

GAS TURBINE GENERATOR SET

3,200kW/Dual Fuel Standby/480–13,800V

Compact, lightweight powerhouse that
can run on natural gas or diesel



GTS-3200 Generator System

Electric output:	3,200kW
Voltages:	480V or 13.8kV
Starting time:	<40 seconds
Load application capacity:	0.8PF
Frequency deviation:	Within $\pm 4.5\%$ with 100% block load on/off (transient) Within $\pm 0.3\%$ (steady state)
Fuel type:	Natural gas, diesel
Fuel consumption (diesel):	367gal/hr
Enclosure ambient conditions:	40°C (104°F) at 150m (500ft) elevation

Gas Turbine

Turbine model:	Kawasaki M1T-21
Type:	Heavy duty, simple open cycle, single shaft
Turbine speed:	22,000rpm
Output speed:	1,800rpm (at 60Hz)
Dry weight:	6.4 tons (12,800 pounds)
Turbine intake required at air flow:	900m ³ /min (31,783CFM) at 40°C (104°F)
Turbine exhaust gas flow:	2,600m ³ /min at 610°C (1130°F)
Turbine exhaust gas flow (dry):	44,100m ³ /hr at 610°C (1130°F)
Turbine exhaust gas temperature:	595°C (1103°F)
NOx (15%O₂) in ppm when diesel:	300ppm (at 100% load)
NOx in g/kW-hour when diesel:	3.7g/kW-hr
NOx (15%O₂) in ppm when natural gas:	240ppm (at 100% load)
NOx in g/kW-hour when natural gas:	3.37g/kW-hr
Lube oil tank capacity:	63.4gal
Lube oil cooler head radiation:	50kW
Lube oil consumption:	0.04gal/hr
Fuel pressure:	220PSIG

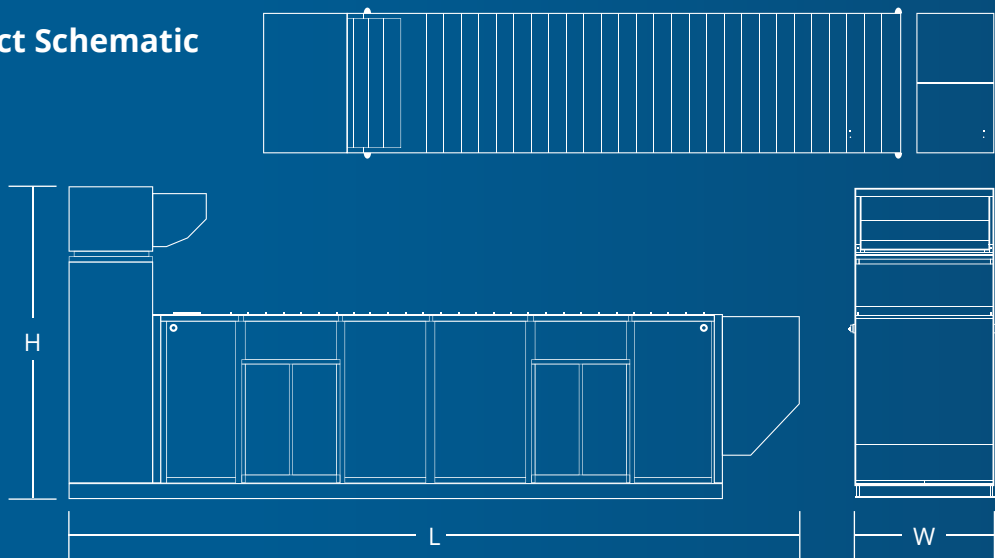
Alternator

Model:	Leroy-Somer: LS941-VL60 (480V); Kato: 4P6.6-200 (13.8kV)
Phase:	3
Type:	3-phase, open screen protected, brushless, self ventilated, synchronous
Hz:	60Hz
Output:	4,000kVA
Voltage regulation:	D700
Excitation system:	PMG
Standard voltage:	480V or 13.8kV



STEWART & STEVENSON

Product Schematic



Additional Specifications

Package dimensions (outdoor):	1,605cm (632in) length 307cm (121in) width 681cm (268in) height
Weight:	110,000 lbs (480V and 13.8kV)
Noise:	85dBA @ 7m

Lube Oil System

Tank capacity:	42gal
Filtration:	To 10 μ
Lube oil cooler heat radiation:	50kW

Fuel System

Fuel options:	Single (gas or liquid) or dual (gas and liquid)
Filtration:	To 20 μ at 43.2L/min
Main fuel pump pressure:	3.3-3.5MPaG (478-508PSIG)
Starting fuel pump pressure:	1.7MPaG (247PSIG)
Liquid fuel supply temperature:	-10°C to 40°C
Liquid fuel tank volume:	Customizable

Certifications and Standards

The generator package is designed and manufactured in facilities certified to ISO 2015:9001 and ISO 2015:14001, and is tested to ISO 8528-5:2002 for transient response from steady state. All packages are prototype and factory tested. Product design is verified for quality and performance integrity with vetted internal standards. The generator package accepts rated load in one step per NFPA 110 (2022). The generator package follows NEMA, IEEE, and ANSI standard compliance for temperature rise, motor starting, and enclosure design.

www.stewartandstevenson.com/gtspower | TurbineSales@kirbycorp.com

©2023 Stewart & Stevenson. The information and/or recommendations in this publication, including text, images and links, which may change at any time, is provided "AS IS" by Stewart & Stevenson. Nothing contained herein is to be construed as a representation or warranty of any kind, express or implied, including but not limited to any warranty of merchantability or fitness for a particular purpose, noninfringement of any intellectual property rights, and the buyer assumes all risk and liability whatsoever resulting from the use of such products. Stewart & Stevenson is a registered trademark of Stewart & Stevenson LLC.