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## V-520 MAX

### Enhanced performance with optimal control.



#### Key Points:

- Direct Smart Reefer Control System
- High cooling capacity on the road
- High cooling capacity on electric standby
- Designed for frozen or chill applications
- Ultra Slim evaporator for maximum load space and high airflow volume for superior temperature control
- Exclusive TCC (Triple Cooling Capacity) feature
- Low noise
- Standard 1 year warranty
- CARB TRU ATCM Exempt

## V-520 MAX Features and Options

#### 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 capacity
- Thermo King Exclusive Reciprocating compressor

## V-520 MAX Specifications

#### Description:

- DSR (Direct Smart Reefer) continuously monitors load and refrigeration unit temperatures and automatically starts to protect the load. It has 3 hour meters, alarm codes, and maintenance reminders.
- The V-520 MAX Thermo King unit comprises two-piece split units designed for fresh and 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.

#### Exclusive TCC (Triple Cooling Capacity):

- [Exclusive TCC \(Triple Cooling Capacity\)](#) feature offers you three capacities and fan speeds to automatically match cooling needs of varying intensity. The TCC level is adjusted according to the pressure read within the refrigeration circuit.

#### Optimized Performance with Exclusive Technology:

- **Outstanding Pulldown Capacity with TCC1.** The unit is working at its highest capacity level with both condenser fans running at maximum speed.
- **Ideal for Demanding Conditions.** a. The maximum capacity level makes it possible to function in ambient temperatures up to 122 degrees F.
- **Low Fuel Consumption and Running Costs.** Performance is optimized according to the capacity demand, thereby reducing the fuel consumption of the truck. When working in steady or low demanding conditions, the condenser fans will run at low speed or stop as required.
- **Low Noise Level.** Noise is kept to a minimum level in any operating conditions, particularly in steady state conditions. In electric standby operation, the sound power level varies by 3dbA according to the TCC level. On road operation, the compressor is driven by the engine of the vehicle, hence the noise from the unit is minimal.

#### Unsurpassed Reliability:

- Option of Thermo King exclusive reciprocating road compressor offers a 5 times longer life.
- 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.

**Design Features:**

- Styled with rounded angles.
- Smooth curvature of the front panel.
- No visible screws.
- Updated design of the electric box panel.
- Completely white appearance.
- Ultra Slim Evaporator (only 8.6 inches in height) to maximize payload.

**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.

**Models Available:**

	Refrigerant	Standby	Heating
<b>V-500 MAX 10</b>	R-404A	—	+
<b>V-500 MAX 20</b>	R-404A	✓	+

**Refrigeration Capacity:** U.S. Standard - System net cooling capacity at 100°F (38°C) ambient and 2400 compressor rpm.

Air Return/ On the Road		Reciprocating Compressor		Swash Plate Compressor		Electric Stand-by 60Hz	
Degrees F	Degrees C	BTU/hr	Watts	BTU/hr	Watts	BTU/hr	Watts
35	2	16,600	4,300	15,500	3,900	10,400	2,640
0	-18	8,700	2,285	8,200	2,080	6,600	1,670
-20	-29	5,300	1,300	5,000	1,200	3,500	880

**Heating Capacity:**

- Engine coolant heat: 17000 BTU/hr (5000 W)
- Electric heat strips: 14000 BTU/hr (4100 W)

**Refrigerant:**

- HFC R-404A
- Chlorine: Zero (non ozone depleting)
- Refrigerant charge: 8.2 lbs.

**Defrost:**

- Automatic hot gas defrost

**Compressor (Engine Driven):**

- Reciprocating compressor (TK-312R)
  - Number of cylinders: 3
  - Displacement: 11.4 cu in (186.7 cm<sup>3</sup>)
  - Speed Max recommended: 3,000 rpm
  - Jet Lube™ and Jet Cool™ compressor lubrication and cooling system
- Swash plate compressor (TM16)
  - Number of cylinders: 6
  - Displacement: 9.9 cu in (163 cm<sup>3</sup>)
  - Speed Max recommended: 3,000 rpm
  - Jet Lube™ and Jet Cool™ compressor lubrication and cooling system

**Evaporator Fan Performance:**

- Airflow volume: ES500: 1415 cu ft/min (2400 m<sup>3</sup>/h)

**Electric Motors:**

- DC voltage options:
  - 12V DC
  - 024V DC
- Electric standby options:
  - 230V/1-Phase/60Hz
  - 230V/3-Phase/60Hz
  - 400V/3-Phase/50Hz
  - 460V/3-Phase/60Hz

- Total current consumption on the road:
  - 12V DC 36 A
  - 24V DC 18 A
- Total standby current consumption:
  - 230V/1-Phase/60Hz: 12.7 A
  - 230V/3-Phase/60Hz: 14.1 A
  - 400V/3-Phase/50Hz: 6.8 A
  - 460V/3-Phase/60Hz: 8.1 A

**System Components:**

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

<b>Weight: (approximate)</b>	lbs	kg
Condenser without electric standby	146	66
Condenser with electric standby	297	135
ES500 Ultra Slim Evaporator	57	26
Reciprocating Compressor	29	13
Swash Plate Compressor	16	7.5

<b>Dimensions:</b>	Height		Width		Depth	
Condenser	17.6 in	448 mm	50.9 in	1292 mm	18.7 in	475 mm
ES500 Ultra Slim Evap	8.7 in	220 mm	51.3 in	1304 mm	22.1 in	562 mm
In-cab Direct - Smart Reefer	1.8 in	46 mm	5.3 in	135 mm	1.0 in	25 mm

Specifications are subject to change without notice.

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