

ZEGENSET

Li-ion Power for Refrigerated Containers



ENERGY



ZERO EMISSION



ENDURANCE



RELIABILITY

ZEGENSET
Li-ION POWER

**ZERO EMISSION.
ENDURANCE.
RELIABILITY.**

TOTAL
POWER SOLUTIONS

ZEGENSET.COM | 800.527.3746



BENEFITS

LI-ION POWER FOR REFRIGERATED CONTAINERS

AVAILABLE FOR
PURCHASE,
LEASE, OR RENT

EASY TO INSTALL



EXISTING CONTAINER



FLEET APPLICATION



UNDERMOUNT MODELS
WILL BE AVAILABLE
IN EARLY 2025

ZE GENSET
Li-ion Power for Refrigerated Containers

RAPID DEPLOYMENT

Easy to install on existing refrigerated containers, enabling quick transition from diesel to clean energy with minimal downtime.

SMART MONITORING

Integrated IoT capabilities allow real-time tracking and diagnostics, enhancing maintenance efficiency and system uptime.

QUIET OPERATION

Significantly quieter than diesel generators, reducing noise pollution and enhancing operational environment.

END-OF-LIFE RECYCLING

Sustainability extends beyond the life of your ZeGen-set. All ZeGensets can be recycled, allowing for the possibility of 2nd and 3rd life of lithium cells in other energy storage applications.



ENERGY



ZERO EMISSION



ENDURANCE



RELIABILITY

ZEGENSET.COM | 800.527.3746



TOTAL
POWER SOLUTIONS

ZE GENSET
Li-ion Power for Refrigerated Containers



TECHNICAL DATA

TOTAL
POWER SOLUTIONS

ZE GENSET
Li-ion Power for Refrigerated Containers

Product Type	Mobile power for refrigerated containers
Technology:	Lithium NMC
Nominal Battery voltage:	401,5V
Nominal Battery energy:	89,13 kWh
Runtime:	17-35 hrs*

AC-Inverter	
Type:	Hybrid 22kW
Charge power:	max 22kW
Charge AC-inlet:	480/400V 3~AC CEE 32A 4 pol 50/60Hz
Discharge power:	max 22kW
Discharge AC-outlet:	400V 3~AC CEE17-3h 32A 4 pol 50/60Hz
Cooling:	Water cooled with integrated radiator
Recharge:	3 hrs at idle Integrated bi-directional charger

Temperature Ranges	
Dimensions:	L 26.96" x W 92.13" x H 44.49" L 685mm x W 2340mm x H 1130mm
Weight:	~1500 kg / ~3300 lbs.
Color:	White
Ingress Protection:	IP 54**
Mounting:	Hang mount with fasteners on refrigerated container, secured by typical genset bolts

Display / Communication / Usage	
Status Display:	On board computer with Inverter / Battery / System values
GPS - Tracking:	GPS tracking unit / Fleet-on-line platform / Live and usage data to cloud
Data Storage & IOT:	Live data

* Hours depending on refrigeration temperature settings. Average run time - 23.3/10F° - 17 hours, 3.3C/38F° - 35 hours

** Under review in detail

*PATENT & TRADEMARK PENDING

ZE GENSET
Li-ION POWER
by **TRIATHLON**
INTELLIGENT BATTERIES
MADE IN GERMANY

ZE GENSET.COM | 800.527.3746



GLOBAL SUPPORT & MANUFACTURING

SUNLIGHT GROUP & TRIATHLON – ON THE WAY TO BECOMING THE WORLD LEADER FOR INDUSTRIAL BATTERIES



>\$ 1.22 B
Group Sales



10+
International
Manufacturing
Sites

250+
International
Support
Sites



> 3,100
Employees
Worldwide



5 R&D
Hubs



4
Battery
Technologies
In Use



~ 4 M
Annual Cell
Production
Volume

SUNLIGHT
POWER IS KNOWLEDGE

TRIATHLON
GROUP

INTERNATIONAL LOCATIONS & PARTNER NETWORK



- Strong global market presence after merger of Sunlight Group and TRIATHLON.
- Unmatched support locations worldwide.
- Exports or sales and service activities in more than 115 countries on all continents.

TOTAL-IND.COM
800.527.3746



ENVIRONMENTAL IMPACT

TODAY'S DIESEL-POWERED GENSETS are required to comply with EPA Tier 4 standards which significantly reduce emissions. However, even compliant diesel engines still emit significant amounts of pollutants into our environment.

