

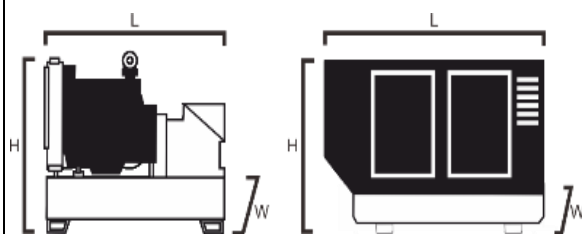
## Technical Data

| Engine                |             | Alternator            |                    |            | Generator Model                              |                                |
|-----------------------|-------------|-----------------------|--------------------|------------|----------------------------------------------|--------------------------------|
| Lister Petter LP689G2 |             | Leroy-somer TAL-A46-C |                    |            | <b>FB250X-LP (Open) / FC250X-LP (Silent)</b> |                                |
| Frequency             | Phase       |                       | Power Factor       |            |                                              | Emissions                      |
| <b>60Hz/1800rpm</b>   | 3-Phase     |                       | Factor Cos Φ = 0.8 |            |                                              | Stage II                       |
| RATINGS               | Prime Power |                       | Standby Power      |            | Rated Current                                | Fuel Consumption<br>@100% Load |
|                       | (PRP)       |                       | (ESP)              |            | Amps                                         |                                |
| Voltage (V)           | kWe         | kVA                   | kWe                | kVA        | (A)                                          | L/h                            |
| 380/220               | 200         | 250                   | 220                | 275        | 379,8                                        | 56,6                           |
| <b>440/254</b>        | <b>200</b>  | <b>250</b>            | <b>220</b>         | <b>275</b> | <b>328,0</b>                                 | <b>56,6</b>                    |
| 220/127               | 200         | 250                   | 220                | 275        | 656,1                                        | 56,6                           |
| 230/132               | 200         | 250                   | 220                | 275        | 627,6                                        | 56,6                           |



### Key Features:

- High efficient water cooled diesel engine.
- Single bearing with brushless alternators (Class H, with AVR).
- Radiator with pressure cap and drain point.
- Fully guarded engine-driven fan.
- Fully welded steel skid base with lifting holes and fork lift legs.
- Integral fuel tank with filler cap and gauge ( $\leq 650\text{kVA}$ ).
- Heavy duty rubber anti-vibration mountings.
- 12V or 24V maintenance free starter battery and connecting cables.
- Separate engine-driven battery charging alternator.
- Spin on oil and fuel filters and dry type air filter element.
- Industrial silencer (15dBA reduction) supplied loose.
- Auto start control system with LCD show.
- Battery charger provided.
- Main line 3P circuit breaker.
- Rigorous factory test wiring with IEC standard.
- Operation & Maintenance manual & Wiring diagrams.
- Wide range of optional extra features available.



| Dimensions & Weights          | Open      | Silent    |
|-------------------------------|-----------|-----------|
| Length (L)-mm:                | 2605      | 3850      |
| Width (W)-mm:                 | 880       | 1100      |
| Height (H)-mm:                | 1728      | 2000      |
| Dry Weight-kg:                | 2131      | 2789      |
| Standard Fuel Tank Capacity-H | 8         | 8         |
| (dBA)@7m no load              | $\leq 90$ | $\leq 72$ |

### Ratings:

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

(1)PRP (Prime Power):

Available continuously at variable load in lieu of commercially purchased power for an unlimited number of hours per year accordance with ISO8528-1, and an overload of 10% permitted for one hour in every twelve hours of operation in accordance with ISO 3046-1.

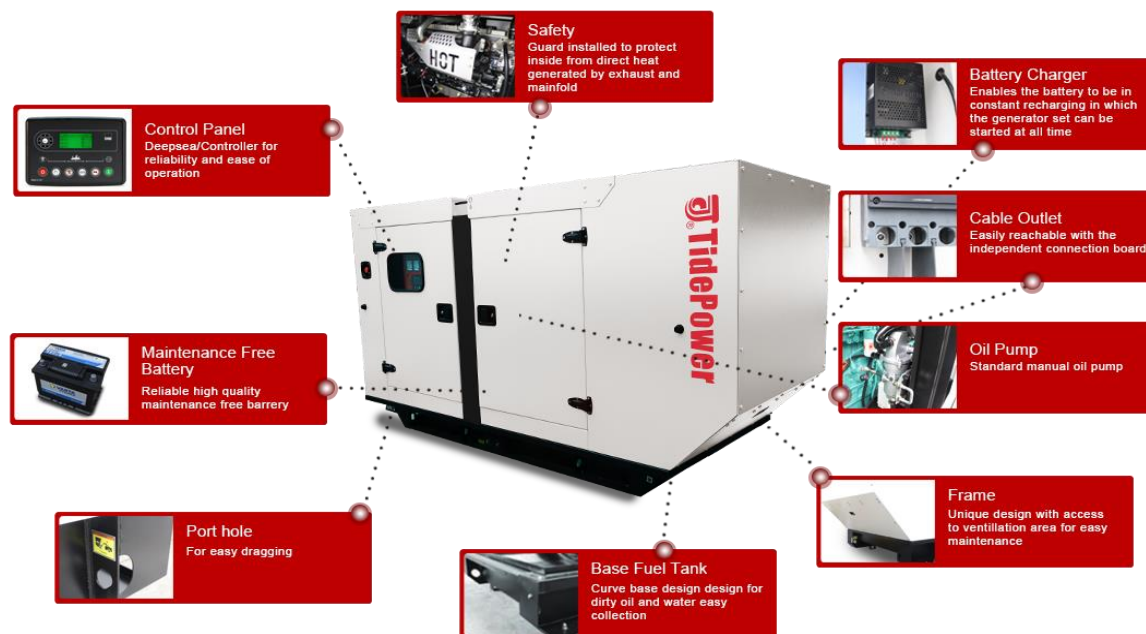
(2)ESP (Standby Power):

