

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 m³ to 50 m³).

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 CO₂ 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



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		
REFRIGERATION CAPACITY: AT 30 °C AMBIENT/2400 RPM						
RETURN AIR TO EVAPORATOR			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	-	
HEATING CAPACITY: AT -18 °C AMBIENT/2400 RPM						
RETURN AIR TO EVAPORATOR			+18 °C/-18 °C		+18 °C/-18 °C	
Capacity on engine power 2400rpm	R-452a (W)	-	-	-	-	
Capacity on electric standby 50Hz	R-452a (W)	-	-	-	-	
EVAPORATOR		ES300 ULTRA SLIM EVAPORATOR		ES500 ULTRA SLIM EVAPORATOR		
Airflow volume	m³/h	1420		2353		
Number of fans		2		3		
Evaporator Width	mm	985		1336		
Evaporator Depth	mm	551		596		
Evaporator Height	mm	178		226		
WEIGHT						
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		
DIMENSIONS						
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				
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)	36.0		44.0		
	24V DC (A)	20.0		25.0		
REFRIGERANT						
Charge	R-134a (kg)	1.8		2.1		
Charge	R-452a (kg)	-		-		
DEFROST						
AHGD (Automatic Hot Gas Defrost)	R134a/R-452a	AHGD				
CONTROLLER						
		DSRIII				

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

Specifications

MULTI-TEMPERATURE MODELS		V-400X MAX SPECTRUM					
EVAPORATOR FAN PERFORMANCE		ES200+ES200 MAX ULTRA SLIM EVAPORATOR			ES300+ES100 MAX ULTRA SLIM EVAPORATOR		
REFRIGERATION CAPACITY: NOMINAL AT 30 °C AMBIENT/2400 RPM							
RETURN AIR TO EVAPORATOR	°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		
REFRIGERATION CAPACITY: INDIVIDUAL CAPACITY		ES100		ES200		ES300	
RETURN AIR TO EVAPORATOR	°C	0°C/30°C	-20°C/30°C	0°C/30°C	-20°C/30°C	0°C/30°C	-20°C/30°C
Capacity on engine power 2400 rpm	R-452a (W)	2500	1350	3030	1930	3430	1930
Capacity on electric standby 50Hz	R-452a (W)	2110	990	2420	1370	2710	1370
Evaporator Width	mm	608		985		985	
Evaporator Depth	mm	490		525		551	
Evaporator Height	mm	187		133		178	
EVAPORATOR FAN PERFORMANCE							
Airflow volume	m³/h	866		1241		1420	
Number of fans		1		2		2	
HEATING CAPACITY: AT -18 °C AMBIENT/2400 RPM							
RETURN AIR TO EVAPORATOR	°C	+18°C/-18°C					
Capacity on engine power 2400rpm	R-452a (W)	3570					
Capacity on electric standby 50Hz	R-452a (W)	1850					
WEIGHT							
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			
DIMENSIONS							
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					
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)	53		44			
	24V DC (A)	30		25			
REFRIGERANT							
Charge	R-452a (kg)	1.9					
DEFROST							
AHGD (Automatic Hot Gas Defrost)	R-452a	AHGD					
CONTROLLER							
		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			
REFRIGERATION CAPACITY: NOMINAL AT 30 °C AMBIENT/2400 RPM									
-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	-20 °C/30 °C	0 °C/30 °C	-20 °C/30 °C	0 °C/30 °C	-20 °C/30 °C
2480	1410	3100	1910	4210	2080	3290	1920	4600	2370
2450	1320	2650	1450	3100	1660	2990	1700	3570	1720
461		755		755		985		1336	
537		540		540		551		596	
189		187		187		178		226	
EVAPORATOR FAN PERFORMANCE									
566		891		2 x 891		1420		2353	
1		1		2 x 1		2		3	
HEATING CAPACITY: AT -18 °C AMBIENT/2400 RPM									
+18 °C/-18 °C									
4360									
2330									
WEIGHT									
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			
DIMENSIONS									
1253									
631									
276									
1312									
825									
273									
135									
25									
46									
COMPRESSOR: MAX RECOMMENDED SPEED 3000 RPM									
QP16									
163									
6									
ELECTRICAL									
230V : 1PH : 50/60Hz 230V : 3PH : 50/60Hz 400V : 3PH : 50/60Hz									
53		44		53		53			
30		25		30		30			
REFRIGERANT									
2.3									
DEFROST									
AHGD									
CONTROLLER									
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



