



# DIESEL GENSET MODEL SGP 600 PR



Rating	Voltage	Frequency	Speed
600 kVA 480 kW	415 Volts	50 Hz	1500 RPM

Optional equipment and finishing shown. Standard may vary.

## PRODUCT HIGHLIGHTS

### ► Engine

- Fast load response
- Stable frequency
- Low vibrations and structure borne noise level
- Competitive fuel and lube oil consumption
- High power to weight ratio
- Proven low life cycle cost

### ► Alternator

- Brushless type, screen protected, self-excited alternator complying to IS 4722/IEC 60034 - 1
- Excellent motor start capability
- Excellent alternator efficiency across the
- Compact design with sealed bearings for longer life and lower maintenance
- Optimised engine compatibility

### ► D. G. Package

- Highly optimized and efficient package design
- Excellent performance under most demanding environmental conditions
- Near zero down time for continuous power supply
- Sturdy base frame made from folded sheet metal for increased strength
- Efficient anti-vibration mounts
- Stringent shop floor testing to ensure class leading, hassle-free performance
- Testing carried out using state-of-the-art PLC based, resistive load bank

### ► Product Support

- Seamless 24 x 7 Service support with toll free number **1800 3000 7666**
- Best in class product support with PAN India
- Highly Energetic team with immense experience in troubleshooting.

## APPLICATION DATA



### ► Engine

Engine Make & Model	Perkins 2806A-E18TAG1A
Base Frame	SGPL
Frequency	50 Hz
Engine Speed	1500 RPM
Fuel Tank Capacity	750 Litres
Rated Current	834 Amps

No. of Cylinders	6
Type of Construction	Inline
Displacement	18.13 L
Bore / Stroke	145X183 mm
Gross Engine Power Output	723 BHP
Rated Speed	1500 RPM
Aspiration	Turbocharged
Governor Type & Class	ISO 8528-5 Class G3

### ► Cooling System

Method of Cooling	Radiator
Qty of Coolant (Engine + Radiator)	61 L
Radiator Fan Power	9 kW
Radiator Cooling Airflow	24790 CFM

### ► Fuel System

Make/Type of Injection System	MEUI
Recommended Fuel	HSD
Fuel Filter Type	Spin On Paper Element
Fuel Consumption : L/hr	
75% Load	100% Load
87.88	118.19

\*Note: Specific gravity of fuel considered - 850 gms/Litre with +3% tolerance

### ► Alternator

Make	Stamford
Frame	HCI 534E
Power Factor	0.8
No. of Phase	3
Frequency	50 Hz
Rated Voltage	415V ±5%
Voltage Regulation	±1%
Excitation System	Self-Excited Self-Regulated Brushless
AVR Type	AS440

### ► Induction System

Air Filter Type	Dry type
Air Intake Restriction	37-64 mbar

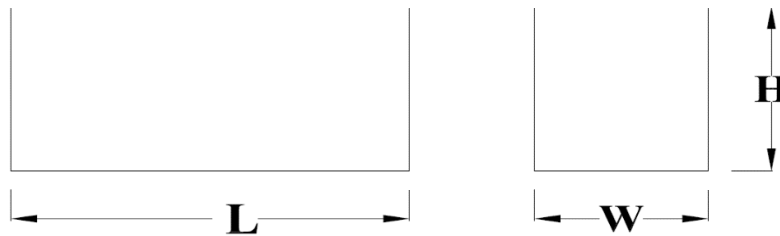
### ► Lubrication System

Recommended Lube Oil	15W / 40 API CG4
Lube Oil Consumption	0.1% of FC
Lube Oil Filter Type Full Flow	Spin on Throw Away paper element
Lube Oil System Capacity (With Filter)	62 L

### ► Exhaust System

Silencer Type	Critical-grade
Number of Silencers	1 No. Dual
Maximum Allowable Back Pressure	69 mbar
Exhaust Gas Temperature	555 Deg C

## Dimensions & Weights



Drawing above for reference purpose only. Dimensions may vary with other voltages. Not to be used for installation purpose.

## Acoustic Enclosure Dimensions

Length = L	mm	5950	Wet Weight (Approx.) kg	6727
Width = W	mm	2000		
Height = H	mm	3111		

## Output Ratings

Generating Set Rating @ 415V - 50 Hz | 600 KVA | 480 kW

Note: Ratings at 0.8 power factor.

Definitions: Prime Rating

This rating is applicable for supplying continuous electrical power (at variable load) in lieu of commercially purchased power for unlimited number of hours with an average load factor of 80%.

Fuel Consumption Data:

Fuel consumption data with diesel fuel of specific gravity 0.85 and conforming to IS: 1460

## Standard Features

### ► The Perkins Range

- Sterling provides a range of Perkins engine powered generating sets which are recognized for reliability.
- Global technology available in India.
- Most energy efficient D. G. set in its own rating.
- Microprocessor based control panels.
- Wider maintenance intervals.
- Pre tested at factory with PLC test bench.
- Well experienced and trained engineers for 24 x 7 after sales support.

## Standard Control Panel

SG 2011:

Standard Supply

Operating Features

Microprocessor based digital controller

Accurate LCD display

Local Start/Stop

Electrical Parameter

Generator Voltage (Ph-Ph)

Generator Voltage (Ph-N)

Generator Current -(R,Y,B)

Generator apparent power (kVA)



Auto Main Fail Detection & Mains Monitoring  
 Remote Start/Stop  
 Generator breaker control  
 Easily Accessible through Fascia  
 Engine Protection / Faults Monitor through CAN  
 Flexibility for selecting Manual, Auto operations

**Metering**

**Engine Parameters:**

Engine Speed  
 Lube Oil pressure  
 Coolant temperature  
 Charge Air temperature  
 Boost Pressure  
 Flow Rate of Fuel  
 Engine Running Hour  
 Engine Battery voltage  
 Running status  
 Fuel level in Percentage  
 Event Log with date and time

**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)  
 Generator kW Overload (ANSI-32P)  
 Control Supply under Voltage  
 Control Supply over Voltage

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

**Engine**

High Water Temperature  
 Low oil pressure  
 Low Fuel Level  
 Low Coolant Level  
 Engine Overspeed

**Monitoring**

Generator Breaker Status  
 Generator Healthy Status  
 Mains Healthy Status  
 Mains Breaker Status

**Breaker/ Contactor**

DG Breaker	No
Mains Breaker	No

**Communication**

RS485-Modbus Communication Available for BMS/PLC

**Panel location**

Right side of the canopy viewing from Alternator end.

## General Information

**Documentation**

A full set of operation and maintenance manuals and circuit wiring diagrams.

**Warranty**

Please refer warranty policy.

