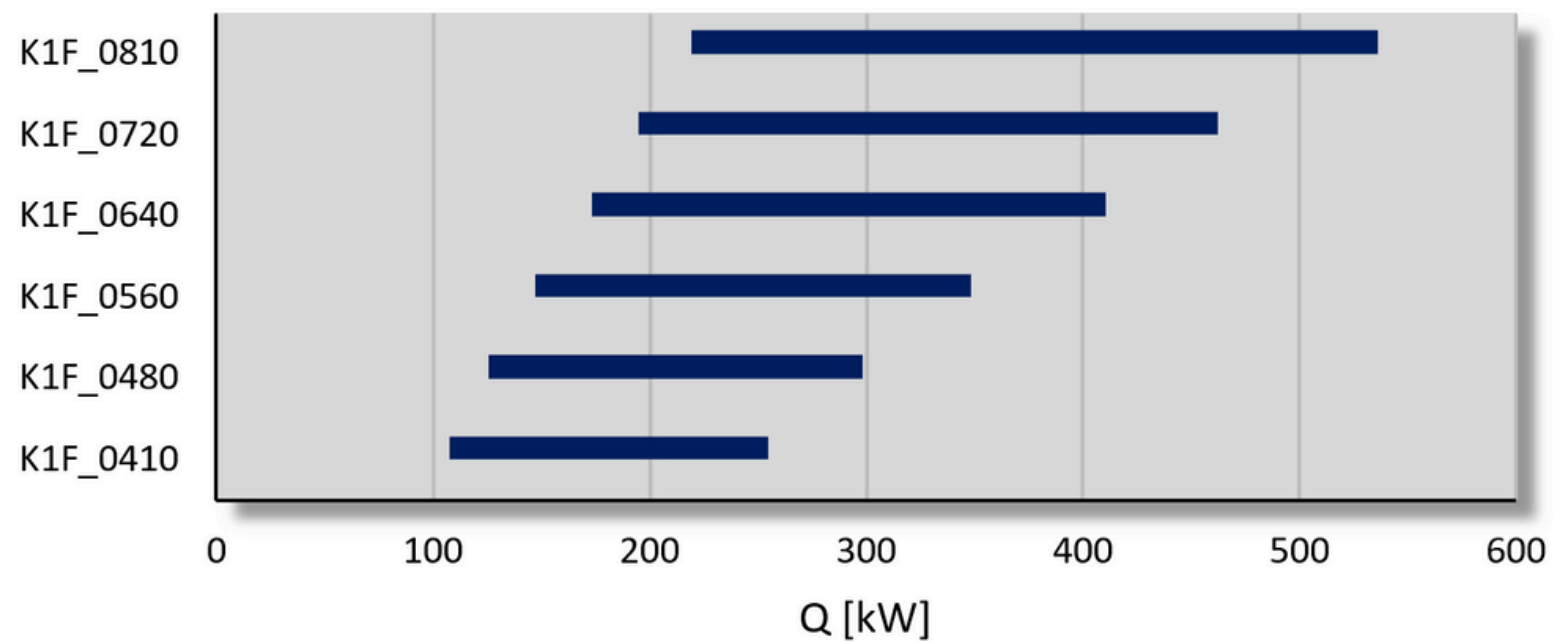
K1 Series - R1234ze(E)



