

V- AND VX-SERIES

— flexible, powerful, dependable —



SINGLE- AND MULTI-TEMPERATURE REFRIGERATION SOLUTIONS
FOR SMALL, MEDIUM AND LARGE VANS & TRUCKS

V- AND VX-SERIES

SUPERIOR NON-DIESEL
TEMPERATURE CONTROL
FOR VANS, SMALL AND LARGE TRUCKS

Thermo King V- and VX-Series are an extensive range of refrigeration solutions for vans and trucks. The range has minimal environmental impact as the refrigeration unit compressor is driven by the vehicle engine, offering exceptionally low noise and low emissions. Many common components are shared across the range including the Direct Smart Reefer in-cab controller and modular options to suit every customer.

No matter what your business, we have a model to suit including single or dual compartment vehicles carrying at fresh, chilled or frozen temperatures.

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SINGLE OR MULTI-TEMPERATURE - A SOLUTION FOR EVERY NEED

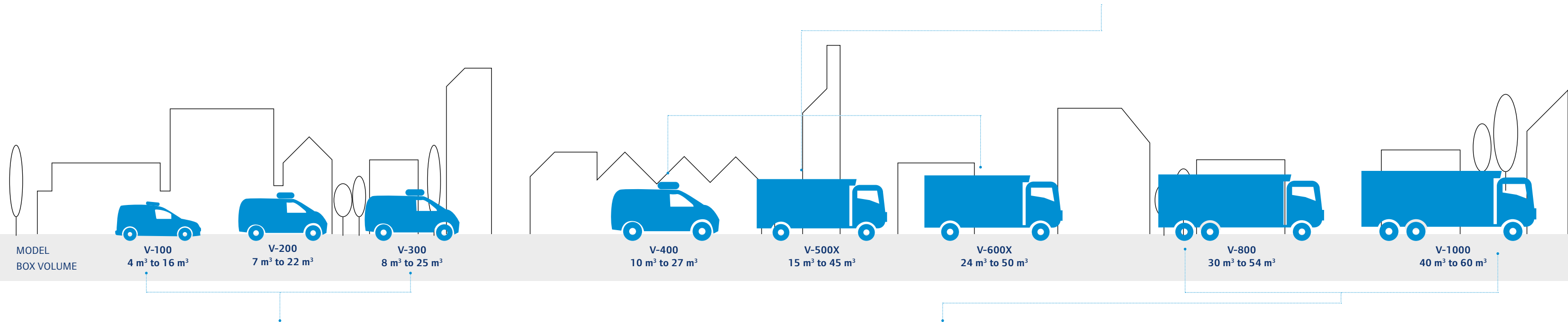
No matter what your business entails, whether you're delivering delicate flowers requiring a precise chilled environment or transporting frozen meals that need to stay rock-solid, we have a refrigerated vehicle model to perfectly suit your needs.

Our selection includes both single and dual compartment options, allowing you to optimize space and maintain optimal temperatures for your specific cargo, be it fresh, chilled, or frozen.

V SERIES MEDIUM TRUCK AND VANS

V-400X, V-500X and V-600X offer the optimal temperature control solution for single and multi-temperature vans and medium trucks up to 10 m³ fresh and 50 m³ frozen.

- Increased performance both on road and stand-by operation.
- Swash plate compressor for ease of installation.
- User friendly and advanced controller Direct Smart Reefer.
- Nose, roof or recessed roof condenser unit for large vans and medium chassis cab trucks.
- Lightweight design allows for greater payload and/or reduced fuel consumption.
- Powerful airflow and cooling capacity to protect loads.
- Also available as multi-temperature Spectrum version providing temperature control for two compartments.



V-SERIES FOR SMALL TRUCKS AND VANS

V-100, V-200s, V-200, V-300 offer the optimal temperature control solution for single and multi-temperature vans and small trucks up to 28 m³ fresh and 21 m³ frozen.

- Small and lightweight but powerful units with big performance.
- Slim, aerodynamic, and good looking.
- Extremely compact design to blend with small vehicle body shapes.
- Condenser section can be roof or front mounted.
- Also available as multi-temperature Spectrum version providing temperature control for two compartments.

V SERIES LARGE TRUCK

V-800-1000 offer the optimal temperature control solution for single and multi-temperature large trucks up to 30 m³ fresh and 60 m³ frozen.

- Direct drive, non-diesel temperature control solution for operators of large trucks.
- An unbeatable exceptional performance, non-diesel, low noise, low maintenance and low weight solution.
- The most powerful unit in the vehicle-powered range, both in cooling and heating modes.
- The range has minimal environmental impact as the refrigeration unit compressor is driven by the vehicle engine, offering exceptionally low noise and low emissions.
- Compact design with high refrigeration performance to meet single and multi-temperature application needs.
- Nose mount low size and compact condenser unit for the largest trucks.
- Extremely powerful airflow to guarantee load protection.
- Also available as multi-temperature Spectrum version providing temperature control for two compartments.

V-SERIES FOR SMALL TRUCKS AND VANS

FLEXIBLE. POWERFUL. DEPENDABLE.

As Thermo King’s most powerful vehicle-powered refrigeration series for both heating and cooling, the V-Series has minimal environmental impact, exceptionally low noise, and reduced emissions.

Thanks to its extensive range, the V-Series has a model to suit, with single- and multi-temperature versions for vans and small trucks up to 25 m³.

MODELS



Dimensions: 789 (l) x 500 (w) x 242 (h)

V-100/V-200s
V-200/V-300



Dimensions: 1180 (l) x 485 (w) x 222 (h)

V-200/V-300



Dimensions: 1180 (l) x 535 (w) x 221 (h)

V-200/V-300 MAX Spectrum

COST-EFFICIENT REFRIGERATION

High performance and high efficiency ensure effective temperature control and a low total cost of ownership.

EFFICIENT AND GREEN

The latest low Global Warming Potential (GWP) refrigerant is available without compromising performance.

URBAN DELIVERIES

Deliver night and day to ULEZs and LEZs thanks to the V-Series’ low noise and low emissions.

INTUITIVE CONTROL

The user-friendly Direct Smart Reefer technology gives you complete control of your refrigeration from the comfort and safety of the cab.

Thermo King V-Series is an extensive range of refrigeration solutions for vans and small trucks. The range has minimal environmental impact as the refrigeration unit compressor is driven by the vehicle engine, offering exceptionally low noise and low emissions. Many common components are shared across the range including the Direct Smart Reefer in-cab controller and modular options to suit every customer.

No matter what your business, we have a model to suit including single or dual compartment vehicles carrying at fresh, chill or frozen temperatures.

NO MATTER YOUR BUSINESS, WE HAVE A SYSTEM TO SUIT

Your customers demand that you are adaptable, so we gave you a system which is as flexible as you are. Choose from a wide range of units, nose mount, roof mount and recessed roof mount options for both single and multi-temperature applications.





RAPID AND COST-EFFECTIVE SERVICE AND MAINTENANCE
V-Series units are designed with ease of service as a priority. Your DSR controller provides maintenance reminders and uses easy to understand alarm codes to speed up diagnosis. Lifting the condenser cover gives full access to key components while the unit is still running.

LOW NOISE AND ZERO EXHAUST EMISSIONS MEAN THAT YOU ARE WELCOME TO DELIVER ANYWHERE, ANYTIME.
Urban deliveries demand people-friendly equipment so you can access your customers 24/7. By using the vehicle engine to power our compressor, you have a system which has no engine, no emissions and extremely low noise.

EASY INSTALLATION KEEPS COSTS TO A MINIMUM
To keep your initial costs down, we make installation really straightforward. Depending on the model, we provide lifting eyes, easy to access mounting holes, pre-installed Jet Cool™ compressor injection cooling and external evaporator connections.

PRIORITY PERFORMANCE FOR PRIORITY PROTECTION
Spectrum multi-temperature models feature Zone Priority which allows you to choose one compartment for maximum cooling or heating, should the application require it. With this option enabled through the controller, temperature pulldown can be up to 40% faster.



