

# GFE550PLC (Canopied)



Available as an open set: **GFE550PLO**

| Engine                   | Alternator               | Model                   |               | Power factor        | Emissions     |                  |
|--------------------------|--------------------------|-------------------------|---------------|---------------------|---------------|------------------|
| Perkins<br>2506A-E15TAG2 | Leroy Somer<br>TAL-047-C | GFE550PLC<br>(Canopied) |               | Factor $\Phi = 0.8$ | N/A           |                  |
| 50Hz                     | 1500rpm                  | 3-Phase                 |               |                     |               |                  |
| Ratings                  | Prime Power              |                         | Standby Power |                     | Rated current | Fuel consumption |
| Voltage                  | (PRP)                    |                         | (ESP)         |                     | Amps          | @100% load       |
| (V)                      | kWe                      | kVA                     | kWe           | kVA                 | (A)           | L/h              |
| 400                      | 400                      | 500                     | 440           | 550                 | 722           | 100              |

**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 2506A-E15TAG2

|                              |  | Units                             |   |
|------------------------------|--|-----------------------------------|---|
| <b>General performance</b>   | Frequency  | Hz                                | 50  |
|                              | Engine speed   | r/min                             | 1500                                      |
|                              | Number of cylinders / arrangement                            |                                   | 6 cyl / vertical in-line                  |
|                              | Displacement   | Litres                            | 15  |
|                              | Aspiration   |                                   | Turbocharged and air to air charge cooled |
|                              | Combustion system  |                                   | Direct injection                          |
|                              | Governor type  |                                   | Electronic                                |
|                              | Bore / stroke  | mm                                | 137 x 171 (5.39 x 6.73 in)                |
|                              | Compression ratio  |                                   | 16:1                                      |
|                              | Engine power (net)   | kWm                               | Prime: 451 Standby: 495                   |
| Cooling system               |  | Water cooled                      |   |
| Rotation                     |  | Anti-clockwise viewed on flywheel |   |
| <b>Fuel system</b>           | Fuel consumption at 110% Prime Power                         | Litres/hour                       | 110                                       |
|                              | Fuel consumption at 100% Prime Power                         | Litres/hour                       | 100                                       |
|                              | Fuel consumption at 75% Prime Power                          | Litres/hour                       | 76  |
|                              | Fuel consumption at 50% Prime Power                          | Litres/hour                       | 53  |
|                              | Standard fuel tank capacity                                  | Litres                            | 655                                       |
| <b>Air system</b>            | Air inlet  |                                   | Mounted air filter                        |
|                              | Air filter type  |                                   | Dry                                       |
| <b>Fuel and fuel system</b>  | Mechanically actuated electronically controlled unit         |                                   | YES                                       |
|                              | Fuel injectors with full authority electronic control        |                                   | YES                                       |
|                              | Governing to ISO 8528-5 class G3 with isochronous capability |                                   | YES                                       |
|                              | Fuel cooler  |                                   | YES                                       |
| <b>Oil system</b>            | Total oil system capacity                                    | Litres                            | 62  |
|                              | Maximum sump capacity  | Litres                            | N/A                                       |
|                              | Wet sump with filler and dipstick                            |                                   | YES                                       |
|                              | Oil cooler integral with filter header                       |                                   | YES                                       |
| <b>Cooling system</b>        | Total system capacity  |                                   |   |
|                              | - With radiator  | Litres                            | 58  |
|                              | - Without radiator   | Litres                            | TBC                                       |
|                              | Thermostat operation range                                   | °C                                | up to 50°C                                |
| Maximum top tank temperature | °C   | TBC                               |   |
| <b>Electric system</b>       | Electrical system voltage                                    | V                                 | 24  |
|                              | Battery  |                                   | Maintenance-free                          |
|                              | Connecting cables  |                                   | Available as option                       |
| <b>Available options</b>     | Battery charger  |                                   |   |
|                              | Engine water heater  |                                   |   |
|                              | Battery isolator switch                                      |                                   |   |

# Alternator

Leroy Somer TAL-A47-C

|                     |                               | Units  |                                |
|---------------------|-------------------------------|--------|--------------------------------|
| <b>General data</b> | Manufacturer / brand          |        | Leroy Somer                    |
|                     | Model                         |        | TAL-047-C                      |
|                     | Coupling / number of bearings |        | Flexible Disc / Single Bearing |
|                     | Phase / Poles                 |        | 3-Phase / 4-Pole               |
|                     | Power factor                  |        | Cos $\Phi$ = 0.8               |
|                     | AVR Regulation                |        | Yes                            |
|                     | Voltage Regulation            |        | $\pm 1$ %                      |
|                     | Insulation class              |        | H                              |
|                     | Drip proof                    |        | IP23                           |
|                     | Excitation                    |        | Shunt                          |
|                     | Altitude                      | m      | $\leq 1000$                    |
|                     | Overspeed                     | min -1 | 2250                           |