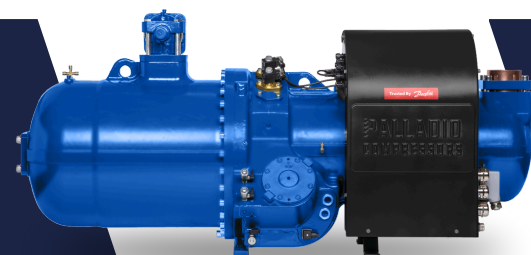
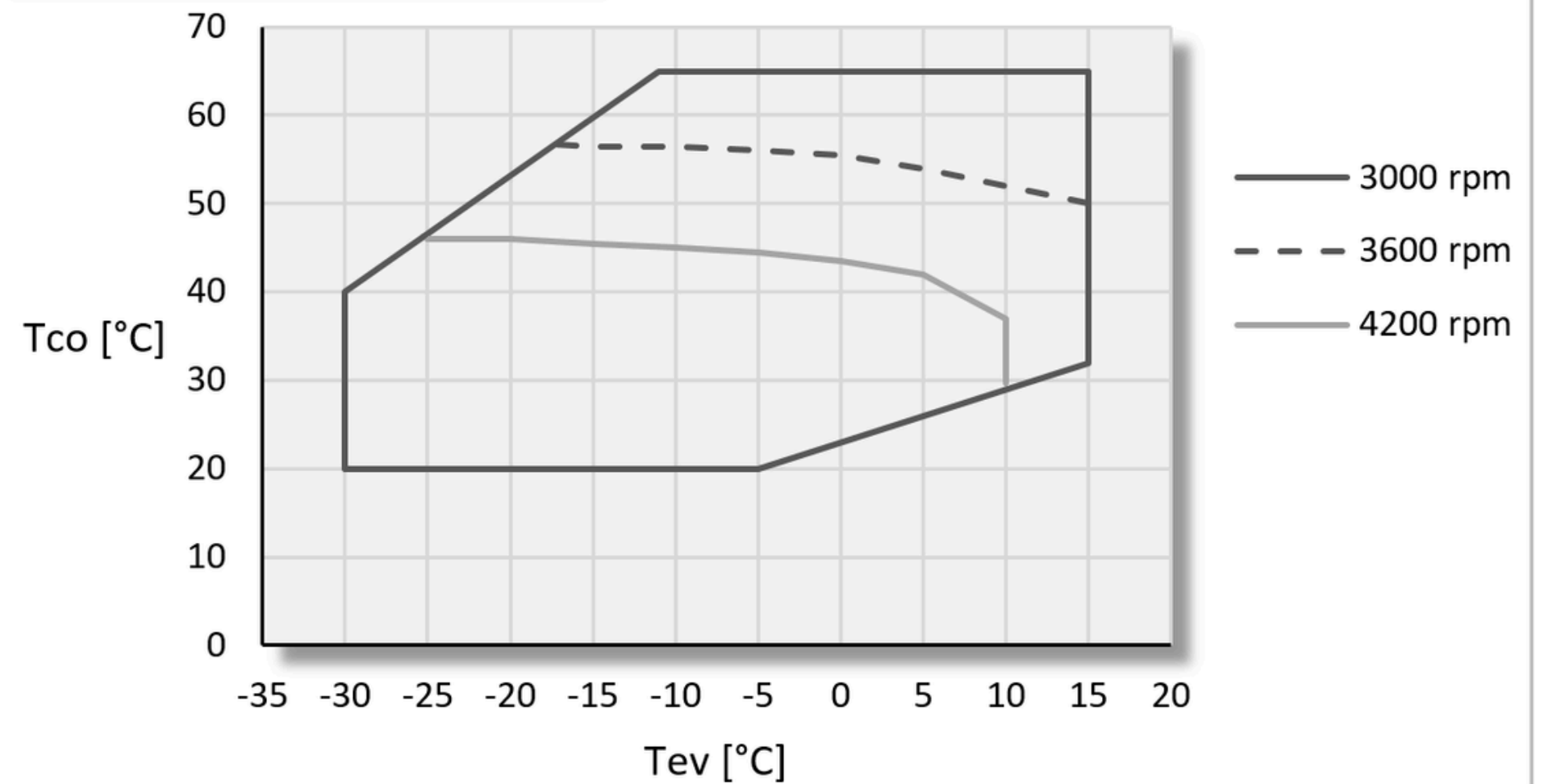
# K1 series

