

ENGINEERING  
TOMORROW



Danfoss BOCK® Compressors | Transcritical CO<sub>2</sub> compressor

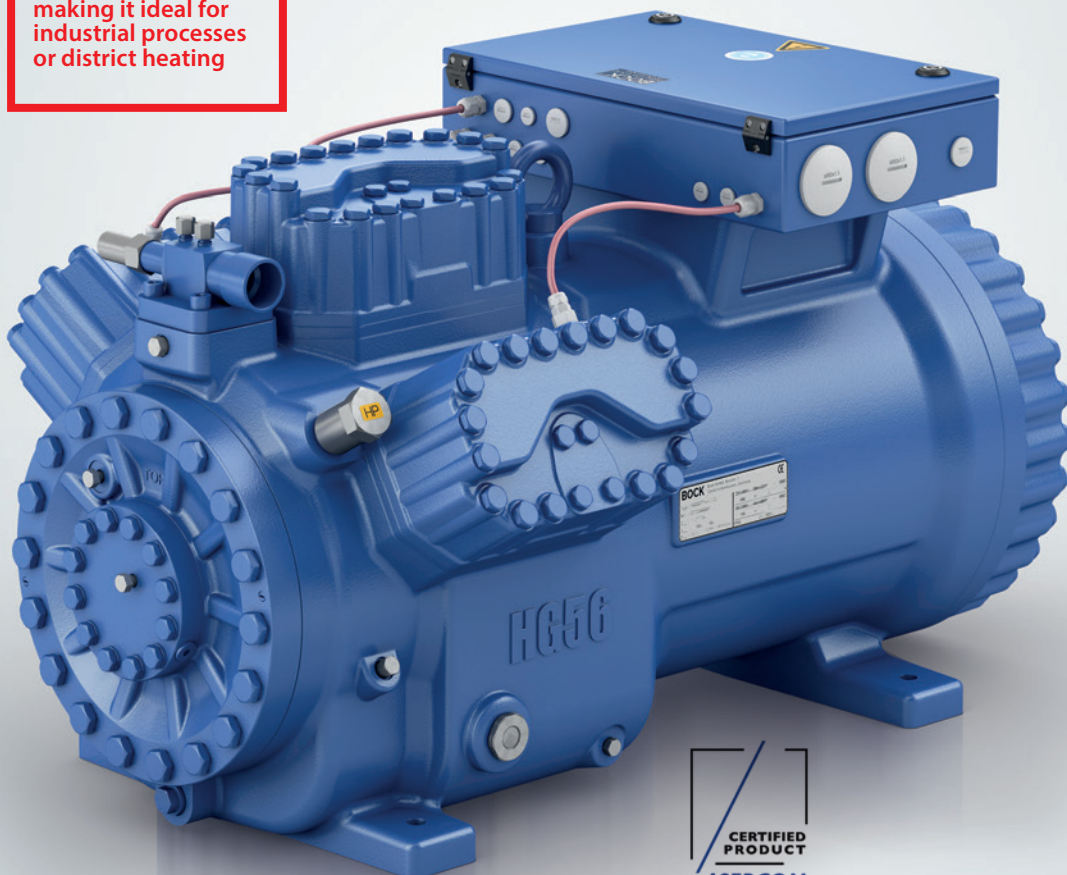
# Simplicity for large-capacity in industrial systems

The HGX56 CO<sub>2</sub> T 6 cylinder compressor reduces cost, system complexity, and the number of compressors required for large industrial heat pumps, commercial refrigeration, and district heating systems. ASERCOM certified.

Supply water up to

**90°C**

making it ideal for  
industrial processes  
or district heating



[bock.danfoss.com](http://bock.danfoss.com)

**BOCK®**



# Danfoss BOCK® goes big – **with CO<sub>2</sub> compressors**

## Transcritical 6-cylinder compressor for large capacities in industrial, commercial and sports facilities

The new Danfoss BOCK® HGX56 CO<sub>2</sub> T transcritical CO<sub>2</sub> compressor is specially designed for performance increases with the natural refrigerant R744. The new 6-cylinder design ensures greater capacities while reducing the number of compressors. Different design variants offer optimized solutions especially for industrial refrigeration, cold storage, ice sports facilities and heat pumps – an attractive and sustainable alternative to synthetic refrigerants and NH<sub>3</sub> applications.

### Danfoss BOCK® HGX56 CO<sub>2</sub> T – Advantages and benefits

- Designed for demanding conditions with the natural refrigerant R744 in commercial and industrial applications
- Higher capacities with reduced number of compressors: reduced system complexity and investment costs
- Specialized also for the requirements of heat pumps with extended operating conditions
- High efficiency and highest reliability due to holistic Danfoss BOCK® CO<sub>2</sub> compressor design.



