

# SG-5000c Series

Protecting cold chain integrity

CARB COMPLIANT HIGH PERFORMANCE  
GENERATOR SET RANGE FOR MARINE CONTAINERS





# Your independent power source

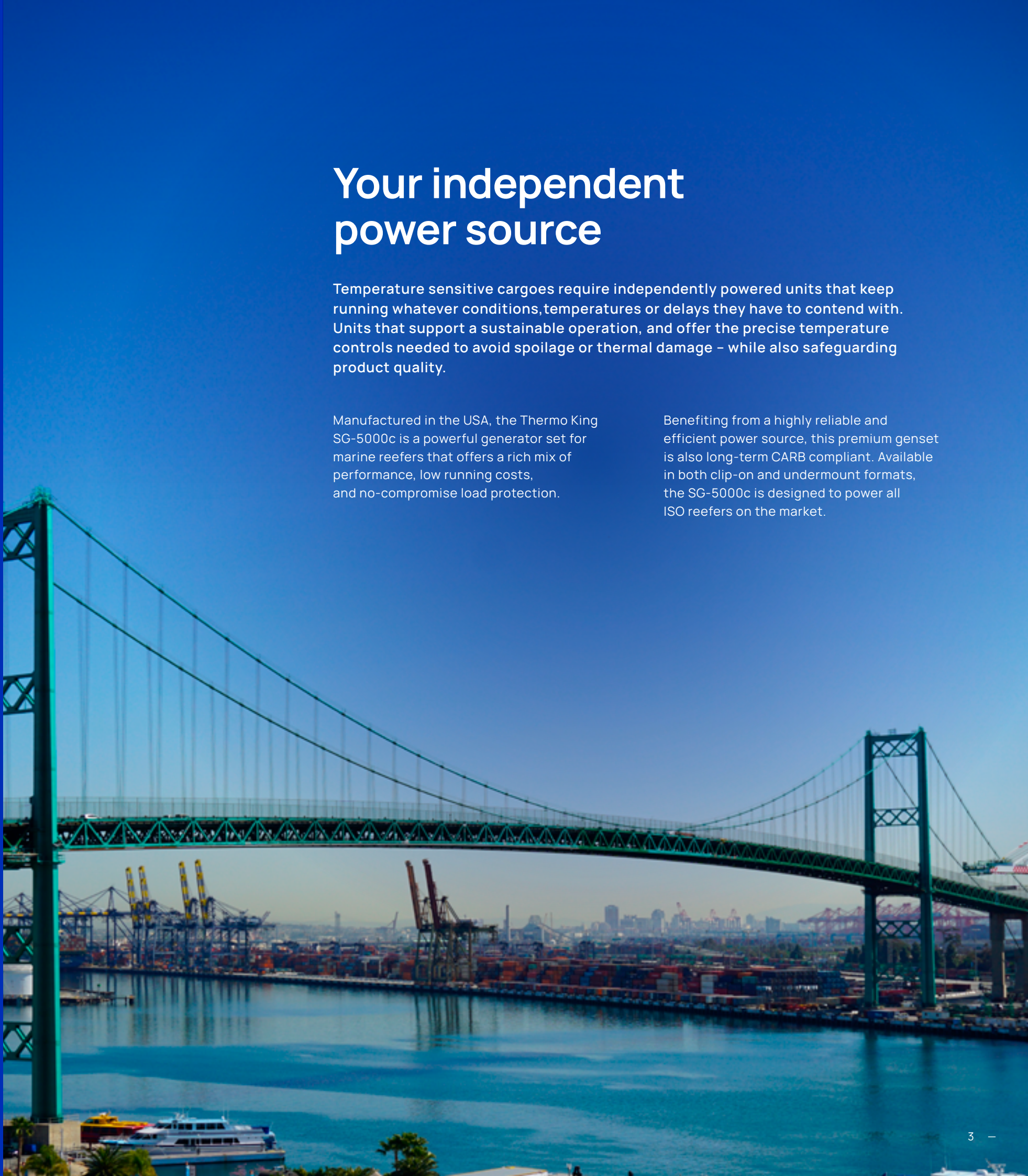
Temperature sensitive cargoes require independently powered units that keep running whatever conditions, temperatures or delays they have to contend with. Units that support a sustainable operation, and offer the precise temperature controls needed to avoid spoilage or thermal damage – while also safeguarding product quality.

Manufactured in the USA, the Thermo King SG-5000c is a powerful generator set for marine reefers that offers a rich mix of performance, low running costs, and no-compromise load protection.

