

# MONZONE®

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# 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. For more information, visit [www.thermoking.com](http://www.thermoking.com) or [www.tranetechnologies.com](http://www.tranetechnologies.com).

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 **THERMO KING**

**MONZONE®**



**T-80 Pro Series**  
**Higher Capacity, truly offer More**

Quicker Pull down & Recover / Lower life cycle cost  
Easy to use and service / Quieter operation

**TRANE**  
TECHNOLOGIES



Since 1938, Thermo King's priority has been to develop innovative products that meet and exceed the ever changing needs of our customers. The development of the T-80 Pro Series units continues the legacy of customer-focused innovation.

Low operation and maintenance costs, as well as fuel saving technologies, make sure you save money throughout your unit's life cycle.

Easy system operation reduces the risk of user errors, while easy service and monitoring allow the unit to run at optimum efficiency at all times.

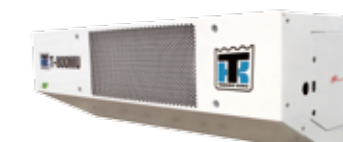
The T-80 Pro Series also sets new standards when it comes to the reduction of emissions, waste and noise pollution, offering unmatched performance with minimal environmental impact.

Whatever your application and needs, T-80 Pro Series offers the right solutions for today's challenges. T-80 Pro Series is available in a complete range of capacities, making it the perfect fit for all your transportation requirements.

Whether you're looking for more capacity, trustworthy reliability and performance, fuel efficiency, unprecedented temperature pull-down and recovery, convenient maintenance intervals, or all of the above, the T-80 Pro Series will not let you down.

## Product Overview

T-80 Pro Series products built on the proven reliability of the T-M product ranges. Improved coil designs, optimized software, along with many additional improvements, taking our self-powered truck refrigeration models to a new level, delivering higher performance and more features. It allowed us to meet more of your needs, to further exceed your expectations and simply to serve you better.