The ZeGenset provides a superior environmental profile with zero emissions, no fuel consumption, and recycling potential, making it an ideal solution for companies looking to reduce their carbon footprint.

ZEGENSET'S POSITIVE ENVIRONMENTAL IMPACTS:

- Every diesel genset under heavy use produces up to 36 kg of NOx and 1.8 kg of particulate matter (PM) every year. 36 kg of NOx saved per year by each ZeGenset is the equivalent of planting 1,800 trees annually and achieves the same benefit as creating a small urban forest. These trees naturally absorb NOx and other harmful pollutants.
- The 1.8 kg of particulate matter (PM) saved per year per genset is equivalent to removing 4 cars from the road annually. Cars are a significant source of both NOx and particulate matter, and by transitioning to ZeGensets, we're effectively cutting the pollution from multiple vehicles every year.

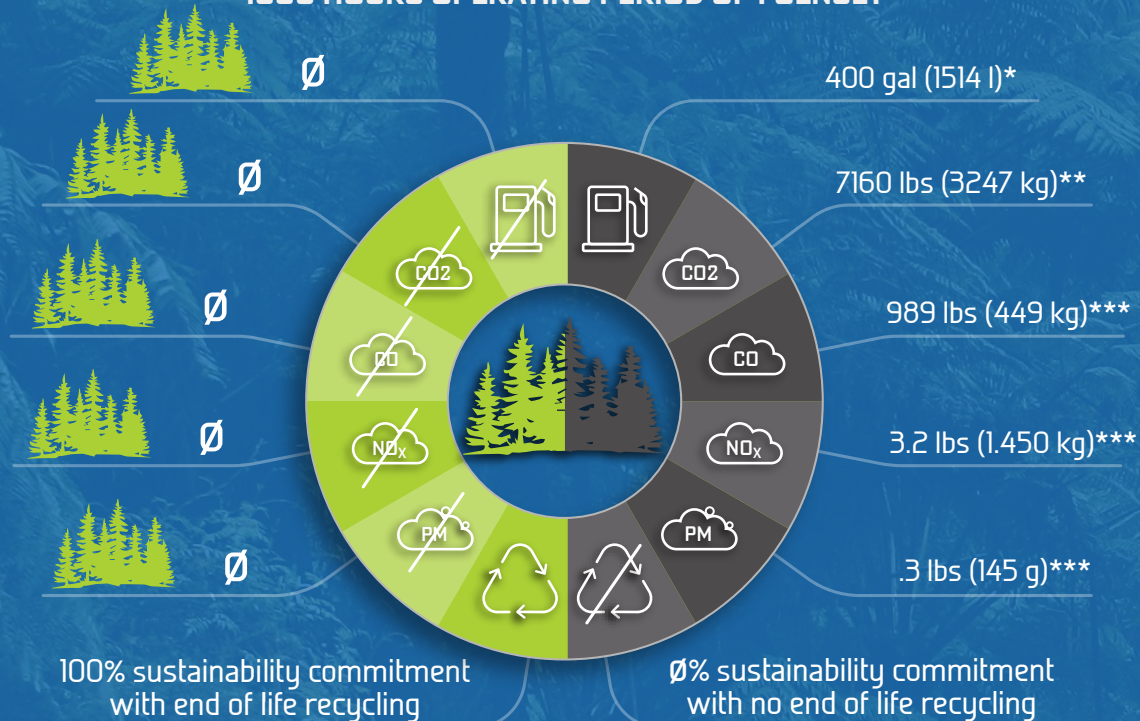


1000 HOURS EMISSIONS CHART

ZEGENSET

DIESEL-POWERED GENSET

1000 HOURS OPERATING PERIOD OF 1 GENSET



* Based on .4 gallon/hr over 1000 hour period

** Based on US Energy Information data, B20 Diesel

*** Based on California emissions standards allowable limits FTP/RMC Standards for 29 HP Tier 4 Engine

NOx (Nitrogen Oxides) contributes to smog and acid rain, while PM can cause respiratory issues. These emissions are the primary focus of regulations like EPA Tier 4 and CARB (California Air Resources Board), which diesel engines like ones used in traditional gensets must comply with. When we discuss savings from switching to the ZeGenset, we're highlighting the reduction in these harmful pollutants that directly impact air quality.