SINGLE TEMPERATURE MODELS SPECIFICATIONS

		V-100		V-100 MAX		V-200		V-200s MAX		V-200 MAX		V-300		V-300 MAX	
EVAPORATOR		ES100		ES100		ES200		ES150		ES200		ES300		ES300	
SYSTEM NET COOLING CAPACITY UNDER ATP CONDITIONS INCLUDING 30 °C AMBIENT, EUROPEAN STANDARD															
RETURN AIR TO EVAPORATOR	°C	0°C	-20°C	0°C	-20°C	0°C	-20°C	0°C	-20°C	0°C	-20°C	0°C	-20°C	0°C	-20°C
AIR RETURN/ON THE ROAD	W	1640	650	2030	1060	2240	970	2420	1210	2765	1490	2800	1210	3520	1850
ELECTRIC STAND-BY 50 HZ	W	820	310	1260	520	1910	780	1500	710	2400	1220	2140	850	2870	1440
HEATING CAPACITY: AT -18 °C AMBIENT/2400 RPM															
ON THE ROAD SWASH PLATE COMPRESSOR	W	-		1900		-		2200		2800		-		3100	
ELECTRIC STANDBY OPERATION	W	-		1100		-		1300		2050		-		2250	
AIRFLOW															
AIRFLOW VOLUME @ 0 PA STATIC PRESSURE	M³/H	1 X 680		1 X 680		2 X 1152		1 X 1150		2 X 1152		3 X 1152		3 X 1152	
WEIGHT															
CONDENSER W/O ELECTRIC STANDBY	KG	25		25		25		25		25		25		25	
CONDENSER WITH ELECTRIC STANDBY	KG	43		70		70		43		72		70		72	
EVAPORATOR	KG	9		9		15		14		15		18		18	
COMPRESSOR															
MODEL		TK08N		TK08N		QP13		TK08N		QP13		QP15		QP15	
DISPLACEMENT	CC	82		82		131		82		131		146.7		146.7	
NUMBER OF CYLINDERS		6		6		6		6		6		6		6	
ELECTRIC STANDBY MOTOR															
VOLTAGE/PHASE/FREQUENCY		230/1/150		230/1/50		230/1/50 230/1/60 400/3/50 230/3/50 230/3/60		230/1/50		230/1/50 230/1/60 400/3/50 230/3/50 230/3/60		230/1/50 230/1/60 400/3/50 230/3/50 230/3/60		230/1/50 230/1/60 400/3/50 230/3/50 230/3/60	
RATING	KW	1.6		1.6		3.7 (400/3/50)		1.6		3.8 (400/3/50)		3.7 (400/3/50)		3.8 (400/3/50)	
REFRIGERANT															
REFRIGERANT		R-134A		R-404A/ R-452A		R-134A		R-404A/ R-452A		R-404A/ R-452A		R-134A		R-404A/ R-452A	
CHARGE	KG	10: 0.62 20: 1.0		10/30: 0.62 20:1 - 50: 1.2		10/30: 1.1 20/50: 1.35		1.2		10/30: 1.0 20/50: 1.2		10: 1.1 20: 1.35		10/30: 1.1 20/50: 1.35	
GENERIC															
CONTROLLER		DSR III													
DEFROST															
DEFROST		AUTOMATIC HOT GAS DEFROST/REVERSE CYCLE													

MULTI-TEMPERATURE MODELS
SPECIFICATIONS

		V-200 MAX SPECTRUM			
EVAPORATOR		ES100 MAX + ES100 MAX		ES100 MAX + ES100N MAX*	
REFRIGERATION CAPACITY: AT 30 °C AMBIENT					
RETURN AIR TO EVAPORATOR	°C	-20°C		-20°C	
CAPACITY ON ENGINE POWER	W	1480		1480	
CAPACITY ON ELECTRICAL STAND	W	1110		1110	
REFRIGERATION CAPACITY: INDIVIDUAL COOLING CAPACITY					
EVAPORATOR		ES100 MAX		ES100N MAX*	
RETURN AIR TO EVAPORATOR		0°C	-20°C	0°C	-20°C
CAPACITY ON ENGINE POWER	W	2370	1230	2260	1170
CAPACITY ON ELECTRICAL STAND	W	2150	1040	2010	1010
HEATING CAPACITY					
ON THE ROAD	W	2800			
ELECTRIC STANDBY OPERATION	W	2050			
AIRFLOW					
EVAPORATOR		ES100 MAX + ES100 MAX		ES100 MAX + ES100N MAX*	
ON HIGH SPEED ENGINE OPERATION	M³/H	695		695	
WEIGHT					
CONDENSER W/O ELECTRIC STANDBY	KG	25			
CONDENSER WITH ELECTRIC STANDBY	KG	75			
EVAPORATOR ES100 MAX	KG	9			
COMPRESSOR					
MODEL		QP 13			
DISPLACEMENT	CC	131			
NUMBER OF CYLINDERS		6			
ELECTRIC STANDBY MOTOR					
VOLTAGE/PHASE/FREQUENCY		230/1/50 - 230/1/60 - 400/3/50 - 230/3/50 - 330/3/60			
RATING	KW	3.8			
REFRIGERANT					
REFRIGERANT		R-404A/R-452A			
CHARGE	KG	1.35			
GENERIC					
CONTROLLER		DSR III			
DEFROST					
DEFROST		AUTOMATIC HOT GAS DEFROST			

		V-300 MAX SPECTRUM					
EVAPORATOR		ES150 + ES150		ES150 + ES100		ES200 + ES100	
REFRIGERATION CAPACITY: AT 30° C AMBIENT							
RETURN AIR TO EVAPORATOR	°C	-20°C		-20°C		-20°C	
CAPACITY ON ENGINE POWER	W	1880		1760		1770	
CAPACITY ON ELECTRICAL STAND	W	1460		1220		1440	
REFRIGERATION CAPACITY: INDIVIDUAL COOLING CAPACITY							
EVAPORATOR		ES150 MAX		ES100 MAX		ES200 MAX	
RETURN AIR TO EVAPORATOR		0°C	-20°C	0°C	-20°C	0°C	-20°C
CAPACITY ON ENGINE POWER	W	3080	1620	2410	1290	2930	1540
CAPACITY ON ELECTRICAL STAND	W	2490	1350	2220	1070	2610	1370
HEATING CAPACITY							
ON THE ROAD	W	3100					
ELECTRIC STANDBY OPERATION	W	2250					
AIRFLOW							
EVAPORATOR		ES150 MAX		ES100 MAX		ES200 MAX	
ON HIGH SPEED ENGINE OPERATION	M³/H	890		770		1210	
WEIGHT							
CONDENSER W/O ELECTRIC STANDBY	KG	25					
CONDENSER WITH ELECTRIC STANDBY	KG	75					
EVAPORATOR ES150 MAX	KG	12.5					
EVAPORATOR ES100 MAX	KG	9					
EVAPORATOR ES200 MAX	KG	15					
COMPRESSOR							
MODEL		QP 15					
DISPLACEMENT	CC	146.7					
NUMBER OF CYLINDERS		6					
ELECTRIC STANDBY MOTOR							
VOLTAGE/PHASE/FREQUENCY		230/1/50 - 230/1/60 - 400/3/50 - 230/3/50 - 330/3/60					
RATING	KW	3.8					
REFRIGERANT CHARGE							
REFRIGERANT		R-404A/R-452A					
CHARGE	KG	30: 1.55 - 50: 1.6					
GENERIC							
CONTROLLER		DSR III					
DEFROST							
DEFROST		AUTOMATIC HOT GAS DEFROST					

CAPACITY ON ENGINE POWER GIVEN AT 2400 RPM (ATP CONDITIONS)
* ES100N ONLY AVAILABLE UPON SPECIAL REQUEST. PLEASE CONTACT YOUR LOCAL DEALER.

VX-SERIES FOR MEDIUM TRUCKS AND VANS

HIGH PERFORMANCE AND SUSTAINABLE REFRIGERATION.

As Thermo King’s most powerful vehicle-powered refrigeration series for both heating and cooling, the VX-Series has minimal environmental impact, exceptionally low noise, and reduced emissions.

Thanks to its extensive range, the V-Series has a model to suit, with single- and multi-temperature versions for vans and small trucks up to 50m³.

MODELS

NOSEMOUNT



Dimensions: 1253 (l) x 631 (w) x 244* (h)

- V-400X
- V-400X MAX
- V-400X MAX Spectrum

ROOFMOUNT



Dimensions: 1312 (l) x 825 (w) x 241* (h)

- V-500X
- V-500X MAX
- V-600X MAX
- V-600X MAX Spectrum

ROBUST AND RELIABLE

The future-proof aerodynamic design has been developed to meet the need of daily operations.

LIGHT AND COMPACT

The ultra-light and compact units enable you to maximize your payload.

MINIMAL ENVIRONMENTAL IMPACT

Low noise, zero exhaust emissions, and no engine reduce the ecological footprint of the VX-Series.

PRECISION TEMPERATURE CONTROL

The in-cab controller enables single- and multi-temperature control within 1 °C.

