THERMO KING

V-Series

SUPERIOR NON DIESEL
TEMPERATURE CONTROL
FOR VANS AND SMALL TRUCKS

Ingersoll Rand

Content

V-Series

SUPERIOR NON-DIESEL TEMPERATURE CONTROL FOR VANS AND SMALL TRUCKS

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.

V-Series - flexible, powerful, dependable

Thermo King V-Series comprises six models which offer a direct drive, non-diesel temperature control solution for operators of small, medium and large trucks from 5 m^3 to 54 m^3, fresh and frozen.

Total load protection with low operating costs.

The V-Series is a range of high performance, high efficiency units delivering effective temperature control with low cost of ownership.

Direct Smart Reefer technology puts you in control.

The advanced and user-friendly Direct Smart Reefer controller gives you complete control of your V-Series unit from the comfort and safety of the cab. Key data is simply presented so that operating errors can be minimised.

R-452A as standard - advanced, efficient, green

The latest low Global Warming Potential refrigerant is available without compromising performance. Your environmental impact will be reduced and your customers will know that you care.

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.

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.

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, roof mount or front mount, single or multi-temperature, fresh or frozen.

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.

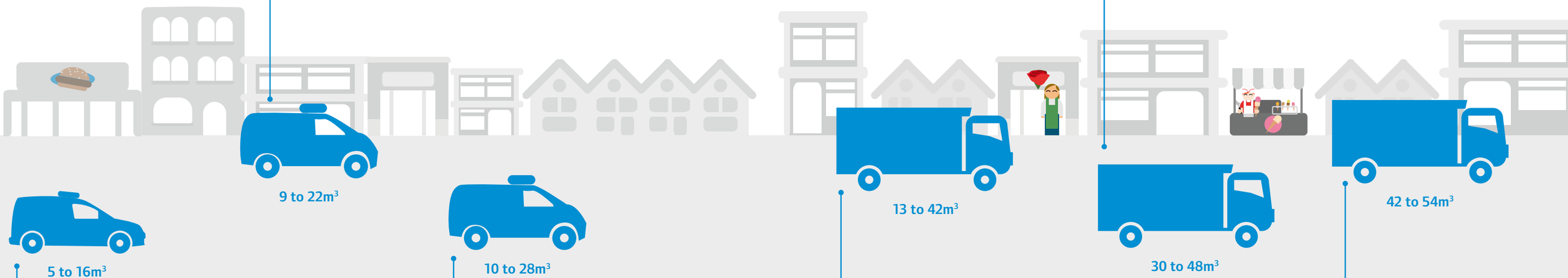
Priority performance for priority protection.

Spectrum multi-temperature models feature Zone Priority which allows you to choose one compartment for maximum cooling or heating, should you wish. In addition, temperature pulldown will be up to 40% faster.

Single or multi-temperature - a solution for every need

The V-100, 200 and 300 Series offer the optimal temperature control solution for single and multi-temperature vans and small trucks up to 28 m³. This complete range shares many common components and has many modular options to fulfil the requirements of every customer. By using the vehicle engine to drive the compressor, noise and emissions are minimised.

The V-500, 600 and 800 Series offer a direct drive, non-diesel temperature control solution for operators of trucks up to 54m³. For multi-temperature applications, the V-500 and 800 Spectrum models are available. The range has minimal environmental impact as the refrigeration unit compressor is driven by the vehicle engine, offering exceptionally low noise and low emissions.



V-100 Series

» Smallest of the series, but with big unit performance.
» Slim, aerodynamic and good looking.
» Condenser section can be roof or front mounted.
» Extremely compact design to blend with small vehicle body shapes.
» Compactness.
» Low weight.

V-200 Series

» Small, powerful units for vans and trucks.
» Condenser section can be roof or front mounted for total flexibility.
» V-200s model combines the compact size of the V-100 with the high cooling capacity of the V-200.
» Also available as multi-temperature Spectrum version providing temperature control for two compartments.

V-300 Series

» Mid-size unit for mid-size vans and trucks.
» Slim, aerodynamic and good looking.
» The largest of the V-series small platform range where the condenser can be roof or front mounted.
» Also available as multi-temperature Spectrum version providing temperature control for two compartments.