## Propane (R290)

K1 Series - R290, Propane  
Tev/Tco = -10/45 °C  
Speed Range 1800 - 4200 rpm



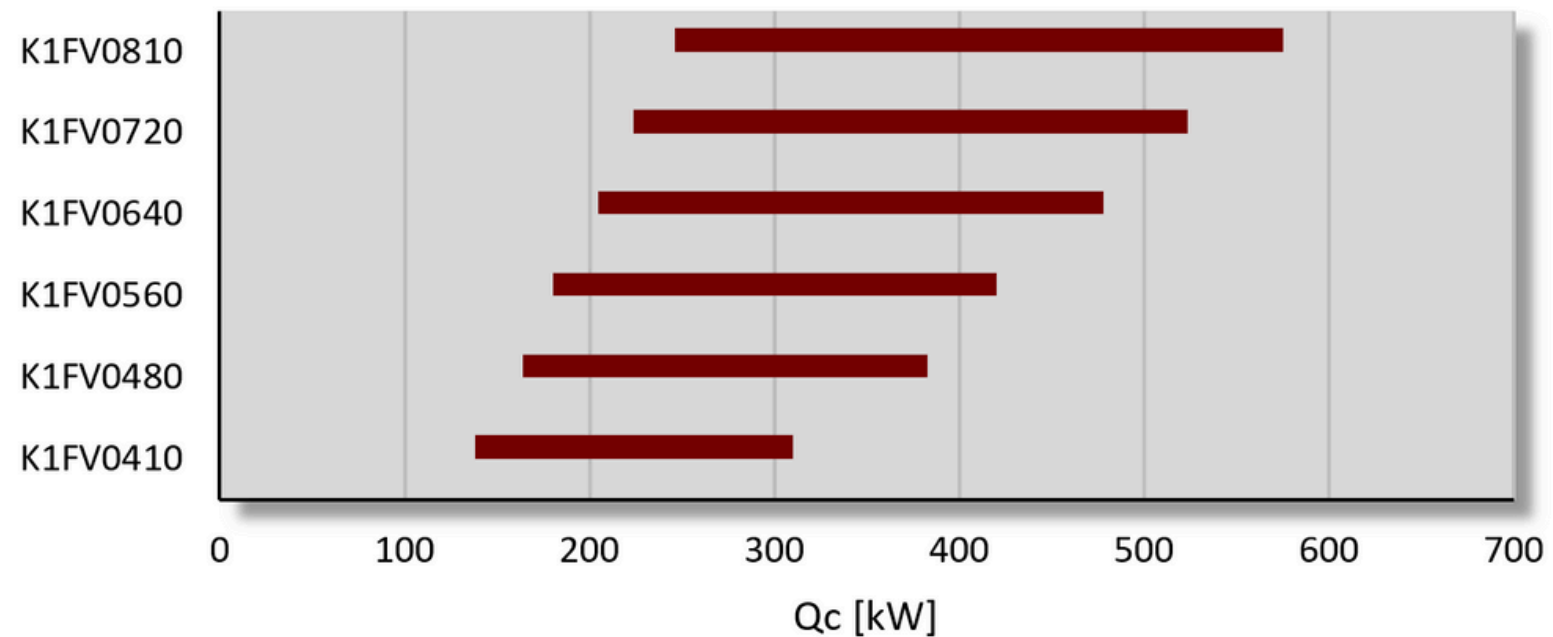
K1F Series - R290, Propane



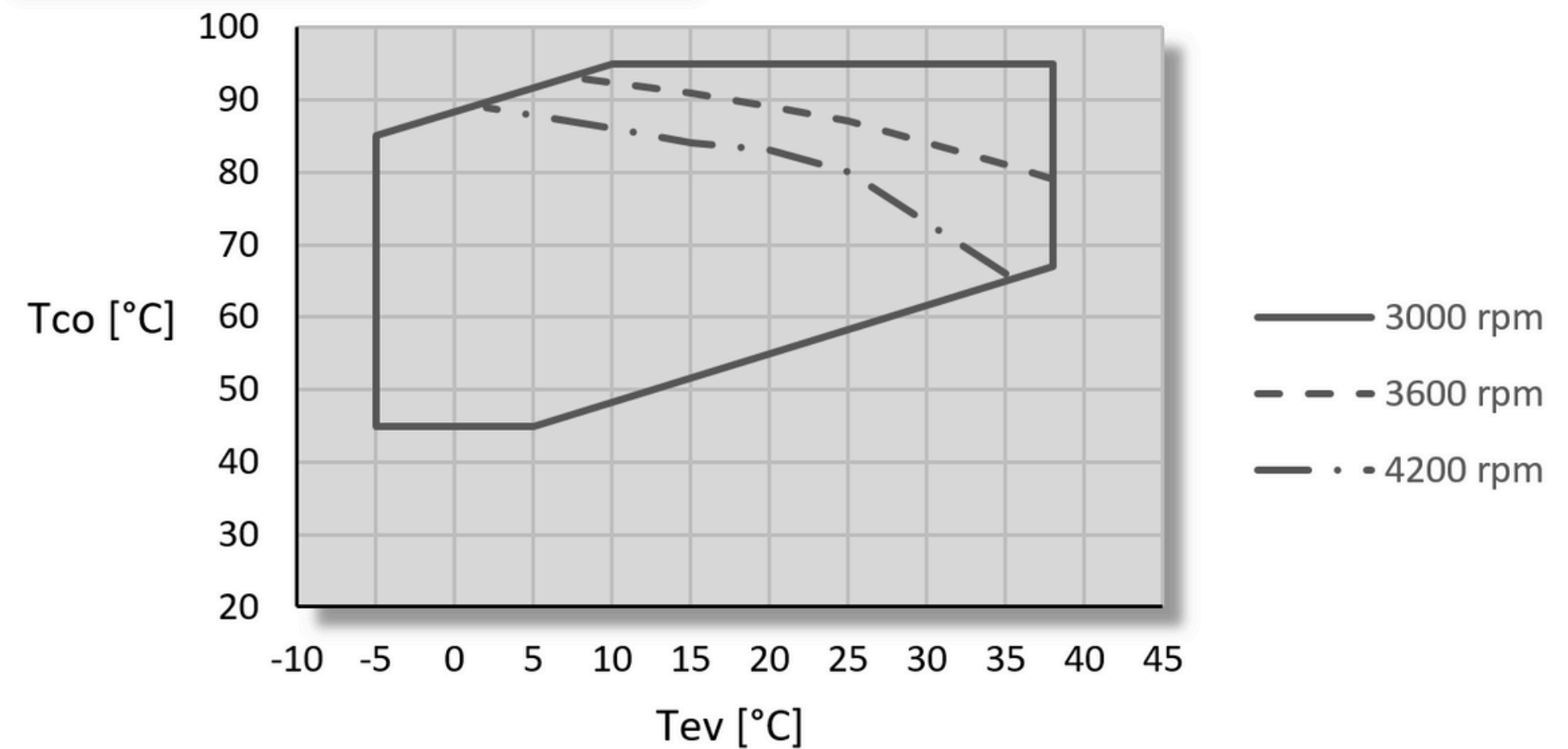
# K1 series

## Isobutane (R600a)

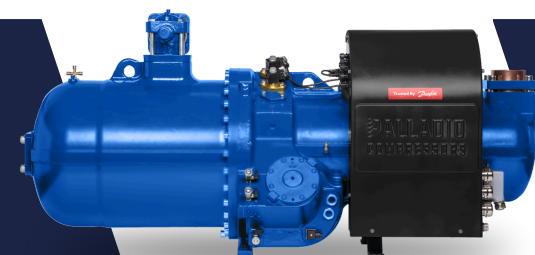
K1F Series - R600a, isobutane  
Tev/Tco = 20/80 °C  
Speed Range 1800 - 4200 rpm



