



Generator Specification

| Service | PRP(1) | ESP(2) |
|---------------------------------|-----------|--------|
| Power (KVA) | 80 | 88 |
| Power (KW) | 64 | 70 |
| Rated speed (r.p.m) | 1500 | |
| Standard voltage (V) | 400/230 V | |
| Rated at power factor (cos Phi) | 0,8 | |

(1) PRP (Prime Power):

According to ISO8528-1, prime power is the maximum power available during a variable power sequence, which may be run for an unlimited number of hours per year, between stated maintenance intervals. The permissible average power output during at 24 hours period shall not exceed 80% of the prime power. 10% overload available for governing purposes only.

(2) ESP (Standby Power):

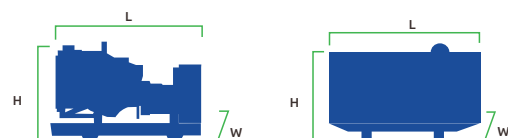
According to ISO 8528-1, It is defined as the maximum power available, under the agreed operating conditions, for which the generating set is capable of delivering for up to 500 hours of operation per year (of which no more than 300 hours for continuative use) with the maintenance intervals and procedures being carried out as prescribed by the manufacturers. No overload capability is available.

| Performance Data | | |
|------------------------|--------------------|------|
| Model | DY88P-S1 | |
| Engine | Perkins | |
| Engine model | 1104A-44TG2 | |
| Speed control type | Mechanical | |
| Phase | 3 | |
| Control sytem | Digital | |
| Starter motor voltage | 12V | |
| Frequency | 50Hz | |
| Engine speed (RPM) | 1500 | |
| Fuel Consumption (L/H) | 100% standby power | 20.5 |
| | 100% prime power | 18.7 |
| | 75% prime power | 14 |
| | 50% prime power | 9.7 |

Standard reference Conditions

Note: Standard reference condition 25 °C[77 °F] air inlet temp, 1000m(328ft) A.S.L 30% relative humidity. Fuel consumption dat with diesel fuel with specific gravity of 0.85 and conforming to BS 2869: 1998 Class A2

| Power Voltage | ESP | | PRP | | Standy Amps |
|---------------|-----|----|-----|----|-------------|
| | KVA | KW | KVA | KW | |
| 415/240 | 88 | 70 | 80 | 64 | 122.4 |
| 400/230 | 88 | 70 | 80 | 64 | 127.0 |
| 380/220 | 88 | 70 | 80 | 64 | 133.7 |



| Dimension and Weight | | |
|----------------------|-----------------------|---------|
| Dimension | 79dB(A)@1m-65dB(A)@7m | Silent |
| Length (L) | | 2668 mm |
| Width (W) | | 1110 mm |
| Height (H) | | 1616 mm |
| Net Weight | | 1400 KG |
| Fuel Tank (L) | | 140L |

Engine Specification : 1104A-44TG2

Basic technical data

| | |
|---------------------------------|------------------|
| No. of cylinders | 4 |
| Cylinder arrangement | Vertical In-line |
| Cycle | 4 stroke |
| Induction system | Turbocharged |
| Compression ratio | 17.25:1 |
| Bore | 105mm |
| Stroke | 127mm |
| Displacement | 4.4L |
| All ratings certified to within | ± 3% |
| Estimated total weight | 463kg |

Cooling system

| | |
|---------------------------------------|---------------------|
| Total coolant capacity -with radiator | 13.0L |
| -without radiator | 7.0L |
| Maximum top tank temp | 110°C |
| Thermostat operation range | 82-93°C |
| Radiator face area | 0.276m ² |
| Rows and material | 2 rows aluminium |
| Pressure cap setting | 107kPa |
| Fan diameter | 457.0mm |
| Drive ratio | 1.25 : 1 |
| Number of blades | 7 |

Fuel system

| | |
|-------------------------------------|-------------|
| Injection system | Direct |
| Fuel injection pump | Rotary |
| Fuel atomiser | Multi-hole |
| Nozzel opening pressure | 29.0 MPa |
| Fuel lift pump type | Mechanical |
| -flow/hour | 120-150 l/h |
| -pressure | 30-75 kPa |
| Maximum suction head: -1500 rev/min | 20kPa |

Induction system

| | |
|-----------------|------|
| Clean filter | 5kpa |
| Dirty filter | 8kpa |
| Air filter type | Dry |

Lubrication system

| | |
|---|-------------|
| Maximum sump capacity | 7.0L |
| Minimum sump capacity | 5.5L |
| Total system | 8.0L |
| Maximum engine operating angles - front up, front down, right side or left side | 25°C |
| Lubricating oil pressure -Relief valve opens | 415-470 kPa |
| -at maximum no load speed | 276-414 KPA |
| Oil consumption at full load as a % of fuel consumption | 0.15% |

Electrical system Type

| | |
|-----------------------|-----------------|
| Type | Negative ground |
| Alternator voltage | 12 volts |
| Alternator output | 65 amps |
| Starter motor voltage | 12 volts |
| Starter motor power | 3KW |

General installation

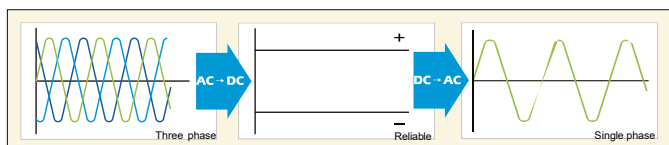
Prime power

| | |
|--------------------------------|------------------------|
| Gross engine power | 73.4kW |
| Brake mean effective pressure | 1335kPa |
| Combustion air flow | 4.8m ³ /min |
| Exhaust gas temperature outlet | 555 °C |
| Energy to coolant | 46kW |
| Energy to exhaust | 53kW |

