

- Low fuel consumption
- Low life cycle cost
- Easy to operate
- Optimal data monitoring and management





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As the industry benchmark, Thermo King's SL range for trailer refrigeration offered exceptional performance and reliability as well as a wealth of cost-saving benefits. Retaining the best from the SL range and keeping your precise needs in mind, Thermo King's new SLX and SLX Spectrum take it one step further.

The SLX range delivers reduced fuel costs, whisper-quiet operation, efficient load protection and unmatched ease of use. By minimising fuel consumption, engine emissions and operating noise, the SLX provides you with the ideal temperature control solution for an environmentally-responsible operation.





Driving down costs

In today's competitive transport business, keeping fuel and service costs low is high on everyone's priority list. The SLX provides you with a cost-effective partner for the road.

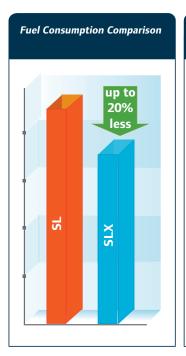
Fuel can represent over 50% of the total life cycle cost of a refrigeration unit. To minimise your costs, the SLX range provides you with unrivalled fuel savings.

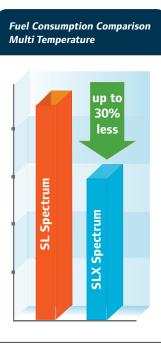
As all components can be easily accessed, maintenance and service are straightforward.



Low energy consumption

Belt-driven refrigeration systems are proven to be the most energy efficient. The SLX optimises this technology to enable the most effective energy conversion yet achieved. Tested under conditions which closely represent a typical daily cycle (pre-cooling a trailer and running on a mix of high and low engine speeds), the SLX showed savings of up to 20% when compared with the industry-leading SL. Compared with its predecessor, the SLX Spectrum uses 30% less fuel in a typical two-temperature duty cycle. Improvements of this magnitude will have a significant and measurable impact on your fuel costs.





Reduced maintenance

The innovative configuration of the SLX provides fast and easy access for service and maintenance operations. By reducing engine speeds, the SLX offers a more benign operating environment to further extend component life expectancy. Where new components have been introduced, they have been exhaustively tested in the most demanding conditions.

Maximum equipment utilisation, minimising downtime

You rely on your temperature control system to perform efficiently day in, day out. To maximise equipment utilisation, downtime must be minimised. Automated pre-trip checks and continuous monitoring of critical components on the road reduce the risk of unscheduled interventions while safeguarding your load. With the SLX's state-of-the-art Smart Reefer 2 (SR-2) control system, those benefits together with absolute peace of mind are at your fingertips.

Highest residual value

An important consideration in the life cycle cost of capital equipment is its residual value. The SL range has proven to command the highest resale prices in the market. The improved performance and lower cost of operation of the SLX will ensure even better residuals.





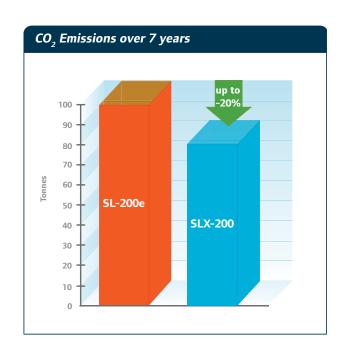
Thinking Green

Minimising environmental impact

From the start of the SLX development project, a key deliverable was reduction of environmental impact. The design team conducted a life cycle assessment of the SL range to identify areas where the greatest gains could be achieved without compromising cost of ownership or performance. The result is a product range with a substantially reduced environmental footprint.

Reduction of CO₂ emissions

Every litre of diesel fuel burned contributes 2.7 kg of $\rm CO_2$. Hence, efficient use of fuel means reduced $\rm CO_2$. Over an average life of 7 years, the SLX can reduce $\rm CO_2$ emissions by up to 20% (over 17 tonnes).