IMPROVED PERFORMANCE

The VX-Series unites performance with efficiency on the road:

- Up to 10% faster pulldown than its predecessor
- Lightweight and compact - 50% lighter than than its predecessor
- Increased refrigeration power 4000W - 6500W
- VX-Series models are ultra-light and compact, making it possible to maximize your payload

DESIGNED TO LAST

Compact and robust design that appeals and endures:

- Long-lasting corrosion-proof aluminum frame
- Future-proof design meets low emissions and low noise restrictions in cities
- Aerodynamic and modular design for nose, roof or recessed roof mount for easy installation

SMART CONTROL ON THE ROAD

- The Direct Smart Reefer controller puts your driver in control:
- Continuous load and temperature monitoring for total cargo protection

LOW MAINTENANCE

AND SERVICING

You can rely on the VX-Series to keep uptime up:

- Agile service and maintenance monitoring with Direct Smart Reefer controller (DSR)
- Maintenance reminders and intuitive alarm codes for fast diagnosis
- Easily accessible unit for rapid service and maintenance

24/7 CUSTOMER DELIVERIES

Get close to your customers anytime, anywhere:

- Extremely low emissions, noise and vibrations from unit
- Compliant with current and future (U)LEZ legislation



* Above heights are cover height. Heights including fans: Nose Mount - 276 mm - Roof Mount - 273 mm

SINGLE TEMPERATURE MODELS SPECIFICATIONS

SINGLE TEMPERATURE MODELS		V-400X		V-500X		V-600X	
REFRIGERATION CAPACITY: AT 30 °C AMBIENT ATP CONDITIONS							
SETPPOINT	°C	0°C	-20°C	0°C	-20°C	0°C	-20°C
CAPACITY ON ENGINE POWER 2400 RPM (R-134a)	W	3220	-	4190	-	-	-
CAPACITY ON ELECTRIC STANDBY 400V/3PH/50HZ (R-134a)	W	2370	-	2570	-	-	-
CAPACITY ON ENGINE POWER 2400 RPM (R-452a)	W	4090	2240	5440	3030	6540	3480
CAPACITY ON ELECTRIC STANDBY 400V/3PH/50HZ (R-452a)	W	3030	1500	3450	1640	4110	1920
HEATING CAPACITY: AT -18 °C AMBIENT/2400 RPM							
SETPPOINT	°C	+18°C		+18°C		+18°C	
CAPACITY ON ENGINE POWER 2400 RPM (R-452A)	W	3564		3711		4356	
CAPACITY ON ELECTRIC STANDBY 50HZ 400V/3PH/50HZ (R-452a)	W	1841		1944		2324	
EVAPORATOR		ES300		ES500		ES600	
AIRFLOW VOLUME	m³/h	1420		2353		2505	
WIDTH x DEPTH x HEIGHT	mm	985 x 551 x 178		1336 x 596 x 226		1331 x 592 x 240	
REFRIGERANT							
CHARGE R-134a	kg	1.8		2.1		-	
CHARGE R-452a – ONLY MAX MODELS	kg	2.0		2.0		2.3	
WEIGHT							
CONDENSER (STANDBY)	kg			75			
CONDENSER (NO STANDBY)	kg			60			
EVAPORATOR	kg	18		26		28	
ROAD COMPRESSOR	kg			7			
TOTAL WEIGHT (STANDBY)	kg	102		110		112	
TOTAL WEIGHT (NO STANDBY)	kg	87		95		97	
CONDENSER							
CONDENSER DIMENSIONS (NOSE)	mm			1253 (W) x 631 (D) x 276 (H)			
CONDENSER DIMENSIONS (ROOF)	mm			1312 (W) x 825 (D) x 273 (H)			
CONTROLLER							
DSR 3 WIDTH X DEPTH X HEIGHT	mm			135 x 25 x 46			
COMPRESSOR: MAX RECOMMENDED SPEED 3000 RPM							
MODEL				QP16			
DISPLACEMENT	cc			163			
NUMBER OF CYLINDERS				6			
ELECTRICAL							
STANDBY VOLTAGE/ PHASE/ FREQUENCY OPTIONS	V/PH/Hz			230V : 1PH : 50/60Hz 230V : 3PH : 50/60Hz 400V : 3PH : 50/60Hz			
TOTAL CURRENT CONSUMPTION ON THE ROAD	12V DC (A)	36		44		44	
	24V DC (A)	20		25		25	
DEFROST							
AHGD (AUTOMATIC HOT GAS DEFROST)	R134a R-452a			AHGD			

MULTI-TEMPERATURE MODELS SPECIFICATIONS

MULTI-TEMPERATURE MODELS		V-400X MAX SPECTRUM						V-600X MAX SPECTRUM									
EVAPORATOR		ES200 + ES200 MAX		ES300 + ES100 MAX		ES300 + ES300 MAX		ES300 + ES150 MAX		ES300 + 2 x ES150 MAX		ES500 + ES100N MAX					
REFRIGERATION CAPACITY: AT 30 °C AMBIENT ATP CONDITIONS																	
SETPOINT	°C	-20 °C						-20 °C									
CAPACITY ON ENGINE POWER 2400 RPM (R-452A)	W	2170						2730									
CAPACITY ON ELECTRIC STANDBY 400V/3PH/50HZ (R-452A)	W	1420						1880									
REFRIGERATION CAPACITY: INDIVIDUAL CAPACITY		ES100		ES200		ES300		ES100N		ES150		ES300		2xES150		ES500	
SETPOINT	°C	0 °C	-20 °C	0 °C	-20 °C	0 °C	-20 °C	0 °C	-20 °C	0 °C	-20 °C	0 °C	-20 °C	0 °C	-20 °C	0 °C	-20 °C
CAPACITY ON ENGINE POWER 2400 RPM (R-452A)	W	2500	1350	3030	1630	3430	1930	2480	1410	3100	1910	3290	1920	4210	2080	4600	2370
CAPACITY ON ELECTRIC STANDBY 400V/3PH/50HZ (R-452A)	W	2110	990	2420	2000	2710	1370	2450	1320	2650	1450	2990	1700	3100	1660	3570	1720
EVAPORATOR																	
AIRFLOW VOLUME	m³/h	866		1241		1420		566		891		2 x 891		1420		2353	
HEATING CAPACITY: AT -18 °C AMBIENT																	
SETPOINT	°C	+18 °C						+18 °C									
CAPACITY ON ENGINE POWER 2400RPM (R-452A)	W	3570						4360									
CAPACITY ON ELECTRIC STANDBY 400V/3PH/50HZ (R-452A)	W	1850						2330									
REFRIGERANT																	
CHARGE - R-452a	kg	1.9		1.9		2.1		2.0		2.3		2.3					
WEIGHT																	
CONDENSER (STANDBY)	kg	75															
CONDENSER (NO STANDBY)	kg	60															
EVAPORATOR	kg	30		27		36		32		46		46					
ROAD COMPRESSOR	kg	7		7		7		7		7		7					
TOTAL WEIGHT (STANDBY)	kg	114		110		120		116		130		130					
TOTAL WEIGHT (NO STANDBY)	kg	99		95		105		101		115		115					
DIMENSIONS																	
CONDENSER DIMENSIONS (NOSE)	mm	1253 (W) x 631 (D) x 276 (H)															
CONDENSER DIMENSIONS (ROOF)	mm	1312 (W) x 825 (D) x 273 (H)															
CONTROLLER																	
DSR 3 WIDTH X DEPTH X HEIGHT	mm	135 x 25 x 46															
COMPRESSOR: MAX RECOMMENDED SPEED 3000 RPM																	
MODEL		QP16															
DISPLACEMENT	cc	163															
NUMBER OF CYLINDERS		6															
ELECTRICAL																	
STANDBY VOLTAGE/ PHASE / FREQUENCY OPTIONS	V/PH/Hz	230V : 1PH : 50/60Hz 230V : 3PH : 50/60Hz 400V : 3PH : 50/60Hz															
TOTAL CURRENT CONSUMPTION ON THE ROAD	12V DC (A) 24V DC (A)	53 30		44 25		53 30		44 25		53 30		53 30					
DEFROST																	
AHGD (AUTOMATIC HOT GAS DEFROST)	R134a R-452a	AHGD															

V-SERIES FOR LARGE TRUCKS

FLEXIBLE. POWERFUL. DEPENDABLE.

As Thermo King’s most powerful vehicle-powered refrigeration series for both heating and cooling, the V-Series has minimal environmental impact, exceptionally low noise, and reduced emissions.

