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## 150 KVA SPECIFICATIONS

|                  |   |   |             |
|------------------|---|---|-------------|
| D.G. Set         | Generating Set Model                                    | PPER150   |             |
|                  | KVA/KW (Prime)  | 150/120   |             |
|                  | KVA/KW (Standby)  | 165/132   |             |
|                  | Frequency /RPM  | 50 Hz /1500   |             |
|                  | Voltage / No. of Phase                                  | 415 / 3   |             |
|                  | Power Factor  | 0.8   |             |
|                  | Rated Current (Amps)                                    | 209   |             |
|                  | Over Load Capacity                                      | 12 % over Load for 1 Hours in each 12 Hour of Operation                             |             |
|                  | Fuel Tank Capacity(liters)                              | 210   |             |
|                  | Acoustic Enclosure Dimensions L x W x H(mm)<br>(Approx) | 3800 X 1500 X 1900  |             |
|                  | Gross weight (KG) (Approx)                              | 2870  |             |
| Diesel Engine    | Engine Make   | PERKINS   |             |
|                  | Engine Model  | 1106A-70TAG2  |             |
|                  | Engine Power (bhp)                                      | 182.4   |             |
|                  | No. of Cylinders  | 6   |             |
|                  | Cycle (Stroke)  | 4   |             |
|                  | Combustion System                                       | Direct injection diesel   |             |
|                  | Compression Ration                                      | 18.2:1  |             |
|                  | Bore X Stroke (mm)                                      | 105 x 135 mm  |             |
|                  | Displacement (litres)                                   | 7.01 litres   |             |
|                  | Service Interval*                                       | 500 Hours / 12 Month whichever is earlier   |             |
|                  | Fuel Consumption (Lit/ Hr) @ 100% Load                  | 33.4  |             |
|                  | Fuel Consumption (Lit/ Hr) @75% Load                    | 24.7  |             |
|                  | Cooling system  | Liquid Cooled   |             |
|                  | Type of governor  | Electronic  |             |
|                  | Aspiration  | Turbocharged aftercooled  |             |
|                  | Lube oil sump capacity (Ltrs.)                          | 16.5  |             |
|                  | Recommended Service Interval for Genset                 | 500 Hours / 12 Month which ever is earlier  |             |
|                  | Coolant Capacity - UOM as Liters                        | 21  |             |
|                  | Recommended Coolant                                     | Ethylene glycol base concentrate ideal mixing ratio of water to antifreeze is 50:50 |             |
|                  | Electrical System (12V/24V)                             | 12V   |             |
| No. of Battery   | 1   |   |             |
| Battery Capacity | 150 AH  |   |             |
| Alternator       | Alternator Make   | Stamford  | Leroy-Somer |
|                  | Alternator Model  | UCI274F   | LSAP 44.3 H |
|                  | Voltage   | 415 Vol / 230Vol  |             |
|                  | Frequency   | 50Hz  |             |
|                  | Class of Insulation                                     | Class H   |             |
|                  | Power Fcator  | 0.8   |             |
|                  | Pole  | 4 Pole  |             |
|                  | Voltage Regulation                                      | ± 1% AVR (Automatic Voltage Regulator)  |             |
| Panel            | IP Rating   | IP 23   |             |
|                  | Controller  | Deep Sea 4520 MK II   |             |
|                  | Battery Charger   | 12 VDC, Automatic Battery Charger   |             |

\*\*Conformance Standards: ▪ IS/IEC 60034-1 ▪ IS 8528 ▪ ISO 9001 ▪ ISO 1460 ▪ ISO 3046 ▪ ISO 13018 ▪ CE Comply/Approved

### Notes:

Specifications and dimensions are subjected to change without prior notice. Data is on NTP conditions as per ISO 3046.

+5% production tolerance is applicable as per ISO3046. Fuel consumption is based on diesel fuel with a specific gravity of 0.85 and confirming to BS 2869, Class A2) and standard alternator efficiency. The fuel consumption may vary depending upon the alternator.

4 Available with Voltage variation (230,380,400,440,460,480 etc.).

# DG CONTROL PANEL

## ▶ Operating Features

- Microprocessor based digital controller
- Accurate LCD display
- Local Start/Stop
- Remote Start/Stop
- Generator breaker control
- Easily Accessible through Fascia
- Flexibility for selecting Manual, Auto operations
- Easily Convertible AMF by giving Mains Fail Signal

## ▶ Metering

### Engine Parameters:

- Engine Speed
- Lube Oil pressure
- Coolant temperature
- Engine Running Hour
- Engine Battery voltage
- Running status
- Fuel level in Percentage
- Event Log with date and time

### Electrical Parameter

- Generator Voltage (Ph-Ph)
- Generator Voltage (Ph-N)
- Generator Current (R,Y,B)
- Generator Apparent power (kVA)
- Generator active power(kW)
- Generator reactive power (kVAr)
- Generator Power Factor
- Generator Frequency (Hz)
- Cumulative Power Consumption in kWh
- Cumulative Power Consumption in kVAh
- Cumulative Power Consumption in kVArh
- Control Supply Voltage

## ▶ Protection

### Engine

- High Water Temperature
- Low oil pressure
- Low Fuel Level
- Over Speed
- Engine Fails to Start

### Electrical

- Generator under Voltage (ANSI-27)
- Generator over Voltage (ANSI-59)
- Generator under Frequency (ANSI-81L)
- Generator over Frequency (ANSI-81H)
- Generator over Current (ANSI-51)
- Control Supply under Voltage
- Control Supply over Voltage
- Phase Reversal
- Unbalanced Load

## ▶ Controller

The DSE 4520 MKII Is A Compact Auto Mains (utility) Failure Control Module That Has Been Developed To Provide An Outstanding Range Of Features Within A Compact Enclosure.

The Module Can Be Configured For Use As An Auto Start Control Module.



## ▶ Controller Feature

- User-friendly interface and backlite full graphics LCD
- Battery voltage monitoring & reverse protection to aux supply
- 7/9 configurable analogue/digital inputs
- Auto, Manual and Remote Start/Stop Operation
- Island Operation
- Automatic Mains Failure Function
- CAN bus Engine interface for communication
- Log with latest 100 events
- Fully configurable via PC using USB, RS485 communication
- DC Battery supply voltage range 8 to 32V
- -20 to 65 °C operating temperature range
- Ip65 Protection class with gasket
- LCD alarm indication
- Power save mode
- 7 configurable Digital output

## ▶ Electrical Specification

- Supply Voltage Range: Nominal Voltage - 12/24 V DC
- Cranking drop out period: 50 ms
- Maximum reverse voltage protection: -32 V DC
- Measurement accuracy (battery voltage):  $\pm 1\%$  Full scale
- Resolution: 0.1 V
- Maximum current consumption  $\sim 200$  mA
- Measurement accuracy (battery voltage) -  $\pm 1\%$  full scale

## ▶ Environmental Specification

- Operating Temp: -20 to 65°C in compliance with 60068-2-1, 2
- Vibration: 2G in X, Y and Z axes for 8 to 500Hz in compliance with IEC 60068-2-6
- Shock: 15 g for 11 ms in compliance with IEC 60068-2-27
- Humidity: 0 to 95% RH in compliance with IEC 60068-2-78
- Protection Degree: IP65 Protection class with gasket in compliance with IEC60529
- EMI/EMC in compliance with IEC 61000-6-2, 4

## ▶ Approvals

- CE Compliant
- UL/cUL Recognized to UL/ulc6200:2019 1st edition



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**Factories**

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