V-500 Series

» Nose mount condenser unit for medium trucks.
» Powerful airflow and cooling capacity to protect loads.
» Compact all-aluminium condenser brings significant lifecycle benefits.
» Also available as multi-temperature Spectrum version providing temperature control for two compartments.

V-600 Series

» Increased performance both on road and stand-by operation.
» Swash plate compressor for ease of installation.
» User friendly and advanced controller Direct Smart Reefer.
» More environmentally friendly.
» Superior performance.
» A full range available.

V-800 Series

» Nose mount condenser unit for the largest trucks.
» The most powerful unit in the vehicle-powered range, both in cooling and heating modes.
» An unbeatable non-diesel, low noise and low weight solution.
» Also available as multi-temperature Spectrum version providing temperature control for two compartments.

Direct Smart Reefer (DSR) Controller

The Direct Smart Reefer (DSR) Controller brings the latest in microprocessor-based intelligent control to Thermo King's vehicle powered product range.

Key features

» Ease of use
» 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

The DSR in-cab unit provides the ideal user interface. LCD technology with LED backlighting makes the screen easy to read in all light conditions. The operator can select from multiple functions to suit specific transport applications, ensure optimal temperature control and product integrity. In the event of a malfunction, an easily interpreted alarm code allows drivers to take rapid and appropriate remedial action.

Standard features

» Continuous monitoring of load and temperature control unit.
» Automatic start-up in case of a power interruption on the road or in standby.
» A full record via three hour meters of compressor and unit operating hours.
» Simple alarm codes with clear descriptions for quick diagnosis and reduced maintenance costs.
» Maintenance reminders to encourage preventative maintenance and reduce downtime.
» 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 to increase engine compressor life.
» Load protection by delaying evaporator start-up after defrosts, to avoid accidental water discharge into the load space.

The DSR control board

» A modular concept that separates control and power relay boards.
» Improved reliability, serviceability and componentreplacement.
» Lower service and maintenance costs.

The DSR in-cab display

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 so that only the compartment with the door open is turned off.
» Set point range can be independently adjusted for each compartment.
» Operation in single temperature mode for increased flexibility.

switch on/off each compartment

improved door switch

adjustable set point range for each compartment

single temp if required

Alex Brown, Retailer
Delivers fresh fruit and vegetables

"In my job, making mistakes just isn't an option. The DSR controller lets me know exactly what's going on and even warns me if there's a problem. And the information is right where I need it, in the cab. Although it's a very smart device, I find it really easy to use."

Information, in-cab:
In control.

Tune your unit – features and options

	V-100 V-100 MAX V-200s MAX	V-200 10 V-200 MAX 10/30 V-200 MAX 30 SPECTRUM	V-300 10 V-300 MAX 10/30 V-300 MAX 30 SPECTRUM	V-200 20 V-200 MAX 20/50 V-200 MAX 50 SPECTRUM	V-300 20 V-300 MAX 20/50 V-300 MAX 50 SPECTRUM	V-500 V-500 MAX V-600 MAX	V-500 MAX SPECTRUM	V-800 V-800 MAX	V-800 MAX SPECTRUM
LIFE COST MANAGEMENT									
ThermoKare service contracts	▲	▲	▲	▲	▲	▲	▲	▲	▲
DATA CAPTURE AND COMMUNICATIONS									
TouchPrint data capture	▲	▲	▲	▲	▲	▲	▲	▲	▲
Wintrac (data analysis software)	▲	▲	▲	▲	▲	▲	▲	▲	▲
USB Datalogger	▲	▲	▲	▲	▲	▲	▲	▲	▲
Datalogger Jr	▲	▲	▲	▲	▲	▲	▲	▲	▲
LOAD PROTECTION									
Door switch	△	△	△	△	△	△	△	△	△
Din adapter	△	△	△	△	△	△	△	△	△
Hose cover	△	△	△	△	△	△	△	△	△
Muffler kit	△	△	△	△	△	△	△	△	△
Snow cover (also called kit deflector small)	△	△	△	●	●	○	○	○	○
Snow cover (also called kit deflector big)	●	●	●	△	△	○	○	○	○
Harness extension 2 m/4 m/6 m	●	△	△	△	△	●	△	●	●
Hose extension 2 m/4 m/6 m	●	△	△	△	△	●	△	●	●

○ Not available ● Standard feature △ Option: factory installed ▲ Option: dealer supplied

ThermoKare
ThermoKare offers a complete selection of service contract solutions to manage maintenance costs and hence total life cost of a unit.

