Technology at its best

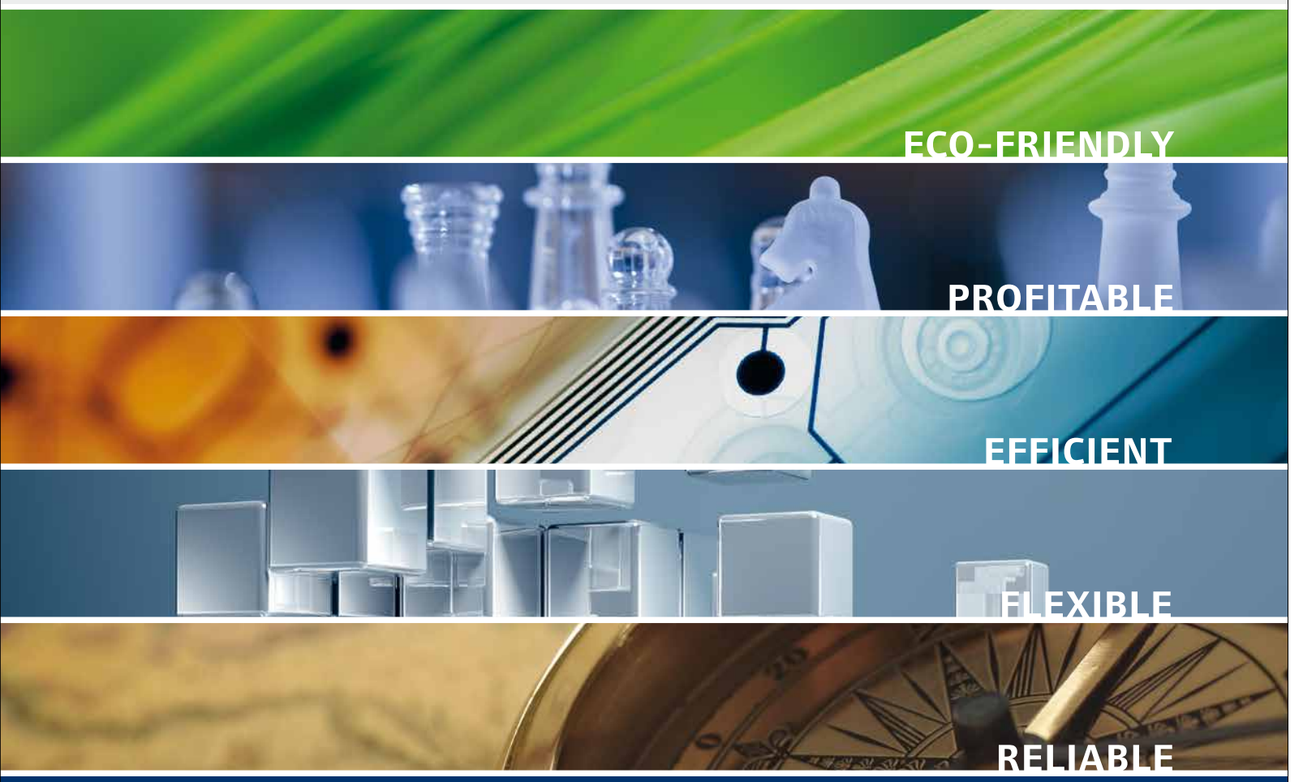
FRIGOBLOCK

INVERTER TECHNOLOGY

THERMO KING

Technology at its best

FRIGOBLOCK



ECO-FRIENDLY
- Up to 75% less CO_2 emissions
- Up to 75% less energy consumption
- 50% less greenhouse effect by using refrigerant type R410A
- Up to 95% less noise and exhaust emissions

PROFITABLE
FRIGOBLOCK alternator:
- Highest efficiency of all drive systems
- Loss-free, reliable electric control
- Up to 5,000 litres fuel savings potential per year and vehicle

EFFICIENT
- Unmatched cooling, heating and air flow capacities
- Temperature pull-down and recovery in record time
- Defrost within minutes thanks to the 4-way heat pump system

FLEXIBLE
- Guaranteed temperatures right up to the delivery point
- Multi-compartment technology with up to 200% more cooling, heating and air flow capacities
- Simple exchange of refrigeration unit within minutes

RELIABLE
- More than 20 years technical lead using high-capacity refrigerant R410A
- More than 40 years technical lead in alternator drive
- For more than 40 years evaporators outside the body

CONTENT
Inverter technology

INVERTER TECHNOLOGY
Inverter integrated refrigeration machines

The inverter technology enables optimum control of the frequency and electrical voltage. 3-phase motors respond to frequency differences with speed changes. The inverter can accordingly vary the speeds of each individual electric motor individually from 500 to 2,000 rpm as required. The electronics calculate the current requirement from various parameters and sensor values and send the signal to adjust the right frequency. The refrigeration unit can thus maintain the nominal temperature even more precisely with a low energy consumption.

