



## *T-80 Series*

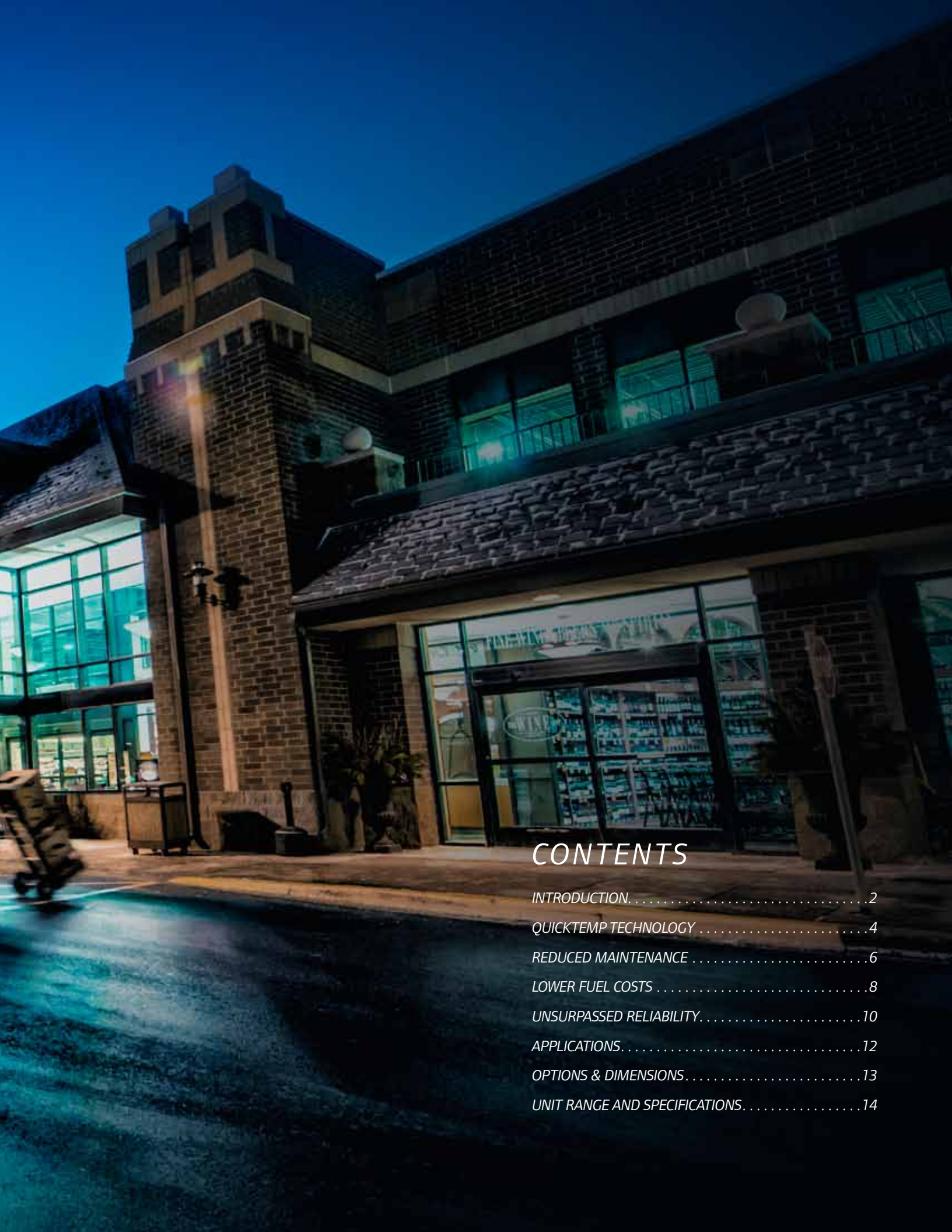
*A complete line of self-powered truck units that deliver a lower cost of ownership through lower maintenance costs, improved fuel economy and unmatched reliability.*



# MEET THE NEW T-80 SERIES

In designing the new T-80 Series of transport refrigeration units for straight trucks, compliance with the latest emissions requirements was just the beginning. Building on the industry-leading T-Series, we challenged ourselves to offer lower maintenance costs and better fuel efficiency while continuing to improve on the quality and reliability that has been the foundation of Thermo King for 75 years. See how the T-80 Series can lower your operating costs from day one.