Thanks to its extensive range, the V-Series has a model to suit, with single- and multi-temperature versions for vans and small trucks up to 60m³.



Dimensions: 1864 (l) x 588 (w) x 536 (h)

MODELS

V-800	V-1000
V-800 MAX	V-1000 MAX
V-800 MAX Spectrum	V-1000 MAX Spectrum

COST-EFFICIENT REFRIGERATION

High performance and high efficiency ensure effective temperature control and low total cost of ownership.

INTUITIVE CONTROL

The user-friendly Direct Smart Reefer technology gives you complete control of your refrigeration from the comfort and safety of the cab.

URBAN DELIVERIES

Deliver night and day to ULEZs and LEZs thanks to the V-Series’ low noise and low emissions.

EFFICIENT AND GREEN

The latest low Global Warming Potential (GWP) refrigerant is available without compromising performance.

V-1000

MORE CAPACITY, MORE FLEXIBILITY.

V-1000 is uniquely positioned to satisfy the needs of large truck operators with the benefits of advanced vehicle drive technology when it comes to sustainability, cost control, load protection and productivity.

The V-1000 unit from Thermo King easily matches the performance of the leading diesel offerings while delivering the low cost, low weight and compact size of a vehicle-powered unit. If you think that’s too good to be true, prepare to be surprised.

READY FOR CHANGE

The V-1000 uses a compressor exclusively developed for Thermo King which, when driven by the truck engine produces performance previously unattainable in units of this type. This makes it a competitive initial investment compared to diesel powered unit with equivalent performance. High cooling capacity and high airflow guarantee load protection under the most arduous conditions. Total costs of ownership are driven down by low maintenance costs and low fuel consumption.



V-1000 IMPRESSIVE
FACTS AND FIGURES

- 10,055 W @ 0/30 °C of cooling capacity at high speed position it almost 25% more powerful than its nearest diesel equivalent unit(s).
- Even low speed capacity comes close to matching diesel units while standby capacity is a massive 57% higher.
- Airflow, vital for total load protection, is 3,537 m³/hr. That’s a impressive 31% higher than its nearest diesel equivalent unit(s).
- Heating capacity is 1.3 times higher than its nearest equivalent diesel unit(s).



S U S T A I N A B I L I T Y

Transport solutions not only need to do the job, but do it in a way that minimises environmental impact. The V-1000 is an exceptionally “low-touch” performer, leaving diesel units out of sight when it comes to protecting the world we live in.

These are just some of the key environmental benefits of this remarkable system:

- No diesel emissions from the unit
- No CO₂ emissions from the unit
- Low noise when in operation
- Less additional weight on the vehicle
- More cargo carried per journey
- Easily installed on progressive fleets using LNG/CNG or bio-diesel.

C O S T C O N T R O L

The V-1000 positively impacts Total Cost of Operation (TCO) in these key areas:

- Fuel consumption, the principal cost of operating a refrigeration unit, is up to 54% less than an equivalent self-powered system.
- Maintenance costs including both parts and labour are cut by up to 33% thanks to the absence of a diesel engine.

P R O D U C T I V I T Y

You want units in your fleet that pull their weight when it comes to the key measure of productivity. The V-1000 is an exceptional performer when compared with an equivalent diesel unit:

- **Weight is less than half of an equivalent unit,** giving savings of 250 kg without standby and 150 kg with standby. This means much more carrying capacity for the vehicle and more revenue for your operation.
- **Flexibility is exceptional.** The V-1000 comes in single or various multi-temperature configurations. Its compact profile make it ideal for high cabs and it’s equally at home with multiple vehicle types including CNG, LNG or Biodiesel. Available in both 12 V or 24 V making it your perfect fit for trucks that range all the way from 3.5 tn to 25 tn depending on your application needs.

L O A D P R O T E C T I O N

Savings and productivity while vital are meaningless if there are any doubts about load protection. The V-1000 features exceptional performance which is why it can compete directly with self-powered units and in many cases, even outperform them.

SINGLE TEMPERATURE MODELS
SPECIFICATIONS

		V-800		V-800 MAX 10/20		V-800 MAX 30/50		V-1000		V-1000 MAX 10/20		V-1000 MAX 30/50		
EVAPORATOR			ES800		ES800		ES800		ES1000		ES1000		ES1000	
REFRIGERATION CAPACITY: AT 30 °C AMBIENT														
RETURN AIR TO EVAPORATOR		°C	0 °C	-20 °C	0 °C	-20 °C	0 °C	-20 °C	0 °C	-20 °C	0 °C	-20 °C	0 °C	-20 °C
CAPACITY ON ENGINE POWER 2400 RPM (R-452A)		W	5680	-	7940	4050	7950	4190	6460	-	10060	5050	9970	4810
CAPACITY ON ELECTRIC STANDBY 400V/3PH/50HZ (R-452A)		W	5030	-	7130	3690	6860	3610	6020	-	9310	4650	9400	4490
HEATING CAPACITY: AT -18 °C AMBIENT/2400 RPM														
ON THE ROAD SWASH PLATE COMPRESSOR		W	-		3600				-		8000			
ELECTRIC STANDBY OPERATION		W	-		3120				-		8000			
AIRFLOW														
AIRFLOW VOLUME @ 0 PA STATIC PRESSURE		M³/H	2680						3537					
WEIGHT														
CONDENSER W/O ELECTRIC STANDBY		KG	96		96		111		96		96		111	
CONDENSER WITH ELECTRIC STANDBY		KG	205		205		220		205		205		220	
EVAPORATOR		KG	35						50					
COMPRESSOR														
MODEL			QP21						QP25					
DISPLACEMENT		CC	215						250					
NUMBER OF CYLINDERS			10						10					
ELECTRIC STANDBY MOTOR														
VOLTAGE/PHASE/FREQUENCY			400/3/50 380/3/60 230/3/50 230/3/60						400/3/50 230/3/50 400/3/60 230/3/60					
RATING		KW	8.2 (400/3/50)						8.8 (400/3/50)					
REFRIGERANT														
REFRIGERANT			R-134A		R-404A/ R-452A				R-134A		R-404A/R-452A			
CHARGE		KG	10: 4.55 20: 4.85		10/30: 4.7 20/50: 5				10: 5.4 20: 5.7		10: 5.9 20: 6.2		30: 5.9 50: 6.2	
GENERIC														
CONTROLLER			DSR III											
DEFROST														
DEFROST			AHGS		AHGS		RC		AHGS		AHGS		RC	

AHGS = AUTOMATIC HOT GAS DEFROST - RC = REVERSE CYCLE

NOTE: SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

57%

higher standby capacity than its nearest diesel equivalent unit(s).

31%

higher airflow than its nearest equivalent diesel unit(s).

25%

more powerful than its nearest diesel equivalent unit(s).

1.3x

higher heating capacity than its nearest equivalent diesel unit(s).

MULTI-TEMPERATURE MODELS

SPECIFICATIONS

V-800 MAX SPECTRUM									
EVAPORATOR		ES400 MAX+ ES400 MAX		ES600MAX+ ES150 MAX		ES600 MAX+ 2x ES150 MAX			
REFRIGERATION CAPACITY: AT 30 °C AMBIENT									
RETURN AIR TO EVAPORATOR	°C	-20 °C		-20 °C		-20 °C			
CAPACITY ON ENGINE POWER	W	4140		3900		4070			
CAPACITY ON ELECTRICAL STAND	W	3520		3380		3370			
REFRIGERATION CAPACITY: INDIVIDUAL COOLING CAPACITY									
EVAPORATOR		ES400 MAX		ES600 MAX		ES150 MAX		2 X ES150 MAX	
RETURN AIR TO EVAPORATOR		0 °C	-20 °C	0 °C	-20 °C	0 °C	-20 °C	0 °C	-20 °C
CAPACITY ON ENGINE POWER	W	6060	3230	6320	3060	3500	1930	5640	2995
CAPACITY ON ELECTRICAL STAND	W	5670	3090	6120	3050	3580	1950	5045	2705
HEATING CAPACITY									
ON THE ROAD	W	4500							
ELECTRIC STANDBY OPERATION	W	4000							
AIRFLOW									
		ES400 MAX + ES400 MAX		ES600 MAX + ES150 MAX		ES600 MAX + 2XES150 MAX			
ON HIGH SPEED ENGINE OPERATION	M³/H	1760x2		2260+890		2260+(2x890)			
WEIGHT									
CONDENSER W/O ELECTRIC STANDBY	KG	100							
CONDENSER WITH ELECTRIC STANDBY	KG	160							
EVAPORATOR ES600 MAX	KG	28							
EVAPORATOR ES400 MAX	KG	20							
EVAPORATOR 2 X ES150 MAX	KG	25							
EVAPORATOR ES150 MAX	KG	12.5							
SWASH PLATE COMPRESSOR	KG	8.5							
COMPRESSOR									
MODEL		QP21							
DISPLACEMENT	CC	215							
NUMBER OF CYLINDERS		10							
ELECTRIC STANDBY MOTOR									
VOLTAGE/PHASE/FREQUENCY		400/3/50 - 230/3/50 - 400/3/60 - 230/3/60							
RATING	KW	8.2 (400/3/50)							
REFRIGERANT CHARGE									
EVAPORATOR		ES400 MAX + ES400 MAX		ES600 MAX + ES150 MAX		ES600 MAX + 2XES150 MAX			
REFRIGERANT		R-404A/R-452A							
CHARGE	KG	5.2		5.0		5.15			
GENERIC									
CONTROLLER		DSR III							
DEFROST									
DEFROST		AUTOMATIC HOT GAS DEFROST							