### Lowest energy and operating costs

Highest efficiency and reliability thanks to more than 30 years of Danfoss BOCK® expertise in CO<sub>2</sub> compressor technology



### Wide range of applications

From low temperature to high-temperature heat pumps – with reliable and flexible partial and full load



### Outstanding running comfort

Low noise and vibration, compact and lightweight design and minimal oil carry over rate



### Certified compressors:

HGX56/480-4 S CO<sub>2</sub>T  
HGX56/680-4 ML CO<sub>2</sub>T  
HGX56/680-4 S CO<sub>2</sub>T  
HGX56/680-4 SH CO<sub>2</sub>T

### ASERCOM certified performance data

The performance data of compressors bearing this label has been certified to the strict requirements of ASERCOM. ASERCOM is the Association of European Refrigeration Compressors and Controls Manufacturers.

**NEW**



Transcritical Danfoss BOCK® CO<sub>2</sub> compressor range –  
from small to large capacity for all applications



**NATURAL  
REFRIGERANT**



**CO<sub>2</sub>**



**EFFICIENCY**



**RELIABILITY**

## Medium Temperature Application

Cooling capacity. HGX CO<sub>2</sub> T range with HGX56 CO<sub>2</sub> T

**HGX CO<sub>2</sub> T range**  
3 – 85 kW<sup>1</sup>

**HGX56 CO<sub>2</sub> T**  
90 – 135 kW<sup>1</sup>



<sup>1</sup> -10°C / +35°C / 90 bar / 10 K / 50 Hz EER (Energy Efficiency Ratio) Cooling

## Efficiency

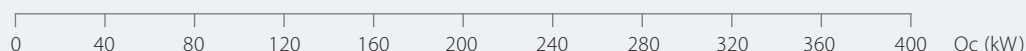
**1.95**

## Heat Pump Application

Heating capacity. HGX CO<sub>2</sub> T range with HGX56 CO<sub>2</sub> T

**HGX CO<sub>2</sub> T range**  
9 – 180 kW<sup>2</sup>

**HGX56 CO<sub>2</sub> T**  
250 – 350 kW<sup>2</sup>



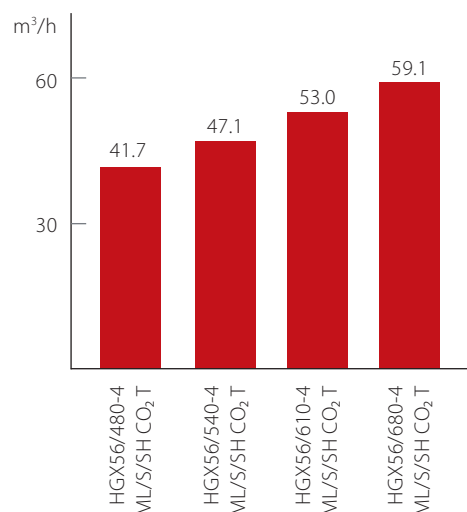
<sup>2</sup> +5°C / +25°C / 100 bar / 10 K / 50 Hz COP (Coefficient of Performance) Heating

**4.49**

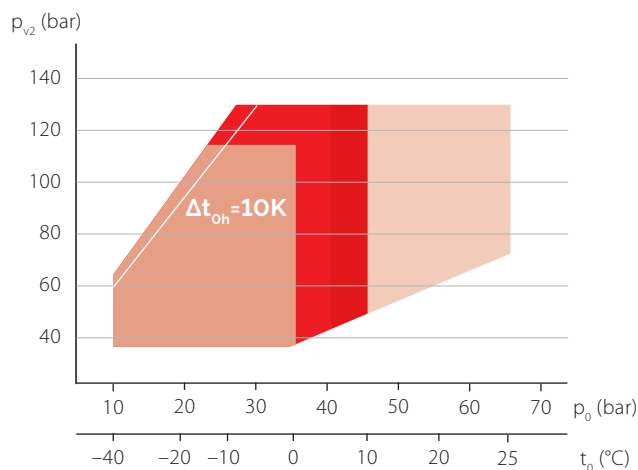
**HGX56/680-4S CO<sub>2</sub>T**

## HGX56 CO<sub>2</sub> T (transcritical)

One model size with four capacity stages  
from 41.7 to 59.1 m<sup>3</sup>/h (50 Hz)



