



## *TriPac<sup>®</sup> Evolution*

*The industry-leading APU that delivers lower operating costs and superior driver comfort.*





# TriPac<sup>®</sup>



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 efficiency and user productivity. Its performance is uncompromised. The operational savings are real.



# EVOLUTION

## MAXIMUM DRIVER COMFORT

Drivers spend long days away from home on the road, and a comfortable sleeper is important for well-rested and safe drivers. The TriPac Evolution brings the comforts of home to wherever home is for the night: virtually unlimited cooling and heating and the power to run the appliances and devices drivers require.

For fleets, attracting and retaining the best drivers is a challenge, and offering TriPac Evolution APUs can be a key recruitment and retention tool. There's a reason why drivers ask for TriPac Evolution by name!

## SERIOUS FUEL SAVINGS

No matter the current price, fuel costs represent a significant portion of your operating expenses. Adding the TriPac Evolution will significantly reduce your fuel consumption - by up to 2,500 gallons per year.\* The TriPac Evolution: cash flow positive from the beginning!

## REDUCED TRACTOR IDLING

Idling the tractor engine to provide cab power causes excessive engine wear and run time, increases maintenance costs, may lower the residual value of the tractor, and releases unnecessary emissions into the environment. Adding an APU, like the TriPac Evolution, virtually eliminates tractor engine idling, putting more money back in your pocket.

\* Based on actual customer experiences. Reduced costs experienced by individual customers will vary.

# A COMPLETE SYSTEM

## CONDENSER

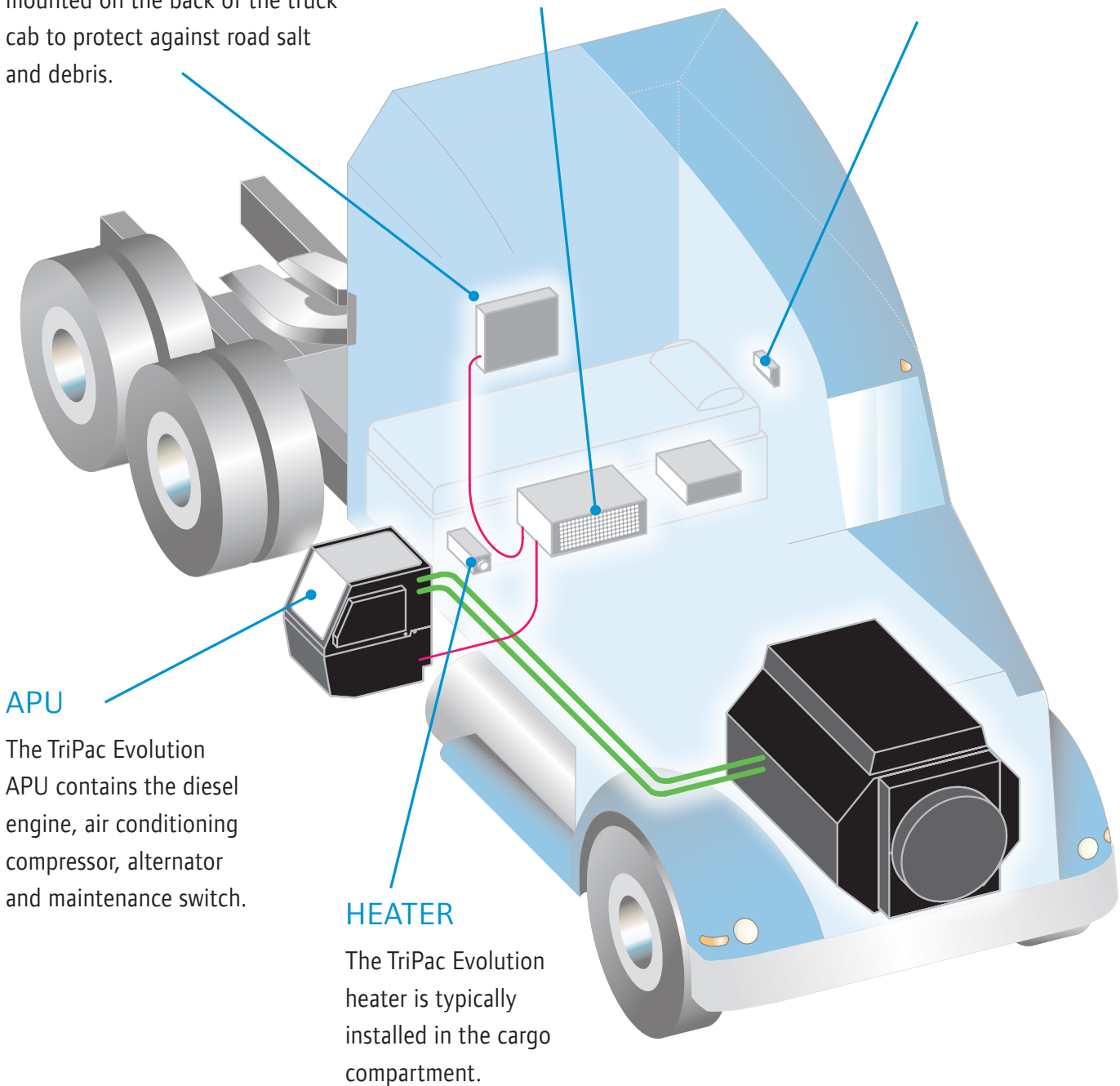
The TriPac Evolution air conditioning condenser is typically mounted on the back of the truck cab to protect against road salt and debris.

