



V-500

Enhanced performance with optimal control.





The V-500 Taking Care of all Your Needs



The V-500 series offers you optimal performance while using less fuel and making less noise.

- **Improved Capacity and Airflow** to ensure superior temperature distribution to protect the product load.
- **Electric Standby Capacity** is a maximum of 82% of the road capacity at any working conditions for maximum protection of the load at any time.
- **Outstanding Pull-Down Capacity** for improved pull-down and recovery time to guarantee product quality.
- **Ideal for Demanding Conditions** and able to function in ambient temperatures up to 122°F with the R-134a and R-404A version available for fresh and frozen applications.
- **Low Fuel Consumption and Running Costs** achieved by optimizing performance according to the capacity demand, thereby reducing the fuel consumption of the truck.
- **Low Noise Level** in all operating conditions, particularly in steady state conditions.

V-500 Series A Complete Range

The V-500 series offers several options to suit your specific needs:

| Model | Refrigerant | Standby |
|--------------|-------------|---------|
| V-500 10 | R-134a | – |
| V-500 20 | R-134a | ✓ |
| V-500 MAX 10 | R-404A | – |
| V-500 MAX 20 | R-404A | ✓ |

Unsurpassed Reliability

- Semi-hermetic reciprocating standby compressor
- Electrical components protected from water and humidity inside a semi-hermetic box
- New control system (TCC) reduces the working time of the condenser fans
- Option of Thermo King exclusive reciprocating road compressor offers a 5 times longer life

Easy Installation and Easy to Service

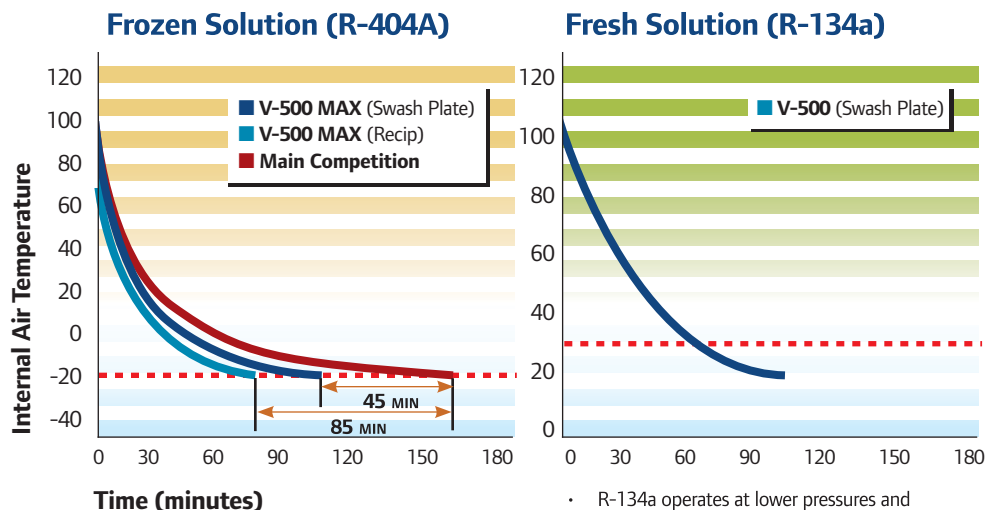
- Front cover fixed to the structure by the means of plastic clips
- Clip-on electric cover
- Speedy clip system for hoses and connections

Exclusive TCC Feature (Triple Cooling Capacity)

Offers you three cooling capacities and fan speeds to automatically match cooling needs of varying intensity. The TCC level is adjusted according to the pressures read within the refrigeration circuit.

| Level | Performance of the unit | Operation |
|-------|---|--------------------------------|
| TCC 1 | Large pull-down capacity, capability to work under extreme conditions | 2 condenser fans at high speed |
| TCC 2 | Low noise and fuel consumption under steady conditions | Fans at low speed |
| TCC 3 | Minimum noise and fuel consumption under low demanding conditions | Fans stopped |

Total Temperature Management



- R-134a operates at lower pressures and temperatures, resulting in lower maintenance costs
- R-134a offers equal-to-better temperature management at higher box temperatures
- Main competition does not offer a R-134a option

System Performance

Description

The V-500 Series from Thermo King is comprised of two-piece split units designed for fresh, frozen and deep frozen applications on medium-sized trucks.