TouchPrint data capture
» User-friendly temperature recorders.
» Delivery and journey printouts at the touch of a button.
» 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 Datalogger
Humidity, temperature and dewpoint recorder.

Datalogger Jr
Programmable temperature recorder.

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 with best aesthetics to promote brand image and with an 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 extension
The 2, 4 or 6 meter harness extension allows evaporators to be located to suit any customer needs with an extremely easy installation (plug-and-play connection) and provides full flexibility to position the evaporators especially in multi-temperature applications.

Hose extension
The 2, 4 or 6 meter hose extensions (includes corresponding splice connectors) are also on offer as option for remote evaporators.

On time, on temperature.
No worries.

Unit selection guide

The table below indicates 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.

MODEL	AMBIENT TEMPERATURE			
	30°C		40°C	
	BOX TEMPERATURE			
	+0/2°C	-20°C	+0/2°C	-20°C
V-100	12 m³	5 m³	8 m³	4 m³
V-100 MAX	16 m³	8 m³	11 m³	6 m³
V-200	18 m³	9 m³	13 m³	7 m³
V-200s MAX	19 m³	10 m³	14 m³	8 m³
V-200 MAX	22 m³	13 m³	15 m³	10 m³
V-300	25 m³	10 m³	18 m³	8 m³
V-300 MAX	28 m³	17 m³	20 m³	13 m³
V-200 MAX Spectrum	-	12 m³	-	9 m³
V-300 MAX Spectrum	-	16 m³	-	12 m³
V-500	30 m³	13 m³	21 m³	10 m³
V-500 MAX	42 m³	25 m³	29 m³	19 m³
V-500 MAX Spectrum	-	22 m³	-	17 m³
V-600 MAX	48 m³	30 m³	34 m³	24 m³
V-800 MAX Spectrum	-	40 m³	-	30 m³
V-800	44 m³	-	31 m³	-
V-800 MAX	54 m³	42 m³	38 m³	34 m³

Recommendations are based on precooled loads and K value of 0.35 W/m²K is used for frozen goods (-20°C) and 0.5 W/m²K for fresh goods (+0/2°C), for a distribution of 8 hours. Recommendation for V-500 MAX Spectrum unit is based on ES300+ES300 configuration, and ES400+ES400 for V-800 MAX Spectrum unit. Recommendations are not a guarantee of performance as there are many variables to be considered. See your Thermo King dealer for complete information.

Joey Williams, Retailer
Home delivery

"Load space is critical when you run a small delivery van. My V-Series evaporator is so slim, it lets me use the whole compartment. They say time is money – but so is space."