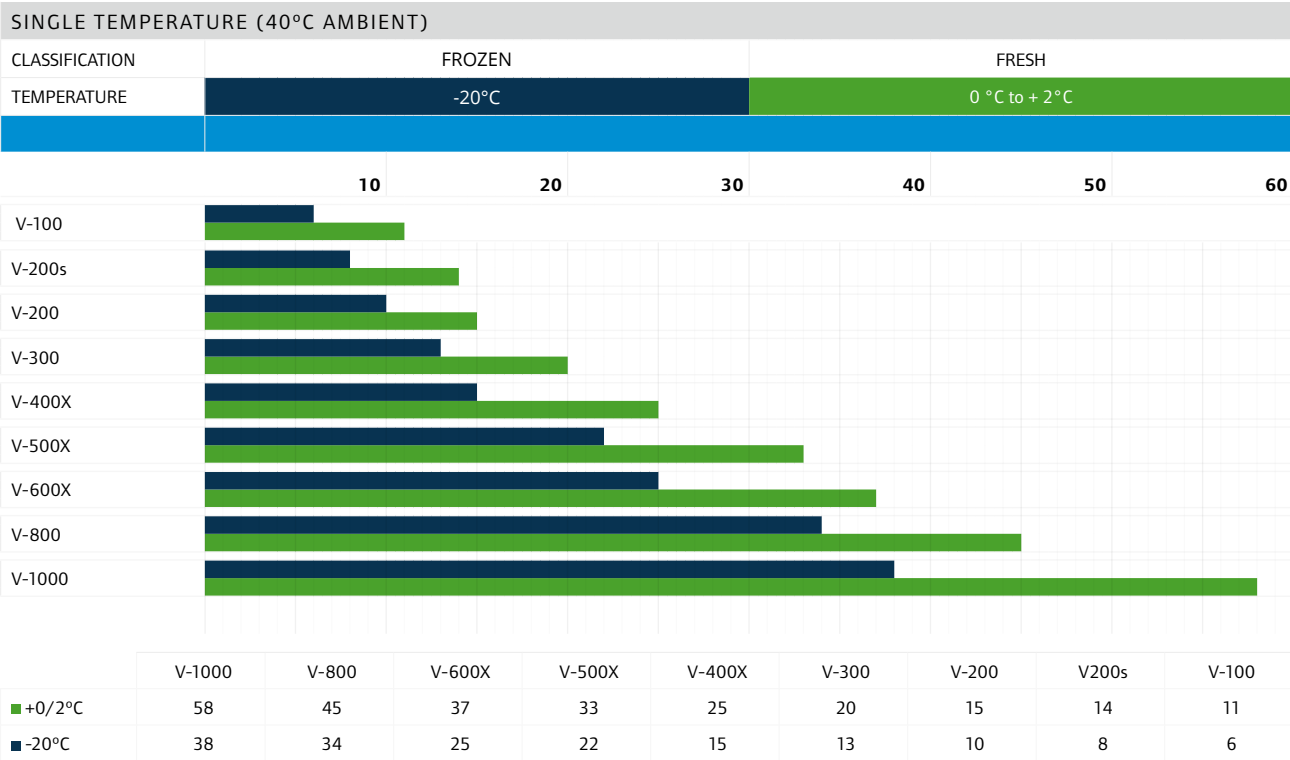
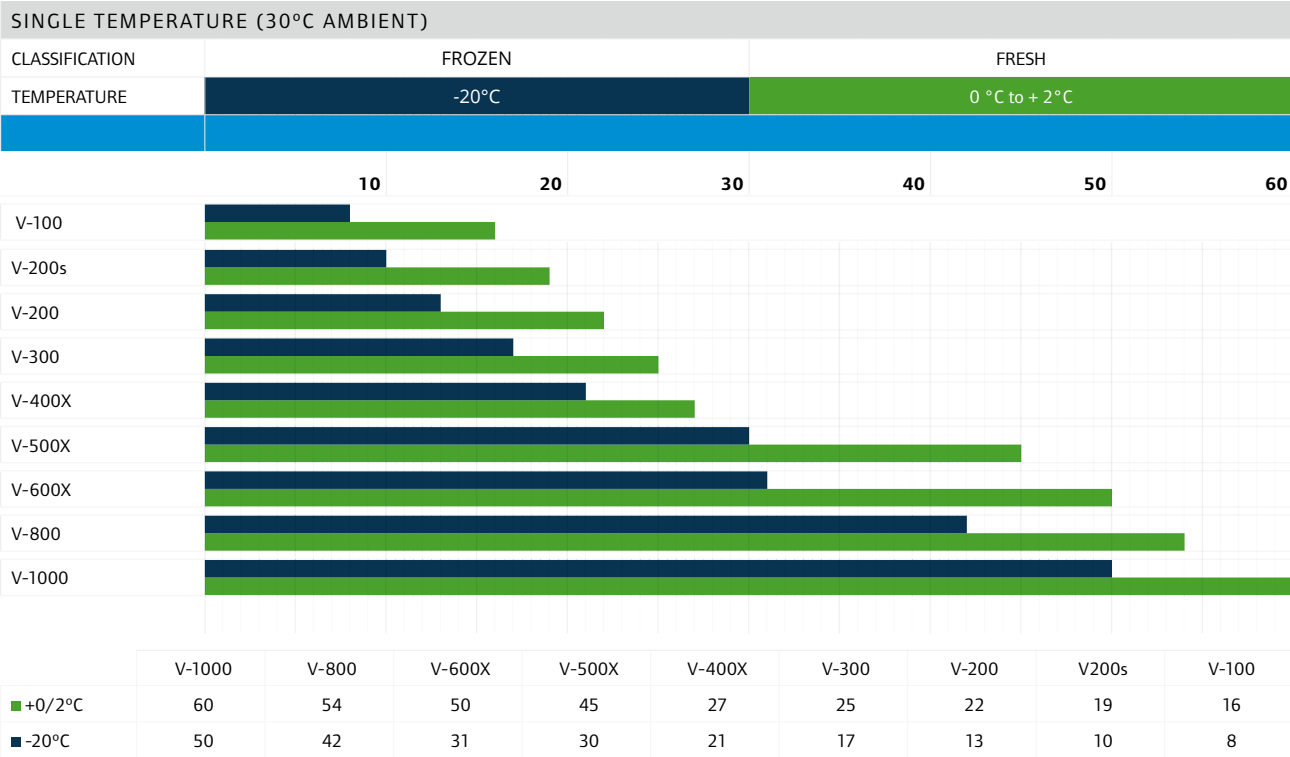
CAPACITY ON ENGINE POWER GIVEN AT 2400 RPM (ATP CONDITIONS)