The road compressor is powered by the vehicle's engine. In models with electric stand-by, the second one is powered by an electric motor. Models with heating are also available.

System components

- Condenser
- ES500/ES500 MAX evaporator
- Engine driven compressor choice between reciprocating and swash plate compressor
- Installation kit
- In-cab control box

Refrigerant

V-500

HFC R-134a (7.9 lbs) Chlorine: Zero

V-500 MAX

HFC R-404A (8.2 lbs) Chlorine: Zero

Compressor (engine driven)

Reciprocating compressor (TK-312R)

- Number of cylinders: 3
- Displacement: 11.4 cu in.
- Max. recommended speed: 3,000 rpm
- Jet Lube and Jet Cool compressor lubrication and cooling systems

Swash plate compressor (TM16)

- Number of cylinders: 6
- Displacement: 9.9 cu in.
- Max. recommended speed: 3,000 rpm
- Jet Lube and Jet Cool compressor lubrication and cooling systems

Defrost

Automatic hot gas defrost

Evaporator fan performance

Airflow volume:

Evaporator (ES500):
1415 cu ft/min

Heating capacity

Engine coolant heat:

17000 BTU/hr

Electric heat strips:

14000 BTU/hr

Electric motors

DC voltage option

12V dc (36 A draw)

Electric standby options (draw):

230V/1 Phase/60Hz (12.7 A)

230V/3 Phase/60Hz (14.1 A)

Refrigeration Capacity

100°F ambient, U.S. standard.

System net cooling capacity at 100°F (38°C) ambient and 2400 compressor rpm.

V-500 (HFC R-134a Refrigerant)

Reciprocating compressor

| Air return/On the road | BTU/hr |
|------------------------|--------|
| 35°F | 13700 |
| 0°F | 5410 |

Swash plate compressor

| | |
|------|-------|
| 35°F | 12200 |
| 0°F | 5000 |

Electric stand-by 60Hz

| | |
|------|-------|
| 35°F | 10000 |
| 0°F | 3500 |

V-500 MAX (HFC R-404A Refrigerant)

Reciprocating compressor

| Air return/On the road | BTU/hr |
|------------------------|--------|
| 35°F | 16600 |
| 0°F | 8700 |
| -20°F | 5300 |

Swash plate compressor

| | |
|-------|-------|
| 35°F | 15500 |
| 0°F | 8200 |
| -20°F | 5000 |

Electric stand-by 60Hz

| | |
|-------|-------|
| 35°F | 10400 |
| 0°F | 6600 |
| -20°F | 3500 |

Standard Features

- Jet Lube compressor lubrication
- Jet Cool compressor injection cooling
- In-cab controls with digital LED thermometer
- Automatic hot gas defrost
- Electronic thermostat

Optional Features

- Heating capability
- Thermo King Exclusive Reciprocating compressor



1 Long-Life
Reciprocating Compressor

5 Swash Plate
Compressors

Specifications

Dimensions

Inches



Warranty

Terms of the Thermo King Warranty are available on request from your local Thermo King dealer. Please reference TK 50047 for the Thermo King Self-Powered Truck unit warranty.



Providing equipment and services to manage controlled-temperature environments for food and other temperature-sensitive products, our Climate Control Technologies sector encompasses both transport and stationary refrigeration solutions. Our product brands include Thermo King®, a world leader in transport temperature control systems, and Hussmann®, a manufacturer of refrigeration and food merchandising equipment.

www.thermoking.com www.hussmann.com www.ingersollrand.com

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