

## VX-SERIES

— high performance, sustainable refrigeration with precise temperature control. —



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



# VX-Series

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

Thermo King's all-new V-400X, V-500X and V-600X models showcase the latest in single- and multi-temperature refrigeration control for small, medium, and large trucks (5 m<sup>3</sup> to 50 m<sup>3</sup>).

These compact refrigeration units are vehicle-powered and offer improved aerodynamics with extremely light weight to reduce fuel consumption and emissions. Providing an extremely low noise and vibration operation, they offer our customers a sustainable solution for their distribution needs.

Suitable for diesel and non-diesel as well as battery pack applications, the Thermo King VX-Series are raising the game in direct drive technology on the roads, whilst keeping total cost of ownership and servicing time down.





# No engine. High efficiency. Low noise.

High performance, sustainable refrigeration with precise temperature control.

## 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 its predecessor
- Increased refrigeration power 4000W - 6500W
- VX-Series models are ultra-light and compact, making it possible to maximize your payload

## ENVIRONMENTALLY FRIENDLY

Built with sustainability in mind:

- Zero exhaust emissions
- Suitable for ICE vehicles with auxiliary battery packs
- Flexible alternative power source when engine is off: external battery pack or electric standby operation
- Lower weight provides a positive impact on converted vehicle homologation according to the WLTP standard, by reducing fuel consumption and CO<sub>2</sub> emissions

## 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



NOSE MOUNTED CONDENSER UNIT



ROOF MOUNTED CONDENSER UNIT

- ### 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

- ### PRECISION TEMPERATURE CONTROL
- In single and multi-temperature control, from your cab:
- Precision set point temperature control within  $\pm 1^{\circ}\text{C}$
  - 2 temperature zones for cargo: fresh or frozen, or maintain one single temperature for the whole unit
  - Sustained refrigeration temperatures even in extreme ambient conditions

- ### 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



- Receive critical controller information along with temperature, position, and other crucial data in near real-time thanks to 4G connectivity and high logging frequency.
- 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.
- Integration of collected data from your VX unit into any third-party website or back-end system.
- Temperature, position and machine data displayed on TracKing
- 2-year warranty

# Specifications

SINGLE TEMPERATURE MODELS		V-400X		V-500X	
<b>REFRIGERATION CAPACITY: AT 30°C AMBIENT/2400 RPM</b>					
<b>RETURN AIR TO EVAPORATOR</b>		0°C/30°C	-20°C/30°C	0°C/30°C	-20°C/30°C
Capacity on engine power 2400rpm	R-134a (W)	3220	-	4190	-
Capacity on engine power 2400 rpm	R-452a (W)	-	-	-	-
Capacity on electric standby 50Hz	R-452a (W)	2370	-	2570	-
<b>HEATING CAPACITY: AT -18°C AMBIENT/2400 RPM</b>					
<b>RETURN AIR TO EVAPORATOR</b>		+18°C/-18°C		+18°C/-18°C	
Capacity on engine power 2400rpm	R-452a (W)	-	-	-	-
Capacity on electric standby 50Hz	R-452a (W)	-	-	-	-
<b>EVAPORATOR</b>		<b>ES300 ULTRA SLIM EVAPORATOR</b>		<b>ES500 ULTRA SLIM EVAPORATOR</b>	
Airflow volume	m <sup>3</sup> /h	1420		2353	
Number of fans		2		3	
Evaporator Width	mm	985		1336	
Evaporator Depth	mm	551		596	
Evaporator Height	mm	178		226	
<b>WEIGHT</b>					
Condenser (Standby)	kg			75	
Condenser (No Standby)	kg			60	
Evaporator	kg	18		25.5	
Road Compressor	kg	7.1		7.1	
Refrigerant Charge	kg	1.8		2.1	
Total Weight (Standby)	kg	102		110	
Total Weight (No Standby)	kg	87		95	
<b>DIMENSIONS</b>					
Condenser Width (Nose)	mm			1253	
Condenser Depth (Nose)	mm			631	
Condenser Height (Nose)	mm			276	
Condenser Width (Roof)	mm			1312	
Condenser Depth (Roof)	mm			825	
Condenser Height (Roof)	mm			273	
In Cab Controller Length	mm			135	
In Cab Controller Width	mm			25	
In Cab Controller Height	mm			46	
<b>COMPRESSOR: MAX RECOMMENDED SPEED 3000 RPM</b>					
Model				QP16	
Displacement	cc			163	
Number of cylinders				6	
<b>ELECTRICAL</b>					
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)	36.0		44.0	
	24V DC (A)	20.0		25.0	
<b>REFRIGERANT</b>					
Charge	R-134a (kg)	1.8		2.1	
Charge	R-452a (kg)	-		-	
<b>DEFROST</b>					
AHGD (Automatic Hot Gas Defrost)	R134a/R-452a			AHGD	
<b>CONTROLLER</b>					
		DSRIII			