Benefiting from a highly reliable and efficient power source, this premium genset is also long-term CARB compliant. Available in both clip-on and undermount formats, the SG-5000c is designed to power all ISO reefers on the market.

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SG-5000c SERIES

# New capabilities, improved reliability

Featuring a proven ultra-powerful engine and high specification generator, the SG-5000c can be uniquely trusted to deliver certainty of operation. In fact, this complete genset incorporates a wide variety of innovations and upgraded components to ensure its position as the most dependable refrigerated power supply available for reefer units.

- A GENERATOR DESIGNED FOR EFFICIENCY**

The SG-5000c incorporates a large diameter alternator with reinforced bearings and high specification rotating diodes. Plus there's an engine-driven coolant fan and premium corrosion protection to ensure fail-safe operations 24/7.

  - Ultra tough 190 mm synchronous 4-poles alternator with brushless exciter
  - Stable voltage control, through an intelligent digital regulator that assures the operation of units with VFD's or Inverters to operate safely

Engine type	High Pressure Common Rail (cast iron)
Power	22 kW – delivering 15 kW as per ISO 1496-2 standards, with additional power for use in extreme conditions to provide extra load protection
Power advantage over competition	16%
Operational duration	25 000 hours (with normal maintenance)
Tested to work	-40 °C and 50 °C, and up to 3 000 meters altitude
Auto restart	To provide maximum load protection
High torque advantage	Ensures energy is consistently available under any load conditions
Simplified maintenance	No turbocharger or related components
Water separation system	Reduces the risk of water returning to the fuel tanks
Improved fuel filtration	Delivers a 10x improvement in fuel quality to injectors



# Getting and staying compliance ready

Reducing emissions throughout the cold chain is obviously an important and worthwhile objective. The challenge comes from ensuring all units meet local and regional standards. Get this right and you can align the right assets to the right journey, maximize fleet utilization, and avoid the cost of expensive retrofits.



One solution is all that's needed to address any load, any customer, and any location.

## ACHIEVE CARB COMPLIANCE

With the SG-5000c, you get a genset that meets CARB requirements for the foreseeable future. This ensures you can focus on maximizing your operations, both now and in the coming years. Benefits of long-term CARB Compliance:

- Eliminates the need to sell the unit prematurely due to failing compliance tests.
- Removes the need for retrofitting an emissions system to ensure compliance.
- Allows you to operate freely within California without restrictions on relocating older, non-compliant units.

## MAINTAIN FULL EPA TIER 4 COMPLIANCE

Tier 4 compliance standards for off-highway diesel engines are the strictest emissions requirement currently listed by the Environmental Protection Agency (EPA).

The regulation is particularly focused on particulate matter and nitrogen oxide emissions, and was fully implemented in 2015.

As with the CARB regulations, Thermo King's SG-5000c enables compliance with EPA Tier 4.

## RELIABLE POWER

The power output of the SG-5000c ensures it can power all new reefer models. The unit also incorporates stable voltage control to intelligently regulate power and keep it within the limits set by ISO 1496. The SG-5000c features an intelligent controller that, all in all, provides you with "trusted power".



# Transforming your total cost of ownership

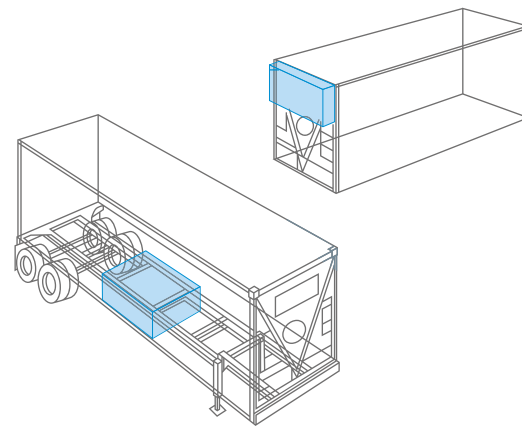
Talking TCO with the SG-5000c starts with the value of long-term compliance, which removes the need to relocate older units outside of California to avoid the potential for non-compliance.

## CLIP-ON

The self-contained unit clips on to the corner castings with quick-disconnect fasteners or an optional header pin mounting.

## UNDERMOUNT

The undermount unit can be fitted in two ways, to suit the specific needs of the operator.