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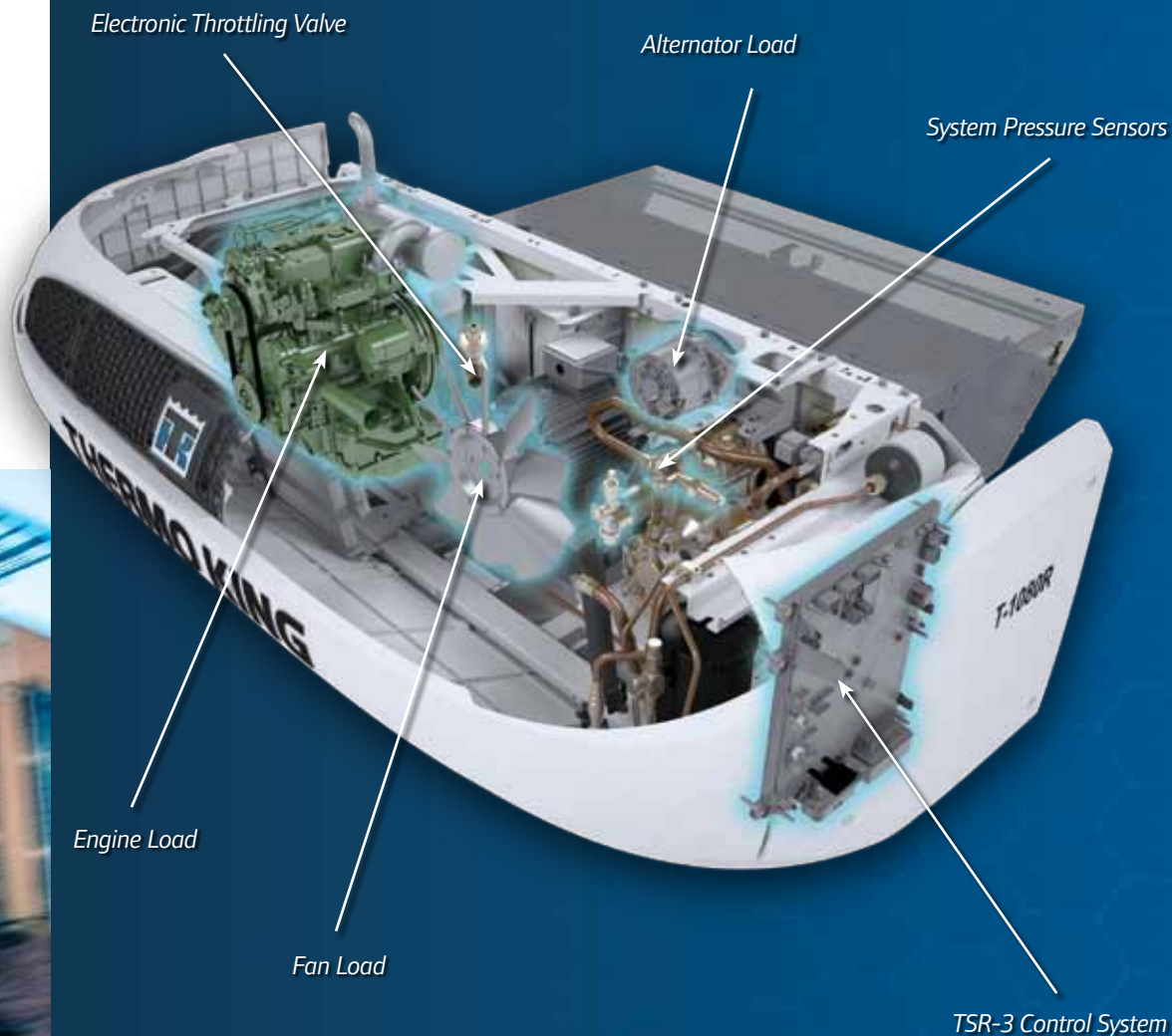
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*IMPROVED EFFICIENCY ACROSS  
THE ENTIRE T-80 RANGE OF UNITS*

A white refrigerated truck with a Thermo King unit is driving through a city street. The truck is moving from left to right, and the background shows city buildings and a pedestrian crossing. The truck's unit is labeled 'THERMO KING'.

