

DIESEL GENSET MODEL SGP 400 PR



Rating	Voltage	Frequency	Speed
400 kVA 320 kW	415 Volts	50 Hz	1500 RPM



Optional equipment and finishing shown. Standard may vary.

PRODUCT HIGHLIGHTS

Engine

- CPCB II compliant
- 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 load range
- Compact design with sealed bearings for longer life and lower maintenance
- Optimised engine compatibility

D. G. Package

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



APPLICATION DATA

Engine Make & Model E13TAG3 Base Frame Base Frame SGPL Frequency 50 Hz Frequency 50 Hz Frequency 50 Hz Frequency 50 Hz Frequency 50 Hz Frequency 50 Hz Frequency 50 Hz Frequency 50 Hz Rated Voltage Regulation 415V No. of Cylinders AVR Type AVR-UVR-7 No. of Cylinders Type of Construction Displacement 12.5 L Bore / Stroke 130X157 mm Gross Engine Power Output 492 BHp Aspiration Turbocharged Governor Type & Class Class G2 Class G2 Class G2 Recommended Lube Oil Lube Oil Consumption 0.1% Of SFC Lube Oil Filter Type Paper element Lube Oil System Silencer Type Critical-grade Make/Type of Injection System Make/Type of Injection System Make/Type of Injection System Make/Type of Injection System Specific Fuel Consumption: L/hr 75% Load 100% Load 66.7 92.38 Note: Specific gravity of fuel considered - 850 Note: Specific gravity of fuel considered - 850 Note: Specific gravity of fuel considered - 850 Akake Greaves Frame GR3R3558 Rade Voltage Regulation 415V Rated Voltage Regulation 415V Rated Voltage Regulation 415V Rated Voltage Regulation 50 Hatel Volt	► Engine		► Alternator	
Frame G1835558	-			Crompton
Frame G1835558	Engine Make & Model	E13TAG3		Greaves
Base Frame SGPL Frequency 50 Hz Frequency 50 Hz Engine Speed 1500 RPM Fuel Tank Capacity 750 Liters Rated Current 556 Amps Fuel Tank Capacity 750 Liters Rated Current 556 Amps Fuel Tank Capacity 750 Liters Rated Current 556 Amps Fuel Tank Capacity 750 Liters Rated Current 556 Amps Fuel Tank Capacity 750 Liters Rated Current 556 Amps Fuel Tank Capacity 750 Liters Rated Current 556 Amps Fuel Tank Capacity 750 Liters Rated Current 556 Amps Fuel Tank Capacity 750 Liters Rated Current 556 Amps Fuel System 1500 RPM Rated Speed AVR-UVR-7 Fuel System 1500 RPM Rated Speed Avr Type AVR-UVR-7 Fuel System 1500 RPM Rated Speed Avr Type Port Speed Air Intake Restriction 37-62 mbar Avr Turbocharged Covernor Type & Class Cla			Frame	G1R355SB
Engine Speed 1500 RPM Rated Voltage 415V Fuel Tank Capacity 750 Liters Sated Current 556 Amps Rated Current 556 Amps Sociation System Surshless AVR Type			Power Factor	0.8
Engine Speed 1500 RPM Rated Voltage 415V Fuel Tank Capacity 750 Liters Sated Current 556 Amps Rated Current 556 Amps Sociation System Surshless AVR Type	Base Frame	SGPL	No. of Phase	3
Engine Speed 1500 RPM Rated Voltage 415V Fuel Tank Capacity 750 Liters Sated Current 556 Amps Rated Current 556 Amps Sociation System Surshless AVR Type	Frequency	50 Hz	Frequency	30 112
Rated Current Solidaria S	Engine Speed	1500 RPM	Rated Voltage	415V
Brushless AVR Type AVR-UVR-7 No. of Cylinders 6 Type of Construction Inline Displacement Displa	Fuel Tank Capacity	750 Liters	Voltage Regulation	±1%
Brushless AVR Type AVR-UVR-7 No. of Cylinders 6 Type of Construction Inline Displacement Displa	Rated Current	556 Amps	Excitation System	
No. of Cylinders Type of Construction Displacement Displa				Brushless
No. of Cylinders Type of Construction Displacement Displ			AVR Type	AVR-UVR-7
Gross Engine Power Output 492 BHP Rated Speed 1500 RPM Aspiration Turbocharged Governor Type & Class Class Class G2 Cooling System Method of Cooling Qty of Coolant (Engine + Radiator) 51.4 L Radiator Fan Power 14 kW Radiator Cooling Airflow 19882 CFM Fuel System Make/Type of Injection System Make/Type Spin On Paper Element Specific Fuel Consumption: L/hr 75% Load 100% Load 66.7 92.38 *Note: Specific gravity of fuel considered - 850	No. of Cylinders	6	► Induction System	
