

SG-5000 SERIES

— high performance generator set range
for marine containers —

Protecting cold chain integrity



SG-5000 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-5000 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-5000 is designed to power all ISO reefers on the market.



TRUE RELIABILITY Delivered via a proven, high performance engine and a generator built for stability.	P. 4
LONG-TERM COMPLIANCE Fully CARB and EPA compliant to help simplify fleet management.	P. 6
TOTAL COST OF OWNERSHIP The modular design maximizes operational efficiency while helping lower maintenance costs.	P. 8
INTELLIGENT OPERATION With an advanced controller that combines simple, easy to use navigation with advanced diagnostics.	P. 9
CONFIGURATIONS & SPECIFICATIONS Including both clip-on and undermount options, the SG-5000 offers solutions for a variety of different applications.	P. 10

New capabilities, improved reliability

Featuring a proven ultra-powerful engine and high specification generator, the SG-5000 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-5000 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 190mm synchronous 4-poles alternator with brushless exciter
- Lower duty cycles (compared to 120mm/145mm models) increase durability and longevity
- Stable voltage control, through an intelligent digital regulator

ENGINE TYPE	High Pressure Common Rail (cast iron)
POWER	22kw – delivering 15kw as per ISO 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





“One solution is all that’s needed to address any load, any customer, and any location”

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.

ACHIEVE CARB COMPLIANCE

With the SG-5000, 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:

- The SG-5000 eliminates the need to sell the unit prematurely due to failing compliance tests.
- The SG-5000 also removes the need for retrofitting an emissions system to ensure compliance.
- The SG-5000 allows you to operate freely within California without restrictions on relocating older, non-compliant units.

MAINTAIN FULL EPA TIER 4 COMPLIANCE

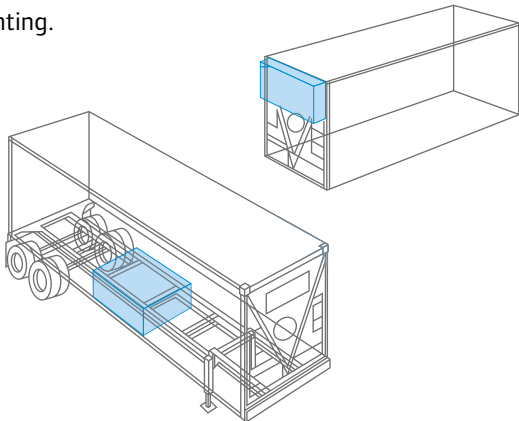
Tier 4 compliance standards for off-highway diesel engines are the strictest emissions requirement currently listed by the Environmental Protection Agency (EPA). The regulation is particularly focused on particulate matter and nitrogen oxide emissions, and was fully implemented in 2015. As with the CARB regulations, Thermo King’s SG-5000 enables compliance with EPA Tier 4.

Transforming your total cost of ownership

Talking TCO with the SG-5000 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 SG 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-5000 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

THE SG-5000 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**
828kg
- **Undermount configuration**
686 kg



Monitor and respond to conditions with confidence

With an advanced controller, the SG-5000 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.

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

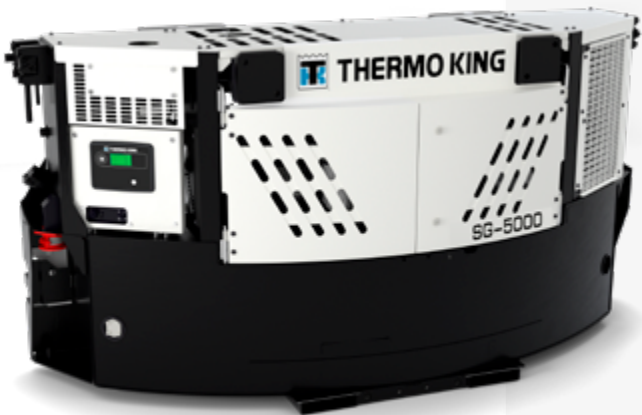
- Manual test functionality
- Built-in battery charger
- HMI separate from control box

TELEMATICS

- Real-time monitoring and management on rail, by road or at terminal
- Optional fuel sensor – works even if the Genset is off
- Factory mounted installation (can retrofit Gensets already in the field)
- Easy and seamless interface with 3rd party systems

Configurations & specifications

CONFIGURATIONS



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

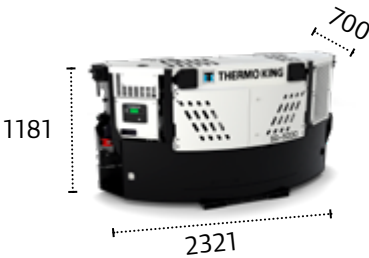


UNDERMOUNT
The undermount SG can be fitted in two ways, to suit the specific needs of the operator.

SPECIFICATIONS

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 ±25rpm1800 ±25rpm
GENERATOR	460/230Vac, 3Phase, 60Hz
OUTPUT POWER	15kW
APPARENT POWER	18.75 kVA
ROTATIONAL SPEED	1800rpm
ELECTRICAL SYSTEM	SG+ microprocessor controller
BATTERY	12V, 925CCA
FUEL TANK	Included in all models
SGCO	473l (125gal)
SGCM	302l or 198l (80gal or 50gal)
SGSM	302l or 198l (80gal or 50gal)
WEIGHT - LESS FUEL	
SGCO	871kg(1920lbs)
SGCM	653kg(1440lbs) 50gal tank 680kg(1500lbs) 80gal tank

DIMENSIONS



Dimensions in millimeters



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, please visit:
thermoking.com

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