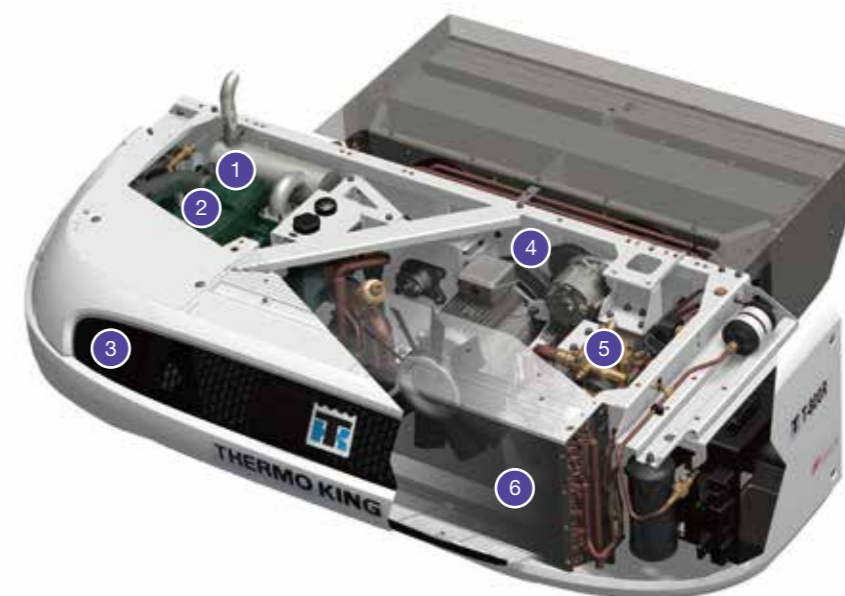
底置式独立机组T-80MU



X214 Compressor



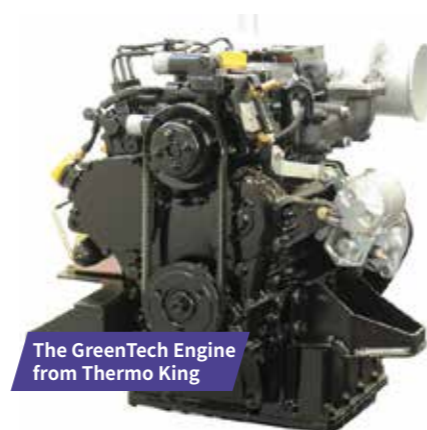
X426 C5 Compressor



## The GreenTech Engine from Thermo King

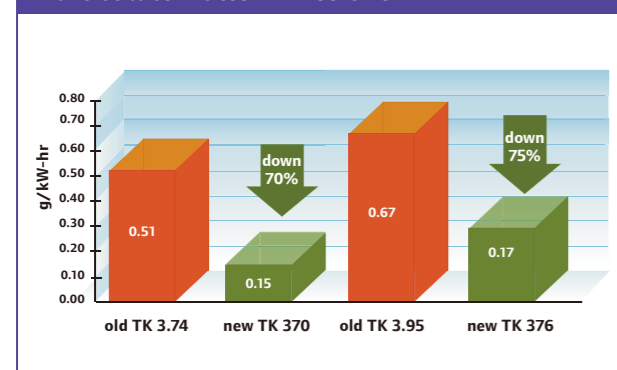


All the T-80 Pro Series truck refrigeration units are equipped with the new range of GreenTech engines from Thermo King. These engines drastically reduce emissions, waste and noise pollution, when you see the GreenTech name and symbol, you know at a glance that you are looking at refrigeration units that contain the cleanest engines on the market today. Performance has been enhanced too; GreenTech engines are more powerful and cause less stress to components. It is the easy choice for you and the best choice for the environment.



The GreenTech Engine from Thermo King

### Particulate Matter Emissions



Emissions of particulate matter (PM) from all engines have been substantially reduced

### Engine life

Our new range of engines for the T-80 Pro Series is more powerful, even running at no more than 80% of their maximum output. Thus, both oil and coolant temperatures are reduced, resulting in less component stress and less engine wear.

### Bio-fuel compatibility

All the new engines are approved for use with B5( 5%bio/95% petroleum diesel) fuel with no change in maintenance schedules. Fuels with higher bio-diesel content (B6 up to B100) require shorter intervals between oil changes and injector servicing.

### 1 GreenTech Engine

- Low emissions
- High performance
- Increased life
- Reduced maintenance

### 2 Extended Maintenance Interval: EMI 2000

- 2000 hours / 24 months oil change intervals
- Reduced environmental impact with less spillage and less waste
- Lower maintenance costs than competitor models

### 3 Unit Grill and Skins

- Aerodynamic skins
- Removable side doors for easy service
- Impact-resistant, in-mould colouring process helps reduce and hide scratches
- Recyclable Geloy® engineered plastic

### 4 Powertray

- Poly-V stretch belt system delivers exceptional belt life
- Made with Quiet Channel technology: advanced materials virtually eliminate the usual noise caused by misalignment

### 5 Thermo King Reciprocating Compressors

- The industry standard for proven reliability and easy service
- X214 & X426 C5 compressors with extended life crankshaft bearings
- High volumetric efficiency due to more pumping capacity per cubic centimetre
- Reliable, time-tested design
- Field-repairable for easy service
- No special tools or facilities required

### 6 Coils

- Bigger condenser/evaporator gives high ambient capability, more capacity and more efficiency with less noise
- Mechanical-drive evaporator fans reduce maintenance costs

## ▶ Introducing T-80 Pro Series truck refrigeration units

### ❄️ Capacities that match your requirements

- The perfect capacity fit for your specific application
- Eliminate energy waste and save costs
- Capacities from 7200 W to 10600 W at 0°C
- Capacities from 3800 W to 5700 W at -20°C

### 🔄 Low fuel consumption

- Through extensive development and field experience, Thermo King have found the right balance between system efficiency, fuel consumption and performance in all ambient conditions for both fresh and frozen produce
- Advanced fuel-saving control technology with the new TSR controller means greater fuel efficiency

### 👉 Easy to use and service

- The new and intuitive TSR controller features a symbolic display for error-free operation
- Low level alerts for oil and coolant
- Programmable service intervals and scheduled maintenance reminders
- Easy service accessibility to electrical and engine components
- Easy to use PC Monitor application for diagnostics and communication with USB port

### 🔊 Quieter operation

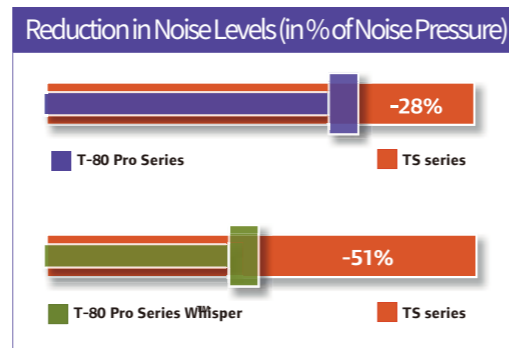
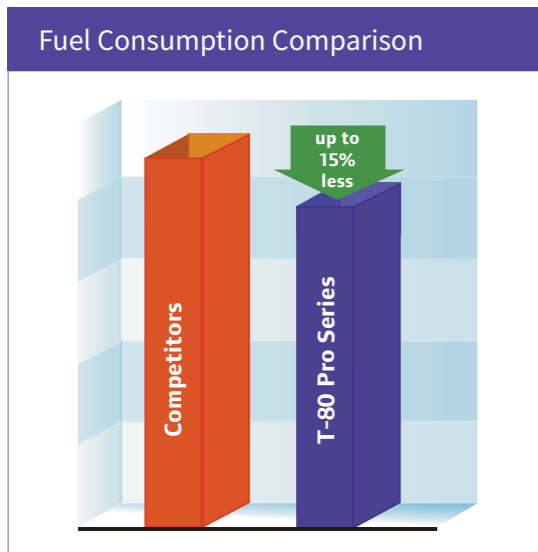
- Whisper™ quiet operation
- Poly-V stretch belt with Quiet Channel technology for reduced noise

