TriPac™ Evolution
The next generation APU that delivers lower operating costs and improved serviceability.

Ingersoll Rand.
Built on the industry-leading TriPac™ auxiliary power unit (APU) and supported by the Thermo King dealer network, the TriPac Evolution raises the bar even higher with unrivaled performance, low operating costs, easy operation and true peace-of-mind.

The TriPac Evolution was not only designed to meet Tier IV EPA final regulation requirements; it was designed to respond to and anticipate evolving customer needs by leveraging new patented technologies that drive unit performance, efficiency and user productivity. Its performance is uncompromised. The operational savings are real.
HOW DO YOU MAKE THE BEST EVEN BETTER?

UNRIVALED PERFORMANCE
With virtually unlimited heating and cooling and a new control system to accurately diagnose issues, the TriPac Evolution’s performance is industry-leading. The control system is flash-loadable and includes a data logger. Diagnostics are improved with 22 alarm codes, and the charging system has been enhanced with amperage-based decision making. The new system gives flexibility to users, allowing customers to focus on fuel consumption, driver comfort or battery life to enhance their needs as appropriate.

EASY OPERATION
Operating the TriPac Evolution is easy. By moving to a three knob design that aligns with automotive architecture, the need for in depth operator training has been eliminated.

LOW OPERATING COSTS
Easier access to components and the longest maintenance interval in the industry keep costs down and help customers better align maintenance schedules. The TriPac Evolution features a larger oil sump that enables the unrivaled 1500 hour service interval. New unit skins allow easier service access. The fuel pump and a new serviceable fuel pre-filter are relocated to the front of the unit for easy access. The new bottom pan pivots on rear fasteners, which allows for easy installation and removal as well as significantly improved service access to the alternator and belts. For skirted tractor applications, a reverse-hinged oil access door is provided.

PEACE OF MIND
Thermo King is the only APU manufacturer to offer nationwide 24/7 service through its world class dealer network. The TriPac Evolution unit’s reliability is built on 100,000 units of experience. The peace of mind offered is priceless.
GREATER FUEL SAVINGS
Programmable settings within the controller means the TriPac Evolution doesn’t heat or cool the cab during out-of-service days; it simply monitors and maintains battery voltage and engine coolant temperatures so that the tractor starts dependably.

REDUCED WEIGHT
Weight is important in your business, and every pound that can be reduced from your equipment means one more pound of revenue-generating cargo. So not only is the TriPac Evolution packed with innovative new technologies, it also weighs over 50 pounds less than the previous TriPac. That’s more cargo you can carry with every load and more money in your pocket.

APPEARANCE PACKAGE
The TriPac Evolution gives you big-time performance, and it can also up the visual appeal of your rig. Add a diamond plate top cover to set yourself apart from the pack.
Fuel represents a significant portion of your operational costs, and the frequent fluctuations in price can be worrisome and costly. The fact is, fuel prices have risen significantly over the last decade. Investing in the TriPac Evolution system today means less stress next time fuel prices spike. Waiting until fuel costs reach a specific point to get your TriPac Evolution means waiting to take advantage of the savings and not being ready for the inevitable future fuel cost increases.

**U.S. DIESEL PUMP PRICES**
## The Tripac Evolution: Cashflow-Positive from Month One

### Example: If you idle 2500 hours per year with a fuel price of $3.75 per gallon, you can save up to $668 per month based on fuel costs alone with Tripac Evolution!

### Tractor Idling Assumptions
- Annual Miles: 100,000
- Idling Fuel Cost: 1.0 gph

### Tripac Evolution Assumptions
- **Cooling** (% per year, gph): 60%, 0.2 *
- **Heating** (% per year, gph): 40%, 0.06 *

Find your cost per month savings with Tripac Evolution (based on fuel consumption only). Does not include fuel savings from start/stop off time. *Fuel consumption will vary based on ambient temperature and tractor cab insulation characteristics.