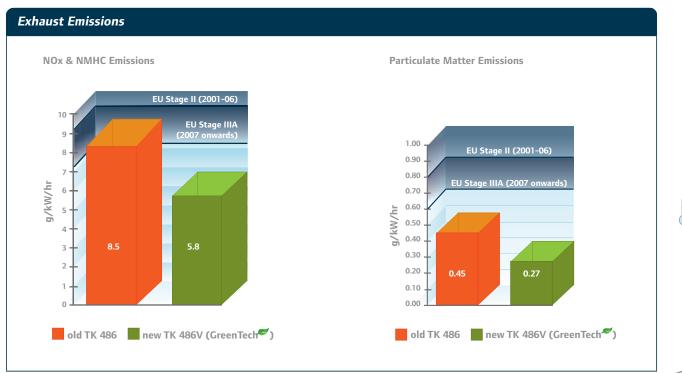




Reduction of exhaust emissions

For refrigeration equipment, emissions of particulate matter, non-methane hydrocarbons and nitrogen oxides (PM, NMHC and NOx) are regulated by EU Stage IIIA (Directive 97/68/EC). The GreenTech engine in the SLX range has reduced exhaust emissions to a point substantially below this requirement.

The GreenTech symbol is your guarantee that the SLX range features the TK 486V environmentally-friendly engine.

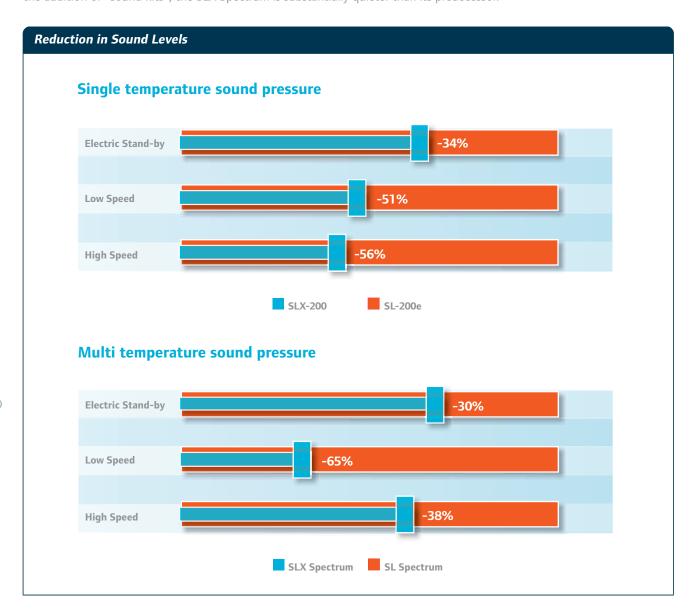






Whisper-quiet operation

Noise can both be contained and reduced at the source. With the SLX you benefit from both approaches. Thanks to the integration of low-noise components running at lower speeds, sound levels are reduced significantly. The result is a whisper-quiet unit, increasing driver comfort and permitting operation in noise-sensitive environments. Nowhere is low noise more important than for delivery operations in densely populated areas. As delivered, and without the addition of "sound kits", the SLX Spectrum is substantially quieter than its predecessor.





Reducing environmental impact and cost

The SLX has performance features which minimise both life cycle cost and environmental impact.

- 3000 hour maintenance interval: minimises oil, filter and coolant waste.
- Cycle-Sentry: stops engine when refrigeration is not needed, saving fuel and reducing emissions.
- Diesel/electric option: allows low-noise, zero-emission operation overnight or in restricted areas.
- Biofuel compatibility: the GreenTech engine is approved for use with B5 fuels, with no change in maintenance schedule.
- R-404A refrigerant:
 - Zero ozone depletion potential (ODP)
 - Zero chlorofluorocarbons (CFC)
 - Zero hydrochlorofluorocarbons (HCFC)
 - Zero chlorine

Manufactured with respect for the world around us

The SLX range is manufactured by Thermo King's state-of-the-art facility in Galway, Ireland. This plant has held ISO 14001 for Environmental Management since 2000. Regular audits performed by the Environmental Protection Agency confirm a continuing reduction of direct environmental impact.

Minimising waste

Material selection for the SLX includes recyclability as a priority. The SLX is 99.7% recyclable by weight.

Materials selected with care

The materials and processes used to build the SLX must meet stringent environmental requirements, while retaining their ability to satisfy the most demanding operating conditions.