## *QUICKTEMP TECHNOLOGY*

QuickTemp technology utilizes an electronic throttling valve system, and is standard on all T-80 Series units. QuickTemp allows you to realize major long-term benefits, including significant fuel savings, improved temperature control and reduced maintenance.



## HOW QUICKTEMP WORKS

QuickTemp is a patent-pending refrigeration control system that measures engine loading conditions in real time and adjusts refrigeration output to maximize performance and optimize engine operation. The SR-3 controller monitors engine speed, system pressures and alternator loading to find an optimal electronic throttling valve position for the conditions.

## BENEFITS OF QUICKTEMP

### BETTER CONTROL

Improves temperature recovery and provides more consistent temperature, keeping the load fresh.

### TIME SAVINGS

Pulldown is up to 65% faster, saving operators time on the front end of trips.

### LOWER COSTS

Because saving money is crucial, QuickTemp reduces operating costs by reducing fuel consumption and required maintenance.

### LONGER LIFE

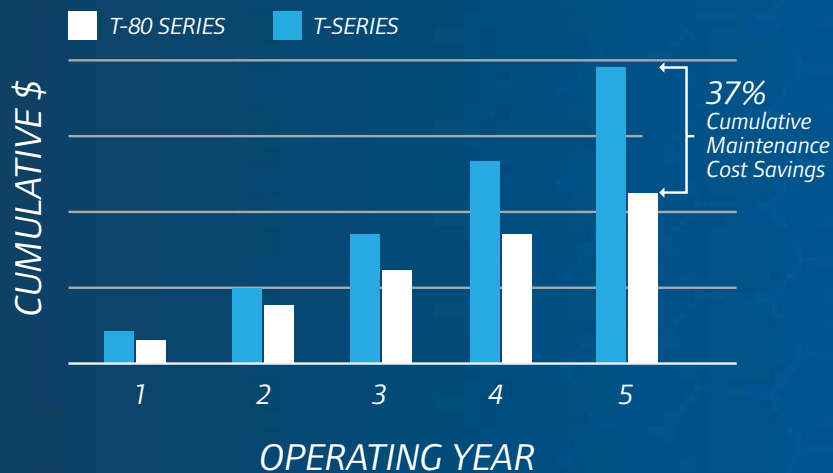
Because it reduces the high speed run time required, QuickTemp will make your Thermo King unit last longer.

## DOUBLE-DIGIT MAINTENANCE SAVINGS



Maintenance means a couple of negative things for your business - units that are out of service and the costs associated with maintenance and repair. Because the T-80 Series has been designed and refined with these things in mind, you'll see a couple of results you'll like a lot more - less maintenance downtime and lower maintenance costs.

- Double-digit maintenance savings for a real impact on your bottom line
- EMI (extended maintenance interval) of 2000 hours is the longest in the industry, lowering downtime and maintenance costs
- Scroll compressor requires less maintenance with 87% fewer moving parts than traditional compressors



## *REDUCE MAINTENANCE COSTS AND WASTE WITH EMI-2000 EXTENDED MAINTENANCE INTERVAL*

- Reduces clean up and disposal costs
- Reduces environmental impact with less spillage and less waste
- Extends engine life
- Lower maintenance costs than competitive models
- More uptime with less time in the shop

## *QUICKTEMP BRINGS YOUR LOAD TO SETPOINT FASTER, WHICH MEANS LESS RUNTIME ON YOUR UNIT AND LESS MAINTENANCE*

- Faster pull down at start up, faster recovery after door openings
- Reduces run time by up to 20% over current model
- Extends calendar time between routine maintenance
- Extends the life of critical components

# UP TO 20% LOWER FUEL COSTS

Because fuel expenses make up a large part of your budget, the T-80 Series was developed to take advantage of the latest fuel-saving technologies to deliver better fuel economy than ever before.

