



Truck Refrigeration Systems

Quick Reference Guide

DIRECT DRIVE



SELF POWERED



BOX SIZE/TEMPERATURE GUIDE DIRECT DRIVE UNITS*

									
Temp	6'	8'	10'	12'	14'	16'	18'	20'	22'
35°F 2°C	V-220, B-100 or E-200	V-220, B-100 or E-200	V-320 or E-200	V-320 or V-520RT	V-520 or V-520RT	V-520 or V-520RT	V-520 or V-520RT	V-800 MAX	V-800 MAX
0°F -18°C	V-220 MAX or E-200	V-320 MAX	V-320 MAX or V-520RT MAX	V-520 MAX or V-520RT MAX	V-520 MAX or V-520RT MAX	V-520 MAX or V-520RT MAX	V-800 MAX	V-800 MAX	Contact Your Dealer
-20°F -29°C	V-220 MAX	V-300 MAX or V-520RT MAX	V-300 MAX or V-520RT MAX	V-300 MAX or V-520RT MAX	V-800 MAX	V-800 MAX	Contact Your Dealer	Contact Your Dealer	Contact Your Dealer

*For cooling applications only. Above reference assumes 3" of insulation for 35°F (2°C), 0°F (-18°C) and 4" for -20°F (-29°C); ten door openings per delivery day; box dimensions of 96"W and 96"H on trucks 10' and over in length.

COOLING AND HEATING CAPACITIES DIRECT DRIVE UNITS

Model	Refrigerant	Truck Engine Cooling Capacity-BTU/hr			Electric Standby Cooling Capacity-BTU/hr			Evap Airflow	Coolant Heating- BTU/hr		Hot Gas Heating- BTU/hr	
		35°F	0°F	-20°F	35°F	0°F	-20°F		Engine	Electric	Engine	Electric
B-100*	R-134a	3,600	----	----	3,700	----	----	400	----	----	----	----
E-200	R-452a	4,700	2,700	----	4,700	2,700	----	470	----	----	2,300	2,300
V-220*	R-134a	5,930	----	----	4,700	----	----	650	14,400	5,000	----	----
V-220 MAX**	R-452a	7,160	4,775	3,170	5,250	3,410	2,265	650	14,400	5,000	----	----
V-320*	R-134a	9,590	----	----	6,690	----	----	765	14,400	5,000	----	----
V-320 MAX	R-452a	10,015	5,835	3,535	5,801	3,790	2,565	765	14,400	5,000	10,875	5,393
V-520*	R-452a	12,200	----	----	10,000	----	----	1,415	----	----	14,000	8,000
V-520 RT*												
V-520 MAX												
V-520 RT MAX												
V-520 SPECTRUM	R-452a	15,500	8,200	5,000	10,400	6,600	3,500	1,415	----	----	14,000	8,000
V-520 RT SPECTRUM												
V-800*	R-134a	16,400	----	----	16,500	----	----	1,576	----	----	----	----
V-800 MAX	R-452a	20,500	9,500	6,000	21,000	11,000	6,200	1,576	----	----	----	----

* Non-MAX units (R-134a) are rated at 0°F but not allowed to operate below 25°F due to system protection. All standby capacities rated with 230 VAC option.

** Hot gas heat not available on V-220 Series.



Unit selection may vary depending on ambient temperature, truck body insulation, number of door openings, heat of respiration, compressor selection, etc.

BOX SIZE/TEMPERATURE GUIDE SELF POWERED UNITS*

								
Temp	14'	16'	18'	20'	22'	24'	26'	28'
35°F 2°C	T-590	T-590	T-590	T-590	T-590	T-590	T-890	T-890
0°F -18°C	T-590	T-690	T-690	T-690	T-690 MAX	T-690 MAX	T-890	T-890
-20°F -29°C	T-690	T-690 MAX	T-890	T-890	T-890	T-890	T-890	T-1090

*Above reference assumes 3" of insulation for 35°F (2°C), 0°F (-18°C) and 4" for -20°F (-29°C); ten door openings per delivery day; box dimensions of 96"W and 96"H on trucks 10' and over in length.

COOLING AND HEATING CAPACITIES SELF POWERED UNITS

Model	Refrigerant	Engine Cooling ¹ - BTU/hr			Electric Cooling ² - BTU/hr			Evaporator Airflow	Heating ³ - BTU/hr	
		35°F	0°F	-20°F	35°F	0°F	-20°F		Engine	Electric
T-590	R-452a	15,500	10,000	5,500	14,000	8,000	5,000	1,500	10,500	6,000
T-690	R-452a	19,000	12,000	7,250	16,500	11,000	6,500	1,500	12,000	7,500
T-690 MAX	R-452a	21,000	13,500	8,000	18,000	12,250	6,750	1,500	14,000	7,500
T-890	R-452a	25,000	17,000	11,000	21,000	12,500	8,000	1,700	10,500	10,500
T-890 MAX	R-452a	27,000	18,000	11,500	22,500	13,500	8,500	1,700	14,000	10,500
T-1090	R-452a	32,000	21,000	13,500	27,000	15,500	11,000	1,800	14,000	14,000
T-1090 MAX	R-452a	35,000	22,500	14,250	28,500	19,000	13,000	1,800	20,000	14,000
UT-1280 (Funnel Evap)	R-452a	39,000	22,500	15,500	36,000	20,000	13,000	1,970	20,700	18,000
UT-1280 (S3+S3)	R-452a	36,000	22,000	14,000	34,500	19,000	12,000	2,350	20,700	18,000

1. High speed engine in 100°F ambient 2. 60 Hertz power in 100° ambient 3. High speed engine/60 Hertz power in 0° ambient

Consult your Thermo King dealer for a detailed computer analysis and printed report showing your truck application requirements and unit selection comparison.



Thermo King – by Trane Technologies (NYSE: TT), a global climate innovator – is a worldwide leader in sustainable transport temperature control solutions. Thermo King has been providing transport temperature control solutions for a variety of applications, including trailers, truck bodies, buses, air, shipboard containers and railway cars since 1938. For more information, visit thermoking.com or tranetechnologies.com.