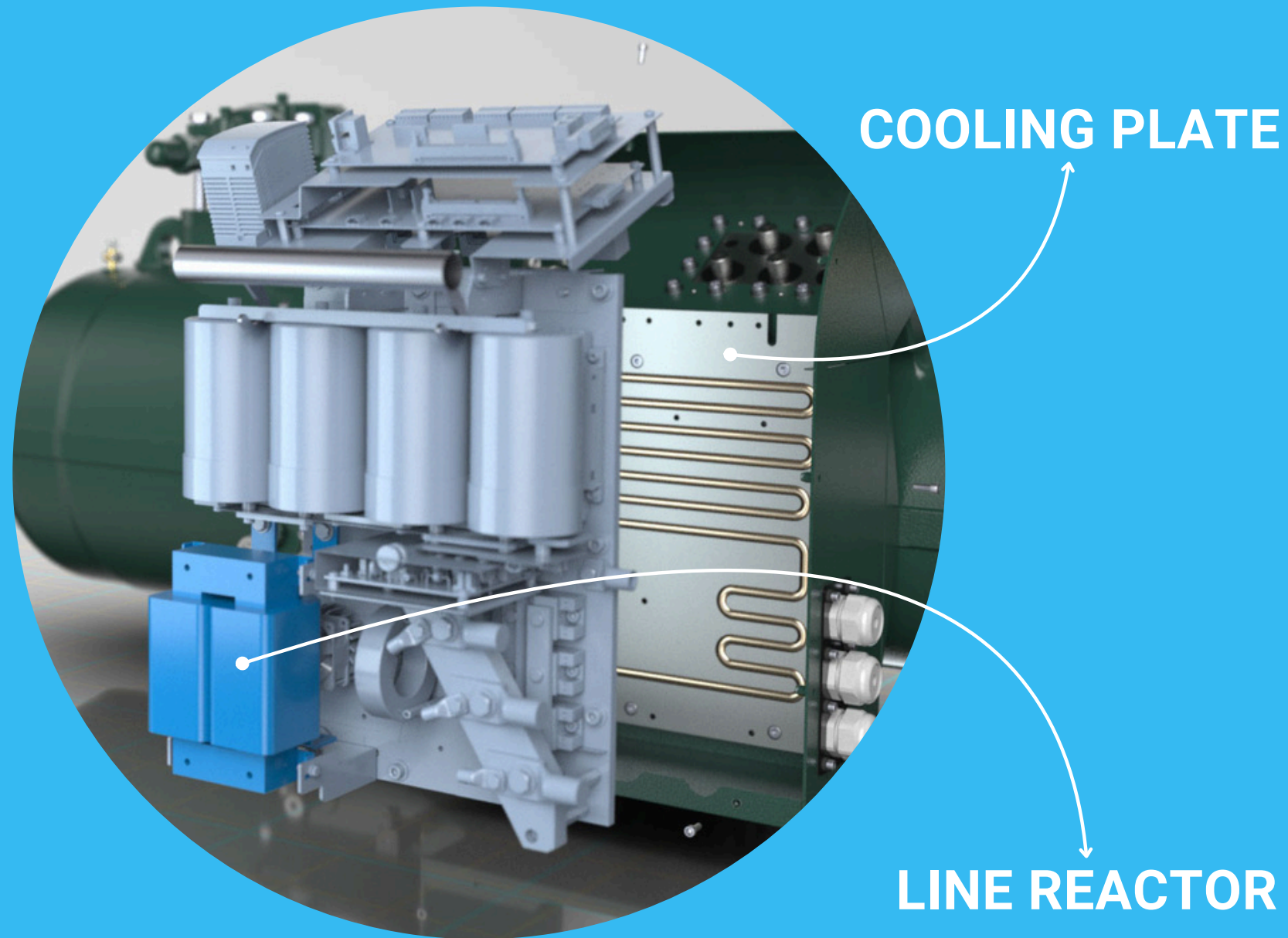
K1F Series - R600a, Isobutane



NOTE: PROVISIONAL DATA, SUBJECT TO UPDATE



# K1 series: distinctive features



## + **Self-tuning**

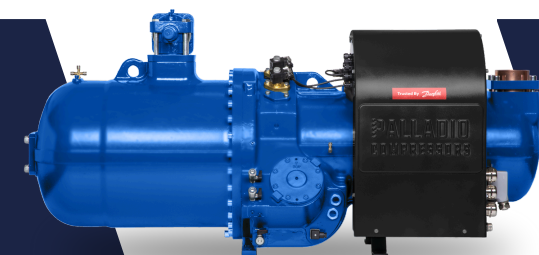
Innovative function (patented) that allows the automatic modification of the  $V_i$  (intrinsic volumetric ratio) while the operating conditions of the compressor change. Maximum level of EER anytime.

## + **Independent electronic components**

Electronic components completely independent from the refrigerant circuit. The inverter can be easily removed without the need of evacuating the refrigerant from the compressor.