Advantages:

- Even lower energy requirement
- Improved transport quality
- Longer service life
- Selectable refrigeration capacity profiles (noise reduction, optimal energy consumption, maximum cooling rate)

INVERTER TECHNOLOGY
Inverter filter

Application


AW 22,5 / AW 30

\+


Inverter filter

\+

FRIGOBLOCK units: FK-/EK-/HK-series


AW 22,5 / AW 30

\+

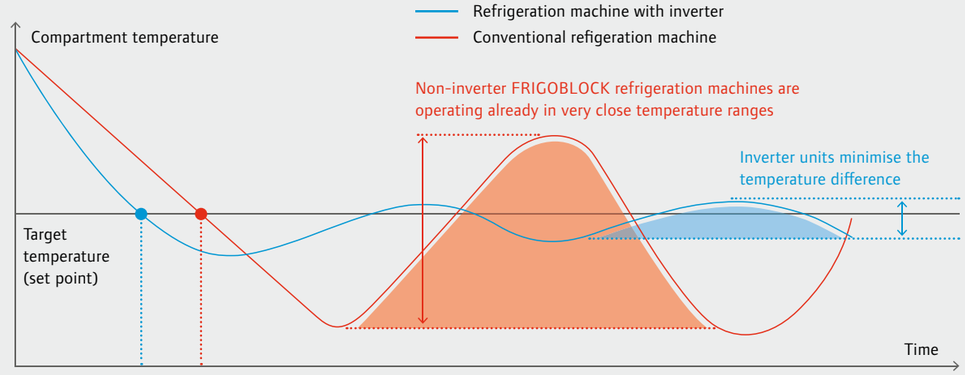

Inverter filter

\+


Thermo King: SLXi

For non inverter driven refrigeration units portfolio, the inverter filter solution combined with the water-cooled alternator has been developed to provide equivalent benefits:

- Optimum refrigeration capacity regardless of vehicle engine speed
- Guarantees rapid start-up of the unit with low mechanical stress
- Provides optimum load temperature control with minimum power consumption
- Water-cooled system enables compact design, low weight and extended life



The inverter-controlled drive of the new FRIGOBLOCK refrigeration machines ensures more uniform cooling and therefore smaller temperature differences within the compartment – and consumes distinctly less energy.

FRIGOBLOCK ALTERNATORS
Watercooled alternators

Watercooled alternators

AW 22,5

AW 30

FRIGOBLOCK is the leading producer of alternator drive systems with 40 years' experience. Approved by leading truck manufacturers, water-cooled system enables (AW 22,5 / AW 30):

- high efficiency and capacity
- compact design
- low weight
- extended life
- high temperature resistant
- ease of installation

TECHNICAL INFORMATION
FRIGOBLOCK alternators & Inverter filter

FRIGOBLOCK alternators


FRIGOBLOCK alternator Type	AW 22,5	AW 30	DIM.
Alternator			
capacity	22.5/28.0	30.0/37.5	**kVA**
voltage	400/500	400/500	**V**
frequency	-	-	**Hz**
current	32	43	**A**
speed	3,000	3,000	**1/min**
Speed-range			
min.	1,500	1,500	**1/min**
max.	6,000	6,000	**1/min**
Dimensions			
length	336	441	**mm**
height	186	186	**mm**
width	186	186	**mm**
shaft	30	30	**mm**
Alternator			
weight	49	60	**kg**

Subject to technical changes without prior notice.

Inverter filter

Inverter filter	Inverter filter	DIM.
Dimensions		
length	234	**mm**
height	611	**mm**
width	510.5	**mm**
Inverter filter		
weight	50	**kg**

Subject to technical changes without prior notice.

FRIGOBLOCK GmbH is a brand of Thermo King®. Thermo King – by Trane Technologies (NYSE: TT), a global climate innovator – is a worldwide leader in sustainable transport temperature control solutions. Thermo King has been providing transport temperature control solutions for a variety of applications, including trailers, truck bodies, buses, air, shipboard containers and railway cars since 1938.

FRIGOBLOCK GmbH
Weidkamp 274, D-45356 Essen
T + 49 (0)201/61301-0
email@frigoblock.com
www.frigoblock.com