Emergency Standby Power in variable load applications in accordance with ISO8528-1 in the event of a utility power failure.

(3)STD:Standard Alternator.

Tide Power reserves the right to change the design or specifications without notice and without any obligation or liability.

## FENOVA PULS Series:



The soundproof Generating set range offers a very large application target with powers ranging from 5-650KVA at 50 and 60Hz. The new and sturdy design whether it is canopies or containerized enclosure are with maximum noise reduction which make it suitable for all construction sites and home backup power supply, both mobile and stationary. At all time we have kept in our inventory a largerange of accessories to answer any immediate need, for sales or after sales services. Our standard Deepsea control panel with its stand alone cabinet is equipped with a large display screen, emergency button, ignition barrel and circuit breaker. Like every of our finished products, all the parts of the unit are subject to a stringent operating test involving over 30 checks prior to delivery.

## Advantages of FENOVA PLUS:

- Powerful Engine, Large Output Power;
- Stable Performance
- Compact Structure
- Waterproof and Dustproof and weatherproof
- Noise Level 60—80 dBA@7m
- Ambient temperature: -5°C--50°C
- Excellent design and craftsmanship
- Excellent Cooling System
- Automatic Air—Bleeding
- Easy Operation and Maintenance;



| Engine                    | LP689G2                                       |                                         |           |
|---------------------------|-----------------------------------------------|-----------------------------------------|-----------|
| General Performance       | Engine Frequency and Speed                    | Hz / r/min                              | 60 / 1800 |
|                           | Engine Power                                  | kW/m                                    | 228   250 |
|                           | Type of fuel injection                        | Direct                                  |           |
|                           | Number of cylinders                           | 6                                       |           |
|                           | Aspiration                                    | Turbocharged and air-to-air intercooled |           |
|                           | Nominal cylinder bore×Stoke                   | mm                                      | 114×144   |
|                           | Total cylinder capacity                       | Litre                                   | 8,82      |
|                           | Compression ratio                             | 18: 1                                   |           |
|                           | Speed governor                                | Electronic                              |           |
|                           | Fly wheel housing                             | SAE 2                                   |           |
| Fuel System               | Fuel Consumption at 110% Prime Power          | L/h                                     | 63,3      |
|                           | Fuel Consumption at 100% Prime Power          | L/h                                     | 56,6      |
|                           | Fuel Consumption at 75% Prime Power           | L/h                                     | 41,6      |
|                           | Fuel Consumption at 50% Prime Power           | L/h                                     | 29,1      |
|                           | Fuel Consumption at 25% Prime Power           | L/h                                     | 17,5      |
| Exhaust and Intake System | Maximum allowable back-pressure               | kPa                                     | ≤10       |
|                           | Exhaust gas flow                              | m <sup>3</sup> /min                     | 33        |
|                           | Exhaust gas temperature, continuous           | °C                                      | 550       |
|                           | Exhaust gas temperature, overload             | °C                                      | 600       |
|                           | Exhaust pipe diameter - recommended           | mm                                      | 120       |
|                           | Maximum allowable inlet restriction           | kPa                                     | ≤ 6       |
| Cooling System            | Combustion air flow                           | m <sup>3</sup> /min                     | 20        |
|                           | Total system with radiator capacity           | Litres                                  | 44,5      |
|                           | Total system without radiator capacity        | Litres                                  | 17        |
|                           | Thermostat type                               | Wax Capsule                             |           |
|                           | Cooling package maximum operating temperature | °C                                      | ≤104      |
|                           | Thermostat opens                              | °C                                      | 82        |
|                           | Thermostat fully open                         | °C                                      | ≤ 93      |
| Lubrication System        | Minimum temperature to engine                 | °C                                      | -25       |
|                           | Cooling fan flow rate                         | m <sup>3</sup> /s                       | 6,2       |
|                           | Sump capacity including filter                | Litres                                  | 19        |
|                           | Oil consumption, 100% (l/hr)                  | L/hr                                    | 0,06      |
| Electric System           | Lubricating oil temperature                   | °C                                      | 90-105    |
|                           | Maximum oil temperature                       | °C                                      | 108       |
|                           | Electrical System Voltage                     | V                                       | 24        |
|                           | Starter motor                                 | 24V×7.5kW                               |           |
|                           | Battery                                       | Maintenance-free                        |           |

