

FR-Series

Flexible, efficient, and sustainable system
for home delivery of frozen food

EUTECTIC REFRIGERATION SOLUTION FOR FROZEN PRODUCTS
FOR SMALL, MEDIUM, AND LARGE TRUCKS



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FR-Series

Thermo King's eutectic condenser units offer an affordable alternative for the truck distribution industry where multiple stops occur. The FR-Series eutectic condensers, with varying horsepower outputs, can be matched to any cold plate end-user application, providing maximum flexibility for truck owners in virtually any market.

How the FR-Series cools your cargo

When it comes to last mile deliveries with frequent stops, Thermo King's FR-Series offers two reliable methods for cooling and/or freezing your cargo. Our proven design and durable construction ensure these nose-mount and undermount condenser units are built to last.

Equipped with efficient semi-hermetic compressors and a solid steel frame, they provide reliable cooling for small to medium-sized delivery trucks. The full product line is highly versatile, working seamlessly with any eutectic plate or beam system, no matter the cargo compartment configuration.

No matter the delivery situation, there's a Thermo King solution for you:

- **F-condenser units** are mounted over the cab. During standby, the compressor is powered from an external A/C power source to freeze the plates.
- **FL-condenser units** can be mounted underneath the truck, or used as a "Cool Station". This innovative approach allows the condenser unit to remain stationary at the depot, connecting to the truck via quick connectors. This not only lightens the truck's load but also maximizes its payload.



FR-Series range

Which is the best option for your fleet's needs?

CONDENSING UNITS

- Nosemount Models: F-3R, F-4R, F-5R
- Undermount Models: F-4LR, F-5LR

COOL STATION SYSTEM

- Eutectic condensing system consisting of undermount FR-Series models, F-4LR or F-5LR combined with quick connector set



Nosemount



Undermount

Your benefits

- + **Flexible design**
Compatible with any truck body, eutectic plate, or beam system.
- + **Efficient cooling**
Quiet, economical operation with large fans ideal for overnight use.
- + **Sustainable choice**
Uses R-452A refrigerant, suitable for zero-emission and low-noise zones.
- + **Matched horsepower**
Multiple models to suit various truck body lengths and operational needs.
- + **Cool station option**
Enables stationary operation, reducing vehicle weight and increasing payload.
- + **Lower maintenance costs**
Stationary units can be serviced independently of vehicle use.
- + **Enhanced Reliability**
FR-Series features automatic refrigerant recovery from the eutectic plates when the refrigeration system is turned off, significantly improving the life expectancy of the compressor.
- + **Leak-free quick connectors**
Reduce refrigerant loss and simplify multi-vehicle use.
- + **Smart digital solutions**
Maximize uptime, control, sustainability, and savings with connected services.
- + **24/7 global support**
Backed by Thermo King's extensive dealer network.

FR-Series condensing units

Specifications

MODELS	NOSEMOUNT			UNDERMOUNT		
	F-3R	F-4R	F-5R	F-4LR	F-5LR	
PERFORMANCE						
Refrigeration capacity for eutectic system operating at -33°C on a 30°C ambient temperature						
Capacity @ -33°C, 30°C Ambient	W	1 450	1 970	2 140	1 970	2 140
TECHNICAL DATA						
Weight						
Condenser	kg	172	197	200	179	178
Dimensions						
Width x Depth x Height	cm	1 864 x 588 x 536			1 170 x 636 x 425	
Compressor (reciprocating, 2 cylinders)						
50 Hz	m ³	17.93	23.60	25.21	23.60	25.21
60 Hz	m ³	18.43	22.94	24.86	22.94	24.86
CP	HP	3	4	5	4	5
Electric motors						
230 V/3 PHASE/50 HZ	A					21.1
400 V/3 PHASE/50 HZ	A					12.2
Refrigerant						
Type		R-452a				