- Geloy* ASA resin upper panels:
 - · Colour saturated: no painting, no solvent release
 - 100% recyclable
- 2 Water-based varnish to protect copper tubing
 - Avoids all solvents
 - 20% fewer soldered service joints, reduced leak potential
- **3** Galvanised steel lower doors:
 - 100% recyclable
 - Powder painted: less than 2% loss, no solvent release
- 4 Packaging:
 - Returnable, recyclable shipping crates
 - · Major vendors use returnable packaging



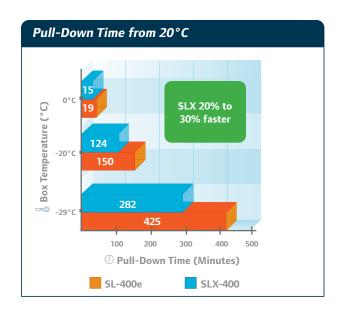


Top-quality product delivery, increased shelf life, reduced load times... these are only a few of the essentials your business depends on. The SLX delivers maximum cooling capacity when you need it: during temperature pull-down for rapid pre-cooling and during temperature recovery after door openings.

With the SLX range, you get the power you need, when you need it, to ensure protection of the most delicate and valuable cargo.

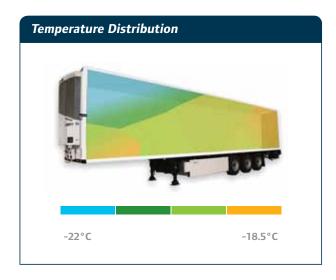
Faster recovery and pull-down

The ability to recover set point quickly after door openings is critical to ensure top product quality. As soon as set point is reached, the system switches back to low-speed mode, saving fuel. Although SLX rated capacities at 0°C and -20°C are similar to the SL, the improved system design of the SLX delivers additional capacity at positive box temperatures. This results in faster pull-down. Faster pull-down means faster precooling and reduced cycle times.



Uniform temperature distribution

To protect the load, temperature variance throughout the trailer must be kept to a minimum. To help the system move more air through the load, the SLX features a larger evaporator air intake and a more efficient evaporator blower.





Small variations in temperature can significantly affect the shelf life of sensitive produce.

For example, a difference of 1°C can reduce the shelf life of lettuce by over a day.



SLX Spectrum: Thinking Green for city distribution

Thinking Green

The low-noise, low-emission SLX Spectrum is ideally suited to operating in an urban environment. Compartments or lanes, two zones or three, we have a system that will meet your requirements. Our dealers are trained to help you choose the right equipment for your particular application.

Our two- and three-blower remote evaporators can be combined to provide the optimum solution in a large number of different trailer configurations. With the SLX Spectrum, you can now drive up to nine remote evaporator blowers, giving you more flexibility to meet more demanding applications.

Advanced control logic (SmartSet[™]) protects sensitive cargo by providing tighter temperature control and minimising dehydration.







2 temp

3 temperature zones





The SR-2 controller. Optimise your SLX the easy way.

Driven by growing concerns over product quality, governments and customers worldwide are demanding tighter control and more accurate monitoring of temperatures throughout the cold chain.

Raw cooling capacity is only one factor determining the performance of a temperature control system.

The industry's most advanced controller is also the simplest to use. Now, multi-temperature trailer operators can view and control all compartments on one screen, with one set of controls.

Smart Reefer 2 (SR-2) with integrated CargoWatch™ data logger: user-friendly control as standard.



The Smart Reefer 2 (SR-2) controller protects loads by simplifying the user interface and employing the latest technology to monitor system performance. It is the most user-friendly control system in the industry, with an easy-to-read display, large buttons, simple and logical menus and a choice of 21 languages.

Optimal data monitoring, data management and compliance.

The SR-2 also integrates CargoWatch™, a high-performance data logger enabling full EU compliance. Since January 2006, data logging has been a European requirement for the transport of quick-frozen food (Regulation 37/2005). Responding to this need, the SLX is the first range of temperature control units to feature on-board data logging as standard. To ensure your total compliance, CargoWatch™ is a fully approved independent logger.



SR-2 features:

CargoWatch™ Data Acquisition System

This high-performance data recorder system records temperatures, set point, operating modes and external events.

- · Output to computer or printer.
- Operates independently of unit controller.
- Memory storage for more than one year's data.
- Total quality control reassurance.
- Evidence of correct practice.
- Approved to EN-12830, CE Mark and IP-65 standards.
- Up to six independent sensors.
- Automatic power-up and shut-off to protect unit battery.

Load protection

- Mode lock prevents accidental selection of the wrong temperature band.
- Auto phase correction avoids reverse fan rotation on electric stand-by.
- Diesel/electric auto-switching ensures your cargo is protected even if the electricity supply is interrupted.
- Set point confirmation alerts the user that a change in set point must be confirmed.

