



Eutectic condensing systems

Eutectic refrigeration for transporting frozen products in distribution trucks.



- 24-hour support through Thermo King's worldwide sales and service dealer network
- Variety of horse power options to match different body lengths
- Total flexibility – unit can be tuned and adjusted to fit any truck body design and eutectic plate or beam system
- Noiseless, economical, highly efficient condenser
- Large compressor fan for overnight operation
- Environmentally friendly and readily available R-404A refrigerant
- Powder painted steel finishing provides durable long-lasting surface

Good news for users of eutectic systems.

Eutectic condenser units from Thermo King now offer an affordable alternative for the truck distribution industry where multiple stops occur.

The F-Series eutectic condensers, with varying horse power outputs, can be matched to any cold plate end user application. This extensive line provides maximum flexibility for truck owners in virtually any market.



24-hour Thermo King dealer support from a worldwide network second to none.

There is a Thermo King dealer near you in just about any location in the world. For the owner of any

Thermo King unit that means added security.

A Thermo King dealer has the equipment, parts and expertise to service your needs. That's what customers have come to expect from the "World Leader in Transport Refrigeration".



Proven design and construction in nosemount and undermount applications.

The proven design and construction of these condenser units feature highly efficient semihermetic compressors housed in solid durable steel frames to cool small- to medium-size truck delivery applications. A complete product line works with any eutectic plate or beam systems in any cargo compartment configuration.

A Thermo King solution for every delivery situation

- The F condenser section units are designed to be overcab located.
- The FL condenser section units are designed to be undermount located on the truck or used as "Cool Station". In this case, the condensing section is connected to the truck (s) by the means of multi-coupling quick connectors and is stationary to save weight and increase payload (ask for our Cool Station brochure).



A Thermo King eutectic system for every truck body length.

Because every delivery situation is different, it is important to properly match a eutectic unit to the truck body length and the distribution habits of the vehicle being equipped. The following table is a guide to assist in that process. You will want to determine a selection decision with your O.E.M. or body builder. And, as always, you may want to consult your Thermo King Dealer.

Eutectic Plate (-33°C) Selection Guide

+30°C ambient				
Box internal volume m ³	K factor W/m ² °C	n° plates		Selected condenser HP
		3 op. dr./hr.	4 op. dr./hr.	
4	0.29	2	2	2
4	0.35	2	2	
5	0.29	2	2	
5	0.35	2	3	
6	0.29	2	3	3
6	0.35	3	3	
7	0.29	3	3	
7	0.35	3	3	
8	0.29	3	4	4
8	0.35	3	4	
9	0.29	3	4	
9	0.35	4	4	
10	0.29	4	4	4
10	0.35	4	5	
11	0.29	4	5	
11	0.35	4	5	
12	0.29	4	5	5
12	0.35	5	5	
13	0.29	5	5	
13	0.35	5	6	
14	0.29	5	6	5
14	0.35	5	6	
15	0.29	5	6	
15	0.35	6	7	
16	0.29	5	7	5
16	0.35	6	7	
17	0.29	6	7	
17	0.35	6	7	
18	0.29	6	7	Special Application (To be Consulted)
18	0.35	7	8	
19	0.29	6	8	
19	0.35	7	8	
20	0.29	7	8	Special Application (To be Consulted)
20	0.35	7	9	

+38°C ambient				
Box internal volume m ³	K factor W/m ² °C	n° plates		Selected condenser HP
		3 op. dr./hr.	4 op. dr./hr.	
4	0.29	2	3	2
4	0.35	2	3	
5	0.29	3	3	
5	0.35	3	3	
6	0.29	3	4	3
6	0.35	3	4	
7	0.29	3	4	
7	0.35	4	4	
8	0.29	4	5	4
8	0.35	4	5	
9	0.29	4	5	
9	0.35	5	6	
10	0.29	5	6	4
10	0.35	5	6	
11	0.29	5	6	
11	0.35	6	7	
12	0.29	6	7	5
12	0.35	6	7	
13	0.29	6	7	
13	0.35	6	8	
14	0.29	6	8	5
14	0.35	7	8	
15	0.29	7	8	
15	0.35	7	9	
16	0.29	7	9	5
16	0.35	8	9	
17	0.29	8	9	
17	0.35	8	10	
18	0.29	8	10	Special Application (To be Consulted)
18	0.35	9	10	
19	0.29	8	10	
19	0.35	9	11	
20	0.29	9	11	Special Application (To be Consulted)
20	0.35	9	11	

References:

A: 1 plate (-33°C): 1590 x 690 x 52 mm*

B: R-404A refrigerant

Plate Surface: 2.55 m² holdover 2670 kcal

*or similar

Eutectics F-Series Specifications

Description:

The F and FL condenser units are designed to operate a eutectic system for frozen applications on small and medium size trucks. During standby, the compressor is powered from an external A/C power source to freeze the plates.

