

 **THERMO KING**

# T-500R



**MAXI  
PERFORMANCE** mini  
size

 **Ingersoll Rand**

# T-500R

**THE solution for  
extreme ambient  
temperatures**

On trucks up to 5.5 metres, there is only one solution for refrigerated transport where ambient temperatures reach 55°C: Thermo King's T-500R. No matter whether you are delivering fresh, dairy or deep frozen produce, the T-500R will protect your valuable cargo from the most extreme elements. Right up to 55°C.

This big performance comes in a compact, aerodynamic package, with a small footprint to fit a wide range of bodies. And it weighs in at just 400 kg (50 model).

- Proven performance up to 55°C
- As tough as the conditions it works in
- Full Thermo King service and parts support
- Ease of use for error-proof operation
- Market leading performance and economy
- Reduced environmental impact
- Frozen, chill or fresh cargo up to 5.5m body
- Stylish new appearance
- Refrigerant: R404A



# aerodynamic innovative design proven to perform



One look shows that the T-500R is clearly a proud member of Thermo King's latest T-Series truck refrigeration unit family. The sleek, aerodynamic exterior will keep its good looks, and its value, thanks to fibre reinforced plastic panels. In addition, service access is much improved by the new external and internal design. In spite of its small footprint, the innovative design of the T-500R means it has the cooling capacity and airflow to handle truck bodies right up to 5.5 metres.

Extensive field trials and tens of thousands of running hours have proven that the design is able to perform even in the harshest of conditions.



# As tough as the conditions it works in

The T-500R is built to last and builds on the outstanding reputation of its predecessor, the MD range.

## Proven major components

- ① **X214 compressor:** deep sump two cylinder reciprocating design, proven reliability over millions of operating hours, greater than 10,000 hours service interval, field repairable.
- ② **TK270 diesel engine:** two cylinder, proven design for transport refrigeration, 1000 hours between oil changes.
- ③ **Evaporator fans:** three 12 Volt electric very long life (VLL) fans give double the life of conventional electric fans.

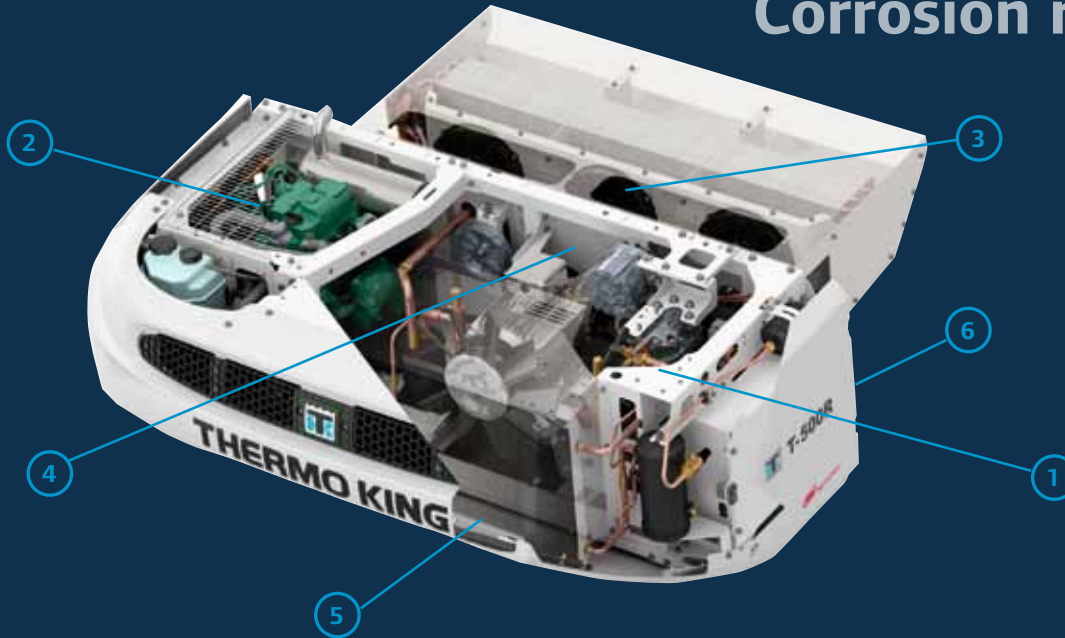
## Corrosion resistance

- ④ **E-coated frame:** automotive grade immersion electrocoating uses an electrical current to attract paint to metal and ensures complete coverage for total corrosion resistance.
- ⑤ **Microchannel condenser coil:** the latest in all-aluminium coil designs. Eliminates galvanic corrosion caused when copper and aluminium found in conventional coils react together.  
**Steel components:** galvanised, painted and baked to protect them from the elements.
- ⑥ **Plastic external panels:** totally corrosion proof, fibre reinforced to resist impacts and retain premium appearance.