ServiceWatch

A dedicated maintenance logger is another standard SR-2 feature. By tracking system performance and logging operational parameters, it can dramatically improve the speed and accuracy of service diagnostics.







Single temperature SR-2 display



Multi temperature SR-2 display

- Easy to read
- High reliability
- Advanced security
- Easy to use
- Speaks your language
- Easy to diagnose
- Built to last



OptiSet[™] Plus for single-temperature SLX

Because every cargo has very specific requirements, your SLX has many control settings which can provide optimised conditions for each of the cargoes you carry.

OptiSet Plus now allows you to achieve the best balance between cargo protection and fuel efficiency.

Your Thermo King Dealer can advise on the optimum settings for each cargo you carry and load these profiles into OptiSet Plus. Your driver simply selects a cargo or a set point and OptiSet Plus does the rest.



You can:

- Use a library of over 500 commodity profiles
- Determine the optimum conditions for your specific cargoes
- Achieve maximum fuel economy including Cycle-Sentry Modulation, Economy mode, Defrost interval management
- Provide optimum load protection using FreshSet[™] to prevent top freezing
- Use Temperature Modulation to protect fresh produce
- Use High Speed Pull-down for tight temperature control, High Speed Modulation for high ambient temperatures, Freeze Protection for discharge air control, Diesel-electric Auto-switching to protect against loss of 3-phase power and Low fuel warning to avoid unnecessary service call-outs
- Install up to 64 profiles on your SLX
- Minimise the risk of operator errors such as wrong set point or wrong operating mode

The inside story: a new benchmark in reliability

The challenge in developing the SLX range was to reduce downtime and maximise equipment utilisation. This has been achieved by a process of evolution: retaining the best features of the SL while applying innovative design and material solutions to further raise standards of reliability.

Individual components are now even more rugged and their operating environment more benign. Our most rigorous test programme ever has included years of nonstop endurance runs. Customer field trials were held in the most adverse conditions, from Pole to Pole. These have amounted to the equivalent of over 11 million kilometres.

The SLX comes with a full 24 month factory warranty.

Acoustically treated **muffler** reduces exhaust noise while horizontal orientation eliminates need for rain-cap and risk of water ingress.

Geloy* ASA resin upper **panels**: impact-resistant, coloursaturated to hide scratches.

New anti-corrosion **alternator** design, protected from the elements by its location.

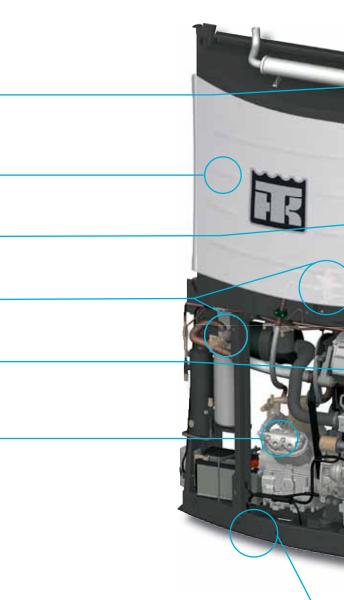
Electronic throttling valve and **3-way valve** relocated to easy-access location.

Electric stand-by motor for diesel/electric operation, relocated above engine for protection from the elements and improved service access.

New generation X430 C5 **compressor** with extended life crankshaft **bearings** and cast iron oil pump.













Finland: field test at -40°C

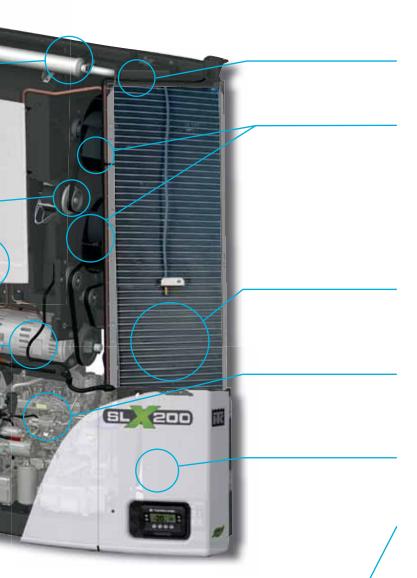
Dubai: field test at +55°C and dust conditions

North Sea: field test in corrosive environment

Prague: extensive lab testing



Aerofoil damper blade to minimise swirl and improve blower efficiency. Direct drive **damper motor** to eliminate linkages and improve reliability. Unrestricted evaporator airflow path for reduced power consumption.