V-400X MAX		V-500X MAX		V-600X MAX	
<b>REFRIGERATION CAPACITY: AT 30°C AMBIENT/2400 RPM</b>					
0°C/30°C	-20°C/30°C	0°C/30°C	-20°C/30°C	0°C/30°C	-20°C/30°C
-	-	-	-	-	-
4090	2240	5440	3030	6540	3480
3030	1500	3450	1640	4110	1920
<b>HEATING CAPACITY: AT -18°C AMBIENT/2400 RPM</b>					
+18°C/-18°C		+18°C/-18°C		+18°C/-18°C	
3570		3720		4360	
1850		1950		2330	
<b>ES300 MAX ULTRA SLIM EVAPORATOR</b>		<b>ES500 MAX ULTRA SLIM EVAPORATOR</b>		<b>ES600 MAX ULTRA SLIM EVAPORATOR</b>	
1420		2353		2505	
2		3		3	
985		1336		1331	
551		596		592	
178		226		240	
<b>WEIGHT</b>					
		75			
		60			
18		25.5		28	
7.1		7.1		7.1	
2.0		2.0		2.3	
102		110		112	
87		95		97	
<b>DIMENSIONS</b>					
		1253			
		631			
		276			
		1312			
		825			
		273			
		135			
		25			
		46			
<b>COMPRESSOR: MAX RECOMMENDED SPEED 3000 RPM</b>					
		QP16			
		163			
		6			
<b>ELECTRICAL</b>					
		230V : 1PH : 50/60Hz 230V : 3PH : 50/60Hz 400V : 3PH : 50/60Hz			
36.0		44.0		44.0	
20.0		25.0		25.0	
<b>REFRIGERANT</b>					
-		-		-	
2.0		2.0		2.3	
<b>DEFROST</b>					
		AHGD			
<b>CONTROLLER</b>					
		DSRIII			

# Specifications

MULTI-TEMPERATURE MODELS		V-400X MAX SPECTRUM					
EVAPORATOR FAN PERFORMANCE		ES200+ES200 MAX ULTRA SLIM EVAPORATOR			ES300+ES100 MAX ULTRA SLIM EVAPORATOR		
<b>REFRIGERATION CAPACITY: NOMINAL AT 30°C AMBIENT/2400 RPM</b>							
<b>RETURN AIR TO EVAPORATOR</b>		°C		-20°C/30°C		-20°C/30°C	
Capacity on engine power 2400 rpm		R-452a (W)		2170		2170	
Capacity on electric standby 50Hz		R-452a (W)		1980		1420	
<b>REFRIGERATION CAPACITY: INDIVIDUAL CAPACITY</b>		ES100		ES200		ES300	
<b>RETURN AIR TO EVAPORATOR</b>		°C		0°C/30°C		-20°C/30°C	
Capacity on engine power 2400 rpm		R-452a (W)		2500		1350	
Capacity on electric standby 50Hz		R-452a (W)		2110		990	
Evaporator Width		mm		608		985	
Evaporator Depth		mm		490		525	
Evaporator Height		mm		187		133	
<b>EVAPORATOR FAN PERFORMANCE</b>		m³/h		866		1241	
Number of fans		1		2		2	
<b>HEATING CAPACITY: AT -18°C AMBIENT/2400 RPM</b>							
<b>RETURN AIR TO EVAPORATOR</b>		°C		+18°C/-18°C			
Capacity on engine power 2400rpm		R-452a (W)		3570			
Capacity on electric standby 50Hz		R-452a (W)		1850			
<b>WEIGHT</b>							
Condenser (Standby)		kg		75			
Condenser (No Standby)				60			
Evaporator		kg		30		26.5	
Road Compressor		kg		7.1		7.1	
Refrigerant Charge		kg		1.9		1.9	
Total Weight (Standby)		kg		114		111	
Total Weight (No Standby)		kg		99		96	
<b>DIMENSIONS</b>							
Condenser Width (Nose)		mm		1253			
Condenser Depth (Nose)		mm		631			
Condenser Height (Nose)		mm		276			
Condenser Width (Roof)		mm		1312			
Condenser Depth (Roof)		mm		825			
Condenser Height (Roof)		mm		273			
In Cab Controller Length		mm		135			
In Cab Controller Width		mm		25			
In Cab Controller Height		mm		46			
<b>COMPRESSOR: MAX RECOMMENDED SPEED 3000 RPM</b>							
Model				QP16			
Displacement		cc		163			
Number of cylinders				6			
<b>ELECTRICAL</b>							
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)		53		44	
		24V DC (A)		30		25	
<b>REFRIGERANT</b>							
Charge		R-452a (kg)		1.9			
<b>DEFROST</b>							
AHGD (Automatic Hot Gas Defrost)		R-452a		AHGD			
<b>CONTROLLER</b>							
				DSRIII			