# Quality you can rely on

Proven major components  
Corrosion resistance



X214 Compressor



# Market leading performance and economy

The T-500R raises the bar way beyond any comparable equipment on the market today. The new microchannel condenser coil has been up-sized to enable the exceptional performance at high temperatures. As a result, when compared with its predecessor, the T-500R has increased cooling capacity (up to 31%) and reduced fuel consumption (by up to 12%). In addition, faster temperature pull-down means valuable time is saved when pre-cooling the box and sensitive loads are better protected against temperature rise during delivery cycles.

## Ease of use for error-proof operation

Drivers will find the new TSR (Truck Smart Reefer) in-cab controller easy to use and fully intuitive.

Critical information is clearly displayed using LEDs which are unaffected by high cab temperatures.

Numbers and symbols avoid the use of language and keep things simple. Buttons with illuminated symbols avoid the use of menus to select key functions including Cycle Sentry, high speed inhibit, defrost and pre-trip check. Set-point changes are error-proof with colour coded up/down keys, set-point temperature display and an enter key to confirm. To avoid interference and protect the load, a keypad lock-out safety feature has been added.



# Reduced environmental impact

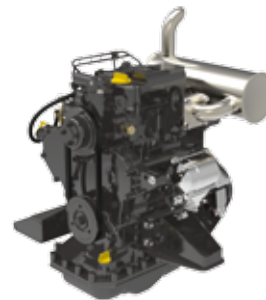
**Less CO<sub>2</sub>:** reduced fuel consumption means reduced CO<sub>2</sub> emissions.

**GreenTech TK270 engine:** not just high performance; delivers a 65% reduction in particulate matter - compared to previous models.

**Less waste:** extended maintenance intervals mean less oil, filter and coolant disposal.

**Less noise:** whisper quiet performance with a 55% reduction in noise levels for a standard unit compared to previous models. An even greater reduction is possible with the optional Whisper™ low noise kits.

## 55% reduction in noise levels



# Key Features, Options and Accessories

## ThermoKare™

ThermoKare offers a complete selection of service contract options; helping to manage maintenance costs and hence total life cost of a unit.

## Warranty coverage

2 year warranty coverage on unit and options\*

\*2<sup>nd</sup> year warranty coverage subject to mid-term inspection

## Cycle-Sentry

This feature stops the engine when refrigeration is not needed and restarts it when refrigeration or battery charge is needed.

- Fuel and CO<sub>2</sub> savings of up to 80%
- Increased component life
- Reduced maintenance costs

## Thermo King high performance battery

Incorporates silver-calcium technology to extend service life to over 20% more than conventional batteries

## Extended Maintenance Interval: EMI 1000

Thermo King EMI 1000 will extend maintenance intervals and reduce operating costs by:

- Reducing clean-up and disposal costs
- Reducing environmental impact with less spillage and less oil, filter and coolant waste
- Extending engine life with improved, highly efficient filtration

## Thermo King battery EON 880CCA

- Uses Absorbed Glass Mat (AGM) technology with deepcycle capability and enormous cranking power
- Maintains capacity at extremely low temperatures better than a wet cell battery
- Avoids the costs of battery replacements through an expected five to eight year service life.
- Also backed by Thermo King's 2 year warranty





## Thermo King battery wet cell 760CCA

For customers that operate in colder climate conditions, this 760 CCA upgraded wet cell battery delivers greater power than the standard battery

## TKDL data capture

- User-friendly temperature recorders for all makes of temperature-controlled equipment
- Simple data download to PC (no special software needed)
- Delivery and journey printouts at the touch of a button
- Approved to EN 12830, CE Mark and IP-65 standards
- Up to 4 independent sensors and up to one year's data storage capacity

## Auto phase correction

- Avoids reverse fan rotation while on electric stand-by
- Protects the load

## Password protected controller

- Prevents unauthorised access
- Protects against cargo loss, especially in high ambients

## Diesel/electric auto switching

- Automatically starts diesel engine if electric stand-by fails
- Manual override for ferry operation
- Protects the load automatically (without manual intervention)

## Remote Watch

- New feature that allows the Thermo King service team to remotely access the unit from anywhere in the world
- Only requires a USB port and an internet connection
- User-friendly interface providing on-the-road service, therefore minimising truck downtime
- The T-500R is the first unit in the T-Series to include this feature.