Engine **coolant system** has double capacity to increase maintenance intervals.

Paired, high-efficiency **blowers** providing uniform airflow through condenser for maximum use of available capacity. Lower blower discharges air downwards to ventilate engine compartment. One-piece bracket ensures precise pulley alignment. Auto-tensioners and poly-v belts deliver exceptional belt life.

Condenser coil has 80% larger face area, enabling faster pull-down, superior high-ambient capability and increased cooling capacity.

GreenTech low-emission **diesel engine**, running at slower speeds to extend component life as well as reducing noise, fuel consumption and CO₂ levels.

Galvanised steel **lower doors**: corrosion-proof, impact-resistant.

Carbon steel, immersion-painted **frame**, robotically welded for extreme dimensional accuracy.

Performance, key features & options

With the SLX range we provide a broad portfolio of models to meet your specific needs. Whether you work in a long haulage transport environment, urban distribution, in extremely high or low ambient temperatures, on road or rail, Thermo King provides a model suited to your application. And a range of options to customise that model to your specific requirements. All SLX models can be used for transport of fresh AND frozen products.

Performance	SLX-100	SLX-200	SLX-300	SLX-400	SLX SPECTRUM
Refrigeration Capacity 0°C (W)	9500	13200	14200	17500	15400
Refrigeration Capacity -20°C (W)	5900	7900	8100	9200	8600
Airflow (0 Pa static pressure)	4250	5000	5000	5500	5000
Pull-down +20°C to -20°C (min)	238	190	182	124	N/A
Maximum trailer length (m)	12	14	14	16	15

Fe	eatures and Options	SLX-100	SLX-200	SLX-300	SLX-400	SLX SPECTRUM
LIF	E COST MANAGEMENT					
1	Two year full warranty	•	•	•	•	•
2	EMI 3000 extended maintenance intervals	•	•	•	•	•
3	TK high-performance battery	•	•	•	•	•
DA	TA MONITORING MANAGEMENT					'
4	CargoWatch data logger	•	•	•	•	•
5	ServiceWatch maintenance logger	•	•	•	•	•
6	TracKing: remote temperature & vehicle management	Δ 🛦	Δ 🛦	Δ 🛦	Δ 🛦	△ ▲
7	Wintrac data analysis software	A	A	A	A	A
LO	AD PROTECTION					
8	Produce Protection Plus (ETV & Temperature Modulation)	0	0	•	•	0
9	OptiSet™ Plus pre-set operating parameters	•	•	•	•	0
10	Discharge Air Control freeze protection	0	0	•	•	0
11	Heater bars for electric stand-by boost	A	A	A	A	0

O Not Available Standard Feature △ Option: Factory Installed ▲ Option: Dealer Supplied



Features & options



■ Warranty coverage

2 full years' complete warranty cover on unit and options.

2 Extended Maintenance Interval: EMI 3000

- 3000 hours / 24 months oil change intervals
- · Reduced clean-up and disposal cost
- Limited environmental impact with less spillage and less waste
- Extended engine life with improved, highlyefficient filtration
- Reduced cost of scheduled maintenance

■ High-performance battery

Designed exclusively for transport applications.

Incorporates silver-calcium technologies to extend service life over 20% longer than conventional batteries

4 CargoWatch™ datalogger



High-performance data recorder system records temperatures, set point, operating modes and external events.

5 ServiceWatch maintenance logger

- · History logging from cargo load till unload
- · Programmable maintenance intervals
- Valuable diagnostic tool

6 TracKing



Thermo King's TracKing, a remote temperature and vehicle management tool, allows you to monitor your refrigerated cargo whenever you want, wherever you want.

Access to real time temperature and position data

- · Optimum cargo management
- · Enhanced fleet management
- Increased productivity
- · Reduced security risk
- Greater customer satisfaction

Wintrac

User-friendly software offers fleet managers automatic and customised reporting of temperature and operational data logged by CargoWatchTM or transmitted by TracKing.

8 Produce Protection Plus

Provides the ideal conditions for fresh produce: extremely precise temperature control and a continuous supply of moist and cool air (temperature modulation).

