THERMO KING

ShuttleAIRE® Systems

A complete range of HVAC systems for small and medium sized vehicles.



ShuttleAIRE® Systems



ShuttleAIRE High-Capacity Temperature Control Systems Deliver:

- Highest Capacity
- Highest Airflow
- Best Performance
- Worldwide Support
- Best Value

Thermo King offers a complete ShuttleAIRE product line to meet a wide range of applications, including small to mid-size buses, vans, ambulances, security vehicles, and special purpose vehicles. These systems are supported by the industry's largest worldwide service organization and are engineered for high performance, reliability and low maintenance for the life of the vehicle.

The Right System For Your Application

The ShuttleAIRE product line is configurable, allowing you to put the cooling where it's needed the most. Split system evaporators can be installed in the front, rear, or both. Condensers are available in both skirt mount and rooftop orientations. A complete lineup of controllers is also available, providing drivers and technicians basic or advanced functionality as required.

Rooftop Efficiency

Integrated rooftop systems are lighter, more compact, and provide better performance. Passenger comfort is improved with centralized airflow, and weight distribution issues can be avoided. Rooftop systems also provide better reliability by moving the components away from the road and are easier to maintain by having most of the serviceable components inside the bus

SA-Series

Flexible High Capacity Split Systems

The SA series provides complete flexibility to meet the cooling needs for even the most demanding applications. Rooftop or skirt, single system or multiple systems, Thermo King provides solutions for every customer need. The SA units reflect Thermo King's commitment to sustainability, efficiency, and reliability, while maintaining customer value every step of the way.

Evaporators

- Three speed fans for optimal pulldown
 and passenger comfort
- Easily accessible return air filter and blowers for efficient maintenance
- Optional heat coil
- Galvanneal construction for excellent corrosion resistance
- Dual refrigerant circuits provide redundancy in the event of compressor failure (SA-800 only)

Undermount Condensers

- Fully integrated under the vehicle to minimize impact on aesthetics
- Painted galvanneal construction provides
 excellent corrosion resistance
- Microchannel coils create high-capacity systems while minimizing space and refrigerant charge





SA-400

SA-600/800

SLC Rooftop Condenser

- Condenser is removed from harsh road environment: corrosion, heat, debris, and impacts
- Microchannel coils create high-capacity systems while minimizing space and refrigerant charge to reduce costs and environmental impact
- Minimal vehicle height impact only 6" tall



SA-400/600/800







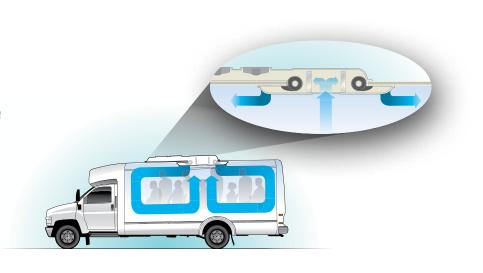


SA-800

Rooftop Units

Compact High Capacity Rooftop Solution

- Excellent air distribution for more comfortable passengers
- Low-profile design inside and out
- 90% of service and maintenance performed inside the vehicle
- 40% less refrigerant for reduced cost and environmental impact
- 12 VDC



The SLR is a one-piece lightweight rooftop unit that has optimal clearance both inside and outside the vehicle. It delivers superior airflow throughout the vehicle due to its centered position compared to rear or front mounted units and can be configured in multiple ways to deliver the right amount of cooling for the application.

SR-50C

The SR-50C is a onepiece rooftop system designed for large shuttle applications. It is supplied with a unique center duct air distribution system, and the unit can



distribution system, and the unit can be configured to ducted or free-blow configurations.

The SR-50C is Thermo King's highest capacity shuttle system that delivers maximum cooling and airflow performance day in and day out.

- One-piece rooftop system
- Lightweight
- · Maximum capacity cooling, heating, and airflow
- Low power consumption
- R134a
- 12 or 24VDC

SR-15

High Capacity Driver Cooling Solution

The SR-15 is a one-piece rooftop system designed for driver cooling and heating applications for buses, trucks and off-road vehicles. The unit uses a remotely-installed compressor and, along with CabAIRE, it provides high capacity cooling and heating to the driver for optimal comfort.

- Lightweight
- One-piece condenser and evaporator assembly
- R-134a refrigerant
- Low power consumption
- High cooling and heating capacity
- Optional 1x230VAC electric hermetic compressor module available
- 12 or 24VDC



SR-10E

Electric Driver Cooling Solution

The SR-10E is a fully hermetic air conditioning unit for all types of driver area cooling applications.



Installation is simple — no hoses, no remote compressor, no drive kit. The unit is factory-tested, comes charged with

refrigerant, and needs only an electrical connection to operate.

The SR-10E delivers maximum capacity regardless of the vehicle's engine RPM. Environmentally-friendly R-407C refrigerant ensures maximum efficiency and lowest operating costs. Thermo King ClimaAIRE[™] computerized controls provide total control over individual comfort. Alarm indicators, troubleshooting codes and hour meters are available for efficient maintenance and diagnostics.

- Environmentally friendly, fully hermetic driver's HVAC solution
- Leak-proof reliability no hoses or fittings
- Constant cooling capacity independent of vehicle RPM
- High efficiency R-407C refrigerant
- Low operating costs
- 24VDC fan and blower
- 24VDC/3x400VAC/1x230VDC compressor options

BE-550 Bulkhead Evaporator

Perfect for headroom clearance situations or flushmount front or rear bulkhead areas, the BE-550 delivers excellent performance in a tiny amount of space. This unit has been designed to deliver superior capacity and durability while performing as efficiently as possible. Coupled with Thermo King's high quality build standards and legendary dealer support, this unit will meet the highest expectations of all: yours.