## Operating limits

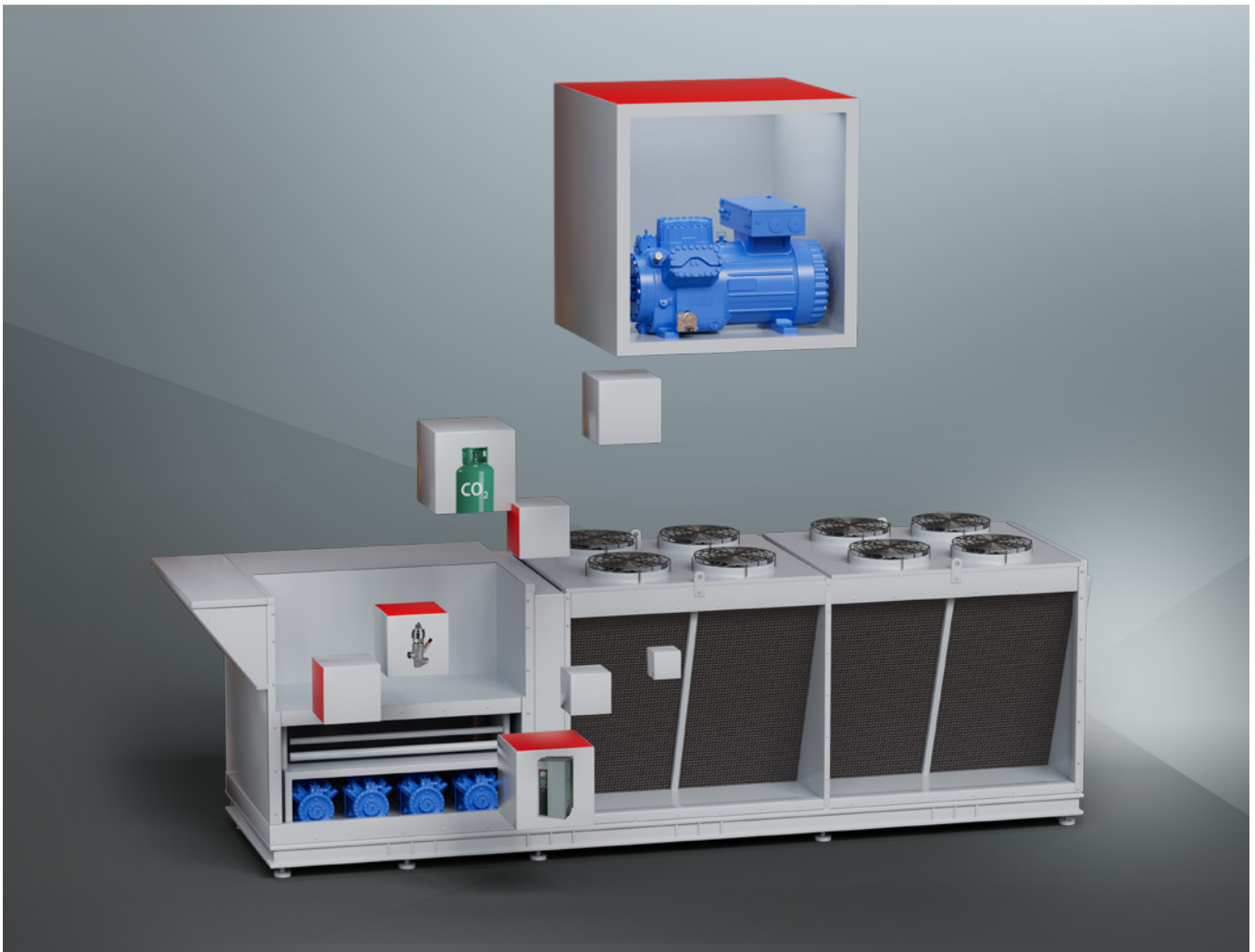


Max. permissible operating pressure (LP/HP) 100/150 bar













● compressor version ML ● compressor version S ● compressor version SH

– compressor ranges HGX12 CO<sub>2</sub>T and HGX24 CO<sub>2</sub>T





An entire CO<sub>2</sub> portfolio

 <b>COM</b> Compressor oil management	 <b>ICMTS</b> Motor operated valves	 <b>CCMT</b> Electric regulating valves	 <b>CTR</b> Electric expansion valves
 <b>DMT</b> Filter driers	 <b>SVA</b> Shut-off valves	 <b>FIA</b> Strainers	 <b>SNV</b> Gauge valves
 <b>AK-PC 7xx</b> Pack controllers	 Ejectors	 <b>AKS4100</b> <b>AKS2050</b> Sensors and switches	 <b>BOCK® VAP</b> VAP Stationary Applications Scan to download or go to <a href="http://vap.bock.de">vap.bock.de</a>

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