



# Uninterrupted Power, Unmatched Reliability with Perfect Generators powered by

**VE COMMERCIAL VEHICLES**  
A VOLVO GROUP AND EICHER MOTORS JOINT VENTURE

&

**VOLVO  
PENTA**



# PERFECT SUPER SILENT GENERATING SETS POWERED BY VOLVO EICHER ENGINE

## 160 KVA SPECIFICATIONS (VOLVO EICHER )

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<b>D. G. Set</b>	Generating Set Model	PVE 160	
	kVA /KW (Prime)	160/128	
	kVA /KW (Standby)	176/142	
	Frequency / RPM	50 Hz /60 Hz , 1500 / 1800	
	Voltage / no. of Phase	415 / 3	
	Power Factor	0.8	
	Rated Current (Amps)	223	
	Over Load Capacity	10 % over Load for 1 Hours in each 12 Hour of Operation	
	Fuel Tank Capacity (liters)	250	
	Acoustic Enclosure Dimensions L X W X H (mm) including Silencer	3400X1080 X1860	
	Gross Weight (Kg)(Approx)	2400	
<b>ENGINE</b>	Engine Make	VOLVO EICHER ( A Volvo Group and Eicher Motor Joint Venture )	
	Engine Model	EE694TCI	
	Engine Power (bhp)	201	
	No. of Cylinders	6	
	Fuel Consumption (Lit/ Hr) @100% Load	28.7	
	Fuel Consumption (Lit/ Hr) @75% Load	19.8	
	Cooling system	Liquid Cooled	
	Type of governor	Electronic / Mechanical**	
	Aspiration	TURBO CHARGED INTERCOOLED	
	Lub oil sump capacity (Ltrs.)	23.8	
	Recommended Service Interval for Genset.	500 Hours / 12 Month which ever is earlier	
	Coolant Capacity - UOM as Litres	24	
	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		
<b>Alternator</b>	Alternator Make	Stamford	Leroysoner
	Alternator Model	UCI274F	LSAP 44.3 H
	Volage	415 Vol / 230 Vol	
	Frequency	50Hz	
	Class of Insulation	Class H	
	Voltage Regulation	± 1%	
	Power Fcator	0.8	
	Pole	4 Pole	
	Voltage Regulation	AVR (Automatic Voltage Regulator)	
	IP Rating	IP 23	
<b>Panel</b>	Battery Charger	12 VDC, Automatic Battery Charger	
	Controller	Deep Sea 4520 MK II	

**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.

# 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
- CANbus 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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