Freshness assured with **V-Series**

MODEL	REFRIGERANT	SMALL PLATFORM	MEDIUM PLATFORM	LARGE PLATFORM	STANDBY	HEATING	MULTI-TEMP.
V-100 10	R-134a	✓	–	–	–	–	–
V-100 20	R-134a	✓	–	–	✓	–	–
V-100 MAX 10	R-404A /R-452A	✓	–	–	–	–	–
V-100 MAX 20	R-404A /R-452A	✓	–	–	✓	–	–
V-100 MAX 30	R-404A /R-452A	✓	–	–	–	✓	–
V-100 MAX 50	R-404A /R-452A	✓	–	–	✓	✓	–
V-200 10	R-134a	✓	–	–	–	–	–
V-200 20	R-134a	–	✓	–	✓	–	–
V-200s MAX 20	R-404A /R-452A	✓	–	–	✓	–	–
V-200s MAX 50	R-404A /R-452A	✓	–	–	✓	✓	–
V-200 MAX 10	R-404A /R-452A	✓	–	–	–	–	–
V-200 MAX 20	R-404A /R-452A	–	✓	–	✓	–	–
V-200 MAX 30	R-404A /R-452A	✓	–	–	–	✓	–
V-200 MAX 50	R-404A /R-452A	–	✓	–	✓	✓	–
V-200 MAX 30 Spectrum**	R-404A /R-452A	✓	–	–	–	✓	✓
V-200 MAX 50 Spectrum**	R-404A /R-452A	–	✓	–	✓	✓	✓
V-300 10	R-134a	✓	–	–	–	–	–
V-300 20	R-134a	–	✓	–	✓	–	–
V-300 MAX 10	R-404A /R-452A	✓	–	–	–	–	–
V-300 MAX 20	R-404A /R-452A	–	✓	–	✓	–	–
V-300 MAX 30	R-404A /R-452A	✓	–	–	–	✓	–
V-300 MAX 50	R-404A /R-452A	–	✓	–	✓	✓	–
V-300 MAX 30 Spectrum*	R-404A /R-452A	✓	–	–	–	✓	✓
V-300 MAX 50 Spectrum*	R-404A /R-452A	–	✓	–	✓	✓	✓
V-500 MAX 10	R-404A/R-452A	–	–	–	–	–	–
V-500 MAX 20	R-404A/R-452A	–	–	✓	–	–	–
V-500 MAX 30	R-404A/R-452A	–	–	✓	–	✓	–
V-500 MAX 50	R-404A/R-452A	–	–	✓	✓	✓	–
V-500 MAX 30 Spectrum [1]	R-404A/R-452A	–	–	✓	–	✓	✓
V-500 MAX 50 Spectrum [1]	R-404A/R-452A	–	–	✓	✓	✓	✓
V-600 MAX 10	R-404A/R-452A	–	–	✓	–	–	–
V-600 MAX20	R-404A/R-452A	–	–	✓	✓	–	–
V-600 MAX 30	R-404A/R-452A	–	–	✓	–	✓	–
V-600 MAX 50	R-404A/R-452A	–	–	✓	✓	✓	–
V-800 10	R-134a	–	–	–	–	–	–
V-800 20	R-134a	–	–	–	✓	–	–
V-800 MAX 10	R-404A/R-452A	–	–	–	–	–	–
V-800 MAX 20	R-404A/R-452A	–	–	–	✓	–	–
V-800 MAX 30	R-404A/R-452A	–	–	–	–	✓	–
V-800 MAX 50	R-404A/R-452A	–	–	–	✓	✓	–
V-800 MAX 50 Spectrum [2]	R-404A/R-452A	–	–	–	✓	✓	✓

✓ Included – Not included

* Available in the following configurations: ES150+ES150 / ES150-ES100 / ES100+ES100

** Available in the following configurations: ES100 + ES100

(1) Available in the following configurations: ES300+ES300, ES300+ES150 and ES300+2xES150

(2) Available in the following configurations: ES400+ES400, ES600+ES150 and ES600+2xES150

Single temperature models specifications

	V-100	V-100 MAX	V-200	V-200s MAX	V-200 MAX	V-300	V-300 MAX
SYSTEM NET COOLING CAPACITY UNDER ATP CONDITIONS INCLUDING 30°C AMBIENT, EUROPEAN STANDARD							
°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	1665 680	2080 1090	2255 945	2400 1175	2770 1460	2965 1260	3330 1840
Electric stand-by 50 Hz W	975 390	1260 695	1850 685	1450 660	1970 1130	2090 865	2840 1235
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 m^3/h	745	745	1100	1000	1100	1400	1400
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
Swash plate compressor kg	6.5	6.5	6.9	6.5	6.9	6.8	6.8
COMPRESSOR							
Model	QP08N	QP08N	QP13	QP08N	QP13	QP15	QP15
Displacement cc	131	131	131	131	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 CHARGE							
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							
Refrigerant	R-134a	R-404A/ R-452A	R-134a	R-404A/ R-452A	R-404A/ R-452A	R-134a	R-404A/ R-452A
Controller	DSR III	DSR III	DSR III	DSR III	DSR III	DSR III	DSR III
DEFROST							
Defrost	Automatic hot gas defrost/Reverse cycle						