### ⚡ Reduced emissions & waste

- T-80 Pro Series units are now equipped with GreenTech™ engines which are the cleanest on the market
- Reduction of waste through EMI 2000
- 99.7% of the unit material is recyclable

### 🔧 Lower life cycle costs

- The TSR controller allows optimum management of all functionalities of the unit in order to deliver what matters for every load
- The Extended Maintenance Interval Programme EMI 2000 reduces maintenance costs



## ▶ T-80 Pro Series M Units Specifications

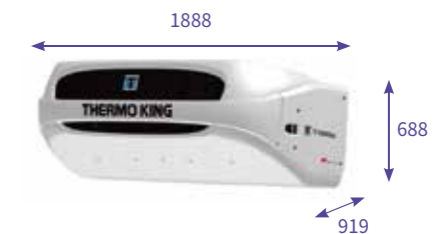
| SPECIFICATIONS   | T-680 Pro                    | T-780 Pro | T-880 Pro | T-980 Pro | T-1080 Pro | T-1180 Pro |
|--|------------------------------|-----------|-----------|-----------|------------|------------|
| <b>REFRIGERATION CAPACITY: SYSTEM NET COOLING CAPACITY AT 30°C AMBIENT TEMPERATURE UNDER A.T.P. CONDITIONS</b> |                              |           |           |           |            |            |
| Engine Power (W)   | 0°C 7,400                    | 7,800     | 8,200     | 8,600     | 10,200     | 10,600     |
|  | -20°C 3,900                  | 4,100     | 4,300     | 4,550     | 5,700      | 5,700      |
| Electric Stand-by (W)  | 0°C 3,700                    | 4,600     | 5,900     | 6,200     | 6,400      | 6,720      |
|  | -20°C 2,600                  | 3,200     | 3,300     | 3,470     | 4,200      | 4,410      |
| <b>HEATING CAPACITY: BOX TEMPERATURE 2°C, AMBIENT TEMPERATURE -18°C</b>  |                              |           |           |           |            |            |
| Engine power(W)  | 3,100                        | 3,100     | 3,100     | 3,100     | 4,100      | 4,100      |
| Engine power and Water-heating (optional)(W)   | 6,300                        | 6,300     | 6,300     | 6,300     | 7,300      | 7,300      |
| <b>AIRFLOW: ON HIGH SPEED ENGINE OPERATION</b>   |                              |           |           |           |            |            |
| Airflow volume @ 0 Pa static pressure (m3/h)   | 2,700                        | 2,700     | 2,700     | 2,700     | 3,200      | 3,200      |
| <b>WEIGHT: NOT INCLUDES BATTERY</b>  |                              |           |           |           |            |            |
| Model 30: cooling and heating on engine operation (kg)   | 443                          | 440       | 443       | 440       | 461        | 457        |
| Model 50: cooling and heating on engine and stand-by operation (kg)  | 468                          | 465       | 468       | 465       | 510        | 505        |
| <b>ENGINE: LOW EMISSIONS, 3 CYLINDER, LIQUID COOLED</b>  |                              |           |           |           |            |            |
| Model  | TK 370                       | TK 370    | TK 370    | TK 370    | TK 376     | TK 376     |
| Rating (kW)  | 11.2                         | 11.2      | 11.2      | 11.2      | 14.6       | 14.6       |
| Maintenance interval (hr)  | 2,000                        | 2,000     | 2,000     | 2,000     | 2,000      | 2,000      |
| <b>COMPRESSOR: LIGHTWEIGHT ALUMINIUM ALLOY</b>   |                              |           |           |           |            |            |
| Model  | X214                         | X214      | X214      | X214      | X426 C5    | X426 C5    |
| Displacement (CC)  | 228                          | 228       | 228       | 228       | 426        | 426        |
| <b>ELECTRIC STAND-BY OPTION</b>  |                              |           |           |           |            |            |
| Voltage / Phase / Frequency (V/Ph/Hz)  | 380V/3Ph/50Hz, 230V/3Ph/60Hz |           |           |           |            |            |
| Rating (kW)  | 4.5                          | 4.5       | 4.5       | 4.5       | 7.5        | 7.5        |
| <b>REFRIGERANT: R-404A ZERO OZONE DEPLETION POTENTIAL (ODP), INTERNATIONALLY APPROVED</b>                      |                              |           |           |           |            |            |
| Charge (kg)  | 3.6                          | 3.0       | 3.9       | 3.0       | 4.1        | 3.0        |