- Consumes up to 20% less fuel in all ambient conditions, hauling fresh or frozen
- QuickTemp pulls down temperature faster, consuming less fuel to reach the set point
- SmartPower electric standby eliminates fuel usage during shore power operation for additional savings
- Advanced fuel-saving control technology with the TSR-3 control system for greater efficiency



## *SmartPower* ELECTRIC STANDBY

The SmartPower electric standby option allows the units to operate on electric power in addition to being powered by the standard diesel engine, which saves fuel, reduces engine wear and cuts emissions.

- Reduced operating costs of up to 75%
- Reduced diesel emissions
- Reduced noise
- Lower maintenance costs
- Less waste generated
- Reduced life cycle cost
- Extended reefer lifespan
- A technology refined for over 50 years by Thermo King



## *THE TSR-3 CONTROL SYSTEM EASY TO USE. HARD TO BEAT.*

Powerful and simple to use, the TSR-3 Control System makes it easy for your drivers to accurately manage the temperature in the truck, no matter what you're hauling. Step-by-step instructions, depicted in symbolic form, make precisely setting and adjusting the reefer quick and easy, helping your drivers, your customers and, ultimately, your bottom line.

### *SYMBOLIC INTERFACE*

No language required, so it's easy-to-understand and use, no matter what language the driver speaks. Designed to greatly reduce operator errors.

### *FUEL SAVINGS*

The TSR-3 features several improved fuel-saving features, including CYCLE-SENTRY mode, Fuel Saver II technology and electronic door switch input.

### *ENHANCED LOAD MANAGEMENT*

QuickTemp provides optimum unit capacity over the full range of ambient and cargo temperatures, effectively managing the load on the engine.

### *IMPROVED DIAGNOSING WITH ServiceWatch™*

Better diagnostics make it easier for drivers to understand and respond to potential problems, the first line of defense in transport refrigeration.

### *EASY-TO-READ LED DISPLAY*

LED (Light Emitting Diode) display is bright and clear for better visibility in all light conditions and functions perfectly in all temperature conditions.

### *ENHANCED SAFETY AND SECURITY*

At the end of the day, protecting your load is what it's all about. The TSR-3 was designed to make that job easier and even more effective with a range of security and safety features and warning systems.

*(Note: T-580R comes with TSR control system)*

# *UNSURPASSED RELIABILITY*



## *PROVEN ENGINE TECHNOLOGY*

All T-80 Series engines meet California Air Resources Board (CARB) and EPA Tier 4 Final Compliance with Not To Exceed (NTE) and Altitude emissions requirements. Built on a proven, indirect injection design, the T-80 Series engine is designed for long life and cleaner operation.

Since its introduction, T-Series units have proven themselves to be the most reliable in the industry. And with the introduction of the T-80 Series, we've set the bar for quality and reliability even higher to deliver you the most reliable, most effective solution possible for your business. And in addition to engineering and building the finest temperature control systems in the world, Thermo King offers you peace-of-mind through unmatched service and support.

- Extensive product qualification, including thousands of hours of lab and field testing, for enhanced quality, reliability and performance
- Built on the proven, industry-benchmark T-Series, with over 20,000 units in service
- Better components and smarter design for an unequaled 2000-hour maintenance interval
- The largest dealer service network, with over 200 locations across North America
- Factory-trained technicians at every location deliver expert service when and where you need it
- Thermo Gard™ guaranteed maintenance plans reduce costs and optimize the efficiency of your fleet
- Access to the complete line of Genuine Thermo King parts for maximum uptime
- 24/7 mobile service available at many dealer locations

## AND SUPPORT



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

Enjoy the support of the Thermo King Dealer Network. Over 200 factory-authorized service centers nationwide—find one nearby at [www.thermoking.com](http://www.thermoking.com).



### *THERMO GARD™ ASSURANCE*

Guaranteed maintenance program includes set programs and a wide variety of coverage options to fit the needs of your business.



