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 **Perkins**[®]



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400KVA SPECIFICATIONS

| | | | |
|---------------------|---|---|-------------|
| D.G. Set | Generating Set Model | PPER400 | |
| | KVA/KW (Prime) | 400/320 | |
| | KVA/KW (Standby) | 440/352 | |
| | Frequency /RPM | 50 Hz /1500, 60Hz/1800 | |
| | Voltage / No. of Phase | 415 / 3 | |
| | Power Factor | 0.8 | |
| | Rated Current(Amps) | 556 | |
| | Over Load Capacity | 10 % over Load for 1 Hours in each 12 Hour of Operation | |
| | Fuel Tank Capacity (liters) | 700 | |
| | Acoustic Enclosure Dimensions L X w X H (mm) (Approx) | 5000 X 2000 X 2235 | |
| | Gross weight (KG) (Approx) | 6100 | |
| Diesel Engine | Engine Make | PERKINS | |
| | Engine Model | 2206D-E13TAG3 | |
| | Engine Power (bhp) | 493 | |
| | No. of Cylinders | 6 | |
| | Cycle (Stroke) | 4 Stroke | |
| | Combustion System | Direct injection diesel | |
| | Compression Ration | 16.3:1 | |
| | Bore X Stroke (mm) | 130 x 157 mm | |
| | Displacement (litres) | 12.5 litres | |
| | Fuel Consumption (Lit/ Hr) @ 100% Load | 90 | |
| | Fuel Consumption (Lit/ Hr) @75% Load | 72 | |
| | Cooling system | Liquid Cooled | |
| | Type of governor | Electronic | |
| | Aspiration | Turbocharged, air to air charge cooled | |
| | Lube oil sump capacity (Liters.) | 40 | |
| | Recommended Service Interval for Genset | 500 Hours / 12 Month whichever is earlier | |
| | Coolant Capacity - UOM as Liters | 51.4 litres | |
| | Recommended Coolant | Ethylene glycol base concentrate ideal mixing ratio of water to antifreeze is 50:50 | |
| | Electrical System (12V/24V) | 24V | |
| | Alternator | Alternator Make | Stamford |
| Alternator Model | | UCDI274K | LSA 46.2 L6 |
| 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) | |
| 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 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



60+
of Legacy

5GW+
of Power Delivered


Globally Certified

800+
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24,000 sq.ft
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35+
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Perfect House Pvt. Ltd.

2nd Floor, 99C Kavya Aura, Next to Rosewood Hotel, Tardeo,
Mumbai – 400034, India

Contact No: +9122-62611900/907

✉ exports@perfectgenset.com

Factories

Plot no. M-7, J-2/5, J-2/6, J-10,
Additional MIDC, Satara -415004, India