V-1000 SPECTRUM											
EVAPORATOR		ES600 MAX + ES600 MAX		ES600 MAX + ES150 MAX		ES600 MAX + 2XES150 MAX		ES800 MAX + ES300 MAX			
REFRIGERATION CAPACITY: AT 30 °C AMBIENT											
RETURN AIR TO EVAPORATOR	°C	-20 °C		-20 °C		-20 °C		-20 °C			
CAPACITY ON ENGINE POWER	W	5230		4620		5040		4840			
CAPACITY ON ELECTRICAL STAND	W	4700		4450		4620		4620			
REFRIGERATION CAPACITY: INDIVIDUAL COOLING CAPACITY											
EVAPORATOR		ES600 MAX		ES150 MAX		2 x ES150 MAX		ES800 MAX		ES300 MAX	
RETURN AIR TO EVAPORATOR		0 °C	-20 °C	0 °C	-20 °C	0 °C	-20 °C	0 °C	-20 °C	0 °C	-20 °C
CAPACITY ON ENGINE POWER	W	8510	4370	4000	2300	5760	3130	8390	4660	4600	2330
CAPACITY ON ELECTRICAL STAND	W	8100	4050	3980	2040	5830	3030	8130	4200	4590	2170
HEATING CAPACITY											
ON THE ROAD	W	5000									
ELECTRIC STANDBY OPERATION	W	5000									
AIRFLOW											
EVAPORATOR		ES600 MAX + ES600 MAX		ES600 MAX + ES150 MAX		ES600 MAX + 2 x ES150 MAX		ES800 MAX + ES300 MAX			
ON HIGH SPEED ENGINE OPERATION	M³/H	2491 x 2		2491 + 1396		2491 + (2 x 1396)		2730 + 1643			
WEIGHT											
CONDENSER W/O ELECTRIC STANDBY	KG	96									
CONDENSER WITH ELECTRIC STANDBY	KG	205									
EVAPORATOR ES800 MAX	KG	35									
EVAPORATOR ES600 MAX	KG	28									
EVAPORATOR 2 X ES150 MAX	KG	25									
EVAPORATOR ES300 MAX	KG	18									
EVAPORATOR ES150 MAX	KG	12.5									
COMPRESSOR											
MODEL		QP25									
DISPLACEMENT	CC	250									
NUMBER OF CYLINDERS		10									
ELECTRIC STANDBY MOTOR											
VOLTAGE/PHASE/FREQUENCY		400/3/50 - 230/3/50 - 400/3/60 - 230/3/60									
RATING	KW	8.8									
REFRIGERANT											
EVAPORATOR		ES600 MAX + ES600 MAX		ES600 MAX + ES150 MAX		ES600 MAX + 2 x ES150 MAX		ES800 MAX + ES300 MAX			
REFRIGERANT		R-404A / R452A									
CHARGE	KG	30: 5.9 50: 6.2									
GENERIC											
CONTROLLER		DSR III									
DEFROST											
DEFROST		AUTOMATIC HOT GAS DEFROST									

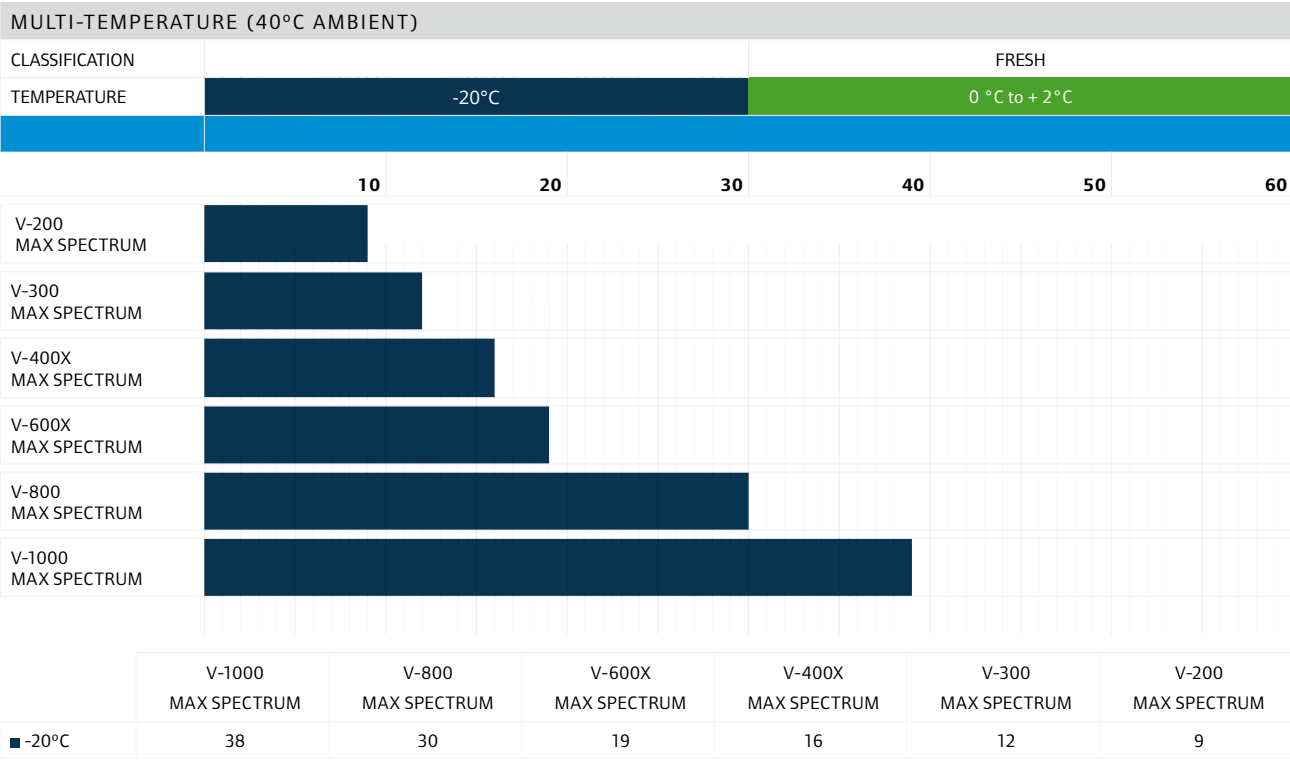
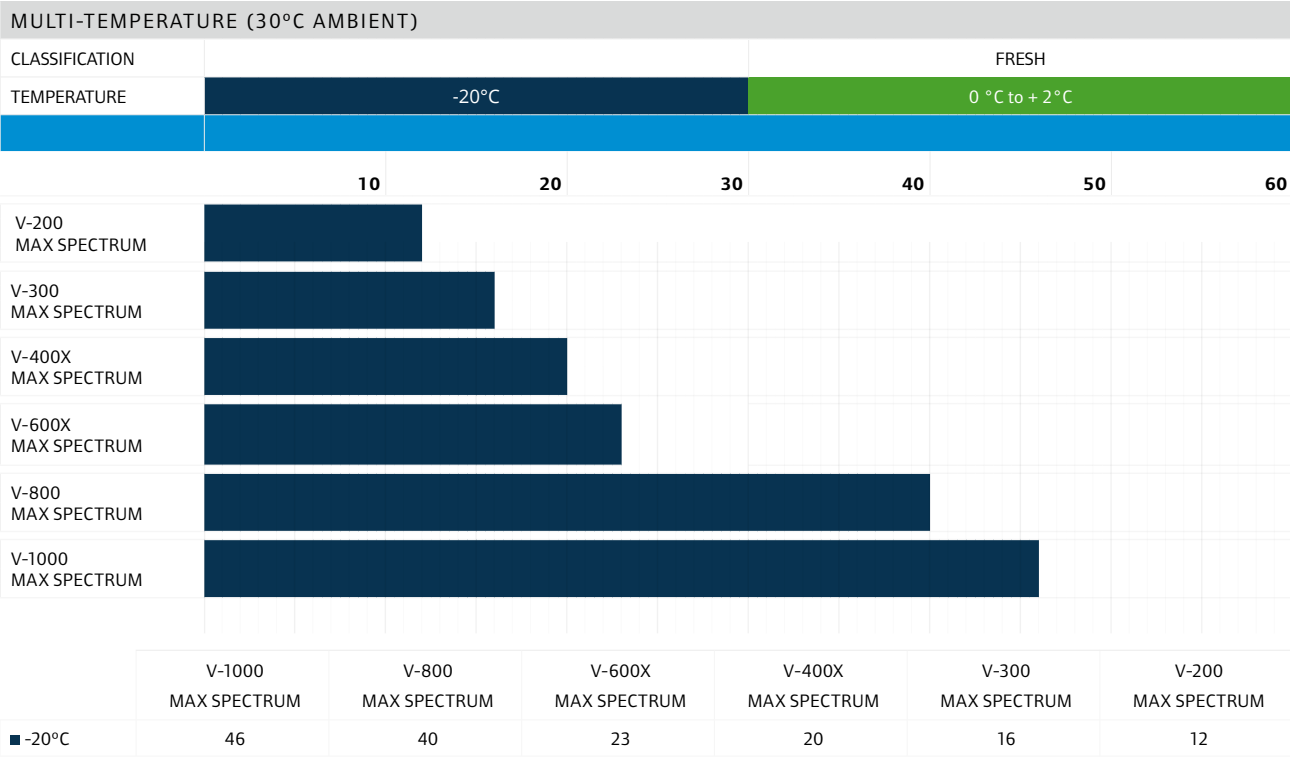
V AND VX UNIT SELECTION GUIDE

These tables are a guide to select the right unit that could match your application. These figures are maximum vehicle volumes, calculated in road operation, at 2400 rpm compressor speed and 30°C/40°C ambient temperature for single temperature and multi-temperature applications.