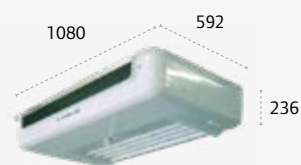
ES150
ULTRA SLIM



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)

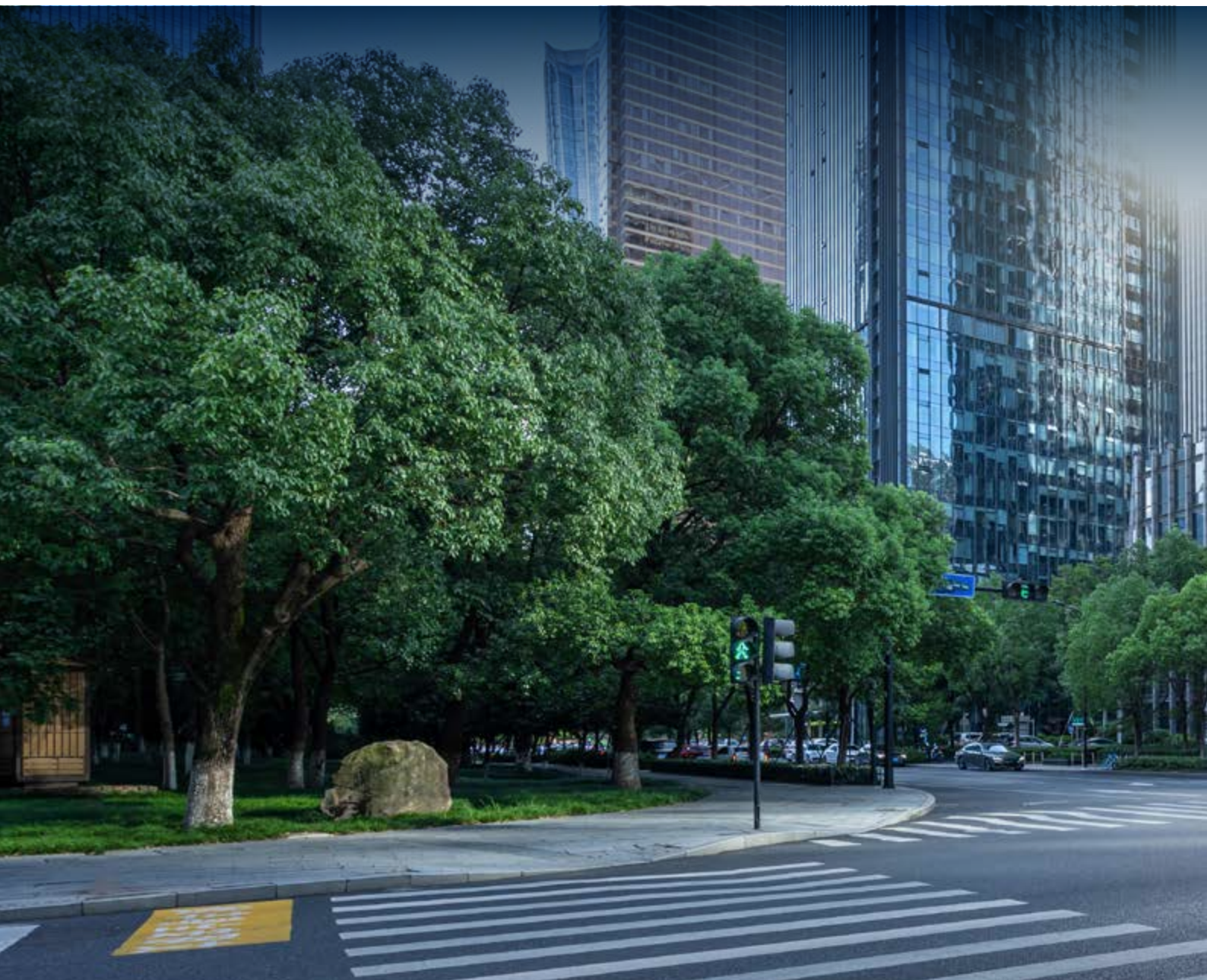
ES100(Ultra Slim)	9.5 kg	ES300/ES300 MAX (Ultra Slim)	18 kg
ES100* MAX (Ultra Slim)	8.5 kg	ES400 MAX	20 kg
ES150 MAX (Ultra Slim)	14 kg	ES500 (Ultra Slim)	25.5 kg
ES200 (Ultra Slim)	15 kg	ES600 MAX	28 kg

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 – 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
europe.thermoking.com

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TRANE
TECHNOLOGIES