OPERATION

- External on/off switch
- Automatic stop at freeze cycle end

STANDARD FEATURES

- Overload relays and thermal protection
- High/low pressure cut-out switches
- Large receiver and accumulator tanks
- Adjustable pressure regulator valve



COOL STATION KIT COMPONENTS

- Quick connectors (refrigeration + electrical)
- Unit stand and mounting hardware
- Power cord, receptacle, and external thermometer
- Optional expansion valves
- Condenser top grill



Turn your eutectics system into a flexible cool station

Create a stationary cool station in no time with a Cool Station kit. Just connect quick connectors to a eutectic condensing model—no hassle, no guesswork. Power the compressor using any external A/C source to freeze the eutectic plates and keep things cold and consistent.

Turn undermount models F-4LR and F-5LR into efficient cool stations and enjoy these key advantages:

ECONOMICAL SOLUTION

One condensing section can be used with one, two or three vehicles sharing the cost between them.

WEIGHT REDUCTION

A stationary unit significantly reduces overall vehicle weight. This means an:

- Increase in payload capacity.
- Reduction in fuel consumption and vehicle maintenance.
- Reduction in driver costs as these are directly related to the weight of the vehicle.

OPTIMIZED MAINTENANCE COSTS AND DOWNTIME

When the F-4LR or F-5LR is used as a stationary unit, it can be serviced independently while the truck remains in operation, significantly reducing maintenance costs and downtime.

SAFETY

- Optional cabin warning light to ensure that the driver does not start the engine with the connectors attached.
- Connector cover to protect it from dust and dirt when mounted under the truck body.

Performance-enhancing services & solutions



Mix and max.

With a complete range of smart services and digital solutions, Thermo King helps you **maximize your uptime, sustainability, savings, and control** throughout your operations. From industry-leading telematics to customizable service agreements and performance-enhancing upgrades. **Explore the building blocks of our integrated portfolio right below.**

Don't settle for less, when you can take it to the max. With a complete range of smart services and digital solutions, Thermo King helps you maximize uptime, sustainability, savings and control all throughout your operations. Keep your unit performance up, and your worries down. All day, every day.

- + **MAXIMIZE YOUR UPTIME**
Avoid costly downtime and keep your units going and earning for longer.
- + **MAXIMIZE YOUR SUSTAINABILITY**
Limit your fleet's footprint and save smart on energy.
- + **MAXIMIZE YOUR SAVINGS**
Reduce service and maintenance costs, and maximize your units' residual value.
- + **MAXIMIZE YOUR CONTROL**
Monitor and maintain critical cargo quality at every step of your journey.



UPGRADES

Enhance fleet performance with a vast array of original Thermo King upgrades.



SERVICE CONTRACTS

Maximize uptime with quality maintenance, fast response times and 24/7 dealer support.



GENUINE PARTS

Avoid the costs of poor repairs and insist on **genuine replacement** and **remanufactured parts**.



Get your max at europe.thermoking.com/max-your-cool

Flexible and sustainable system for the home delivery of frozen food

- **FLEXIBLE DESIGN**
Compatible with any truck body, eutectic plate, or beam system.
- **EFFICIENT COOLING**
Quiet, economical operation with large fans ideal for overnight use.
- **COOL STATION OPTION**
Enables stationary operation, reducing vehicle weight and increasing payload.
- **LOWER MAINTENANCE COSTS**
Stationary units can be serviced independently of vehicle use.
- **SMART DIGITAL SOLUTIONS**
Maximize uptime, control, sustainability, and savings with connected services.



Thermo King – by Trane Technologies (NYSE: TT), a global climate innovator – is a worldwide leader in sustainable transport climate control solutions. We engineer and provide cutting-edge technology and solutions with sustainability, reliability, and the customer experience in mind. Thermo King has provided transport temperature control solutions for various applications, including trailers, truck bodies, buses, air, shipboard containers, and railway cars since 1938.

For further information
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