## APPLICATIONS CHART



### Box Size 14'

35°F	T-580R T-680R
0°F	T-680R T-680S
-20°F	T-1080R T-880S



### Box Size 16'

35°F	T-580R T-680R
0°F	T-680R T-680S
-20°F	T-1080R T-1080S



### Box Size 18'

35°F	T-580R T-680R
0°F	T-680R T-680S
-20°F	T-1080R T-1080S



### Box Size 20'

35°F	T-680R T-680S
0°F	T-680R T-680S
-20°F	T-1080R T-1080S



### Box Size 22'

35°F	T-680R T-680S
0°F	T-880R T-880S
-20°F	T-1080R T-1080S



### Box Size 24'

35°F	T-680R T-680S
0°F	T-1080R T-1080S
-20°F	T-1080S



### Box Size 26'

35°F	T-680R T-680S
0°F	T-1080R T-1080S
-20°F	Contact Your Local Thermo King Dealer



### Box Size 28'

35°F	T-880R T-880S
0°F	T-1080R T-1080S
-20°F	Contact Your Local Thermo King Dealer

Assuming 3" of insulation for 35°F, 0°F and 4" for -20°F; ten door openings per day; box dimensions of 96"W and 96"H on trucks 10' and over in length. Unit selection may vary. Consult your Thermo King dealer for a detailed analysis of your requirements.

# T-80 SERIES OPTIONS

	T-580R	T-680R	T-880R	T-1080R	T-680S	T-880S	T-1080S	T-1080 SPECTRUM
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## Controls and Information

Premium Display	■	■	■	■	■	■	■	■
Body Mount Enclosure for HMI	■	■	■	■	■	■	■	■
Rear Remote Control (flushmount)	■	■	■	■	■	■	■	■
Remote Status Indicator Lights	■	■	■	■	■	■	■	■

## Engine, Fuel & Refrigeration

SmartPower (230v/3 phase/60Hz)	■	■	■	■	■	■	■	■
SmartPower 460/3/60 (400/3/50)	■	■	■	■	■	■	■	■
Battery Box	■	■	■	■	■	■	■	■
Heat (electric - SmartPower units only)	■	■	■	■	■	■	■	■
Engine Block Heater	■	■	■	■	■	■	■	■
Fuel Tank (30 gallon aluminum side fill)	■	■	■	■	■	■	■	■
Quick Oil Drain Kit (external mounted, quick connect)	■	■	■	■	■	■	■	■

## Telematics & Sensors

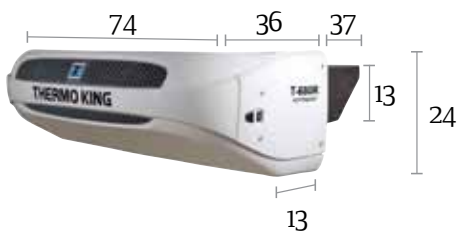
DAS (Data Acquisition System)	■	■	■	■	■	■	■	■
Door Switch	■	■	■	■	■	■	■	■
Remote Download Port	■	■	■	■	■	■	■	■
TrackKing	■	■	■	■	■	■	■	■

## Appearance, Noise & Protection

Whisper™ Plus Sound Kit	■	■	■	■	■	■	■	■
Top Cover and Screen	■	■	■	■	■	■	■	■
Evap Side Screens	■	■	■	■	■	■	■	■
Snow Cover	■	■	■	■	■	■	■	■
Chrome Grills	■	■	■	■	■	■	■	■
Hose Management Channel	■	■	■	■	■	■	■	■

■ Available option   ■ Not available

## DIMENSIONS (INCHES)

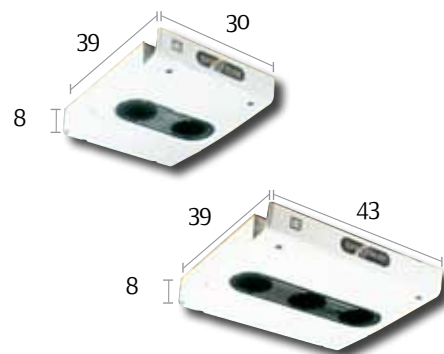


T-580R / T-680S / T-880R / T-880S



T-1080R / T-1080S

## SPECTRUM S-2 & S-3 Evaps





## A COMPLETE RANGE WITH TWO

### RELIABLE RECIPROCATING COMPRESSORS

The industry standard for proven reliability and easy service.

- High volumetric efficiency vs. other reciprocating compressors due to more pumping capacity per cubic inch
- Reliable, time-tested design
- Field-repairable for easy service
  - No special tools or facilities required
  - Removable and replaceable cast iron cylinder sleeve design



### T-580R

#### ENGINE

##### Capacity\* (BTU/hr)

35°F .....	14,500
0°F .....	8,500
-20°F .....	5,000

##### Heating Capacity

35°F .....	10,500
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#### ELECTRIC

##### Capacity\* (BTU/hr)

35°F .....	13,000
0°F .....	7,100
-20°F .....	4,800

##### Heating Capacity

35°F .....	5,800
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Weight\*\* 957 / 1012 lbs.