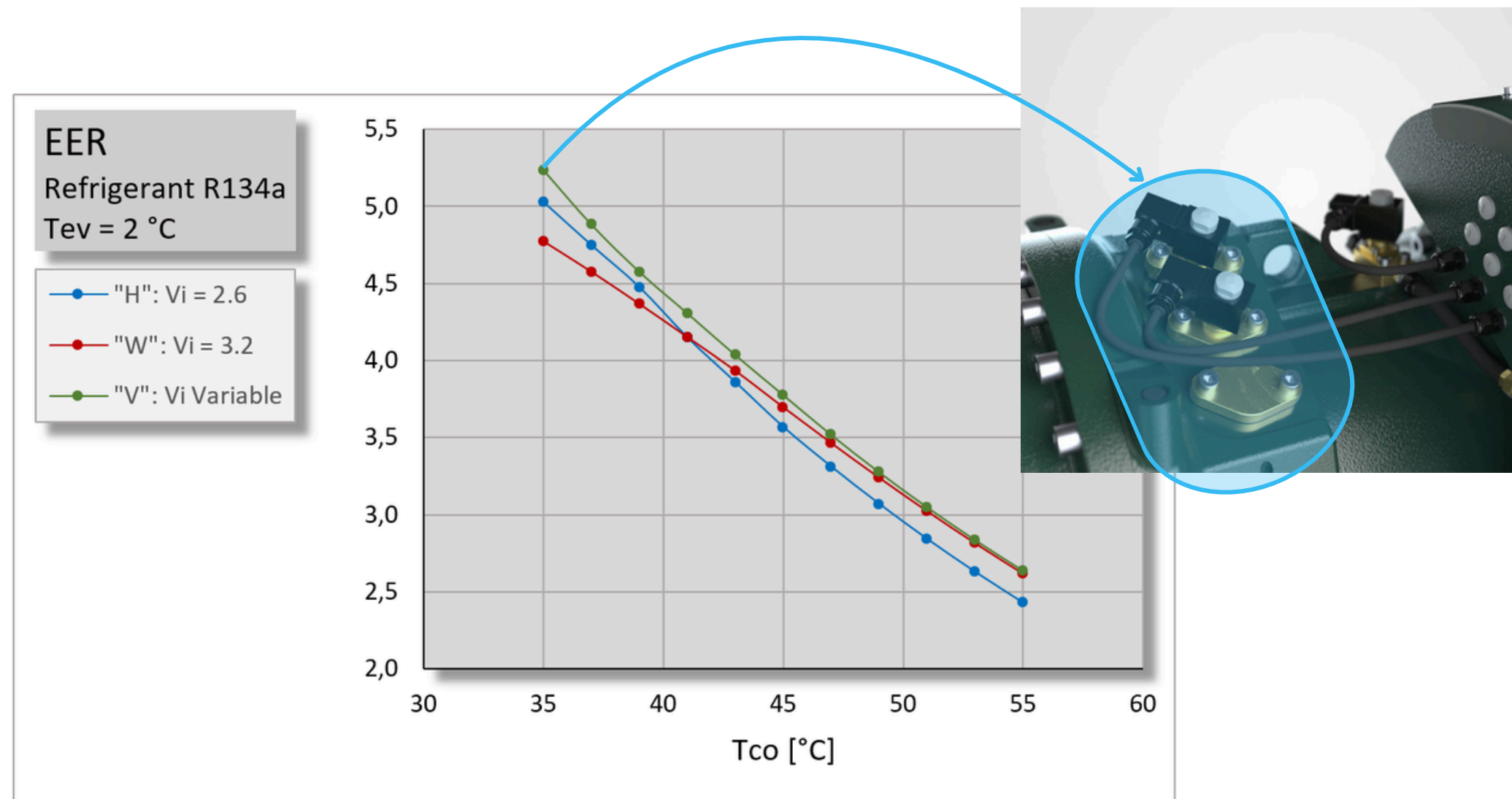
## + **Integrated line reactor**

Ultra compact line reactor integrated in the inverter box. Cost + space saving solution.

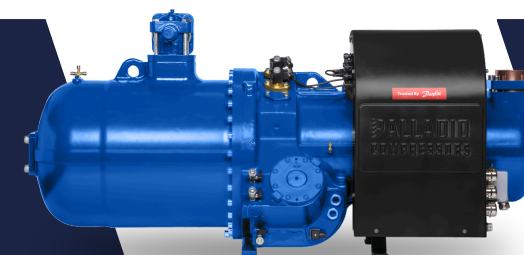


# K1 series: self-tuning

## The most advanced technology for automatic Vi modification



- ▶ The automatic self-tuning function is particularly useful, in terms of energy saving, in those applications where the working conditions of the unit change significantly during the year.
- ▶ A typical example is a reversible heat pump where evaporating and condensing pressure change significantly during the seasons, depending on the operating modality (chilling or heating).
- ▶ The results, in terms of punctual EER/COP and average seasonal efficiency, are remarkable when compared with screw compressors driven by a traditional external inverter.





