

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 | | 44.0 | |
| | 24V DC (A) | 30.0 | | 25.0 | | 25.0 | |
| 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
europe.thermoking.com

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TRANE
TECHNOLOGIES