

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



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	1990		2353	
Number of fans		2		3	
Evaporator Width	mm	985		1336	
Evaporator Depth	mm	551		596	
Evaporator Height	mm	178		226	
WEIGHT					
Condenser	kg	75.0		75.0	
Evaporator	kg	18.0		25.5	
Road Compressor	kg	7.1		7.1	
Refrigerant Charge	kg	1.8		2.1	
Total Weight	kg	102		110	
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	
3020		2830		3570	
1850		1950		2330	
ES300 MAX ULTRA SLIM EVAPORATOR		ES500 MAX ULTRA SLIM EVAPORATOR		ES600 MAX ULTRA SLIM EVAPORATOR	
1990		2353		2505	
2		3		3	
985		1336		1331	
551		596		592	
178		226		240	
WEIGHT					
75.0		75.0		75.0	
18.0		25.5		28.0	
7.1		7.1		7.1	
2.0		2.0		2.3	
102		110		112	
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+ES100N 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							
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
		ES200		ES300		ES100N	
Capacity on engine power 2400 rpm	R-452a (W)	3030	1630	3430	1930	2500	1350
Capacity on electric standby 50Hz	R-452a (W)	2420	1200	2710	1370	2110	990
Evaporator Width	mm	985		985		461	
Evaporator Depth	mm	525		551		537	
Evaporator Height	mm	133		178		189	
EVAPORATOR FAN PERFORMANCE							
Airflow volume	m³/h	1480		1990		1761	
Number of fans		2		2		1	
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)	TBC					
Capacity on electric standby 50Hz	R-452a (W)	TBC					
WEIGHT							
Condenser	kg	75.0		75.0		75.0	
Evaporator	kg	30.0		26.5		26.5	
Road Compressor	kg	7.1		7.1		7.1	
Refrigerant Charge	kg	1.9		1.9		1.9	
Total Weight	kg	114		111		111	
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)	53.0		44.0		53.0	
	24V DC (A)	30.0		25.0		30.0	
REFRIGERANT							
Charge	R-452a (kg)	1.9		1.9		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		
REFRIGERATION CAPACITY: INDIVIDUAL CAPACITY									
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
ES300		ES150		2xES150		ES500		ES100N	
3290	1920	3100	1910	4210	2080	TBC	TBC	TBC	TBC
2990	1700	2650	1450	3100	1660	TBC	TBC	TBC	TBC
985		755		755		1336		461	
551		540		540		596		537	
178		187		187		226		189	
EVAPORATOR FAN PERFORMANCE									
1990		891		2 x 891		2353		1761	
2		1		2 x 1		3		1	
HEATING CAPACITY: AT -18°C AMBIENT/2400 RPM									
+18°C/-18°C									
TBC									
TBC									
WEIGHT									
75.0		75.0			75.0		75.0		
36.0		32.0			46.0		46.0		
7.1		7.1			7.1		7.1		
TBC		TBC			TBC		TBC		
118		114			128		128		
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									
53.0		44.0			53.0		53.0		
30.0		25.0			30.0		30.0		
REFRIGERANT									
-									
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 MAX
ULTRA SLIM



ES200
ULTRA SLIM



ES300/ ES300 MAX
ULTRA SLIM



ES400 MAX



ES500
Ultra Slim



ES600 MAX

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
ES100N* 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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