| Alternator   | 60Hz/1800rpm               |                         |
|--------------|----------------------------|-------------------------|
| General Data | Manufacture / Brand        | Leroy-somer             |
|              | Model                      | TAL-A46-C               |
|              | Coupling / No. of Bearings | Direct / Single Bearing |
|              | Phase / Poles              | 3-Phase / 4-Pole        |
|              | Power Factor               | Cos Φ = 0.8             |
|              | AVR Regulation             | Yes                     |
|              | Voltage Regulation         | ±0.5 %                  |
|              | Insulation Class           | H                       |
|              | Drip Proof                 | IP23                    |
|              | Voltage Regulator          | AVR                     |
|              | Altitude                   | ≤1000 m                 |

## Tide Power Easycon Function Summary

|                             |               |
|-----------------------------|---------------|
| Controller Model / Deep Sea | EC4.0         |
| Brand / Model               | DSE6120 MKIII |
| <b>Viewable Parameters</b>  |               |
| Phase Voltage               | 3             |
| Current                     | •             |
| Frequency                   | •             |
| Active Power                | •             |
| Reactive Power              | •             |
| Apparent Power              | •             |
| Power Factor                | •             |
| Electric Energy Metering    | •             |
| <b>Generator Protection</b> |               |
| Abnormal Voltage            | •             |
| Over-current Warning        | •             |
| Over current Protection     | •             |
| Over Frequency Protection   | •             |
| Short Circuit Protection    | MCCB / •      |
| <b>Engine Figure</b>        |               |
| Oil Pressure                | •             |
| Water Temperature           | •             |
| Fuel Meter / Fuel Sensor    | •/○           |
| Speed                       | •             |
| Battery Voltage             | •             |
| Runing hours                | •             |
| <b>Engine Protection</b>    |               |
| Low Oil Pressure Warning    | •             |
| Low Oil Pressure Protection | •             |
| High Temperature Warning    | •             |
| High Temperature Protection | •             |
| Overspeed Warning           | •             |
| Overspeed Protection        | •             |
| Alternator Charger          | •             |
| <b>Functions</b>            |               |
| Remote Start                | •             |
| AMF (Auto Main Failure)     | •             |
| Service Indicate            | •             |
| Fault History               | •             |
| Gen-Gen Synchronising       | ×             |
| Gen-Mains Synchronising     | ×             |

Remark:

- Standard Supply
- Available as Optional
- × Not Available



### DSE6120 MKIII

#### FEATURES:

Ø The DSE6110 MKIII is an Auto Start Control Module and the DSE6120 MKIII is an Auto Mains (Utility) Failure Control Module suitable for a wide variety of single, diesel or gas, gen-set applications.

#### Key features :

- Ø 4-Line back-lit LCD text display
- Ø Multiple Display Languages
- Ø Five key menu navigation
- Ø LCD alarm indication
- Ø Customisable power-up text and images
- Ø DSENet expansion compatibility
- Ø Data logging facility
- Ø Internal PLC editor
- Ø Protections disable feature
- Ø Fully configurable via PC using USB communications
- Ø Front panel configuration with PIN protection
- Ø Power save mode
- Ø 3 phase generator sensing and protection
- Ø 3-phase mains (utility) sensing and protection (DSE6120 MKIII only)
- Ø Automatic load transfer control (DSE6120 MKIII only)
- Ø Generator current and power monitoring (kW, kvar, kVA, pf)
- Ø Mains (utility) current and power monitoring (kW, kvar, kVA, pf) (DSE6120 MKIII only)
- Ø kW overload alarm
- Ø Over current protection
- Ø Fuel and start outputs configurable when using CAN
- Ø 6 configurable DC outputs
- Ø 2 configurable volt-free relay outputs
- Ø 4 configurable analogue/digital inputs
- Ø Support for 0 V to 10 V & 4 mA to 20 mA sensors
- Ø 8 configurable digital inputs
- Ø CAN, MPU and alternator frequency speed sensing in one variant
- Ø Real time clock
- Ø Manual and automatic fuel pump control
- Ø Engine pre-heat and post-heat functions
- Ø Engine run-time scheduler
- Ø Engine idle control for starting & stopping
- Ø Fuel level alarms
- Ø 3 configurable maintenance alarms
- Ø Compatible with a wide range of CAN engines, including Tier 4 engine support
- Ø Uses DSE Configuration Suite PC Software for simplified configuration
- Ø Licence-free PC software
- Ø IP65 rating (with optional gasket) offers increased resistance to water ingress
- Ø Configurable CAN read & transmitted information
- Ø 1 alternative configuration