



Engine	Alternator	Model			Power factor	Emissions	
Perkins 2206C-E13TAG3 L	Leroy Somer TAL-A47-A	GFE440PLC (Canopied)	50Hz	1500rpm	3-Phase	Factor $\Phi = 0.8$	N/A
Ratings	Prime Power		Standby Power		Rated current	Fuel consumption	
Voltage (V)	(PRP)		(ESP)		Amps (A)	@100% load L/h	
400	kWe	kVA	kWe	kVA	577	85	
	320	400	352	440			

Ratings All three phase generator sets are rated at 0.8 power factor.
All single-phase generator sets are rated at unity or 1.0 power factor.

Prime output This rating is applicable for supplying continuous electrical power at variable load. There is no limitation to the annual hours of operation and this model can supply 10% overload power for 1 hour in 12 hours.

Standby output This rating is applicable for supplying electrical power (at variable load) in the event of a utility power failure. No overload is permitted on these ratings.

The above ratings are in accordance with ISO8528-1 and ISO3046-1. Standard reference conditions: 25°C, 100m A.S.L., 30% relative humidity.

Engine

Perkins 2206C-E13TAG3 L

		Units	
General performance	Frequency	Hz	50
	Engine speed	r/min	1500
	Number of cylinders / arrangement		6 cyl / vertical in-line
	Displacement	Litres	12.5
	Aspiration		Turbocharged
	Combustion system		Direct injection
	Governor type		Electronic
	Bore / stroke	mm	130 x 157 (5.11 x 6.18 in)
	Compression ratio		16 3:1
	Engine power (net)	kWm	Prime: 349 Standby: 392
Cooling system		Forced water cooling cycle	
Rotation		Anti-clockwise viewed on flywheel	
Fuel system	Fuel consumption at 110% Prime Power	Litres/hour	93
	Fuel consumption at 100% Prime Power	Litres/hour	85
	Fuel consumption at 75% Prime Power	Litres/hour	65
	Fuel consumption at 50% Prime Power	Litres/hour	46
	Standard fuel tank capacity	Litres	696
Air system	Air inlet		Mounted air filter
	Air filter type		Dry
Fuel and fuel system	Mechanically actuated electronically controlled unit		YES
	Fuel injectors with full authority electronic control		YES
	Governing to ISO 8528-5 class G2 with isochronous capability		YES
	Fuel cooler		YES
Oil system	Total oil system capacity	Litres	40
	Maximum sump capacity	Litres	N/A
	Wet sump with filler and dipstick		YES
	Oil cooler integral with filter header		YES
Cooling system	Total system capacity		
	- With radiator	Litres	51.4
	- Without radiator	Litres	N/A
	Thermostat operation range	°C	up to 50°C
Maximum top tank temperature	°C	N/A	
Electric system	Electrical system voltage	V	24
	Battery		Maintenance-free
	Connecting cables		Available as option
Available options	Battery charger		
	Engine water heater		
	Battery isolator switch		

Alternator

Leroy Somer TAL-A47-A

		Units	
General data	Manufacturer / brand		Leroy Somer
	Model		TAL-A47-A
	Coupling / number of bearings		Flexible Disc / Single Bearing
	Phase / Poles		3-Phase / 4-Pole
	Power factor		Cos Φ = 0.8
	AVR Regulation		Yes
	Voltage Regulation		±1 %
	Insulation class		H
	Drip proof		IP23
	Excitation		Shunt
	Altitude	m	≤1000
	Overspeed	min -1	2250

GFE Controller Summary

Controller model / Deepsea DSE	Available: DSE4520	Optional: DSE6110/20	Optional: DSE7310/20	Optional: DSE8610/20
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Controller photos



Standard supply	•	○	○	○
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Viewable parameters

Parameter	DSE4520	DSE6110/20	DSE7310/20	DSE8610/20
Phase voltage	×	3	3	3
Current	Instrumentation	•	•	•
Frequency	•	•	•	•
Active power	○	•	•	•
Reactive power	○	•	•	•
Apparent power	×	•	•	•
Power factor	○	•	•	•
Electric energy metering	×	•	•	•

Generator protection

Protection Feature	DSE4520	DSE6110/20	DSE7310/20	DSE8610/20
Abnormal voltage	•	•	•	•
Overcurrent warning	○	•	•	•
Overcurrent protection	•	•	•	•
Over frequency protection	•	•	•	•
Short circuit protection	MCCB / •	MCCB / •	MCCB / •	MCCB / •

Engine figure

Engine Figure	DSE4520	DSE6110/20	DSE7310/20	DSE8610/20
Oil pressure	•	•	•	•
Water temperature	•	•	•	•
Fuel meter / fuel sensor	•/○	•/○	•/○	•/○
Speed	•	•	•	•
Battery voltage	•	•	•	•
Elapsed time	•	•	•	•