## EVAPORATOR

The TriPac Evolution air conditioning evaporator is typically installed under the bunk in the truck cab sleeper compartment. Air hoses from the evaporator carry conditioned air to the sleeper compartment.

## CONTROLLER

The Human Machine Interface (HMI) controller is installed in the truck cab, typically on a wall in the sleeper compartment.



## APU

The TriPac Evolution APU contains the diesel engine, air conditioning compressor, alternator and maintenance switch.

## HEATER

The TriPac Evolution heater is typically installed in the cargo compartment.



## CHOOSE THE NUMBER ONE APU IN THE INDUSTRY

### 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.

### 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 over 160,000 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.



## CONFIGURABLE, EASY-TO-USE IN-CAB CONTROLLER

### DATA LOGGER

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



### FLASH LOADABLE

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

### 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.

### PROGRAMMABLE TEMPERATURE CONTROL

Set your desired temperature and the system will automatically maintain the desired setting.

HMI controller is installed in the cab.



## THE TriPac EVOLUTION: CASHFLOW-POSITIVE FROM MONTH ONE

Your Idling Hours Annually	\$2.00 A GALLON			\$2.50 A GALLON			\$3.00 A GALLON		
	Tractor Idling	TriPac Evolution	Savings Per Month	Tractor Idling	TriPac Evolution	Savings Per Month	Tractor Idling	TriPac Evolution	Savings Per Month
3,000	\$500	\$72	\$428	\$625	\$90	\$535	\$750	\$108	\$642
2,500	417	60	357	521	75	446	625	90	535
2,000	333	48	285	417	60	357	500	72	428
1,500	250	36	214	313	45	268	375	54	321
1,000	167	24	143	208	30	178	250	36	214
500	83	12	71	104	15	89	125	18	107

**DIESEL-FIRED HEATER** The TriPac Evolution is paired with a diesel fired heater making the Evolution the most operationally efficient APU on the market.

**EXAMPLE:** If you idle 2,500 hours per year with a fuel price of \$2.50 per gallon, you can save up to \$446 per month on fuel alone with TriPac Evolution!

### TRACTOR IDLING ASSUMPTIONS

Annual Miles.....100,000  
Idling Fuel Cost .....1.0 gph

### TriPac EVOLUTION ASSUMPTIONS

	% per year	gph		% per year	gph
Cooling	60%	0.2*	Heating	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.