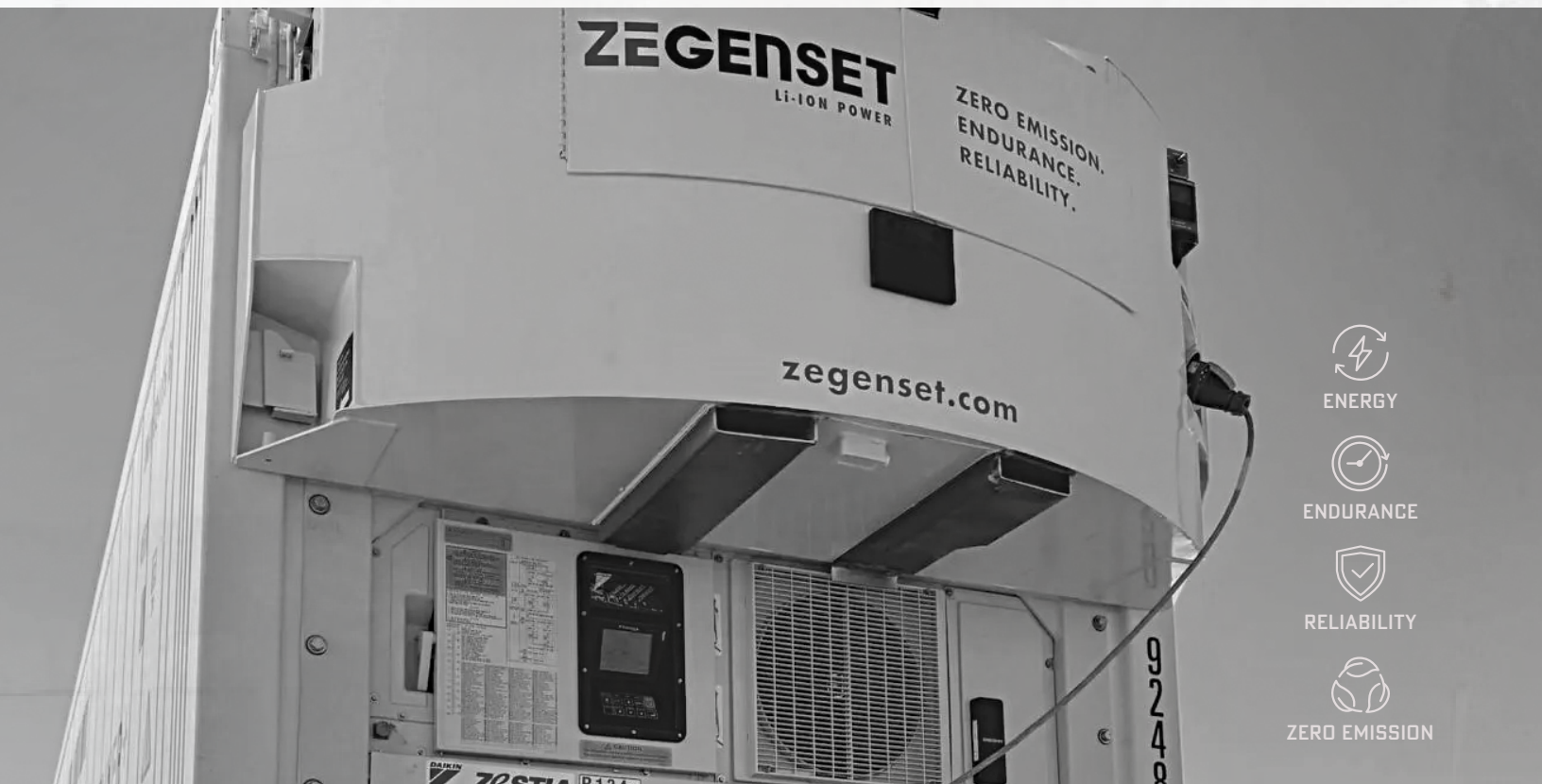
CO2 (Carbon Dioxide), on the other hand, is the primary greenhouse gas linked to climate change. While diesel engines do emit CO2 because of fossil fuel combustion, regulatory standards like EPA Tier 4 and CARB focus more on reducing NOx and PM for air quality. However, the ZeGenset, runs on electricity (from potentially renewable and recyclable sources). This significantly reducing the CO2 footprint by no longer burning diesel fuel.

TOTAL-IND.COM
800.527.3746



TOTAL

POWER SOLUTIONS



ENERGY



ENDURANCE



RELIABILITY



ZERO EMISSION



LOCATIONS:



TOTAL-IND.COM | 800.527.3746