## A HOST OF PRACTICAL BENEFITS

With clip-on and undermount options the SG-5000c can connect to any reefer your fleet possesses and offers maximum operational flexibility:

- Clip on corner castings enhances operational efficiency and ease of use
- Common components drive down costs and improve ease of service
- Accessible undermount unit lowers service and maintenance costs

## SUPPORT WHEN YOU NEED IT MOST

Supporting your TCO calculation is the world-class service and parts support available from Thermo King's international dealer network.

Dealers that are:

- Extensively trained
- Highly experienced
- Certified to exacting Thermo King standards

# Monitor and respond to conditions with confidence

With an advanced controller, the SG-5000c offers the intelligence and control to safeguard loads across any journey and ambient conditions. From accessing alarms to monitoring temperatures, the genset offers easy-to-use interfaces and intuitive management capabilities, including automatic restart of the unit in case thermal events or low oxygen conditions cause a stop of the engine during operations..

## USER-FRIENDLY DISPLAY

- Backlit LCD digital display screen
- Simple, sturdy navigation keypad
- Multi-language capabilities, with English and Spanish languages as standard

## SMART DIAGNOSTICS

- Automated pre-trip testing
- Advanced self-check features, including alarms
- Data logging of events, alarms, and messages
- Hardware enabled to support 3rd party telematics

## SIMPLE DESIGN

- Manual test functionality
- Built-in battery charger
- HMI separate from control box

## TELEMATICS

- Real-time monitoring and management on rail, by road or at terminal
- Optional fuel sensor – works even when the Genset is off
- Factory mounted installation
- Geofencing and maintenance scheduling option
- Easy and seamless interface with 3rd party systems

## The SG-5000c up and down report

### HIGHER EFFICIENCY

- More fuel efficient engine with faster throttle response
- Eco power as standard with integrated 2-speed fuel saving technology
- Extended service intervals stretching to 3 000 hours for scheduled maintenance

### LOWER WEIGHT

- Clip-on configuration: 871 kg (1 920 lbs)
- Undermount configuration: 653 kg (1 440 lbs) 50 gal tank  
680 kg (1 500 lbs) 80 gal tank



# Configurations & specifications



### CLIP-ON

The self-contained unit clips on to the corner castings with quick-disconnect fasteners or an optional header pin mounting.

Dimensions: 2 321 x 700 x 1 181\*

### UNDERMOUNT

The undermount unit can be fitted easily on the chassis and optional longer beams are available.

Dimensions: 1 568 x 570 x 810\*

\* Width x Depth x Height (mm)



# Technical specifications

TECHNICAL DATA	
Engine: TK diesel engine compliant with EPA Tier 4 and CARB regulations	
Fuel type	No. 2 diesel (under normal conditions) - No. 1 diesel (cold weather fuel)
Rotational speed	500 ±25 rpm - 1 800 ±25 rpm
Generator: 460/230Vac, 3Phase, 60Hz	
Nominal output power	15 kW
Apparent power	18.75 kVA
Rotational speed	1 800 rpm
Electrical system: User friendly ready for the future microprocessor controller	
Battery	12 V, 925 CCA
Fuel tank: Included in all models	
SGCO	473 l (125 gal)
SGCM	302 l or 198 l (80 gal or 50 gal)
SGSM	302 l or 198 l (80 gal or 50 gal)
Weight - less fuel	
SGCO	871 kg (1 920 lbs)
SGCM	653 kg (1 440 lbs) - 50 gal tank
SGCM	680 kg (1 500 lbs) - 80 gal tank



For more information on the SG-5000c Series, visit [thermoking-globalsolutions.com/generator-sets/sg-5000c/](https://thermoking-globalsolutions.com/generator-sets/sg-5000c/)

# Protecting cold chain integrity

- **TRUE RELIABILITY**

Delivered via a proven, high performance engine and a generator built for stability.

- **LONG-TERM COMPLIANCE**

Fully CARB and EPA compliant with telematics to help simplify fleet management and be ready for changes to come.

- **TOTAL COST OF OWNERSHIP**

The controller maximizes operational efficiency while helping lower maintenance costs by easy troubleshooting.

- **INTELLIGENT OPERATION**

With an advanced controller that combines simple, easy-to-use navigation with full diagnostics capabilities through telematics.



Thermo King – by Trane Technologies (NYSE: TT), a global climate innovator – is a worldwide leader in sustainable transport climate control solutions. We engineer and provide cutting-edge technology and solutions with sustainability, reliability, and the customer experience in mind. Thermo King has provided transport temperature control solutions for various applications, including trailers, truck bodies, buses, air, shipboard containers, and railway cars since 1938.

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