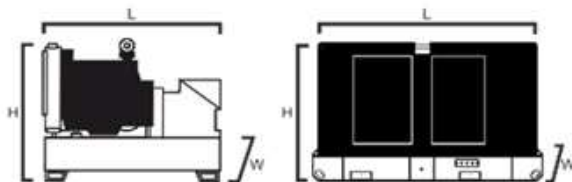


## Technical Data

| Engine                |             | Alternator            |                    |     | Generator Model   |                                |
|-----------------------|-------------|-----------------------|--------------------|-----|-------------------|--------------------------------|
| Perkins 1506A-E88TAG5 |             | Leroy-somer TAL-A46-H |                    |     | SI338X-P / Silent |                                |
| Frequency             | Phase       |                       | Power Factor       |     | Emissions         |                                |
| 60Hz/1800rpm          | 3-Phase     |                       | Factor Cos Φ = 0.8 |     |                   |                                |
| 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               | 270         | 338                   | 300                | 375 | 513.6             | 77.0                           |
| 440/254               | 270         | 338                   | 300                | 375 | 443.5             | 77.0                           |
| 220/127               | 270         | 338                   | 300                | 375 | 887.0             | 77.0                           |
| 230/132               | 270         | 338                   | 300                | 375 | 848.5             | 77.0                           |



### 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 | Silent |
|----------------------|--------|
| Length (L)-mm:       | 4407   |
| Width (W)-mm:        | 1550   |
| Height (H)-mm:       | 2404   |
| Dry Weight-kg:       | 3859   |
| Fuel tank (H)        | 12     |
| (dBA)@7m no load     | N/A    |

### 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.**



Engine

Perkins 1506A-E88TAG5



|                     |                                      | Units          | Prime                                 | Standby |
|---------------------|--------------------------------------|----------------|---------------------------------------|---------|
| General Performance | Frequency                            | Hz             | 60                                    |         |
|                     | Engine Speed                         | r/min          | 1800                                  |         |
|                     | Cylinders / Type                     |                | 6 cyl /In-line / 4-stroke             |         |
|                     | Aspiration                           |                | Air to air after cooled, turbocharged |         |
|                     | Governor Type                        |                | ECM                                   |         |
|                     | Bore / Stroke                        | mm             | 112/149                               |         |
|                     | Displacement                         | Litres         | 8.8                                   |         |
|                     | Compression Ratio                    |                | 16.1:1                                |         |
|                     | Engine Power (Net)                   | kWm            | 300                                   | 333     |
|                     | Combustion Air Flow                  | m³/min         | 22.1                                  | 23.6    |
|                     | Brake Mean Effective Pressure        | kPa            | 2462                                  | 2712    |
| Fuel System         | Fuel Consumption at 110% Prime Power | Litres/hour    | 85.7                                  |         |
|                     | Fuel Consumption at 100% Prime Power | Litres/hour    | 77.1                                  |         |
|                     | Fuel Consumption at 75% Prime Power  | Litres/hour    | 56.8                                  |         |
|                     | Fuel Consumption at 50% Prime Power  | Litres/hour    | 38.9                                  |         |
|                     | Standard Fuel Tank Capacity          | Hours / Litres | 12 /986                               |         |
| Air System          | Maximum Air Intake Restriction       |                |                                       |         |
|                     | - Clean Filter                       | kPa            | 3.7                                   |         |
|                     | - Dirty Filter                       | kPa            | 6.2                                   |         |
|                     | Air Filter Type                      |                | Dry paper element                     |         |
| Exhaust System      | Exhaust Gas Flow                     | m³/min         | 54.8                                  | 59.6    |
|                     | Exhaust Gas Temperature              | °C             | 489                                   | 512     |
|                     | Maximum Back Pressure                | kPa            | 10                                    |         |
|                     | Exhaust Outlet Size                  | mm             | N/A                                   |         |
| Oil System          | Total Oil System Capacity            | Litres         | 41                                    |         |
|                     | Sump Capacity Only                   | Litres         | 36                                    |         |
|                     | Oil Temperature (In Sump) Maximum    | °C             | 120                                   |         |
|                     | Oil Temperature (In Sump) Normal     | °C             | 115                                   |         |
| Cooling System      | Total System Capacity                | Litres         | 33.2                                  |         |
|                     | - Engine Only                        | Litres         | 13.9                                  |         |
|                     | Thermostat Operation Range           | °C             | 87-98                                 |         |
|                     | Maximum Top Tank Temperature         | °C             | 107                                   |         |
| Electric System     | Electrical System Voltage            | V              | 24                                    |         |
|                     | Battery                              |                | Maintenance-free                      |         |
|                     | Connecting Cables                    |                | Available                             |         |
| Energy Balance      | Energy to Coolant                    | kW             | 130                                   | 138     |
|                     | Energy to Exhaust                    | kW             | 227                                   | 259     |
|                     | Energy to Radiation                  | kW             | 16                                    | 16      |



## Alternator

60Hz/1800rpm

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

## Tide Power Easycon Function Summary



### DSE7320 MKII

#### FEATURES:

Ø The DSE7310 MKII is an Auto Start Control Module and the DSE7320 MKII 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 Heated display option available  
 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, RS232 & RS485 communication  
 Ø Fully configurable via PC using USB, RS232 & RS485 communication  
 Ø Power save mode  
 Ø 3 phase generator sensing and protection  
 Ø 3 phase mains (utility) sensing and protection (DSE7320 MKII only)  
 Ø Automatic load transfer control (DSE7320 MKII only)  
 Ø Generator current and power monitoring (kW, kvar, kVA, pf)  
 Ø Mains current and power monitoring (kW, kvar, kVA, pf) (DSE7320 MKII only)  
 Ø kW and kvar overload and reverse power alarms  
 Ø Over current protection  
 Ø Unbalanced load protection  
 Ø Independent earth fault protection  
 Ø Breaker control via fascia buttons  
 Ø Fuel and start outputs configurable when using CAN

| Controller Model / Deep Sea | EC4.0        |
|-----------------------------|--------------|
| Brand / Model               | DSE7320 MKII |
| Viewable Parameters         |              |
| Phase Voltage               | 3            |
| Current                     | •            |
| Frequency                   | •            |
| Active Power                | •            |
| Reactive Power              | •            |
| Apparent Power              | •            |
| Power Factor                | •            |
| Electric Energy Metering    | •            |
| Generator Protection        |              |
| Abnormal Voltage            | •            |
| Over-current Warning        | •            |
| Over current Protection     | •            |
| Over Frequency Protection   | •            |
| Short Circuit Protection    | MCCB / •     |
| Engine Figure               |              |
| Oil Pressure                | •            |
| Water Temperature           | •            |
| Fuel Meter / Fuel Sensor    | •/○          |
| Speed                       | •            |
| Battery Voltage             | •            |
| Runing hours                | •            |
| Engine Protection           |              |
| Low Oil Pressure Warning    | •            |
| Low Oil Pressure Protection | •            |
| High Temperature Warning    | •            |
| High Temperature Protection | •            |
| Overspeed Warning           | •            |
| Overspeed Protection        | •            |
| Alternator Charger          | •            |
| Functions                   |              |
| Remote Start                | •            |
| AMF (Auto Main Failure)     | •            |
| Service Indicate            | •            |
| Fault History               | •            |
| Gen-Gen Synchronising       | ×            |
| Gen-Mains Synchronising     | ×            |

Remark: • Standard Supply  
 ○ Available as Optional  
 × Not Available