Models available

Nosemount: F-3, F-4, F-5

Undermount: F-2L, F-3L, F-4L, F-5L

Refrigeration capacity

The rated capacities operating a -33°C eutectic system on a 30°C ambient temperature are:

Nosemount	Undermount	Capacity
F-3	F-2L	980 W
F-4	F-3L	1450 W
F-5	F-4L	1970 W
	F-5L	2140 W

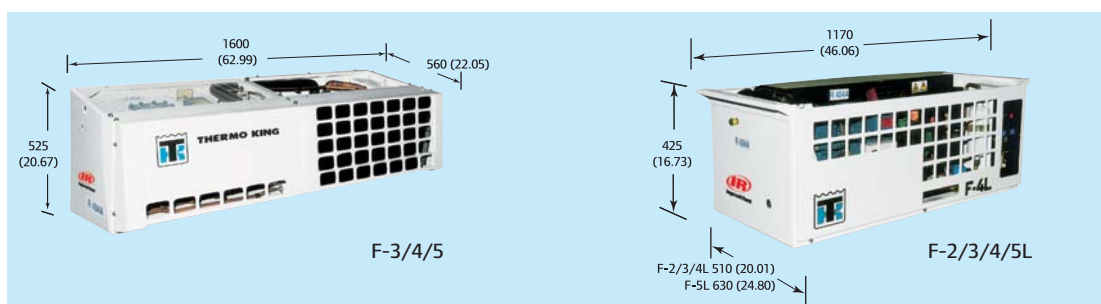
Operation

- External On/Off switch
- Automatic unit stop on freezing cycle termination

Standard Features

- Compressor overload relay
- Compressor motor thermal protection
- Condenser fan motor overload relay
- Large receiver tank
- Accumulator tank

Dimensions - millimetres (inches)



Weights

F-3	172kg
F-4	197kg
F-5	200kg
F-2L	149kg
F-3L	154kg
F-4L	179kg
F-5L	178kg

System components

- Condenser
- Installation kit
 - Mounting hardware
 - Power cord and receptacle
 - External thermometer
- Expansion valves available upon request

Compressor type

Reciprocating, 2 cylinders

Displacement:				
Nosemount	Undermount	50Hz	60Hz	Cp
F-3	F-2L	13.84 m ³	13.51 m ³	2hp
F-4	F-3L	17.93 m ³	18.43 m ³	3hp
F-5	F-4L	23.60 m ³	22.94 m ³	4hp
	F-5L	25.21 m ³	24.86 m ³	5hp

Refrigerant

R-404A or R-507

Chlorine: Zero

ODP: Zero

Charge: 0.8 to 1kg of refrigerant per plate

(Based on plate size: 1590x690x52mm)

Electric motors

Condenser fans: 0.5hp

- Pressure regulator valve for better compressor reliability*
- High pressure cut out switch*
- Low pressure cut out switch to automatically control the unit operation*

*Adjustable during installation for maximum unit flexibility

Warranty Summary

Terms of the Thermo King Express Warranty are available on request. The unit and its components are warranted to be free from defects in material and workmanship from date in service according to the terms (in months) as specified in the Thermo King Express Warranty. Manufacturer is not responsible and will not be held liable in contract or tort (including strict liability and negligence) for any special, indirect or consequential damages including but not limited to injury or damage caused to vehicles, contents or persons, by reason of the installation or use of any Thermo King product or its mechanical failure.

Specifications are subject to change without notice.

Service Parts and Accessories

Now, you can get the parts, accessories and services you need, where you need them, when you need them, quicker and more efficiently than ever. Recognised as the industry leader, Thermo King understands the importance of immediate parts availability and quality service performance. That's why we are expanding our aftermarket product line and increasing our service offerings. Our goal is to provide you with the total solutions package to keep your units operating for longer, with less down time.

Replacements Parts

Genuine Thermo King replacement parts are proven time after time to beat the competition in side-by-side testing. Engineered to provide optimal performance and maximum life, Thermo King service parts protect your investment and provide you peace of mind and confidence on the road. Insist on Genuine Thermo King Parts, every time!



For Maintenance

Thermo King offers the highest quality in durable maintenance parts on the market today. All products have been carefully selected and designed to keep your Thermo King equipment operating efficiently and at full capacity for longer. Insist on genuine Thermo King products . . . there is a difference!

Accessories

Complete your performance package with Thermo King's new and innovative quality accessories. Thermo King Accessories enhance equipment performance and increase productivity as well as driver safety and comfort and can be retrofitted for individual needs or factory fitted.

Telematics

Utilising the newest generation of technology, Thermo King's Telematics systems and software provide integrated solutions for global communications and asset management.



Controllers Devices

Designed exclusively for transport refrigeration applications, Thermo King's microprocessor controllers are the most advanced in the industry-providing versatility and allowing for total temperature control.

TOTAL KARE Service Contracts

Because maintenance costs constitute a key variable in the Total Life Cost of a temperature control system we can offer, through Total Kare, a complete selection of maintenance programs.

Thermo King - Total Kare is the solution for all your concerns about fleet management, offering you a program tailored to your needs. You only have to ask Thermo King Total Kare and we will answer what else we can do for you.

TotalKare

Life Cost Management

- **** Full Services
 - *** Extended Warranty
 - ** Preventative Maintenance
 - * Central Administration

Your Needs + TK² Advantages = Your Benefits

Anywhere in Europe, 24 hours a day, 365 days a year.



Providing equipment and services to manage controlled-temperature environments for food and other perishables, our Climate Control Technologies sector encompasses both transport and stationary refrigeration solutions. Our product brands include Thermo King®, a world leader in transport temperature control system and Hussmann®, a manufacturer of refrigeration and food merchandising equipment.

www.thermoking.com www.hussmann.com www.ingersollrand.com

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