Gross Engine Power Output 492 BHP Rated Speed 1500 RPM Aspiration Turbocharged Governor Type & Class Class Class G2 Cooling System Method of Cooling Qty of Coolant (Engine + Radiator) 51.4 L Radiator Fan Power 14 kW Radiator Cooling Airflow 19882 CFM Fuel System Make/Type of Injection System Make/Type Spin On Paper Element Specific Fuel Consumption: L/hr 75% Load 100% Load 66.7 92.38 *Note: Specific gravity of fuel considered - 850	Type of Construction	Inline	,	
Gross Engine Power Output 492 BHP Rated Speed 1500 RPM Aspiration Turbocharged Governor Type & Class Class Class G2 Cooling System Method of Cooling Qty of Coolant (Engine + Radiator) 51.4 L Radiator Fan Power 14 kW Radiator Cooling Airflow 19882 CFM Fuel System Make/Type of Injection System Make/Type Spin On Paper Element Specific Fuel Consumption: L/hr 75% Load 100% Load 66.7 92.38 *Note: Specific gravity of fuel considered - 850	Displacement	12.5 L	Air Filter Type	Dry type
Rated Speed Aspiration Turbocharged Governor Type & Class Class G2 Cooling System Cooling System Method of Cooling Qty of Coolant (Engine + Radiator) Radiator Fan Power Radiator Cooling Airflow Fuel System Fuel System Make/Type of Injection System Make/Type of Injection System Make/Type of Injection System Make/Type of Injection System Silencer Type Number of Silencers Silencer Type Number of Silencers Number of Silencers 1 No. Dual Maximum Allowable Back Pressure Exhaust Gas Temperature Sepecific Fuel Consumption: L/hr 75% Load 100% Load 66.7 92.38 *Note: Specific gravity of fuel considered - 850	Bore / Stroke	130X157 mm	Air Intake Restriction	
Rated Speed Aspiration Turbocharged Governor Type & Class Class G2 Cooling System Cooling System Method of Cooling Qty of Coolant (Engine + Radiator) Radiator Fan Power Radiator Cooling Airflow Fuel System Fuel System Make/Type of Injection System Make/Type of Injection System Make/Type of Injection System Make/Type of Injection System Silencer Type Number of Silencers Silencer Type Number of Silencers Number of Silencers 1 No. Dual Maximum Allowable Back Pressure Exhaust Gas Temperature Sepecific Fuel Consumption: L/hr 75% Load 100% Load 66.7 92.38 *Note: Specific gravity of fuel considered - 850	Gross Engine Power Output	492 BHP	***************************************	
Governor Type & Class G2	Rated Speed	1500 RPM	► Lubrication System	
Governor Type & Class G2	Aspiration	Turbocharged		
Lube Oil Consumption 0.1% Of SFC Lube Oil Filter Type Lube Oil Filter Type Paper element	Governor Type & Class	Class G2		15W40 API-CI4
Lube Oil Filter Type Paper element Lube Oil System Capacity (With Filter): 40 L Lube Oil System Capacity (With	***************************************		Lube Oil Consumption	0.1% Of SFC
Method of Cooling Radiator Qty of Coolant (Engine + Radiator) 51.4 L Radiator Fan Power 14 kW Radiator Cooling Airflow 19882 CFM ► Fuel System Make/Type of Injection System Recommended Fuel Recommended Fuel Specific Fuel Consumption: L/hr 75% Load 100% Load 66.7 92.38 *Note: Specific gravity of fuel considered - 850 *Note: Specific gravity of fuel considered - 850 *Note: Specific gravity of fuel considered - 850 Cube Oil System Capacity (With Filter): 40 L Lube Oil System Capaci	► Cooling System		Lube Oil Filter Type	
Method of Cooling Qty of Coolant (Engine + Radiator) 51.4 L Radiator Fan Power 14 kW Radiator Cooling Airflow 19882 CFM ► Fuel System Silencer Type Critical-grade Number of Silencers 1 No. Dual Maximum Allowable Back Pressure 100 mbar Exhaust Gas Temperature 540 Deg C Fuel Filter Type Spin On Paper Element Specific Fuel Consumption: L/hr 75% Load 100% Load 66.7 92.38 *Note: Specific gravity of fuel considered - 850	3 .,			Paper element
Qty of Coolant (Engine + Radiator) Radiator Fan Power 14 kW Radiator Cooling Airflow 19882 CFM Fuel System Silencer Type Number of Silencers Number of Silencers Number of Silencers Number of Silencers 1 No. Dual Maximum Allowable Back Pressure Exhaust Gas Temperature 540 Deg C Fuel Filter Type Spin On Paper Element Specific Fuel Consumption: L/hr 75% Load 100% Load 66.7 92.38 *Note: Specific gravity of fuel considered - 850	Method of Cooling	Radiator	Lube Oil System Capacity (With Filter):	
