



 E200

CHARGE INTO
THE ERA OF ELECTRIC

Full-electric refrigeration unit
for medium-size vans and trucks



**REDEFINING
WHAT'S POSSIBLE
WITH ALL-ELECTRIC
REFRIGERATION**

A full-electric plug and play solution that enhances temperature control and prepares you for whatever challenges tomorrow has in store.

Charge into the era of electric



The market leader in innovative technologies, Thermo King has expanded its portfolio of vehicle refrigeration systems with the E-200. It's a direct response to market demands for an all-electric product that supports increased vehicle uptime, power source optimization, and enhanced temperature control.

Designed for both electric and engine-powered vehicles, the E-200 can help ensure your operations remain compliant with a growing array of regional and national regulations concerning the reduction of noise and CO₂ pollution.

By deploying the E-200, your refrigerated transport operation will benefit from:

- Complying with PIEK standards and Urban Access Requirements (UVARs) for sound levels in urban environments
- Gaining access to Low Emission Zones (LEZs)/ Ultra Low Emission Zones (ULEZs), with extreme low noise levels to complete nighttime deliveries
- Providing refrigeration that moves beyond direct drive systems to provide the ideal solution for all-electric trucks
- Helping your customers meet their sustainability targets throughout the cold chain

The E-200 provides a unique mix of control, convenience, utilization, and reliability to inspire your performance across urban settings and last mile deliveries.

**Independent.
Intelligent.
Ready to go.**



ONE AWESOME LOOKING UNIT, AND A TRUCK LOAD OF NEW CAPABILITIES

Turning the potential of electric into easy-to-use, intelligent, and precise temperature control:

CONVENIENCE AS STANDARD

With no road compressor or drive kit, all the E-200's major components are fully integrated – making it a plug and play solution that removes the headaches associated with installation.

A SMARTER FORM OF POWER

With performance that's completely autonomous from the vehicle, and intelligent power source optimization to give you increased uptime and improved maintenance intervals.

CAPACITY YOU CAN ALWAYS RELY ON

Due to the E-200's enhanced controller for single and multi-temperature that delivers constant capacity independent of vehicle RPM.

CONNECTIVITY AT THE SHARP END

The unit's power management capability enables close compatibility with the start-stop features of the vehicle and it is able to increase vehicle RPMs when needed.

SILENT RUNNING IN THE VEHICLE CABIN

with limited perception of any vibrations to ensure peace of mind for the driver.

LAST MILE NEEDS AND NIGHT DELIVERY

the E-200 offers the perfect fit for last mile needs due to its precise temperature control and quick recovery from door openings. Due to the extreme low noise level, the E-200 is also suitable for night deliveries.

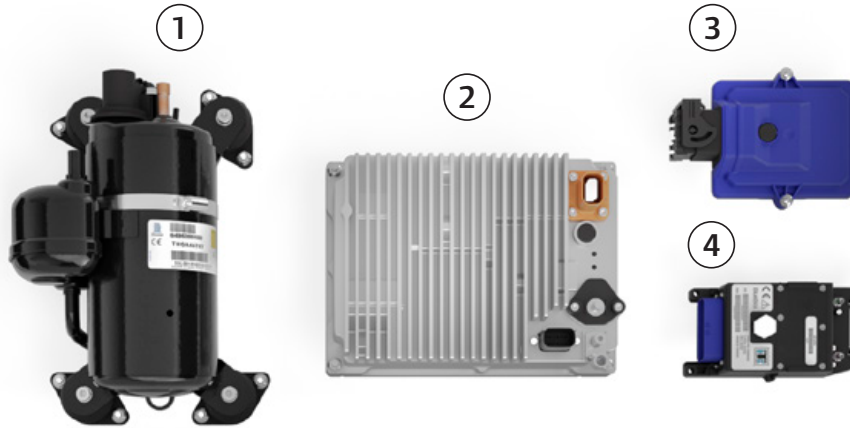
INNOVATION AT EVERY STEP

Light and flexible new materials have been employed on the E-200 to create an extremely light condenser to enable increased payloads and a corrosion-free solution for the condenser.