# Key Features, Options and Accessories

## Door switches

Reduces the load temperature rise and saves fuel when doors are opened

## TherMax system

Faster defrosts

## Body mount enclosure

Allows external mounting of in-cab displays on drawbar truck bodies, allowing for easy access

## 90L Fuel tank

- Approved for diesel and bio-diesel
- Vibration resistant as per Thermo King standards
- Mechanical fuel gauge with option to upgrade to electrical
- Galvanised drain plug as standard
- Corrosion resistant installation kit (e-coated)

FEATURES AND OPTIONS	T-500R
<b>LIFE COST MANAGEMENT</b>	
Remote Watch	●
Warranty coverage	●
Cycle-Sentry™ interval	●
EMI 1000: Extended maintenance	●
Thermo King high performance battery	●
Thermo King battery wet cell 760CCA	△
Thermo King battery EON 880CCA	△
ThermoKare™	▲
<b>DATA CAPTURE &amp; COMMUNICATIONS</b>	
TKDL data capture	▲
<b>LOAD PROTECTION</b>	
Auto phase correction	●
Diesel/electric auto switching	●
Door switches	△
TherMax system	●
Body mount enclosure	△
90L Fuel tank	▲
Password Protected controller	●

○ Not Available

● Standard Feature

△ Option: Factory Supplied

▲ Option: Dealer Supplied

# Specifications

SPECIFICATIONS		T-500R	
<b>REFRIGERATION CAPACITY: SYSTEM NET COOLING CAPACITY AT 30°C AMBIENT TEMPERATURE UNDER ATP CONDITIONS</b>			
Return air to evaporator		0°C	-20°C
Capacity on engine power	W	5100	2800
Capacity on electric stand-by	W	3900	2200
<b>REFRIGERATION CAPACITY: SYSTEM NET HEATING CAPACITY AT -18°C AMBIENT TEMPERATURE</b>			
Return air to evaporator		2°C	
Capacity on engine power	W	1800	
Capacity on electric stand-by	W	1000**	
<b>AIRFLOW ON HIGH SPEED ENGINE OPERATION</b>			
Airflow Volume @ 0Pa static pressure	m <sup>3</sup> /hr	2000	
<b>WEIGHT</b>			
Model 30: cooling and heating on engine operation	kg	370 *	
Model 50: cooling and heating on engine and electric stand-by operation	kg	400 *	
<b>ENGINE: LOW EMISSIONS, 2 CYLINDER, LIQUID COOLED</b>			
Model		TK 270	
Rating	kW	7.5	
Maintenance Interval	hrs	1000	

\* Battery not included

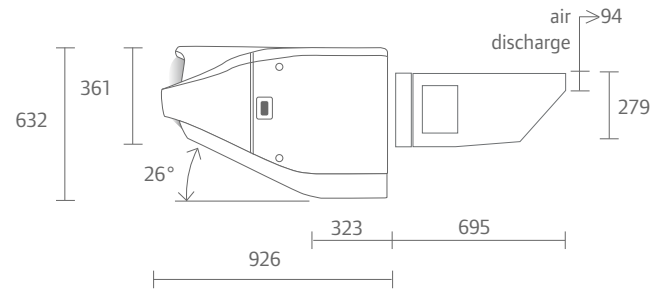
\*\* With Electric Heat Option 2500W capacity is achievable

# Specifications

SPECIFICATIONS		T-500R
<b>COMPRESSOR: LIGHTWEIGHT ALUMINIUM ALLOY</b>		
Model		X214 Deep Sump
Displacement	cc	228
<b>ELECTRIC STAND-BY OPTION</b>		
Voltage / Phase / Frequency		400V/3Ph/50Hz 230V/3Ph/50Hz 230V/3Ph/60Hz
Rating	kW	4.5
<b>REFRIGERANT: R-404A ZERO OZONE DEPLETION POTENTIAL (ODP), INTERNATIONALLY APPROVED</b>		
Charge	kg	2.5



## Dimensions (mm)



## WARRANTY SUMMARY

Specific terms of the Ingersoll Rand Ltd. 24 month full warranty are available on request (refer to TK 60483). Thermo King excludes liability in contract and tort (including strict liability and negligence) for any special, indirect or consequential damages by reason of the installation or use of any covered product or its mechanical failure.

# Full Thermo King service and parts support

## Market leading performance and economy

24/7 back-up from the world-renowned Thermo King dealer network. 1000 hour maintenance intervals and 5000 hour belt life mean low cost of ownership and minimum downtime.

## Unmatched serviceability and improved parts support

From the beginning the T-500R was designed to use, where possible, common components to the already existing members of the T-Series range. This means more availability, faster repair and more reliability.

## Thermo King Dealer Service Network

### Anywhere in Europe

- Blanket coverage across Europe
- Open & available 24/7
- Over 300 authorised service points
- 1,300 certified technicians





THERMO KING



europe.thermoking.com



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