# K1 series: remote monitoring

## Palladio Monitoring System

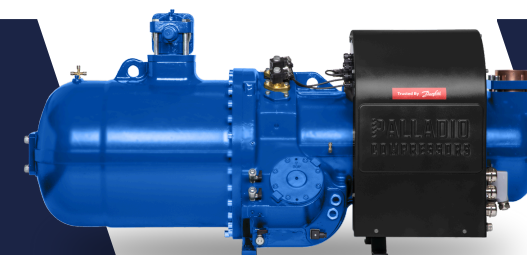
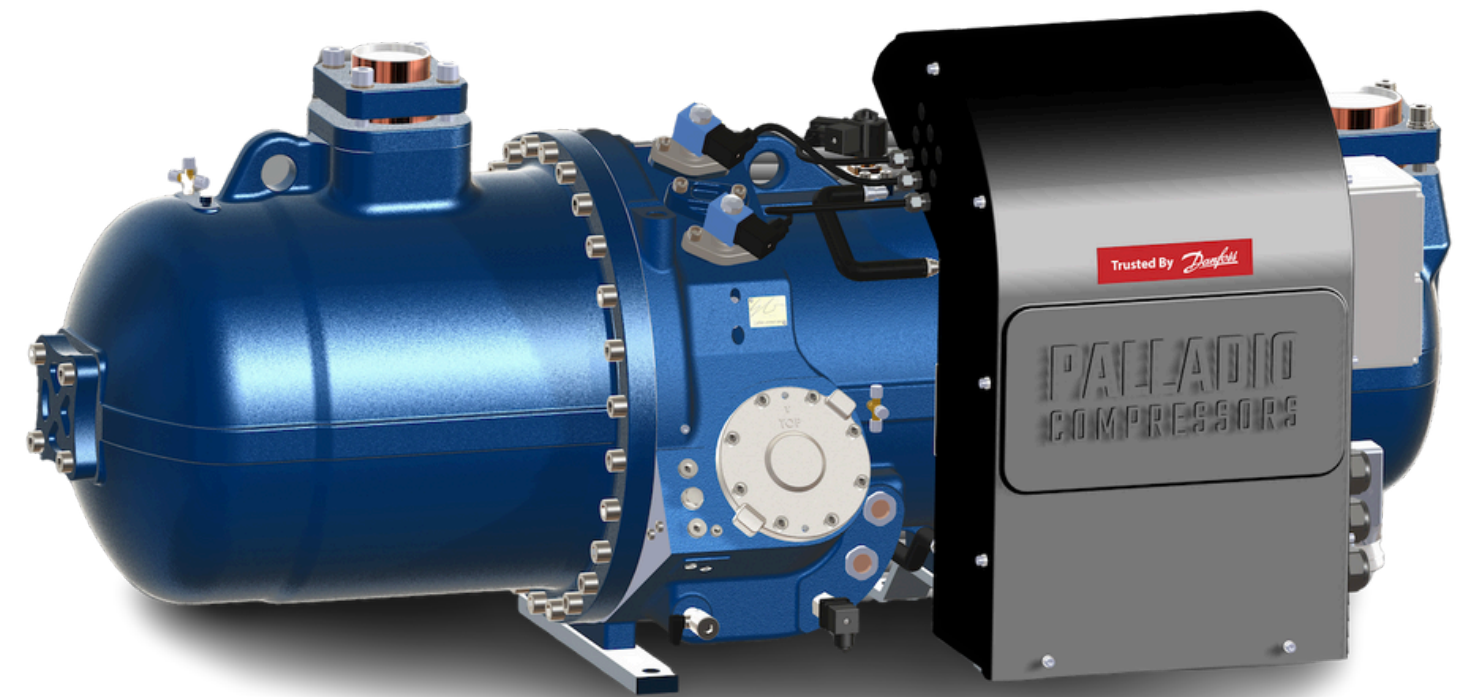
A user-friendly monitoring VPN network system that allows for remote access in an easy and safe way to reach multiple Palladio compressors remotely.