The E-200 can work with
both electric and engine-powered
vehicles to put exciting new
capabilities at your fingertips.
Charge into the era of electric



The E-200 features many tailor-made components never before seen in the transport refrigeration industry



① A VARIABLE SPEED **COMPRESSOR**

- Allows you to decrease the deviation of the set point, and to fully enjoy the benefits of Precise Temperature Control
- Increases system reliability due to the lower number of compressor starts and stops required to function
- Decreases consumption, which is particularly important when the E-200 is running on batteries

② A TAILOR-MADE **INVERTER**

- Provides the constant capacity needed to keep performance independent from the vehicle
- Delivers exceptional operating efficiency in even the most demanding of environments
- Avoids the use of a road compressor in the engine compartment, thereby making the unit easier and faster to install

③ A STAND OUT **CONTROLLER (DSR IV)**

- Enables direct communication between the unit and the vehicle to ensure compatibility with the Start & Stop feature
- Power Management Intelligence to optimize the supply and demand of power:
 - Adapts capacity based on actual need
 - Adapts capacity based on available power
 - Enables the management of different power sources
- Manages alarms related across all integrated components (inverter, charger, new electronics, battery(ies))

④ EMBEDDED **TELEMATICS** (OPTIONAL)

Two-way communication with the E-200 gives you the ability to track and monitor the condition of each unit in your transport fleet. As a result you can benefit from remote management, and identify a smarter route to managing and maintaining your operations. Anytime, anywhere.

THE FIRST LAST MILE OF A NEW ERA

The E-200 extends Thermo King's all-electric range to medium-sized vans and trucks. Packed full of innovation, the unit brings with it the constant capacity and intelligent power management needed to exploit the opportunities presented by electric. Ready for the last mile, the distribution center, and everything in between, the E-200 unlocks low noise/low emission zones to any delivery – and in so doing supports your long-term business ambitions.





**EXTEND THE BENEFITS
DELIVERED BY THE E-200 WITH
THE FOLLOWING ADD-ONS**

CONNECTED SOLUTIONS READY

Monitor and control your fleet assets to ensure everything from temperature traceability to define FSMA compliance. These are capabilities that help you manage load integrity, cargo traceability, fuel usage, and much, much more. Add in Bluetooth connectivity and proactive notifications, and you can rest assured that any problem can be quickly identified and addressed.



SPECIFICATIONS E-200

Refrigerant System net cooling capacity under ATP conditions, European standard

AIRFLOW

	ES150	ES200	ES100N
ON HIGH SPEED OPERATION	800 m³/h	1012 m³/h	580 m³/h

WEIGHT

CONDENSER	39 kg
EVAPORATOR ES150 (MAX)	14 kg
EVAPORATOR ES200 (MAX)	15 kg
EVAPORATOR 2 X ES1000N MAX	18 kg

HEATING CAPACITY Ambient temperature of -18°C (only available for R-452A models)

RETURN AIR EVAPORATOR	18°C	18°C
CAPACITY ON ENGINE POWER	1300 W	1300 W
CAPACITY ON ELECTRICAL STAND-BY	1300 W	1300 W

COOLING CAPACITY Ambient temperature of +30°C

E-200 20 MODELS (R-134a)						
	ES150		ES200			
RETURN AIR EVAPORATOR	0°C		0°C			
CAPACITY ON ENGINE POWER	1507 W		1414 W			
CAPACITY ON ELECTRICAL STAND-BY	1511 W		1413 W			

E-200 MAX 50 MODELS (R-452A)						
	Single Temperature Models				Spectrum	
	ES150		ES200		2 X ES100N ⁽¹⁾	
RETURN AIR EVAPORATOR	0°C	-20°C	0°C	-20°C	0°C	-20°C
CAPACITY ON ENGINE POWER	1958 W	1071 W	1744 W	932 W	-	820 W
CAPACITY ON ELECTRICAL STAND-BY	1947 W	1074 W	1780 W	921 W	-	825 W

⁽¹⁾ ES100N is interchangeable with ES100.

IMPRESSIVE CONSUMPTION* LEVELS

The E-200 is designed to require the least energy possible to run effectively. For diesel-engine vehicles a 12V alternator providing a minimum of 180 amps is typically sufficient (as long as instruction in the conversion manual are correctly followed). For electric vehicles, a 12V auxiliary battery should suffice, though this depends upon the refrigeration capacity required:

CONSUMPTION					
		MAX POWER		MIN POWER	
		Capacity	Current	Capacity	Current
R-134a	ES150	1507 W	87 A	1130 W	70 A
	ES200	1404 W	93 A	1061 W	75 A
R-452A	ES150	1958 W	114 A	1259 W	71 A
	ES200	1744 W	120 A	1121 W	75 A
	2X ES100N	1578 W	120 A	1014 W	75 A

* Consumption measurements tested at 14V, and accuracy of consumption (current) is +/- 5 amps.