### Fuel Prices
- **$3.25 a Gallon**
- **$3.75 a Gallon**
- **$4.25 a Gallon**

<table>
<thead>
<tr>
<th>Your Idling Hours Annually</th>
<th>Tractor Idling</th>
<th>Tripac Evolution</th>
<th>Savings Per Month</th>
<th>Tractor Idling</th>
<th>Tripac Evolution</th>
<th>Savings Per Month</th>
<th>Tractor Idling</th>
<th>Tripac Evolution</th>
<th>Savings Per Month</th>
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<tbody>
<tr>
<td>3,000</td>
<td>$813</td>
<td>$117</td>
<td>$696</td>
<td>$938</td>
<td>$135</td>
<td>$803</td>
<td>$1,063</td>
<td>$153</td>
<td>$910</td>
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<tr>
<td>2,500</td>
<td>677</td>
<td>98</td>
<td>579</td>
<td>781</td>
<td>113</td>
<td>668</td>
<td>885</td>
<td>128</td>
<td>757</td>
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<tr>
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<td>78</td>
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<td>90</td>
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<td>606</td>
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<tr>
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<td>115</td>
<td>156</td>
<td>23</td>
<td>133</td>
<td>177</td>
<td>26</td>
<td>151</td>
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</table>
NEW, CONFIGURABLE, EASY-TO-USE IN-CAB CONTROLLER

**DATA LOGGER**
With 22 alarm codes for improved diagnostics and maintenance cost savings.

**ADVANCED RANGE OF PROGRAMMABLE FEATURES**
Optimize performance and driver comfort for your business needs.

**SIMPLE HMI**
Easy-to-use HMI reduces the need for driver training.

**FLASH LOADABLE**
Both controller and HMI are flash-loadable to allow for future upgrades without new hardware.

**PROGRAMMABLE TEMPERATURE RANGE**
Choose a custom-configured temperature range for your system.

HMI controller is installed in the cab.

1500-HOUR MAINTENANCE INTERVAL

TriPac Evolution was designed with an unequaled 1500-hour maintenance interval, allowing maintenance to be performed every other time that maintenance is performed on the tractor, saving time and eliminating additional downtime for APU maintenance.

Actual maintenance intervals on the TriPac Evolution are even further extended when the auto start/stop function is taken into account. This feature turns the TriPac Evolution on only when needed, saving fuel and reducing the number of hours the unit runs compared to the competition.

EXPERT SERVICE AND SUPPORT ARE AS CLOSE AS THIS SIGN.

THE ONLY APU AVAILABLE WITH THE SUPPORT OF OVER 200 FACTORY-AUTHORIZED SERVICE CENTERS NATIONWIDE!

Choose TriPac Evolution and enjoy the support of the Thermo King Dealer Network.
**SPECIFICATIONS**

### Dimensions (inches)

<table>
<thead>
<tr>
<th>Component</th>
<th>Dimensions</th>
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<tbody>
<tr>
<td>APU Unit</td>
<td>23.6 x 25.8</td>
</tr>
<tr>
<td>Condenser</td>
<td>13.0 x 7.5</td>
</tr>
<tr>
<td>Evaporator</td>
<td>22.2 x 22.2</td>
</tr>
<tr>
<td>Refrigerant</td>
<td>18.8 x 26.9</td>
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</tbody>
</table>

### Description

The TriPac Evolution provides truck engine preheating, battery charging, truck cab sleeper compartment climate control and electric power.

### Engine

Thermo King Tier IV final-compliant 2-cylinder diesel engine

### Evaporator Airflow

250 ft³/min

### Alternator

14.5V, 65 amp
14.5V, 120 amp (optional)

### Refrigerant

HFC R-134a

### Compressor

<table>
<thead>
<tr>
<th>Compressor</th>
<th>Capacity</th>
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</thead>
<tbody>
<tr>
<td>Thermo King TM-15</td>
<td>13,000 BTU/hr, 3,810 Watts</td>
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</tbody>
</table>

### Air Conditioning Capacity

**BTU/hr** | **Watts**
--- | ---
13,000 | 3,810

### Controls

The TriPac HMI (Human Machine Interface) Controller features a simple three-knob design for easy operation.

### Heating Capacity

<table>
<thead>
<tr>
<th>Capacity</th>
<th>Watts</th>
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</thead>
<tbody>
<tr>
<td>7,500 BTU/hr</td>
<td>2,200</td>
</tr>
<tr>
<td>13,600 BTU/hr</td>
<td>3,986 (optional)</td>
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</table>

### System Weight (approx.)

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
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<tbody>
<tr>
<td>APU Unit</td>
<td>345 lbs (156 kg)</td>
</tr>
<tr>
<td>HVAC System</td>
<td>70 lbs (32 kg)</td>
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</table>

### Warranty Summary

Terms of the Thermo King Limited Express Warranty are available upon request.