V-600X MAX SPECTRUM									
ES300+ES300 MAX ULTRA SLIM EVAPORATOR		ES300+ES150 MAX ULTRA SLIM EVAPORATOR			ES300+2xES150 MAX ULTRA SLIM EVAPORATOR			ES500+ES100N MAX ULTRA SLIM EVAPORATOR	
<b>REFRIGERATION CAPACITY: NOMINAL AT 30°C AMBIENT/2400 RPM</b>									
-20°C/30°C		-20°C/30°C			-20°C/30°C			-20°C/30°C	
2830		2790			2790			2730	
2040		1970			2230			1880	
ES100N		ES150		2xES150		ES300		ES500	
0°C/30°C		-20°C/30°C		0°C/30°C		-20°C/30°C		0°C/30°C	
2480		1410		3100		1910		4210	
2450		1320		2650		1450		3100	
461		755		755		985		1336	
537		540		540		551		596	
189		187		187		178		226	
<b>EVAPORATOR FAN PERFORMANCE</b>									
566		891			2 x 891			1420	
1		1			2 x 1			2	
<b>HEATING CAPACITY: AT -18°C AMBIENT/2400 RPM</b>									
		+18°C/-18°C							
		4360							
		2330							
<b>WEIGHT</b>									
		75							
		60							
36		32			46			46	
7.1		7.1			7.1			7.1	
2.3		2.3			2.3			2.3	
118		114			128			128	
103		99			113			113	
<b>DIMENSIONS</b>									
		1253							
		631							
		276							
		1312							
		825							
		273							
		135							
		25							
		46							
<b>COMPRESSOR: MAX RECOMMENDED SPEED 3000 RPM</b>									
		QP16							
		163							
		6							
<b>ELECTRICAL</b>									
		230V : 1PH : 50/60Hz 230V : 3PH : 50/60Hz 400V : 3PH : 50/60Hz							
53		44			53			53	
30		25			30			30	
<b>REFRIGERANT</b>									
		2.3							
<b>DEFROST</b>									
		AHGD							
<b>CONTROLLER</b>									
		DSRIII							

# Dimensions

## CONDENSER UNITS



V400X/500X/600X NOSE MOUNTED UNIT



V400X/500X/600X ROOF MOUNTED UNIT

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



## 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.

## EVAPORATORS



ES100  
ULTRA SLIM



ES100N  
ULTRA SLIM



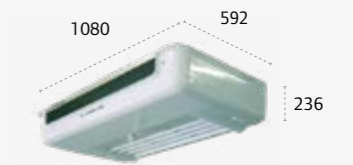
ES150  
ULTRA SLIM



ES200  
ULTRA SLIM



ES300  
ULTRA SLIM



ES400



ES500  
ULTRA SLIM



ES600  
ULTRA SLIM

## CONTROLLER



IN-CAB  
DIRECT SMART REEFER

ALL DIMENSIONS ARE IN MILLIMETER (MM)

## EVAPORATOR WEIGHTS (APPROXIMATE)

ES100(Ultra Slim)	9.5 kg	ES300/ES300 MAX (Ultra Slim)	18 kg
ES100* MAX (Ultra Slim)	8.5 kg	ES400 MAX	20 kg
ES150 MAX (Ultra Slim)	14 kg	ES500 (Ultra Slim)	25.5 kg
ES200 (Ultra Slim)	15 kg	ES600 MAX	28 kg

## 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**.







 **THERMO KING**

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 further information  
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