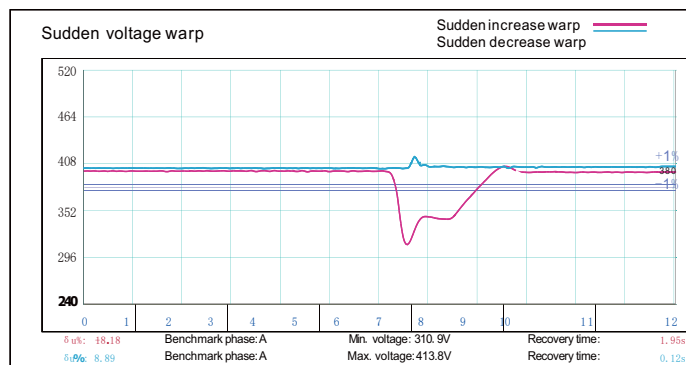
ALTERNATOR SPECIFICATION : LEROY SOMER TAL-A44-C

Alternator

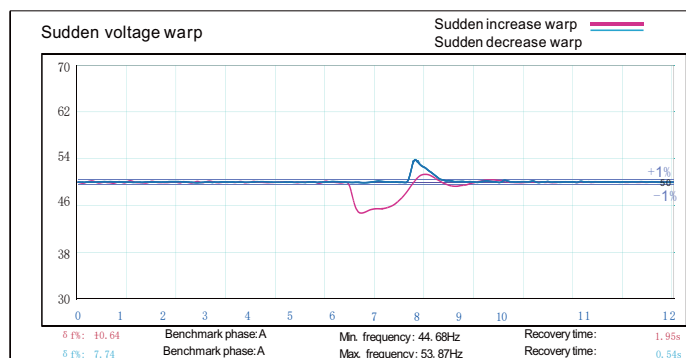
| | |
|--------------------------------|---------------------|
| Number of phase | 3 |
| Power factor (Cos Phi) | 0.8 |
| Poles | 4 |
| Winding Connections (standard) | Star-serie |
| Terminals | 12 |
| Insulation type | H class |
| Winding Pitch | 2/3 |
| IP rating | IP23 |
| Excitation system | Self excited |
| Bearing | Single bearing |
| Coating | Vacuum impregnation |
| Voltage regulator | A.V.R |
| Coupling | Flexible disc |



Emergency voltage curve



Emergency frequency curve



OPTIONS

| Engine | Alternator | Generator Sets | Fuel System |
|--|--|--|---|
| <ul style="list-style-type: none"> Water Jacket Pre heater Fuel heater | <ul style="list-style-type: none"> Winding Temp measuring Instrument Alternator Pre heater PMG Anti-damp and anti corrosion treatment Anti-condensation heater Winding and bearing RTD | <ul style="list-style-type: none"> Tools with the machine Extended range fuel tank Bunded fuel tank | <ul style="list-style-type: none"> Low fuel level alarm Automatic fuel feeding system Fuel T-valves |
| Canopy | Lub Oil System | Cooling System | Control Panel |
| <ul style="list-style-type: none"> Rental type Canopy Trailer | <ul style="list-style-type: none"> Oil Pre-heater Oil temp sensor | <ul style="list-style-type: none"> Front heat protection | <ul style="list-style-type: none"> Remote control panel ATS Synchronizing controller Adjustable earth leakage relay |

Control Panel: DEEPSEA 6120MKII

Configuration

- Emergency stop button
- Protection MCB
- Battery charger
- Integrated aviation plug
- ATS connection
- Digital control module

Features

- 3 phase generator set monitoring
- Support of engines equipped with electronic control unit
Comprehensive diagnostic message
- Automatic or manual start/ stop of the gensets
- Push buttons for simple control, lamp test
- Graphic back lit. LCD display
- Parameters adjustable via keyboard or PC
- Mains measurements (50HZ/ 60HZ)
- Generator measurements (50HZ/ 60HZ)
- Comprehensive shutdown or warning on fault condition
- 3 phase Generator protections
 - Over/under voltage
 - Over-/under frequency
 - Current voltage asymmetry
 - Over current/ overload
- 3 phase AMF function
 - Over-/under frequency
 - Over-/under voltage
 - Voltage asymmetry
- Configurable analog inputs
- Battery voltage, engine speed (pick-up) measureme
- Configurable programmable binary inputs and outputs
- Warm-up and cooling functions
- Generator C.B. and Mains C.B. control with feedback and re-
turn timer
- RS232 interface
- Modem communication support
- Hours counter
- Sealed to Ip65
- Event log

Benefits

- Less wiring and components
- Integrated solution
- Less engineering and programming
- User friendly set up and button layout
- Module can be configured to suit individual applications
- PC software for simplified configuration
- Wide range of communication capabilities

Operation conditions

- Operation temp: -20 °C to + 70 °C
- Storage temp: -30 °C to + 80 °C
- Operating humidity: 95% w/o condensation
- Vibration: 5-25Hz ,+/- 1.6 mm
5-100 Hz, a = 4g
- Shocks: a = 500m/s²

Options

- Ethernet interface (Remote monitoring and control)
- GSM modem/wireless internet (Remote monitoring and control)
- RS232-RS485 Dual port interface
- Synchronizing control panel
- Distribution board with sockets kit and power busbar
- Battery trickle charge ammeter
- Earth leakage protection
- Earth fault protection
- Low fuel level alarm
- Low fuel level shutdown
- High fuel level alarm
- Fuel transfer system control
- Low coolant level shutdown
- High lube oil temp shutdown
- Overload via alarm switch on breaker
- Engine coolant heater controls
- Control panel heater
- Speed adjust switch
- Oil temp displayed on LCD screen
- Additional 8 inputs and outputs