	V-500	V-500 MAX	V-600 MAX	V-800	V-800 MAX
REFRIGERATION CAPACITY: AT 30°C AMBIENT					
°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	3915 1655	4865 2515	5910 3280	5175 -	7790 4160
Electric standby 50 Hz W	3160 1090	4115 1915	4970 2550	4920 -	7030 3795
HEATING CAPACITY: AT -18°C AMBIENT/2400 RPM					
On the road swash plate compressor W	-	3600	4000	-	7030
Electric standby operation W	-	3120	3200	-	6450
AIRFLOW					
Airflow volume @ 0 pa static pressure m^3/h	2200	2200	2580	2680	2680
WEIGHT					
Condenser w/o electric standby kg	53	53	53	100	100
Condenser with electric standby kg	125	125	125	160	160
Evaporator kg	25.5	25.5	28	35	35
Swash plate compressor kg	7.1	7.1	7.1	8.5	8.5
COMPRESSOR					
Model	QP16	QP16	QP16	QP21	QP21
Displacement cc	163	163	163	215	215
Number of cylinders	6	6	6	10	10
ELECTRIC STANDBY MOTOR					
Voltage/phase/frequency	400/3/50 380/3/60 230/3/50 230/3/60 230/1/50 230/1/60			400/3/50 400/3/60 230/3/50 230/3/60	
Rating kW	6.4 (400/3/50)	6.4 (400/3/50)	6.4 (400/3/50)	8.2 (400/3/50)	8.2 (400/3/50)
REFRIGERANT CHARGE					
Charge kg	10:2.0 20:2.2	10:2.1 20/30:2.2 50:2.3	10:2.2 20/30:2.3 50:2.4	10:4.55 20:4.85	10/30:4.7 20/50:5
GENERIC					
Refrigerant	R-134a	R-404A/ R-452A	R-404A/ R-452A	R-134a	R-404A/ R-452A
Controller	DSR III	DSR III	DSR III	DSR III	DSR III
DEFROST					
Defrost	Automatic hot gas defrost/Reverse cycle				

Multi-temperature models specifications

		V-200 MAX SPECTRUM			
REFRIGERATION CAPACITY: AT 30°C AMBIENT					
		ES100 MAX + ES100 MAX		ES100 MAX + ES100N MAX*	
Return air to evaporator	°C	-20°C		-20°C	
Capacity on engine power	W	1750		1750	
Capacity on electrical stand	W	1170		1170	
REFRIGERATION CAPACITY: INDIVIDUAL COOLING CAPACITY					
		ES100 MAX		ES100N MAX*	
Return air to evaporator		0°C	-20°C	0°C	-20°C
Capacity on engine power	W	2670	1450	2260	1345
Capacity on electrical stand	W	2195	1125	2015	1015
HEATING CAPACITY					
On the road	W	2800			
Electric standby operation	W	2050			
AIRFLOW					
		ES100 MAX + ES100 MAX		ES100 MAX + ES100N MAX*	
On high speed engine operation	m^3/h	695		695	
WEIGHT					
Condenser w/o electric standby	kg	25			
Condenser with electric standby	kg	75			
Evaporator ES100 MAX	kg	9			
Swash plate compressor	kg	6.9			
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 CHARGE					
Charge	kg	1.35			
GENERIC					
Refrigerant		R-404A/R-452A			
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.

		V-300 MAX SPECTRUM					
REFRIGERATION CAPACITY: AT 30°C AMBIENT							
		ES150 + ES150		ES150 + ES100		ES200 + ES100	
Return air to evaporator	°C	-20°C		-20°C		-20°C	
Capacity on engine power	W	2150		2150		1870	
Capacity on electrical stand	W	1380		1415		1315	
REFRIGERATION CAPACITY: INDIVIDUAL COOLING CAPACITY							
		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	2895	1625	2685	1540	2940	1585
Capacity on electrical stand	W	2340	1240	2205	1145	2480	1180
HEATING CAPACITY							
On the road	W	3100					
Electric standby operation	W	2250					
AIRFLOW							
		ES150 MAX		ES100 MAX		ES200 MAX	
On high speed engine operation	m^3/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					
Swash plate compressor	kg	6.8					
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							
Charge	kg	30: 1.55 - 50: 1.6					
GENERIC							
Refrigerant		R-404A/R-452A					
Controller		DSR III					
DEFROST							
Defrost		Automatic hot gas defrost					