Radiator Fan Power Radiator Cooling Airflow 19882 CFM Exhaust System	Qty of Coolant (Engine + Radiator)	51.4 L		
Silencer Type Critical-grade Number of Silencers 1 No. Dual Maximum Allowable Back Pressure 100 mbar Make/Type of Injection System Recommended Fuel HSD Fuel Filter Type Spin On Paper Element Specific Fuel Consumption: L/hr 75% Load 100% Load 66.7 92.38 *Note: Specific gravity of fuel considered - 850	Radiator Fan Power	14 kW		
Number of Silencers 1 No. Dual Maximum Allowable Back Pressure 100 mbar Make/Type of Injection System Recommended Fuel HSD Fuel Filter Type Spin On Paper Element Specific Fuel Consumption: L/hr 75% Load 66.7 92.38 *Note: Specific gravity of fuel considered - 850	Radiator Cooling Airflow	19882 CFM	► Exhaust System	
Number of Silencers 1 No. Dual Maximum Allowable Back Pressure 100 mbar Make/Type of Injection System Recommended Fuel HSD Fuel Filter Type Spin On Paper Element Specific Fuel Consumption: L/hr 75% Load 66.7 92.38 *Note: Specific gravity of fuel considered - 850			Silencer Type	Critical-grade
Maximum Allowable Back Pressure 100 mbar Make/Type of Injection System Recommended Fuel Recommended Fuel Fuel Filter Type Spin On Paper Element Specific Fuel Consumption: L/hr 75% Load 66.7 92.38 *Note: Specific gravity of fuel considered - 850	► Fuel System			
Recommended Fuel HSD Fuel Filter Type Spin On Paper Element Specific Fuel Consumption: L/hr 75% Load 100% Load 66.7 92.38 *Note: Specific gravity of fuel considered - 850	, ,		Maximum Allowable Back Pressure	100 mbar
Recommended Fuel HSD Fuel Filter Type Spin On Paper Element Specific Fuel Consumption: L/hr 75% Load 100% Load 66.7 92.38 *Note: Specific gravity of fuel considered - 850	Make/Type of Injection System	MEUI	Exhaust Gas Temperature	540 Deg C
Specific Fuel Consumption: L/hr 75% Load 100% Load 66.7 92.38 *Note: Specific gravity of fuel considered - 850				
Specific Fuel Consumption: L/hr 75% Load 100% Load 66.7 92.38 *Note: Specific gravity of fuel considered - 850	Fuel Filter Type Sp	in On Paper Element		
75% Load 100% Load 66.7 92.38 *Note: Specific gravity of fuel considered - 850				
*Note: Specific gravity of fuel considered - 850		00% Load		
	*Note: Specific gravity of fuel consi	dered - 850		
	gms/Litre with +3% tolerance			



Dimensions & Weights



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

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 | 400 KVA | 320 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

▶ Perkins Range

- Sterling provides a range of Perkins engine powered generating sets which are recognised 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.
- Designed to meet the latest environmental norms and approved by CPCB nodal agency.



Standard Control Panel

Standard Control Panel
SG 2011:
Standard Supply
Operating Features
Microprocessor based digital controller
Accurate LCD display
Local Start/Stop
Auto Main Fail Detection & Mains Monitoring
Remote Start/Stop
Generator breaker control
Easily Accessible through Fascia
Engine Protection/Faults Moni through CAN
Flexibility for Selecting Manual, AMF Operations
Metering
Engine Parameters:
Engine Speed
Lube Oil pressure
Coolant temperature
Charge Air Temperature
Boost Pressure
Fuel Rate of Flow
Engine Running Hour
Engine Battery voltage
Running status
Fuel level in Percentage
Event Log with date and time
Electrical Parameter Generator
Generator Voltage (Ph-Ph)
Generator Voltage (Ph-N)
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

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

Engine

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

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

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

Control Supply Voltage

Cumulative Power Consumption in kVArh

Documentation

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

Please refer warranty policy.

