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## V-500 MAX

### Enhanced performance with optimal control.



#### Key Points:

- Superior performance
- New user friendly Direct Smart Reefer
- Electric stand-by capacity at 85% to 95% of the road capacity
- Guaranteed reliability
- New design
- Ultra slim evaporator
- Flexibility
- Low noise
- Exclusive TCC (Triple Cooling Capacity) feature

## V-500 MAX Features and Options

#### Standard Features:

- Jet Lube™ compressor lubrication
- Jet Cool™ compressor injection
- In-cab Direct Smart Reefer controller
- Automatic hot gas defrost
- Electronic thermostat

#### Dealer Options:

- Data Capture and Communications
  - TKDL-PRO
  - TKDL-SPR
  - TKDL-DCS
  - [Wintrac data analysis software](#)
  - [TrackKing tracking and load monitoring](#)
  - Load Protection
    - [Door switches](#)
  - Life Cost Management
    - [Guaranteed Maintenance Contracts \(Total Kare\)](#)

## V-500 MAX Specifications

#### Description:

- The V-500 Series from Thermo King comprises two-piece split units designed for fresh, frozen and deep frozen applications on medium-sized trucks and vans. 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. The V-500 MAX TC can manage two evaporators to provide temperature control for two compartments. Models with hot gas heating are also available.

#### New exclusive TCC (Triple Cooling Capacity):

- [New 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 Tropical Conditions.** The maximum capacity level makes it possible to function in ambient temperatures up to 50 degrees C.
- **Low Fuel Consumption and Running Costs.** Performance is optimized according to the capacity demand thereby reducing the fuel consumption of the truck the capacity delivered is matched to the demand. 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, where there is virtually no noise. In electric stand-by operation, the sound power level varies by 6dbA 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 very small in comparison with that of a self-powered unit.

#### Guaranteed Reliability:

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

#### New Design:

- Styled with rounded angles.
- Smooth curvature of the front panel.
- No visible screws.
- Chic design of the electric box panel.
- Completely white appearance.
- Ultra Slim Evaporator (only 220mm 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:**

- [Click For Model Chart](#)

**Refrigeration Capacity:** European Standard

Air Return/ On the Road		Reciprocating Compressor		Swash Plate Compressor		Electric Stand-by 50Hz	
Degrees C	Degrees F	Watts	Btu/hr	Watts	Btu/hr	Watts	Btu/hr
0	32	5430	18545	4925	16820	4520	15435
-20	-4	2735	9340	2515	8600	2245	7665
-25	-13	2090	7140	1950	6660	1595	5445

**Heating Capacity:** (Models 30/50)

- Hot gas heating system
- Conditions: 5 degreesC internal air temperature, -20 degreesC ambient air temperature
- Road operation Reciprocating compressor: 1670 W (5700 BTU/hr)
- Road operation Swash compressor: 1550 W (5295 BTU/hr)
- Electric stand-by operation: 1350 W (4610 BTU/hr)

**Refrigerant:**

- HFC R-404A
- Chlorine: Zero
- Refrigerant charge
  - V-500 MAX 10/30: 2.3 kg (5.07 lbs)
  - V-500 MAX 20/50 3 PH: 2.2 kg (4.85 lbs)
  - V-500 MAX 20/50 1 PH: 2.4 kg (5.3 lbs)
  - V-500 MAX TC 10/20/30/50: 2.6 kg (5.7 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 systems
- Swash plate compressor (TM16)
  - Number of cylinders: 3
  - 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 systems

**Evaporator Fan Performance:**

- Evaporator fan performance at 0 in. (0 mm) water column external static pressure:
- Host evaporator ES500 MAX: 1415 cfm (2400 m<sup>3</sup>/h)
- Bi-temp evaporator ES300 MAX: 765 cfm (1300 m<sup>3</sup>/h)

**Electric Motors:**

Total current consumption:	<b>12Vdc</b>	<b>24Vdc</b>
V-500 MAX	36A	18A
V-500 MAX TC	42A	21A
Total stand-by current consumption:	<b>V-500 MAX</b>	<b>V-500 MAX TC</b>
230V/1-Phase/60Hz	12.7A	12.7A
400V/3-Phase/50Hz	6.8A	6.8A
230V/3-Phase/50Hz	13.6A	13.6A

230V/3-Phase/60Hz

14.1A

14.1A

**System Components:**

- Condenser
- ES500 MAX Ultra Slim Evaporator (except TC model)
- Slim evaporator ES300 MAX and ES150 MAX for TC models
- Installation kit
- In-cab Direct Smart Reefer
- Engine driven compressor choice between reciprocating and swash plate compressor

**Weight: (approximate)**

	lbs	kg
Condenser without electric standby	150	68
Condenser with electric standby	309	140
ES500 MAX Ultra Slim Evaporator	56	25.5
ES300 MAX Ultra Slim Evaporator	40	18
ES150 MAX Ultra Slim Evaporator	27.5	12.5
Reciprocating Compressor	29	13
Swash Plate Compressor	16	7.5

**Dimensions:**

	Height		Width		Depth	
Condenser	17.6 in	448 mm	50.9 in	1292 mm	18.7 in	475 mm
ES500 MAX Ultra Slim Evap	8.7 in	220 mm	51.3 in	1304 mm	22.1 in	562 mm
ES300 MAX Ultra Slim Evap	7 in	178 mm	38.8 in	985 mm	21.7 in	550 mm
ES150 MAX Ultra Slim Evap	7.4 in	187 mm	29.7 in	755 mm	21.3 in	540 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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