REMOTE SERVICE  
VPN CLIENT

VPN SERVER

LTE

ROUTER

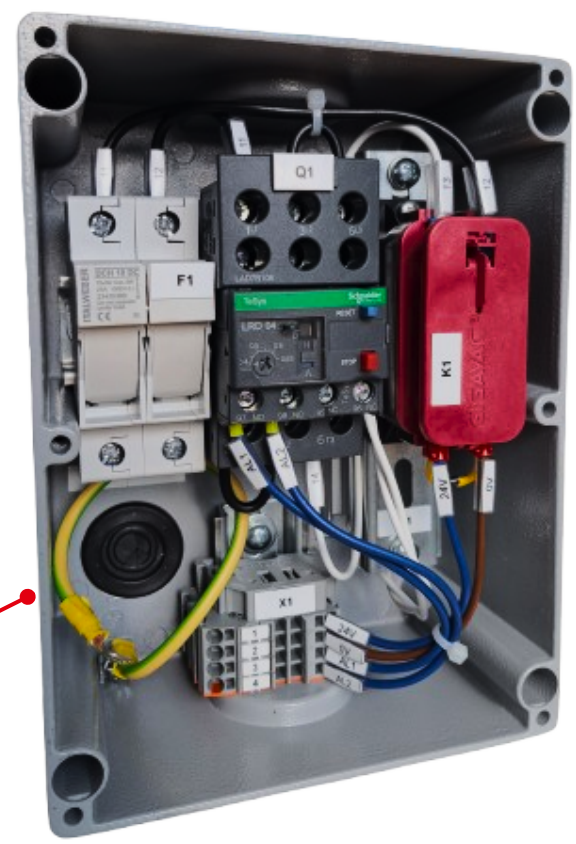
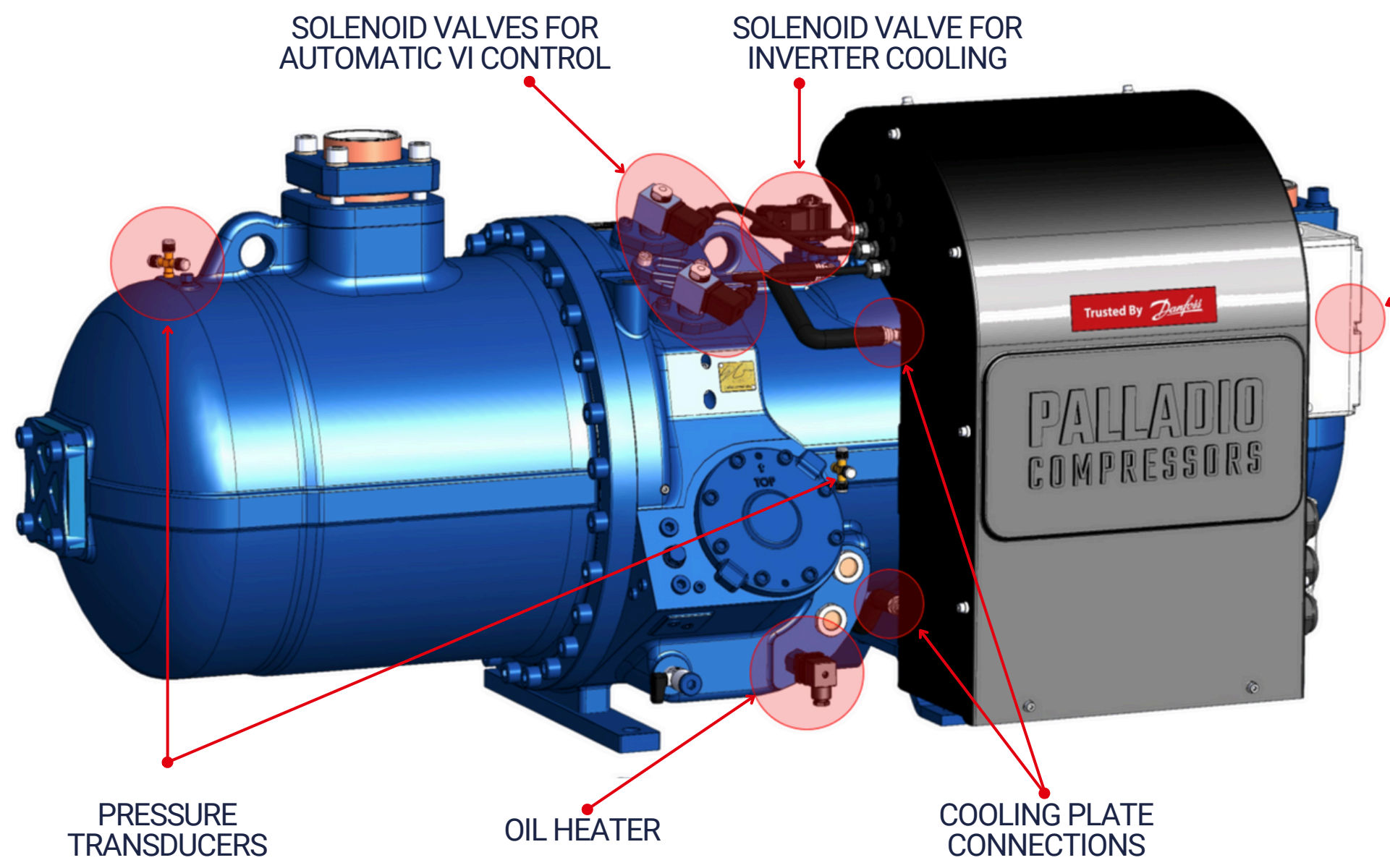


# K1 series

## Specific version for Hydrocarbons (R290, R600a)

### No risk of refrigerant leakage inside the inverter box

All components with a potential risk of leakage are located outside the inverter box.



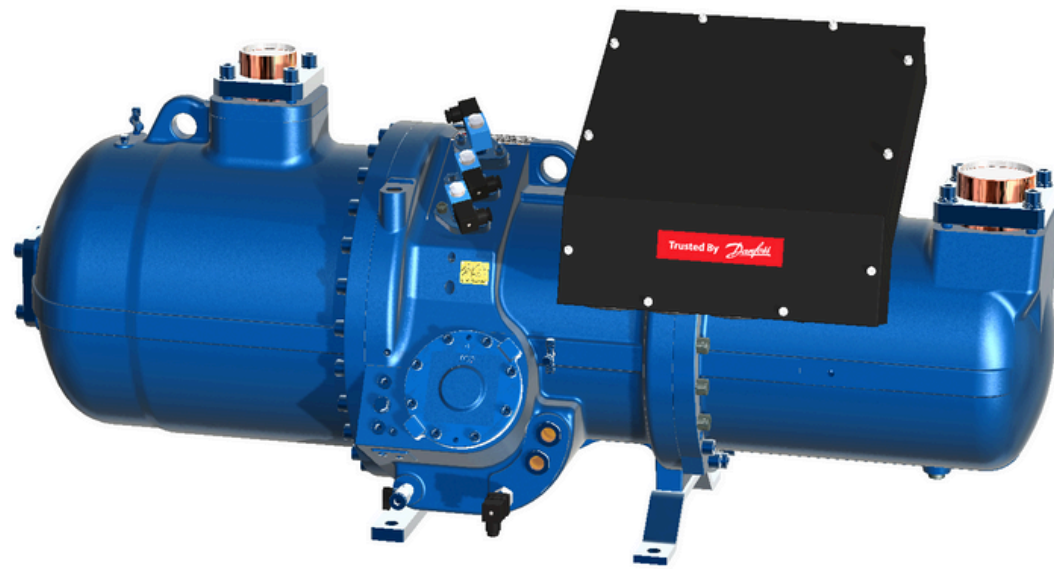
### Capacitors discharger

A specific device that allows for immediate discharge of capacitors. It is automatically activated each time the main supply voltage is switched off, preventing any residual risk connected with the physiological presence of a residual charge in the capacitors.