SUGGESTED BOX VOLUMES

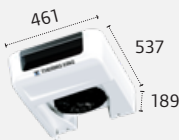
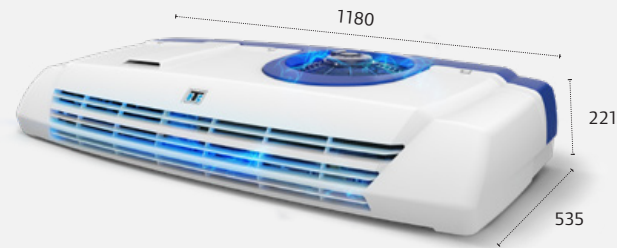
Volumes can differ based on several aspects, such as ambient temperature, number of door opening, duration of each door opening, duration of vehicle engine off per each door opening:

Door opening 2/h acc DIN 8959						
			HEATING MODE		COOLING MODE	
AMBIENT			-18°C		30°C	
SET POINT			+18°C	+5°C	Frozen	Fresh Ambient
K=0,7 R-134a	ES150		n/a	n/a	n/a	10m³ 12m³
	ES200		n/a	n/a	n/a	9m³ 12m³
K=0,4 R-134a	ES150		n/a	n/a	n/a	13m³ 14m³
	ES200		n/a	n/a	n/a	13m³ 14m³
K=0,7 R-452A	ES150		4m³	7m³	n/a	10m³ 12m³
	ES200		4m³	7m³	n/a	9m³ 12m³
K=0,4 R-452A	ES150		6m³	10m³	6m³	13m³ 14m³
	ES200		6m³	10m³	5m³	13m³ 14m³

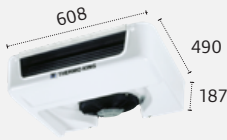
DIMENSIONS

The condenser and evap sections are available in:

- 1 ph / 230V / 50Hz or 60Hz
- 1 ph / 115V / 60Hz



ES100N
Ultra Slim



ES100
Ultra Slim



ES150 MAX
Ultra Slim



ES200
Ultra Slim

THE SMARTER APPROACH TO VEHICLE UPTIME

**Keep your fleet running longer with our
extensive ecosystem of support capabilities**



THERMOKARE SERVICE SOLUTIONS

ThermoKare is a complete selection of service contract solutions designed to optimise fleet efficiency, minimize operating costs and maximize equipment resale values. When you choose a ThermoKare programme you let the experts service your fleet while you focus on your business. Your Thermo King Dealer will take care of maintenance planning, scheduling, invoice interpretation and general fleet administration. ThermoAssistance is a multilingual telephone service putting you in contact with an authorised Thermo King Service Dealer whenever the need arises. It is available across Europe 24/7/365.

ALWAYS INSIST ON GENUINE THERMO KING SERVICE PARTS

As a Thermo King owner, you have invested in trusted and proven technology. So when maintaining your unit, it makes sense to choose original Thermo King replacement parts. It is reassuring to know that every part has been exhaustively tested to the same world-class standards as your Thermo King unit. Genuine parts last longer and perform dependably day after day, year after year.

**Talk to your dealer to find the
best solution for your needs and
know you always get the best.**

TELEMATICS INTELLIGENT SERVICES AND SMART DATA MANAGEMENT

The transportation industry has always been about connectivity. It brings products to consumers all over the world and has enabled a global marketplace. Today, connectivity has taken on even greater meaning due to the amazing technologies that are within our grasp. Thermo King's Telematics portfolio offers innovative data storage, transfer and management solutions giving you the competitive edge in food safety, regulatory conformity, fleet usage and data control.

TK Wintrac is just an example. Check it out on
**[europe.thermoking.com/solutions/
connected-solutions](http://europe.thermoking.com/solutions/connected-solutions)**

**OUR DEALER
SERVICE NETWORK
ANYTIME,
ANYWHERE,
ALWAYS THERE**



**Thermo King's Dealer Network is
the most extensive in the business**

- Over **500 authorized service points** in 75 countries
- **1400 fully trained** and certified technicians
with Gold, Silver and Bronze
Certi-Tech expertise certifications
- Open and **available 24/7**

WANT TO DISCOVER MORE?
Contact your nearest Thermo King dealer.





Thermo King is a brand of Ingersoll Rand®. Ingersoll Rand (NYSE:IR) advances the quality of life by creating comfortable, sustainable and efficient environments. Our people and our family of brands — including Ingersoll Rand®, Thermo King®, Trane® and Club Car® — work together to enhance the quality and comfort of air in homes and buildings; transport and protect food and perishables; and increase industrial productivity and efficiency. We are a global business committed to a world of sustainable progress and enduring results.

For further information please contact:



europe.thermoking.com



ingersollrand.com

Ingersoll Rand - Lenneke Marelaan 6, B-1932 Sint-Stevens-Woluwe, Belgium.

© 2019 Ingersoll-Rand Company Limited TK 650018 (08-2019)-EN