### T-880R

#### ENGINE

##### Capacity\* (BTU/hr)

35°F .....	22,000
0°F .....	13,000
-20°F .....	7,800

##### Heating Capacity

35°F .....	10,500
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#### ELECTRIC

##### Capacity\* (BTU/hr)

35°F .....	20,000
0°F .....	11,500
-20°F .....	7,000

##### Heating Capacity

35°F .....	5,800
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Weight\*\* 963 / 1018 lbs.

### T-680R

#### ENGINE

##### Capacity\* (BTU/hr)

35°F .....	18,000
0°F .....	11,000
-20°F .....	7,000

##### Heating Capacity

35°F .....	10,500
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#### ELECTRIC

##### Capacity\* (BTU/hr)

35°F .....	15,500
0°F .....	10,000
-20°F .....	6,000

##### Heating Capacity

35°F .....	5,800
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Weight\*\* 963 / 1018 lbs.

### T-1080R

#### ENGINE

##### Capacity\* (BTU/hr)

35°F .....	30,500
0°F .....	18,000
-20°F .....	10,500

##### Heating Capacity

35°F .....	14,000
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#### ELECTRIC

##### Capacity\* (BTU/hr)

35°F .....	26,500
0°F .....	14,500
-20°F .....	10,000

##### Heating Capacity

35°F .....	7,700
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Weight\*\* 999 / 1108 lbs.

All T-80 Series units meet 2013 EPA Tier 4 final requirements, including NTE (Not to Exceed) and Altitude.



## COMPRESSOR CHOICES:

### THE MOST ADVANCED SCROLL COMPRESSORS EVER

The clear choice for peak efficiency and maximum cooling capacity.

- Up to 10% more fuel efficient
- High efficiency and greater capacity
- Less noise and vibration
- Less maintenance (87% fewer moving parts)
- E nickel-plated Oldham coupling for greater reliability



### T-680S

#### ENGINE

##### Capacity\* (BTU/hr)

35°F .....	20,000
0°F .....	13,000
-20°F .....	7,500

##### Heating Capacity

35°F .....	14,000
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#### ELECTRIC

##### Capacity\* (BTU/hr)

35°F .....	17,000
0°F .....	12,000
-20°F .....	6,500

##### Heating Capacity

35°F .....	8,800
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Weight\*\* 985 / 1040 lbs.

### T-1080S

#### ENGINE

##### Capacity\* (BTU/hr)

35°F .....	34,000
0°F .....	21,000
-20°F .....	13,000

##### Heating Capacity

35°F .....	20,000
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#### ELECTRIC

##### Capacity\* (BTU/hr)

35°F .....	29,000
0°F .....	18,000
-20°F .....	12,000

##### Heating Capacity

35°F .....	11,400
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Weight\*\* 1012 / 1121 lbs.

### T-880S

#### ENGINE

##### Capacity\* (BTU/hr)

35°F .....	24,500
0°F .....	15,000
-20°F .....	9,200

##### Heating Capacity

35°F .....	14,000
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#### ELECTRIC

##### Capacity\* (BTU/hr)

35°F .....	21,500
0°F .....	12,500
-20°F .....	7,700

##### Heating Capacity

35°F .....	8,100
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Weight\*\* 985 / 1040 lbs.

### T-1080 SPECTRUM™

#### ENGINE

##### Capacity\* (BTU/hr)

35°F .....	34,000
0°F .....	21,000
-20°F .....	13,000

##### Heating Capacity

35°F .....	16,000
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#### ELECTRIC

##### Capacity\* (BTU/hr)

35°F .....	29,000
0°F .....	18,000
-20°F .....	12,000

##### Heating Capacity

35°F .....	11,000
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Weight\*\* 803 / 958 lbs.

\*Cooling capacities rated at 100°F ambient, heating at 0°F ambient.

\*\* Weights are listed for standard unit/units with SmartPower option



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.

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