

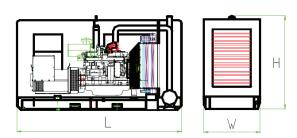
# 80KVA Diesel Generator Set GP80S

## **GENERAL FEATURES**

- All qualified generator sets are subjected to a comprehensive performance test which includes 50% load, 75% load, 100% load, 110% load and to check, verify that all control systems, alarm and shut-down protection.
- Equipped with battery charger and 12V high performance maintenance-free lead-acid starting batteries and connecting cables.
- Equipped with industrial silencer and flexible exhaust hose.
- Equipped with 8-hours operation base fuel tank.
- Equipped with MCCB circuit breaker.
- Designed to Comply with ISO8528/GB2820.
- Powered by Perkins engine and coupled with Leroy Somer alternator.

## **ADVANTAGES**

- Stability, reliability and easy-service
- Low operating and maintenance cost
- Widely used, location to meet customer needs
- Easy-installation, easy-operation and maintenance



## **DIMENSION AND WEIGHT**

| Length (L)    | mm | 2800 |
|---------------|----|------|
| Width (W)     | mm | 1130 |
| Height (H)    | mm | 1565 |
| Weight        | kg | 1610 |
| Tank capacity | L  | 280  |

## **ENVIRONMENTAL CONDITION**

| Environment temperature | °C | ≤50   |
|-------------------------|----|-------|
| Relative humidity       | %  | ≤90   |
| Altitude                | m  | ≤1000 |



Photos reference only

# **GENSET TECHNICAL DATA**

| Prime power                   | 80 kVA        |
|-------------------------------|---------------|
| Standby power                 | 88 kVA        |
| Rated speed                   | 1500 RPM      |
| Output frequency              | 50 Hz         |
| Phase                         | 3             |
| Rated voltage                 | 400 V         |
| Noise dB(A) @7m               | 70            |
| Engine model                  | 1104A-44TG2   |
| Alternator model              | LSA 43.2 L8   |
| Fuel consumption of 100% load | 18.7 Liters/h |
| Fuel consumption of 75% load  | 14.0 Liters/h |
| Voltage regulation rate       | ≤±1%          |
| Random voltage variation      | ≤±1%          |
| Frequency regulation rate     | ≤±5%          |
| Random frequency variation    | ≤±0.5%        |

### PRIME POWER

This rating is for the supply of continuous electrical power (at variable load). There is no limit on the annual hours of operation and 10% overload power can be supplied for 1 hour in 12.

## STANDBY POWER

This rating is for the supply of continuous electrical power (at variable load) in the event of a utility power failure. No overload is permitted.

#### **RATED VOLTAGE**

Available with customer requirements.



# **ENGINE SPECIFICATIONS**

| Engine model                          | 1104A-44TG2                |
|---------------------------------------|----------------------------|
| Engine manufacturer                   | Perkins                    |
| Number of cylinders                   | 4                          |
| Cylinder arrangement                  | Vertical in-line           |
| Cycle                                 | Four stroke                |
| Aspiration                            | Turbocharged               |
| Bore×Stroke (mm×mm)                   | 105 x 127                  |
| Displacement (Liter)                  | 4.4                        |
| Compression Ratio                     | 17.25:1                    |
| Prime power/speed (kW/RPM)            | 71.9/1500                  |
| Standby power/speed (kW/RPM)          | 79.1/1500                  |
| Speed governor                        | Mechanical                 |
| Cooling system                        | Forced Water Cooling Cycle |
| Steady speed droop (%)                | ≤1%                        |
| Total lubrication system capacity     | 8                          |
| Coolant capacity (engine only)        | 13                         |
| Fuel consumption at 100% load (g/kWh) | 276 (at 1500RPM)           |
| Starter motor                         | DC12V,                     |
| Alternator                            | DC12V                      |

# **ALTERNATOR SPECIFICATIONS**

| Alternator model         | LSA 43.2 L8                                  |
|--------------------------|--|
| Alternator manufacturer  | Leroy Somer                                  |
| Exciter type             | Single bearing, Brushless, Self-excited      |
| Rated output prime power | 80 kVA                                       |
| Rated speed              | 1500 RPM                                     |
| Rated frequency          | 50 Hz  |
| Phase                    | 3  |
| Rated voltage            | 400 V (Available with customer requirements) |
| Power factor             | 0.8  |
| Voltage adjust range     | ≥5%  |
| Voltage regulation NL-FL | ≤±1%   |
| Insulation grade         | Н  |
| Protection grade         | IP23   |



# **CONTROL SYSTEM DSE3110**

All gensets have a control cubicle (the Deepsea control module DSE3110 as standard) mounted on a isolated support, which has the following features:

- Electronic digital control module with monitoring/control facility and warning indicators
- Automatic shutdown protection
- Emergency stop button (lock-down type)
- AC output circuit breaker with over-current protection
- DC circuit control switch

## THE CONTROL MODULE DISPLAY

- Generator voltage
- Output frequency
- Engine speed
- Battery voltage
- Engine run-time (Hours)

#### Note:



- 2. The engine oil pressure displayed by oil pressure meter
- 3. Generator current displayed by current meter, to change switch for each phase displayed separately

# THE CONTROL MODULE DISPLAY FOR FAILURE INFORMATION

- Overspeed / underspeed
- Emergency stop
- Low oil pressure
- High water temperature
- Failure to start
- Battery charger failure

## **AUTOMATIC SHUTDOWN**

- Low engine oil pressure
- High engine water temperature
- Overspeed/underspeed
- Failure to start after three attempts

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DSE3110