+0/2°C: 3 brief door openings per hour, k-factor 0.5W/m²K
-20°C: 2 brief door openings per hour, k-factor 0.35W/m²K



Recommendations are based on precooled loads and for distribution of 8 hours and are not a guarantee of performance as there are many variables to be considered. Speak to your local Thermo King dealer for complete information.



Recommendations are based on precooled loads and for distribution of 8 hours and are not a guarantee of performance as there are many variables to be considered. Recommendations for multi-temperature units are based on the following evaporator pairs: V-200 SP (ES100+ES100N), V-300 SP (ES150+ES150), V-400X SP (ES200+ES200), V-600X SP (ES300+ES300), V-800 SP (ES400+ES400), V-1000 (ES600+ES600)
Speak to your local Thermo King dealer for complete information.

UPGRADE YOUR UNIT
FOR ENHANCED PERFORMANCE

THERMOKARE
A complete selection of service contract solutions to manage maintenance costs and total life cost of a unit.

TOUCHLOG DATA CAPTURE
Temperature data capture and printing, approved to EN 12830, CE mark and IP-65 standards.

WINTRAC (DATA ANALYSIS SOFTWARE)
User-friendly software compatible with DSR controller for configuration file downloads.

USB DATA LOGGER
Humidity, temperature and dewpoint recorder.

DATALOGGER JR
Programmable temperature recorder.

WLOG DATALOGGER
Wireless temperature monitoring and data logging solutions for transport refrigeration units.

DOOR SWITCHES
Reduce load temperature rise and save fuel when doors are opened.

DIN ADAPTER
The din adaptor box permits the adaption of the DSR controller to the vehicle dashboard. The aesthetically designed box allows the placement of the DSR controller in any available radio slot compartment in the driver cab.

HOSE COVERS
Full protection of hoses and cables on the road and full resistance under all climate adversities. Designed to seamlessly integrate into unit while complimenting the reefer and vehicle aesthetics while delivering exceptional durability. User-friendly installation (only for chassis installations, no vans).

MUFFLER KIT
Thermo King muffler eliminates the vibration and noise in the interior cab of small vehicles. The muffler is attached to the refrigeration system thus eliminating the vibration transfer from the unit to the driver cab enhancing user comfort and ease of use.

SNOW COVERS
Thermo King snow covers are designed to protect your unit against extreme climate conditions. The aerodynamically design snow cover prevents the buildup of snow and ice on the units fans which can lead to downtime and further maintenance costs resulting in longer running times for your unit.

HARNESS AND HOSE EXTENSIONS
The 2, 4 or 6 meter harness and hose extensions allows evaporators to be located to suit any customer needs with an extremely easy installation (plug and play connection with corresponding hose splice connectors) and provides full flexibility to position the evaporators especially in multi-temperature applications.



MODELS		10	20	MAX 10	MAX 20	MAX 30	MAX 50
SINGLE TEMPERATURE	V-100	✓	✓	✓	✓	✓	✓
	V-200	✓	✓	✓	✓	✓	✓
	V-300	✓	✓	✓	✓	✓	✓
	V-400X	✓	✓	✓	✓	✓	✓
	V-500X	✓	✓	✓	✓	✓	✓
	V-600X			✓	✓	✓	✓
	V-800	✓	✓	✓	✓	✓	✓
	V-1000	✓	✓	✓	✓	✓	✓
MULTI-TEMPERATURE	V-200 SP					✓	✓
	V-300 SP					✓	✓
	V-400X SP					✓	✓
	V-600X SP					✓	✓
	V-800 SP					✓	✓
	V-1000 SP					✓	✓
UNIT CONFIGURATION							
UNIT CONFIGURATION	REFRIGERANT	R-134a	R-134a	R-404a / R-452a	R-404a / R-452a	R-404a / R-452a	R-404a / R-452a
	VOLTAGE	12V / 24V	12V / 24V	12V / 24V	12V / 24V	12V / 24V	12V / 24V
	DEFROST (HOT GAS)	●	●	●	●	●	●
	STANDBY	-	●	-	●	-	●
	HEATING	-	-	-	-	●	●
	POWER PACK	-	230V : 1PH 230V : 3PH 400V : 3PH (50/60 HZ)	-	230V : 1PH 230V : 3PH 400V : 3PH (50/60 HZ)	-	230V : 1PH 230V : 3PH 400V : 3PH (50/60 HZ)
LIFE COST MANAGEMENT							
THERMOKARE SERVICE CONTRACTS		▲					
DATA CAPTURE AND COMMUNICATIONS							
UNIT OPTIONS	BLUEBOX LITE				○		
	TRACKING				○		
	TOUCHPRINT (INTERNAL/EXTERNAL MOUNT)				○		
	TOUCHPRINT (EXTENDED HARNESS)				○		
	WINTRAC (DATA ANALYSIS SOFTWARE)				▲		
	CUSTOMIZATION						
	DIN ADAPTER	○	○	○	○	○	○
	DOOR SWITCH	○	○	○	○	○	○
	HOSE COVER	○	○	○	○	○	○
	CONDENSER FAN COVER	○	○	○	○	○	○
CONDENSER INSTALLATION TEMPLATE		○	○	○	○	○	
EVAPORATOR INSTALLATION TEMPLATE		○	○	○	○	○	
HARNESS EXTENSION TOUCHPRINT 7m		○	○	○	○	○	
HIGH ROOF INSTALLATION BRACKET KIT		○	○	○	○	○*	
HARNESS EXTENSION 2m / 4m / 6m		-	-	-	○*	-	○*
HOSE EXTENSION 2m / 4m / 6m		-	-		○*		○*
NOSE / ROOF / RECESSED ROOF KIT		VX-SERIES ONLY					
● STANDARD FEATURE ○ OPTION: FACTORY SUPPLIED ▲ OPTION: DEALER SUPPLIED ○* SPECTRUM/MULTI-TEMP UNITS ONLY # LIMITED MODEL OPTION - NOT AVAILABLE							

DIRECT SMART REEFER (DSR) CONTROLLER



The Direct Smart Reefer (DSR) Controller brings state of the art microprocessor-based intelligent control to Thermo King’s vehicle powered product range.

KEY FEATURES

- straightforward to understand and use even for new operators.
- Flexible, modular and stylish.
- Designed for error-free control and monitoring of the refrigeration unit from inside the cab.
- Advanced control features.

THE DSR IN - CAB DISPLAY

- Provides the ideal user interface.
- LED backlighting ensures the screen remains bright and legible in all light conditions.
- Multiple functions to suit specific transport applications, ensuring optimal temperature control and product integrity.
- Ease to interpret malfunction alarm codes allow drivers to take rapid and appropriate remedial action.

STANDARD FEATURES

- Keeps your load and unit in top shape with continuous monitoring.
- Seamless operation: Unit restarts automatically after any power cut, keeping your load protected.
- Records usage duration (travel & stationary).
- Minimize downtime with intuitive alerts.
- Prevent downtime with scheduled servicing notifications.
- Manual or automatic defrost to schedule defrost initiation and termination to suit the application.
- Tamper-proofing by removing the in-cab control panel after presetting.
- Vehicle battery protection with low voltage monitoring, sequential evaporator starts and “soft starting” during unit power-up to avoid power “spikes”.
- Compressor protection with the optional “soft start” feature.
- Load protection by delaying evaporator start-up after defrosts.

THE DSR CONTROL BOARD

- A modular concept that separates control and power relay boards.
- Improved reliability, serviceability and component replacement.
- Lower service and maintenance costs.

PROGRAMMABLE FEATURES

- Set point limits for optimum temperature range selection.
- Set point lock to prevent the driver modifying a predetermined temperature.
- On-screen alarm when return air temperature is out of range.
- Door switches to shut down the unit each time the door is opened, to maintain the box temperature and protect the load.
- Wintrac Windows-based software package for configuration parameter editing in the field.

MULTI-TEMPERATURE FEATURES

- Each compartment can be switched on/off independently.
- Improved door switch functionality allows each evaporator to be controlled independently.
- Set point range can be independently adjusted for each compartment.
- Operation in single temperature mode for increased flexibility.