## ThermoLite® SOLAR PANELS

ThermoLite solar panels can deliver clean, reliable performance in a wide variety of applications, resulting in longer battery life, decreased waste, lower fuel consumption and reduced emissions. Given these potential benefits, ThermoLite solar panels can be an important part of a comprehensive sustainability program for your business.

## 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



# OPTION ORDERING GUIDE

- DRIVER CONVENIENCE PACKAGE (073035)**  
Includes 1,800 watt inverter and two 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.
  - 1,000 WATT PACKAGE (073003)**
- 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.
- 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 standard 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.
- 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.



## 2,000-HOUR MAINTENANCE INTERVAL

TriPac Evolution was designed with an unequalled 2,000-hour maintenance interval, allowing for maintenance to be performed typically only once per year, aligning better to the tractor maintenance schedule, 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.



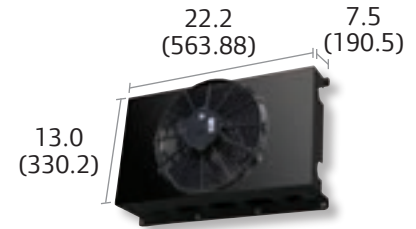
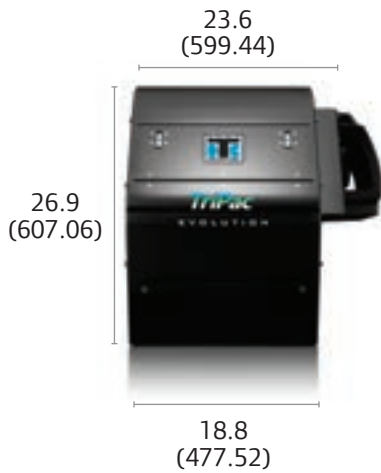
**EXPERT SERVICE AND  
SUPPORT ARE AS CLOSE AS  
THIS SIGN.**

**THE ONLY APU AVAILABLE WITH THE SUPPORT  
OF NEARLY 200 FACTORY-AUTHORIZED SERVICE  
CENTERS NATIONWIDE**

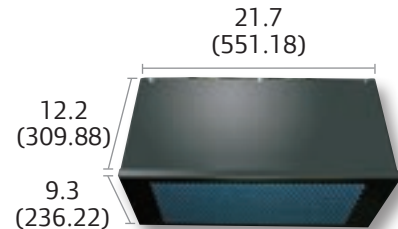
CHOOSE TriPac EVOLUTION AND ENJOY THE SUPPORT OF THE THERMO KING DEALER NETWORK.

# SPECIFICATIONS

## DIMENSIONS INCHES (MILLIMETERS)



Condenser



Evaporator

### 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 ft<sup>3</sup>/min

### ALTERNATOR

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

### REFRIGERANT

HFC R-134a

### COMPRESSOR

Thermo King QP15HD  
Air Conditioning Compressor

### AIR CONDITIONING CAPACITY\*

BTU/hr	Watts
13,000	3,810

### CONTROLS

The TriPac HMI Controller features a simple three-knob design for easy operation.

### HEATING CAPACITY

BTU/hr	Watts
7,500	2,200
13,600	3,986 (optional)

### SYSTEM WEIGHT (APPROX.)

APU Unit:	345 lbs	(156 kg)
HVAC System:	70 lbs	(32 kg)

### 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.

**\*ARI STD 310/380** - Standard for Packaged Terminal Air-Conditioners and Heat Pumps for the rating conditions of 80F Box, 50% humidity, and 95°F ambient.



## THERMO KING'S PERFORMANCE ADVANTAGE™ SERVICE OFFERINGS

Looking to cut costs and maximize your fleet uptime? Our range of service plans help you choose the right maintenance investment to keep you on the road and running strong. Tap in to the nation's leading experts in transport refrigeration maintenance and experience the Performance Advantage.



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 [thermoking.com](http://thermoking.com) or [tranetechnologies.com](http://tranetechnologies.com).