Engine protection

Engine Protection	DSE4520	DSE6110/20	DSE7310/20	DSE8610/20
Low oil pressure warning	×	•	•	•
Low oil pressure protection	•	•	•	•
High temperature warning	○	•	•	•
High temperature protection	•	•	•	•
Overspeed warning	×	•	•	•
Overspeed protection	○	•	•	•
Alternator charger	•	•	•	•

Functions

Function	DSE4520	DSE6110/20	DSE7310/20	DSE8610/20
Remote start	•	•	•	•
AMF (Auto Main Failure)	•	•	•	•
Programmable input	•	•	•	•
Programmable output	•	•	•	•
Expand module	×	○	○	○
Communication function	×	×	RS232 / 484	RS232 / 485
Communication port	USB	USB	RS232 / 484	RS232 / 485
CAN	•	○	•	•
Service indicate	○	○	•	•
Fault history	•	•	•	•
Gen-gen synchronising	×	×	×	•
Gen-mains synchronising (20)	×	×	×	•

Remark: • Standard supply ○ Available as optional × Not available

Enclosure / Canopy

Sound-attenuated or open option

“Ensure a quieter life with our sound attenuation system.”

Features

Extremely rugged and highly corrosion resistant construction

Body made from 1.5mm sheet steel components with powder coating

8-12 hours built-in fuel tank integrated into the skid-mount base

Excellent design and craftsmanship

Compact structure and longer service life

Residential silencer

Black powder coated locks and hinges on steel are tested for corrosion resistance

External refuelling port

External paint carries a unique 12 month non-corrosion warranty



Easy commissioning and maintenance

Separated and isolated control module with easily reachable electrical power connections

Side doors allowing 180° opening for easy accessibility

Radiator fill access through cover in canopy roof

Lube oil drain and radiator drain

Manual lube oil pump provided for easy maintenance



Security and safety

Earth leakage protection

40-50mm non-flammable sponge inside

Control panel viewing window in a lockable access door

Emergency stop button mounted on canopy exterior

Fuel fill and battery can only be reached via lockable access doors

Exhaust silencing system enclosed for operator's safety

Efficient management of cooling air to avoid high water temperature

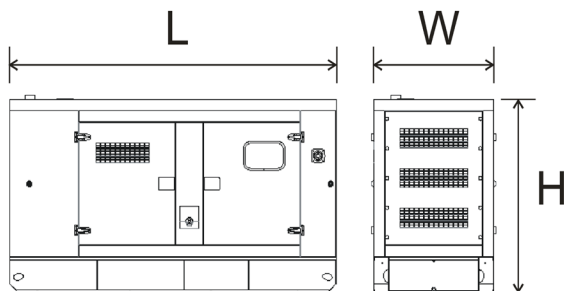
Transportability

Top access lifting points for crane lifting

Fork lift pockets for easy moveability

Overall dimensions, weight and noise

Frame type	Dimensions (L x W x H) mm	Weight kg	Base tank @100% load		Noise level dB(A) at 7m
			Hours	Litres	
Canopied	4400x1422x2430	4290	TBC	696	TBC
Open	3480x1150x2030	3300	TBC	614	TBC



Automatic Transfer Switch

A.T.S - 4 Poles

GFE offers as an optional accessory, not only a changeover switch but also an integrated mains detection and switch system for your 24 hour power protection. The system enables automatic start-up and operation of the generating set in the event of a mains power failure, overvoltage or loss of a mains automatic retransfer once it comes back.

System advantages

Automatically transfer and re-transfer load from main power to gen-power without operator intervention (both automatic and manual)

ATS Controller (AMF function), seamless integration with all GFE ATSS

Available from 32 - 4000A

Available in standard, bypass isolation and service-entrance configurations

Configurable in open, closed and programmed transition operating modes

Designed to interface seamlessly with GFE generators and switchgear

Drip proof IP42 enclosure

Easy installation: wall-mounted and floor standing



*image for illustration purposes only, actual product may differ

Warranty

GFE distributors, dealers or authorized representatives have warranty providing the operator performs a start-up within 6 months of the date of shipment from the factory, warranty coverage will begin on the start-up date (registering the start-up date to GFE within 6 months is essential and can be enforced). This warranty does not apply to malfunction caused by damages, unreasonable use, misuse, repair or service by unauthorized persons, or normal wear and tear. Warranty is supplied strictly in accordance with GFE's terms and conditions of sale and as per the warranty manual available on request.

Warranty coverage

Generators used with commercial utility source: One (1) year or 1000 hours (whichever occurs first) from date of shipment from the factory or registered start-up date.

GFE Power Products Limited

Unit 15A, Goodwood Road, Keytec 7 Business Park,

Pershore, Worcestershire WR10 2JL

United Kingdom

Phone: +44 (0)1386 335007

Email: sales@gfepowerproducts.com

www.gfepowerproducts.com