- Three speed blowers for optimal pulldown and passenger comfort
- Easily accessible return air filter and blowers for efficient maintenance
- Aluminum construction for excellent corrosion resistance and less weight
- Right or left side connections
- Compatible with skirt-mount and rooftop condensers
 (BE-550 systems available Q1 2013)



Controllers

Offering You Choice: The Right Controller for Your Application

Standard Controller



• Simple Operation

Optional Heat Switch

ClimaAIRE 1D



- Digital Readout
- Diagnostics
- Precise Temperature Control
- Four Operating Modes: Vent, Cool, Heat, Auto

IntelligAIRE lll



- Digital Readout
- Advanced Diagnostics
- Precise Temperature Control
- Common to Large Bus
- J1939 Communications

Compressors

A Complete Range of Compressors, Clutches and Manifolds Available for All Applications



TM-16
• Entry-level performance



TM-21

Improved low-speed performance



TM-31

- Unmatched low-idle performance
- Oil sump gives maximum durability and reliability

Selection Guide for your ShuttleAIRE® system

Use grid to determine the proper unit based on capacity:

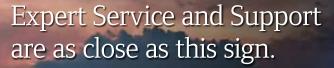
Bus Length				ide Temperature	(Degrees F)			ТК
(Feet)	110	105	100	95	90	85	80	Unit
14								
15								SA-400
16								OR
17								
18								SLR 65
19								
20								
21								
22								SA-600
23								OR
24								
25								SLR 65
26								
27								
28								
29								SA-800,
30								SA-400 x 2
31								or SLR 75
32								UK JLN /J
33								
34								
35								SR-50 ,
36								SA-600 x 2
37								OR
38								5LR 65 x 2
39								JLN UJ X Z
40								
			SA-80	0 x 2 or SL	R 75 x 2			

Select the right air conditioning unit for your bus.

Look up the length of your bus in the left hand column and the typical outside (ambient) temperature across the top row. The color at the intersection of the length and ambient temperature corresponds to the appropriate cooling system for your vehicles as indicated in the right column.

Specifications

Model	SA-400	SA-600	SA-800	BE-550	SLR-65	SLR-75	SR-10E	SR-15	SR-50C
Cool	Х	Х	Х	Х	Х	Х	Х	Х	Х
Heat	Х	Х	Х		Х			Х	Х
Cooling Capacity kW / Btu/hr (IMACA)	6.4/46000	9.1/65000	12.3/82000	8.2/55000	9.2/66000	11.7/75000	2.5/18000	4.2/33000	14.5/110000
Heating Capacity kW/Btu/hr	9.1/31000	12.3/42000	18.5/63000	-	12/42000	-	-	4.1/14000	15/51000
Refrigerant Type	R134a	R134a	R134a	R134a	R134a	R134a	R407C	R134a	R134a
Compressor Type	TM-16 TM-21	TM-16 TM-21, TM-31	TM-16 (x2) TM-21, TM-31	TM-16 TM-21	TM-16 TM-21,	TM-16 TM-21, TM-31	Hermetic Electric	TM-16	TM-21 TM-31
Evaporator Airflow m³/hr / ft³/min (CFM)	765/450	1360/800	2040/1200	850/500	1600/940	1530/900	700/412	816/480	2300/1300
Amperage Requirements 12VDC/27VDC	34/-	48/-	85/-	48/-	65/-	65/-	-/62	23/12	80/40
Weight (kg/lbs.)									
Condenser (Rooftop)	33/73	33/73	33/73		-	-	-	-	-
Condenser (Skirt)	18/40	23/51	36/80		-	-	-	-	-
Evaporator Cool Only	20/44	29/64	42/92	12/26	-	-	-	-	-
Evaporator Cool/Heat	22/48	32/70	45/100		-	-	-	-	-
Rooftop Cool-Only	-	-	-	-	56/124	59/131	55/120	43/95	85/188
Rooftop Cool/Heat	-	-	-	-	59/130	-	-	45/99	88/194
Dimensions (mm/in)									
Rooftop Condenser (LxWxH)	1143x1397x152 45x55x6	1143x1397x152 45x55x6	1143x1397x152 45x55x6	1143x1397x152 45x55x6	2083x1194x152 82x47x6	2083x1194x152 82x47x6″	1303x670x224 51.3x26.4x8.8	1010x1090x180 39.8x42.9x7.1	2319x1136x215 91.3x44.7x8.5
Skirt Condenser (LxWxH)	864x356x254 34x14x10	1270x356x254 50x14x10	864x356x254 (x2 34x14x10 (x2)	e) 1270x356x254 50x14x10	-	-	-	-	-
Dimensions Evaporator (LxWxH)	813x610x229 32x24x9	1118x610x229 44x24x9	1549x610x229 61x24x9	813x152x318 32x6x12.5	-	-	-	-	-



Enjoy the support of the Thermo King Dealer Network.

Over 200 factory-authorized service centers nationwidefind one nearby at www.thermoking.com



Ingersoll Rand's Climate Solutions sector delivers energy-efficient HVACR solutions for customers globally. Its world class brands include Thermo King, the leader in transport temperature control and Trane, a provider of energy efficient heating, ventilating and air conditioning systems, building and contracting services, parts support and advanced controls for commercial buildings and homes.

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