# DSE Controller Summary

| Controller model / Deepsea DSE | Optional:<br>DSE4520 | Standard:<br>DSE6110 | Optional:<br>DSE7310/20 | Optional:<br>DSE8610/20 |
|--------------------------------|----------------------|----------------------|-------------------------|-------------------------|
|--------------------------------|----------------------|----------------------|-------------------------|-------------------------|

## Controller photos



| Standard supply | ○ | ● | ○ | ○ |
|-----------------|---|---|---|---|
|-----------------|---|---|---|---|

## Viewable parameters

|                          |                 |   |   |   |
|--------------------------|-----------------|---|---|---|
| Phase voltage            | x               | 3 | 3 | 3 |
| Current                  | Instrumentation | ● | ● | ● |
| Frequency                | ●               | ● | ● | ● |
| Active power             | ○               | ● | ● | ● |
| Reactive power           | ○               | ● | ● | ● |
| Apparent power           | x               | ● | ● | ● |
| Power factor             | ○               | ● | ● | ● |
| Electric energy metering | x               | ● | ● | ● |

## Generator protection

|                           |          |          |          |          |
|---------------------------|----------|----------|----------|----------|
| Abnormal voltage          | ●        | ●        | ●        | ●        |
| Overcurrent warning       | ○        | ●        | ●        | ●        |
| Overcurrent protection    | ●        | ●        | ●        | ●        |
| Over frequency protection | ●        | ●        | ●        | ●        |
| Short circuit protection  | MCCB / ● | MCCB / ● | MCCB / ● | MCCB / ● |

## Engine figure

|                          |     |     |     |     |
|--------------------------|-----|-----|-----|-----|
| Oil pressure             | ●   | ●   | ●   | ●   |
| Water temperature        | ●   | ●   | ●   | ●   |
| Fuel meter / fuel sensor | ●/○ | ●/○ | ●/○ | ●/○ |
| Speed                    | ●   | ●   | ●   | ●   |
| Battery voltage          | ●   | ●   | ●   | ●   |
| Elapsed time             | ●   | ●   | ●   | ●   |

## Engine protection

|                             |   |   |   |   |
|-----------------------------|---|---|---|---|
| Low oil pressure warning    | x | ● | ● | ● |
| Low oil pressure protection | ● | ● | ● | ● |
| High temperature warning    | ○ | ● | ● | ● |
| High temperature protection | ● | ● | ● | ● |
| Overspeed warning           | x | ● | ● | ● |
| Overspeed protection        | ○ | ● | ● | ● |
| Alternator charger          | ● | ● | ● | ● |

## Functions

|                              |     |     |             |             |
|------------------------------|-----|-----|-------------|-------------|
| Remote start                 | ●   | ●   | ●           | ●           |
| AMF (Auto Main Failure)      | ●   | ●   | ●           | ●           |
| Programmable input           | ●   | ●   | ●           | ●           |
| Programmable output          | ●   | ●   | ●           | ●           |
| Expand module                | x   | ○   | ○           | ○           |
| Communication function       | x   | x   | RS232 / 484 | RS232 / 485 |
| Communication port           | USB | USB | RS232 / 484 | RS232 / 485 |
| CAN                          | ●   | ○   | ●           | ●           |
| Service indicate             | ○   | ○   | ●           | ●           |
| Fault history                | ●   | ●   | ●           | ●           |
| Gen-gen synchronising        | x   | x   | x           | ●           |
| Gen-mains synchronising (20) | x   | x   | x           | ●           |

**Remark:** ● Standard supply ○ Available as optional × Not available

# Enclosure / Canopy

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

Sound-attenuated or open option

## 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

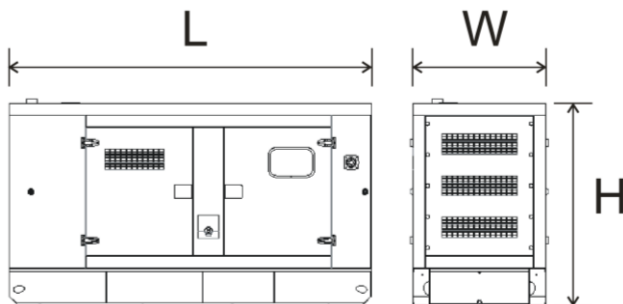
### Transportability

Top access lifting points for crane lifting

Fork lift pockets for easy moveability

## Overall dimensions, weight and noise

| Frame type | Dimensions<br>( L x W x H ) mm | Weight<br>kg | Base tank @100% load |        | Noise level<br>dB(A) at 7m |
|------------|--------------------------------|--------------|----------------------|--------|----------------------------|
| Canopied   | 5190x1630x2200                 | 5250         | Hours                | Litres | 75                         |
| Open       | 3850x1150x2130                 | 3750         | TBC                  | 1000   | 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.

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**GFE** POWER PRODUCTS