### Extended Warranty

Several Extended Warranty options are available for your TriPac system. Choose a flexible program and select the warranty period, deductible and hours of operation that best meet your needs. Ask your local Thermo King dealer about nationwide coverage plans.

### New Thermo Gard™ Assurance

**CUSTOMIZABLE FLEET MANAGEMENT OPTIONS FOR YOUR BUSINESS ARE NOW MORE AFFORDABLE THAN EVER BEFORE**

Thermo King SVC’s new Thermo Gard Assurance guaranteed maintenance program includes set programs and a wide variety of coverage options to fit the needs of your business. And because of the TriPac Evolution’s improved reliability and lower maintenance costs, peace-of-mind is now less expensive than ever!

*Compared to similar guaranteed maintenance program costs for TriPac APUs.

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**ARI STD 310/380** - Standard for Packaged Terminal Air-Conditioners and Heat Pumps for the rating conditions of 80°F Box, 50% humidity, and 95°F ambient.
CUSTOM-CONFIGURE YOUR TRIPAC EVOLUTION WITH A WIDE ARRAY OF OPTIONS

BASE TRIPAC EVOLUTION
Provides sleeper and cab cooling/heating, battery charging with automatic voltage sensing and has auto start/stop for maximum fuel efficiency.

- 2-cylinder, Tier IV final-compliant diesel engine
- 13,000 BTU air conditioning system including compressor, evaporator, controller (system charged with R-134a at Thermo King dealership during installation)
- 7,500 BTU fuel-powered heater
- Single HVAC controller
- 65-amp alternator
- Thermo King DPF-compatible
DRIVER CONVENIENCE PACKAGE (073035)
Includes 1,800 watt inverter and two GFI receptacles. 120 amp alternator provides quicker battery charging under heavy accessory loads. Ideal for supersized sleepers and drivers with heavy appliance usage during rest periods.

STAND-BY TRUCK INTEGRATION (073015)
Provides seamless activation of the TriPac Evolution control system based on tractor engine off/on indication.

STAND-BY TRUCK INTEGRATION WITH DASH-MOUNTED SELECTOR SWITCH (073016)
Provides the driver the ability to place the TriPac Evolution in a non-start mode (used during tractor fueling, service situations or when exiting the tractor) from the driver’s seat.

DUAL REMOTE HOUR METER (005029)
Provides separate heater and TriPac Evolution engine time tracking for accurate and effective preventive maintenance. Allows technician to access and record hours of operation without entering tractor cab.

REMOTE ENGINE HOUR METER (073022)
Provides engine time tracking for accurate and effective preventive maintenance.

CLOSED LOOP COOLING (073026)
Lets the TriPac Evolution run independently of tractor coolant and allows “limp home” capability in case of tractor alternator failure.

HIGH OUTPUT HEATER (005018)
With 13,600 BTUs of heat, this heater will keep you warm on the coldest of nights. With only slightly higher fuel consumption than the standard heater, this option is popular with drivers operating in the northern United States and in Canada.

DIESEL PARTICULATE FILTER (DPF) (073027)
Certified CARB-compliant for operation in the state of California. Standard mount.

HIGH OUTPUT ALTERNATOR (073023)
120 amp power for quicker battery charging.

ARCTIC PACKAGE (073025)
Monitors tractor engine coolant temperature and automatically starts the TriPac Evolution to heat the shared engine coolant. Reduces cold weather starting issues for the tractor even after extended periods of no operation in cold temperatures.

APPEARANCE PACKAGE (073036)
The diamond plate top cover dresses up any rig, moving or standing still.

BRUSHED STAINLESS STEEL CONDENSER COVER (005011)
Adds additional corrosion protection as well as that finishing touch.

EXHAUST TUBE EXTENSION (073030)
Extension for new short tube exhaust pipe.

FLUSH MOUNT KITS (SEE DEALER FOR ORDERING INFORMATION)
Special mounting kit which keeps the top of the unit flush with the top of the tractor frame rail.
Ingersoll Rand’s Climate Solutions sector delivers energy-efficient HVACR solutions for customers globally. Its world class brands include Thermo King, the leader in transport temperature control and Trane, a provider of energy efficient heating, ventilating and air conditioning systems, building and contracting services, parts support and advanced controls for commercial buildings and homes.