BLUEBOX LITE

THERMO KING’S VEHICLE-POWERED TRUCK TELEMATICS SOLUTION FOR V- AND VX-SERIES UNITS.

Receive critical controller information along with temperature, position, and other crucial data in near real-time thanks to 4G connectivity and high logging frequency. Conveniently access the data via our cost-effective TracKing subscription.

The BlueBox Lite device does not require the installation of an additional data logger, as it’s conveniently connected to your DSR controller.

For compliance with the EN12830 European standard, just add the TouchLog data logger.

Furthermore, it allows you to integrate the collected data from the vehicle-powered unit into any third-party website or back-end system.



FEATURES

4G network connectivity

Direct connection to DSR controller or TouchLog data logger

Quick and easy installation

Data sharing with 3rd parties

Temperature, position and machine data displayed on TracKing

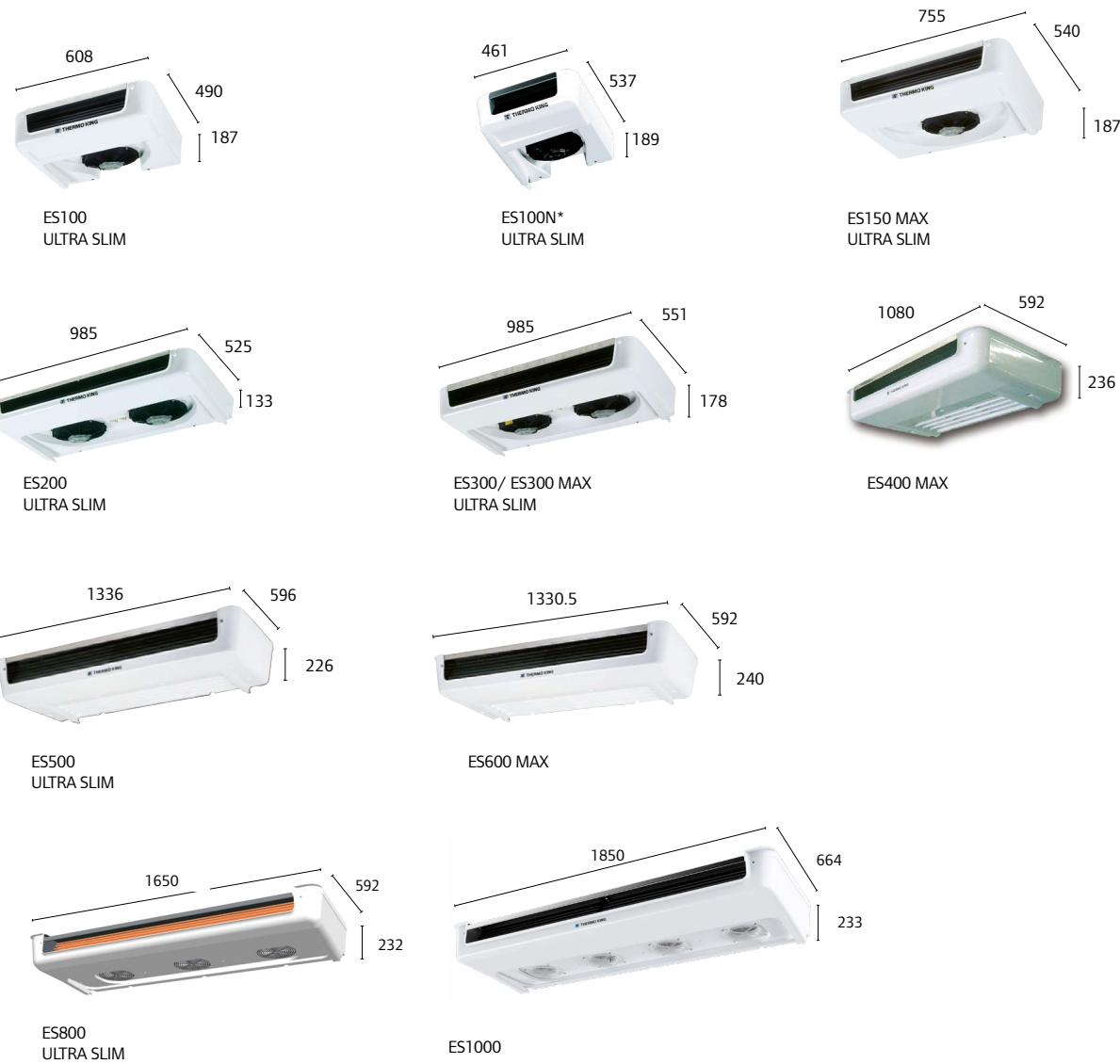
Compatible with TouchLog

2-year warranty

2-way set-point change capability


DIMENSIONS (MM)

EVAPORATORS



WARRANTY CONDITIONS

Thermo King warrants the new product delivered will be free of defects in material and workmanship for the period of time specified in the applicable warranties. Specific terms of the Thermo King warranty are available on request.



CONTACT YOUR NEAREST DEALER

The Thermo King dealer network boasts over **500 authorized service points** in **75 countries** that are **open and available 24/7**.





PEACE OF MIND WITH
THERMO KING
SERVICE CONTRACTS.

Keeping your V- and VX-Series equipped fleet on the road 24/7 takes a substantial amount of time and effort. Rely on Thermo King to help. Our customized service contracts empower fleet operators to select the exact services needed to maintain and improve their fleet utilization.

RECOMMENDED CONTRACTS:

FLEXIBLE SERVICE SUPPORT
From MaintenancePlus, which covers scheduled fleet maintenance, to the full service offered by ComfortPlus, Thermo King service contracts are tailored to your fleet’s needs.

EXTENDED WARRANTY
Increase your peace of mind by extending your warranty for your Thermo King refrigerated units.

24/7 FLEET MONITORING SERVICE
Our experts monitor your fleet in real-time around the clock, responding to every issue and arranging solutions as soon as a problem is detected.



ROADSIDE
ASSISTANCE

With every contract, you enjoy peace of mind with comprehensive breakdown call-out support and multilingual assistance.

GET MORE OUT
OF YOUR UNIT WITH OUR
AFTERMARKET SERVICES

Take your unit to the max. Thanks to Thermo King’s complete range of services and solutions, you can take your fleet to new heights of performance. With our global dealer network with 24/7 availability, you’ll always have a certified Thermo King dealer to count on.

Thermo King helps your fleet reach its maximum potential and gets it ready for any challenge. All day, every day.

- + **MAXIMIZE UPTIME**
Avoid costly downtime and keep your units going and earning for longer.
- + **MAXIMIZE SUSTAINABILITY**
Limit your fleet’s footprint and save smart on energy.
- + **MAXIMIZE SAVINGS**
Reduce service and maintenance costs, and maximize your units’ residual value.
- + **MAXIMIZE CONTROL**
Monitor and maintain critical cargo quality every step of the way.

TAKE IT TO
THE MAX WITH
BLUEBOX LITE

BlueBox Lite gives you the data you need to make your operations smarter and more efficient.

A data recording device, standard embedded in your unit, registers information on your refrigeration unit in near realtime, thanks to 4G connectivity and high logging frequency.

Once activated you will get information on unit position, alarms, temperature, door opening and you will be able to re-set temperature from afar.

Ask your dealer for more info on our activation and annual subscription plans.

V-SERIES AND VX-SERIES

HIGH PERFORMANCE, SUSTAINABLE REFRIGERATION WITH PRECISE TEMPERATURE CONTROL

- **Sustainability boost**

Low weight and an aerodynamic design help reduce your fuel consumption and environmental impact. With its extremely low emissions, noise, and vibrations, the VX-Series gives you access to ULEZs and LEZs day and night.

- **Versatile power sources**

Suitable for diesel, non-diesel, and battery pack applications, and flexible alternative power sources when the engine is off.

- **Precision cooling**

Extremely accurate set point temperature control within $\pm 1^{\circ}\text{C}$.



Thermo King – by Trane Technologies (NYSE: TT), a global climate innovator – is a worldwide leader in sustainable transport climate control solutions.

We engineer and provide cutting-edge technology and solutions with sustainability, reliability, and the customer experience in mind. Thermo King has provided transport temperature control solutions for various applications, including trailers, truck bodies, buses, air, shipboard containers, and railway cars since 1938.

For further information
europe.thermoking.com

Find your nearest dealer on
dealers.thermoking.com

TRANE
TECHNOLOGIES