Multi-temperature models specifications

		V-500 MAX SPECTRUM									
REFRIGERATION CAPACITY: AT 30°C AMBIENT											
		ES300 MAX+ ES300 MAX		ES300 MAX+ 2xES150 MAX		ES300 MAX+ ES150 MAX		ES500+ ES100n			
Return air to evaporator	°C	-20°C		-20°C		-20°C		-20°C			
Capacity on engine power	W	2290		2290		2290		2210			
Capacity on electrical stand	W	1920		1920		1920		1705			
REFRIGERATION CAPACITY: INDIVIDUAL COOLING CAPACITY											
		ES300 MAX		2XES150 MAX		ES150 MAX		ES500		ES100n	
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	3585	1850	1850	1970	1970	1410	4630	2380	2300	1290
Capacity on electrical stand	W	3385	1670	1670	1700	1700	1320	4085	2020	2410	1075
HEATING CAPACITY											
On the road	W	3600									
Electric standby operation	W	3120									
AIRFLOW											
		ES300 MAX + ES300 MAX		ES300 MAX + 2XES150 MAX		ES300 MAX + ES150 MAX		ES500+ ES100n			
On high speed engine operation	m^3/h	2x1185		1185+(2x700)		1185+700		2700+790			
WEIGHT											
Condenser w/o electric standby	kg	53									
Condenser with electric standby	kg	125									
Evaporator ES300 MAX	kg	18									
Evaporator ES150 MAX	kg	12.5									
Evaporator ES100N	kg	8.5									
Evaporator ES500	kg	25.5									
Swash plate compressor	kg	7.1									
COMPRESSOR											
Model		QP 16									
Displacement	cc	163									
Number of cylinders		6									
ELECTRIC STANDBY MOTOR											
Voltage/phase/frequency		400/3/50 - 230/3/50 - 230/3/60 - 230/1/50 - 230/1/60 - 380/3/60									
Rating	kW	6.4 (400/3/50)									
REFRIGERANT CHARGE											
Charge	kg	Model 30 = 2.4 kg and model 50 = 2.5 kg									
GENERIC											
Refrigerant		R-404A/R-452A									
Controller		DSR III									
DEFROST											
Defrost		Automatic hot gas defrost									

Capacity on engine power given at 2400 rpm (ATP conditions)

		V-800 MAX SPECTRUM							
REFRIGERATION CAPACITY: AT 30°C AMBIENT									
		ES400 MAX+ ES400 MAX		ES600MAX+ ES150 MAX		ES600 MAX+ 2x ES150 MAX			
Return air to evaporator	°C	-20°C		-20°C		-20°C			
Capacity on engine power	W	4395		3850		4300			
Capacity on electrical stand	W	3595		3385		3595			
REFRIGERATION CAPACITY: INDIVIDUAL COOLING CAPACITY									
		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	5740	3300	6765	3460	3975	2270	5640	2995
Capacity on electrical stand	W	5300	3010	6305	3110	3850	2165	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	m^3/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									
Charge	kg	ES400+ES400: 5.2 - ES600+ES150: 5.0 - ES600+2XES150: 5.15							
GENERIC									
Refrigerant		R-404A/R-452A							
Controller		DSR III							
DEFROST									
Defrost		Automatic hot gas defrost							

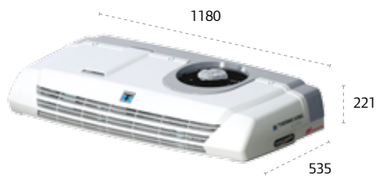
Note: specifications are subject to change without notice.

Dimensions (mm)

CONDENSER UNITS

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

V-200/V-300



V-200/V-300 Spectrum

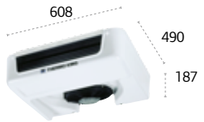
V-500/V-500 MAX/
V-600 MAX/V-500 MAX Spectrum

V-800/V-800 MAX/V-800 MAX Spectrum

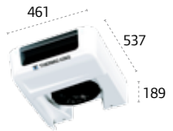
CONTROLLER

In-cab Direct Smart Reefer

EVAPORATORS



ES100
Ultra Slim



ES100N*
Ultra Slim

ES150 MAX
Ultra Slim

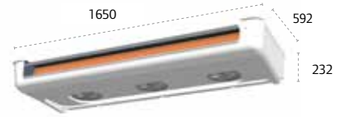
ES200
Ultra Slim

ES300/ ES300 MAX
Ultra Slim

ES400 MAX

ES500
Ultra Slim

ES600 MAX



ES800
Ultra Slim

2 YEAR WARRANTY

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.

