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100 KVA SPECIFICATIONS

D.G. Set	Generating Set Model	PPER100	
	KVA/KW (Prime)	100/80	
	KVA/KW (Standby)	110/88	
	Frequency /RPM	50 Hz /1500, 60Hz/1800	
	Voltage / No. of Phase	415 / 3	
	Power Factor	0.8	
	Rated Current(Amps)	139	
	Over Load Capacity	10 % over Load for 1 Hours in each 12 Hour of Operation	
	Fuel Tank Capacity (liters)	200	
	Acoustic Enclosure Dimensions L X w X H (mm) (Approx)	3400 X 1080 X 1860	
	Gross weight (KG) (Approx)	2220	
Diesel Engine	Engine Make	PERKINS	
	Engine Model	1104C-44TAG2	
	Engine Power (bhp)	125.5	
	No. of Cylinders	4	
	Cycle (Stroke)	4 Stroke	
	Combustion System	Direct injection diesel	
	Compression Ration	18.2:1	
	Bore X Stroke (mm)	105 x 127 mm	
	Displacement (litres)	4.4 litres	
	Fuel Consumption (Lit/ Hr) @ 100% Load	24.9	
	Fuel Consumption (Lit/ Hr) @75% Load	22.6	
	Cooling system	Liquid Cooled	
	Type of governor	Electronic	
	Aspiration	Turbocharged, Air to Air charge Cooled	
	Lube oil sump capacity (Liters.)	8	
	Recommended Service Interval for Genset	500 Hours / 12 Month whichever is earlier	
	Coolant Capacity - UOM as Liters	12.6	
	Recommended Coolant	Ethylene glycol base concentrate ideal mixing ratio of water to antifreeze is 50:50	
	Electrical System (12V/24V)	12V	
	Alternator	Alternator Make	Stamford
Alternator Model		UCI274C	LSAP 44.3 C
Voltage		415 Vol/ 230Vol	
Frequency		50Hz	
Class of Insulation		Class H	
Power Factor		0.8	
Pole		4 Pole	
Voltage Regulation		± 1% AVR (Automatic Voltage Regulator)	
IP Rating		IP 23	
Panel	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 conforming 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 ~ 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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