# Palladio: screw portfolio

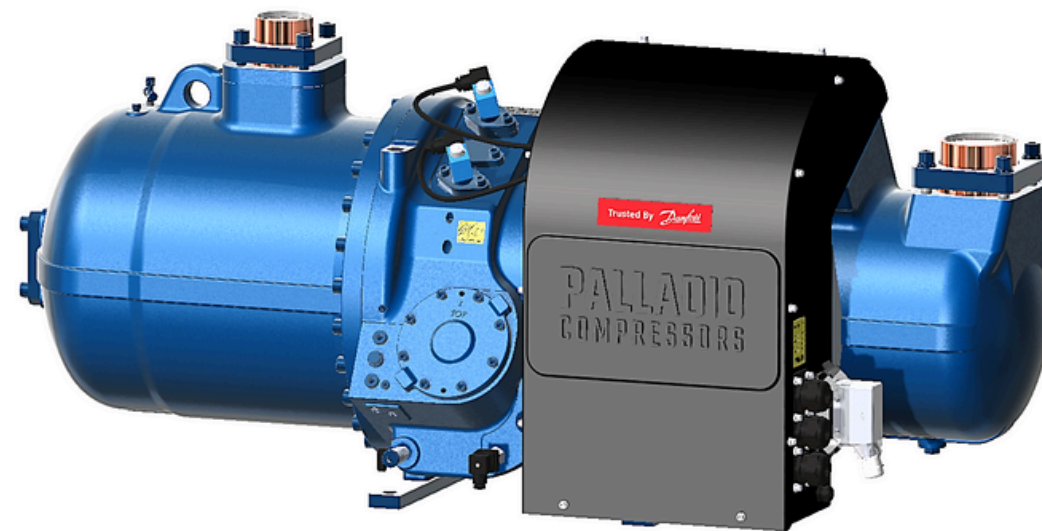
**K2:** fix speed  
**K4/K5:** fix speed for HT applications

410...810 m<sup>3</sup>/h @50Hz



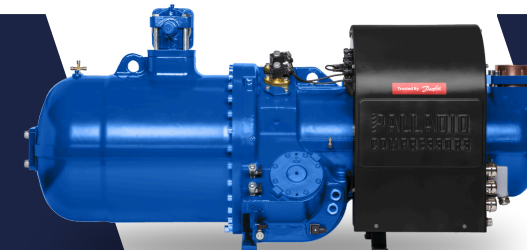
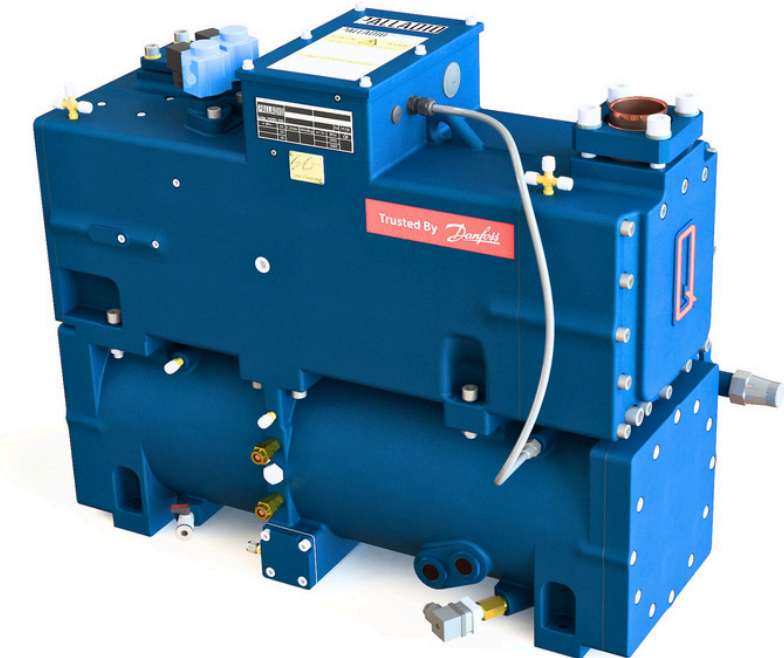
**K1:** variable speed, integrated inverter  
**K7:** variable speed, integrated inverter for HT applications

570...1130 m<sup>3</sup>/h @max speed



**QUBO1:** compact design, fix speed or variable speed (external inverter)  
**QUBO3:** compact design, fix speed or variable speed (integrated inverter)

120...370 m<sup>3</sup>/h @50Hz



# PALLADIO

COMPRESSORS

Trusted By *Danfoss*



+3904441960006



[sales@palladiocompressors.com](mailto:sales@palladiocompressors.com)



[www.palladiocompressors.com](http://www.palladiocompressors.com)