Note: Refrigerant charge listed is for reference. Vehicle and piping configurations determine correct charge weights

### Dimensions(mm)



T-680 Pro / T-780 Pro / T-880 Pro / T-980 Pro



T-1080 Pro / T-1180 Pro

| Features and Options                              | T-680 Pro | T-780 Pro | T-880 Pro | T-980 Pro | T-1080 Pro | T-1180 Pro | T-800MU |
|---|-----------|-----------|-----------|-----------|------------|------------|---------|
| <b>FUEL EFFICIENCY &amp; LIFE COST MANAGEMENT</b> |           |           |           |           |            |            |         |
| Cycle-Sentry™                                     | ●         | ●         | ●         | ●         | ●          | ●          | ●       |
| Extended maintenance interval: EMI 2000           | ●         | ●         | ●         | ●         | ●          | ●          | ●       |
| Whisper™ Low Noise kit                            | ▲         | ▲         | ▲         | ▲         | ▲          | ▲          | ○       |
| TherMax™ System                                   | ●         | ●         | ●         | ●         | ●          | ●          | ●       |
| High speed lock out                               | ●         | ●         | ●         | ●         | ●          | ●          | ●       |
| Fuel Saver Mode                                   | ●         | ●         | ●         | ●         | ●          | ●          | ●       |
| Pre-trip check                                    | ●         | ●         | ●         | ●         | ●          | ●          | ●       |
| <b>DATA CAPTURE &amp; COMMUNICATIONS</b>          |           |           |           |           |            |            |         |
| PC Monitor diagnostics & data record software     | ●         | ●         | ●         | ●         | ●          | ●          | ●       |
| <b>LOAD PROTECTION</b>                            |           |           |           |           |            |            |         |
| TSR in-cab HMI                                    | ●         | ●         | ●         | ●         | ●          | ●          | ●       |
| Auto phase correction                             | ●         | ●         | ●         | ●         | ●          | ●          | ●       |
| Diesel/Electric auto switching                    | ●         | ●         | ●         | ●         | ●          | ●          | ●       |
| <b>TRANSPORT SCOPE EXTENSION</b>                  |           |           |           |           |            |            |         |
| Water-heating                                     | ▲         | ▲         | ▲         | ▲         | ▲          | ▲          | ○       |

● Standard Feature    ▲ Option    ○ Nothing

### TSR controller Easy to use, hard to beat

Powerful and simple to use, the new TSR T-80 Pro Series controller makes it easy for your drivers to accurately manage the temperature in the truck, no matter what you are hauling.

Step-by-step instructions, depicted in symbolic form, make it quick and easy to precisely set and adjust the refrigeration unit, helping your drivers, your customers and ultimately your bottom line.



TSR in-cab interface

### New intuitive interface

The new TSR in-cab interface displays all information in clear symbols; It doesn't matter what language you speak. This increases ease-of-use and reduces the risk of operator errors.

### Enhanced safety and security

At the end of the day, protecting your load is what matters. The TSR makes that job easier and even more effective with a range of enhanced features:

- Keypad with lock-out
- Phase correction
- Diesel/electric auto switching
- Set-point warning
- Oil and coolant level alerts
- Tiered security access levels for appropriate personnel
- Diesel engine and electric stand-by hour meter display

### Easy-to-read LED display

The new LED display is bright and clear, ensuring better visibility in all light conditions. It also functions perfectly in all ambient temperatures.



### Fuel savings

The TSR includes features that improve fuel savings such as:

- Cycle-Sentry™ mode
- Fuel Saver Mode



### Improved diagnostics with PC Monitor™

PC Monitor™ allows you to do all configuration and communication

### ► Dealer Network

When you buy a Thermo King, you're buying the most reliable transport refrigeration unit on the planet. And to make sure it stays that way, we throw in the most reliable, most skillful dealer service network on the planet. It's a network that keeps the light on 365 days a year, 24 hours a day.

Thermo King Dealers have been servicing transport temperature control equipment for more than 80 years now. Nearly 500 service points are across Asia Pacific & India. We offer Thermo King service at every crossroads and in every port. When the customers can't come to us, we go to them.

Dealers are a great platform for long-term successful customer relationships. Each dealer provides: Thermo King trained and certified technicians, comprehensive service contract programs, 24 hour and mobile service, Thermo King and competitive replacement parts, etc.

### Thermo King Asia Pacific & India Dealer Service Network Note: dealer sales & service point quantity