- · Minimised dehydration & weight loss
- · Up to 60% increase in product shelf life
- · Top-freezing virtually eliminated
- Fuel savings of more than 20%

The electronic throttling valve delivers faster pull-down and superior performance in high ambient.

9 OptiSet™ Plus

Dramatically reduces the risk of operator error.

Pre-set operating parameters can be loaded by your dealer to match unit performance to the precise requirements of each load. Parameters include:

- Set point
- Temperature range
- Operating mode (Cycle-Sentry / Continuous run)
- Produce Protection Plus
- Discharge Air Control

Discharge Air Control

Safeguarding fresh produce by keeping discharge air temperatures close to set point, the selectable Discharge Air Control feature eliminates top freezing.

Ⅲ Heater bars

Provide 2000 watts additional heating capacity for units operating on electric stand-by in cold climates.

SLX accessories



■ TemperatureWatch

Allows driver to monitor load temperature directly from the cab.



Fuel level display

High visibility LED display allows driver to monitor reefer fuel tank level from the cab.



■ Combo display

Allows driver to view unit status and alarms from the cab (operating mode, box temperature, fuel level).



■ SR-2 extension

Permits repositioning of SR-2 control panel close to the operator on high trailers and rail or intermodal applications.



■ Your intelligent remote monitoring system

- Manage your refrigerated cargo
- Track your fleets
- Lower your operating costs



■ Fuel sensor

Communicates fuel tank content to SR-2 to notify operator before fuel runs out.



AIA temperature sensor

High-accuracy roof-mounted sensor designed to withstand impact.



Remote evaporator guard

To protect against accidental damage.



SR-2 rear remote control

Allows control of the refrigeration unit from inside the rear of the trailer during loading.



Slim-line door switch

Shuts down the unit when doors are open to reduce load temperature rise and save fuel.



- · User-friendly and lightweight
- Easy and quick to fill from either side of the vehicle
- Impact- and corrosion-resistant
- Increased capacity (230 litres)
- Lockable filler caps



Always insist on genuine Thermo King service parts

Thermo King understands the importance of parts availability and performance. That's why we have expanded our range of aftermarket products. Now you can get the parts and accessories you need, where you need them, when you need them, quicker and more efficiently than ever before. Our goal is to provide you with the total solutions package to increase operating performance and reduce life cycle costs.

Replacement parts

Genuine Thermo King replacement parts are proven time after time in side-by-side testing to be superior to other non-original parts. Specifically engineered to provide optimal performance and maximum life, Thermo King replacement parts protect your investment and give you confidence and peace of mind on the road.

Maintenance parts

Thermo King offers the highest quality in durable maintenance parts. All parts have been carefully selected and designed to keep your Thermo King equipment operating efficiently and at full capacity for longer and to reduce life cycle costs.





Thermo King Dealer Service Network

TotalKare

TotalKare is a single source service contract designed for fleets operating nationally or internationally. The contracts are designed to optimise the efficiency of your fleet, minimise operating costs and maximise the resale value of your equipment. Our tailored solutions range from those designed to remove the non-core tasks from your daily business operations such as maintenance planning, scheduling, invoice interpretation and general fleet administration to the 'all risks covered package' which offers complete peace of mind and agreed fixed costs.

For more information about TotalKare, please e-mail us at totalkare@thermoking.com

THERMO Assistance

THERMO Assistance is a multilingual 24-hour telephone breakdown assistance service throughout Europe that puts you in direct contact with an authorised Service Dealer whenever you require one.



