

Specification Sheet V-520/V-520 MAX



Thermo King has a Direct Drive unit to meet the needs of your specific application



R-134a Refrigerant for Fresh Applications

- Lower pressure refrigerant means a longer unit lifespan
- More reliable with better temp management for fresh loads

R-404A Refrigerant for Frozen Applications

- Greater cooling capacity
- Better temp management for frozen loads



ES300 - SPECTRUM Units

ES500 - Single Temp Units



Unit Features

- Engine-driven compressor
- Multi-temp configuration possible (V-520 SPECTRUM)
- SmartPower[™] electric standby option
- DSR microprocessor controller
- Jet Lube compressor lubrication

Swash Plate Compressor



The V-520 typically uses a swash plate compressor and it is available with the following belt configurations:

- Double A groove
- Poly V groove

Swash Plate Compressor	
Size	16
Cylinders	6
Displacement	9.9 inches ³

- Jet Cool compressor injection cooling
- Automatic hot gas defrost
- Optional heating package
- Unit includes installation kit





The TK-312R reciprocating compressor has the life of 5 swash plate compressors.

Reciprocating Compressor	
Model	TK-312R
Cylinders	3
Displacement	11.4 inches ³

System Performance

V-520 Refrigeration Capacity

(System net cooling capacity at 100°F ambient and 2,400 RPM engine operation)

	35°F	o°F
Engine Power Swash Plate (BTU/hr)	12,200	5,000
Engine Power Recip. Comp. (BTU/hr)	13,700	5,410
Smart Power Electric Standby (BTU/hr)	10,000	3,500
Refrigerant		R-134a
Charge		7.9 lbs

V-520 MAX and V-520 SPECTRUM[™] Refrigeration Capacity

(System net cooling capacity at 100°F ambient and 2,400 RPM engine operation)

	35°F	o°F	-20°F
Engine Power Swash Plate (BTU/hr)	15,500	8,200	5,000
Engine Power Recip. Comp. (BTU/hr)	16,600	8,700	5,300
Smart Power Electric Standby (BTU/hr)	10,400	6,600	3,500
Refrigerant		F	R-404A
Charge			8.2 lbs

(The V-520 SPECTRUM is the multitemp unit and it has the same capacity as the V-520 MAX)

V-520 and V-520 MAX System Specifications

Evaporator Airflow Capacity	
ES500 (Single Temp) 1,	,415 cfm
ES300 (Multi Temp)	765 cfm
Electric Standby OptionsTotal Total Current Consu	imption
230V/1 Phase/60 Hz	12.7A
230V/3 Phase/60 Hz	14.1A
Hot Gas Heat Option (MAX Only)	
BTU/hr	
System Weight	
ES500 Evaporator (Single Temp)	
ES300 Evaporator (SPECTRUM Multi Temp 2) 2 req'd	
Condenser with SmartPower Elecric Standby	
Condenser w/o SmartPower Elecric Standby	
Swashplate Compressor	
Reciprocating Compressor	29 lbs
Install Kit	10 lbs
Hose Kit	16 lbs

All Thermo King equipment is backed by the Thermo King dealer service network, with over 200 locations across North America.