Weights (approximate)

Condensers:	
V-100/V-200/V-300 without electric stand-by	25 kg
V-100/V-200s with electric stand-by	43 kg
V-200/V-300 single temp. with electric stand-by	70 kg
V-200/V-300 Spectrum with electric stand-by	72 kg
V-500/V-500 MAX/ V-600 MAX/ V-500 MAX Spectrum	53 kg
V-800/V-800 MAX/ V-800 MAX Spectrum	100 kg

Evaporators:	
ES100 (Ultra Slim)	9.5 kg
ES100N* MAX (Ultra Slim)	8.5 kg
ES150 MAX (Ultra Slim)	14 kg
ES200 (Ultra Slim)	15 kg
ES300/ES300 MAX (Ultra Slim)	18 kg
ES400 MAX	20 kg
ES500 (Ultra Slim)	25.5 kg
ES600 MAX	28 kg
ES800 (Ultra Slim)	35 kg

Others:	
Installation kit (incl. cpr.)	24 kg

* ES100N only available upon special request. Please contact your local dealer.

OUR DEALER SERVICE NETWORK ANYTIME, ANYWHERE, ALWAYS THERE

THERMO KING'S DEALER NETWORK IS THE MOST EXTENSIVE IN THE BUSINESS

» Over 500 authorized service points in 75 countries
» 1400 fully trained and certified technicians with Gold,Silver and Bronze Certi-Tech expertise certifications
» Open and available 24/7

FIND THE DEALER CLOSEST TO YOU WITH OUR ONLINE DEALER LOCATOR
DEALERS.THERMOKING.COM

THERMO KING
CERTI-TECH

MORE DEALER SERVICES

- ✓ Emergency assistance
- ✓ Service contracts
- ✓ Genuine Thermo King parts
- ✓ Options and Accessories
- ✓ Mobile service
- ✓ Calibration and leak testing
- ✓ ...

As a Thermo King owner, you have invested in trusted and proven technology. So when maintaining your unit, it makes sense to choose original Thermo King replacement parts.
It is reassuring to know that every part has been exhaustively tested to the same world-class standards as your Thermo King unit. Genuine parts last longer and perform dependably day after day, year after year.

Talk to your dealer to find the best solution for your needs and know you always get the best.

The transportation industry has always been about connectivity. It brings products to consumers all over the world and has enabled a global marketplace. Today, connectivity has taken on even greater meaning due to the amazing technologies that are within our grasp. Thermo King's Telematics portfolio offers innovative data storage, transfer and management solutions giving you the competitive edge in food safety, regulatory conformity, fleet usage and data control.

TK Wintrac is just an example. Check it out on europe.thermoking.com/telematics

ThermoKare is a complete selection of service contract solutions designed to optimise fleet efficiency, minimize operating costs and maximize equipment resale values. When you choose a ThermoKare programme you let the experts service your fleet while you focus on your business. Your Thermo King Dealer will take care of maintenance planning, scheduling, invoice interpretation and general fleet administration.

THERMO KING
ThermoAssistance

ThermoAssistance is a multilingual telephone service putting you in contact with an authorised Thermo King Service Dealer whenever the need arises. It is available across Europe 24/7/365.

europe.thermoking.com

For further information please contact:

Thermo King is a brand of Ingersoll Rand®. Ingersoll Rand (NYSE:IR) advances the quality of life by creating comfortable, sustainable and efficient environments. Our people and our family of brands — including Ingersoll Rand®, Thermo King®, Trane® and Club Car® — work together to enhance the quality and comfort of air in homes and buildings; transport and protect food and perishables; and increase industrial productivity and efficiency. We are a global business committed to a world of sustainable progress and enduring results.

ingersollrand.com

Ingersoll Rand - Lenneke Marelaan 6, B-1932 Sint-Stevens-Woluwe, Belgium.