THERMO KING



Specifications

Specifications		SLX-100		SLX-200		SLX-300		SLX-400		SLX SPECTRUM		
REFRIGERATION CAPACITY: SYSTEM NET COOLING CAPACITY AT 30°C AMBIENT TEMPERATURE UNDER A.T.P. CONDITIONS												
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	9500	5900	13200	7900	14200	8100	17500	9200	15400	8600	
Capacity on electric stand-by	w	8200	5500	9900	6300	12000	6300	12400	6900	11500	6400	
AIRFLOW: ON HIGH SPEED ENGINE OPERATION												
Airflow volume @ 0 Pa static pressure	m³/hr	42	50	5000		50	5000		5500		5000	
Airflow volume in fully loaded trailer	m³/hr	37	40	46	80	46	80	51	00	46	80	
Discharge velocity (air throw)	m/sec	1	2	14		14		1	6	15		
WEIGHT: INCLUDES BATTERY												
Model 30: cooling and heating on engine operation	kg	764		790		792		792		794		
Model 50: cooling and heating on engine & electric stand-by operation	kg	819		845		846		846		848		
ENGINE: LOW EMISSION, 4 CYLINDER, LIQUID COOLE)											
Model		TK 486V 📨		TK 486V 📨		TK 486V 栏		TK 486V 柯		TK 486V 柯		
Rating	kW	19.5		19.5		19.5		23.5		23.5		
Maintenance interval	hrs	3000		3000		3000		3000		3000		
COMPRESSOR: LIGHTWEIGHT ALUMINIUM ALLOY, 4 C	YLINDER,	WITH BY	-PASS OI	L FILTER								
Model		X426 C5		X430 C5		X430 C5		X430 C5		X430 C5		
Displacement	сс	424		492		492		492		492		
ELECTRIC STAND-BY MOTOR												
Voltage / phase / cycles		380/3/50		380/3/50		380/3/50		380/3/50		380/	′3/50	
Rating	kW	9.3		9.3		9.3		9.3		9	.3	
REFRIGERANT: R-404A ZERO OZONE DEPLETION POTENTIAL (ODP), INTERNATIONALLY APPROVED												
Charge	kg	7		7.5		7.5		7.5		7.5		

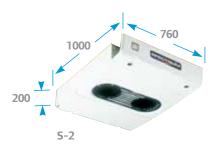
Specifications are subject to change without notice.





Specific terms of the Thermo King Ireland Ltd. 24 month full warranty (TK 60186-2-WA) are available on request. Thermo King excludes liability in contract and tort (including strict liability and negligence) for any special, indirect or consequential damages by reason of the installation or use of any covered product or its mechanical failure.

Remote Evaporators		5-2		S-3		S-2 + S-2		S3 + S-3	
REFRIGERATION CAPACITY: SYSTEM NET COOLING CAPACITY AT 30°C AMBIENT TEMPERATURE UNDER A.T.P. CONDITIONS									
Return air to evaporator		0°C	-20°C	0°C	-20°C	0°C	-20°C	0°C	-20°C
Capacity	W (up to)	7000	4200	8900	5200	11300	6600	13200	7900
AIRFLOW									
Airflow volume @ 0 Pa static pressure	m³/hr	1330		2000		2700		4000	
Discharge velocity (air throw)	m/sec	9.5		9.5		9.5		9.5	
WEIGHT									
	kg	36		51		72		102	

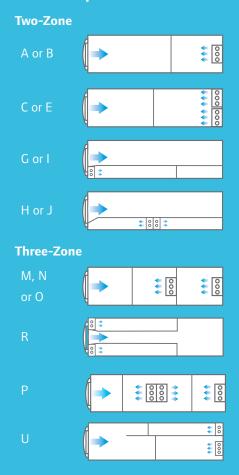






	Host	Remote
Α	SLX Spectrum 2	S-2
В	SLX Spectrum 2	S-3
C	SLX Spectrum 2	S-2 + S-2
Е	SLX Spectrum 2	S-3 + S-3
G	SLX Spectrum 2	S-2
Н	SLX Spectrum 2	S-2 + S-2
T	SLX Spectrum 2	S-3
J	SLX Spectrum 2	S-3 + S-3
М	SLX Spectrum 3	S-2 + S-2
N	SLX Spectrum 3	S-3 + S-3
0	SLX Spectrum 3	S-3 + S-2
Р	SLX Spectrum 3	S-3(x2) + S-3
R	SLX Spectrum 3	S-2 + S-2
U	SLX Spectrum 3	S-2 + S-3

Multi-Temperature Zone Plans



Ingersoll Rand Climate Control Technologies provides equipment and services for:

TRANSPORT REFRIGERATION



Road Cargo



Air Cargo



Sea Cargo

HEATING, VENTILATION & AIR CONDITIONING



Bus



Rail

STATIONARY REFRIGERATION



Commercial Applications



Industrial Applications



Providing equipment and services to manage controlled-temperature environments for food and other perishables, our Climate Control Technologies sector encompasses both transport and stationary refrigeration solutions. Our product brands include Thermo King®, a world leader in transport temperature control systems, and Hussmann® - Koxka®, a manufacturer of refrigeration and food merchandising equipment.

www.thermoking.com www.hussmann.com www.koxka.com www.ingersollrand.com

For further information please contact: