Diesel Genset Model SGN125 PR

sterling generators
positively wired
(A Shapoorji Pallonji Company)

Specification Reference No. SGN125 PR-11-R1

Rating Range		
Prime	kW	100
	kVA	125
Rated Current	I_t	174 Amps
Voltage	V	415 Volts
Frequency	F	50 Hz
Power Factor	pF	0.8 Lag

Standards

- The Engine Performance corresponds to ISO 3046, BS 5514, DIN 6271
- The Genset ratings are based on ISO 8528
- The transient performance of the D.G. set conforms to ISO 8528-5, class G-3
- The fuel consumption data is based on calorific value and parameters of fuel confirming to IS 1460
- The Alternator confirms to IEC 60034 - B

Features

- Global presence
- Most energy efficient D.G. set in its own rating
- The DG set and the related accessories are prototype tested, factory built and production tested at the respective factories. Fully automatic. Wider maintenance intervals and as such longer TBO
- 100% testing of each set with computerized test bench
- "Well experienced and trained engineers for 24 X 7 After sale support"
- Designed to meet the latest environmental norms and certified by CPCB nodal Agency

CPCB APPROVED ECO-FRIENDLY

REGISTERED COMPANY ISO 9001: 2008

ISO 14001 Certified Environmental Management System

Rating Guide - Prime Rating

These ratings are applicable for supplying continuous electrical power (at variable load) in lieu of commercially purchased power.

Note: Rating guidelines conforms to ISO 8528 - 1 and the generators are prime rated generators.

Manufactured by,
Sterling Generators Pvt. Ltd.
(A Shapoorji Pallonji Company)

Altenergy Technologies

ALTENERGY TECHNOLOGIES PVT. LTD.
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Engine Technical Details			
Design Data		**Air Intake System**	
Make	Mahindra Navistar	Air take restriction	
Model	6.12 TCA	- with clean element	230 mm of H_2O
Engine BHP	156	- with dirty element	600 mm of H_2O
No. Cylinders	6		
Cylinder arrangement	Inline	**Cooling System**	
Method of operation	4 - Stroke	**Radiator Cooling**	
Speed	1500 rpm	Coolant capacity	25 liters
Aspiration	Turbo Charged, Aftercooled	Radiator fan load	6KW
Cooling method	Radiator	Type of water pump	Engine driven
Governor type	Mechanical		
Governing class	Class A1	**Lubrication System**	
Compression ratio	16.8:1	Type oil	15W40 API - CI4
Displacement	7.12 liter	Type of oil filters	Spin on Replaceable
Bore / Stoke	105 / 137 mm	No. of oil filters	1
Dry weight	598.6 Kgs.	Oil system capacity	19.8 liters
		Oil cooling method	Water cooled
Fuel System		Oil change intervals	500 hrs./6months*
Type of fuel filters	Spin on type paper element		(whichever is earlier)
No. of fuel filters	Primary - 1 no.		
	Secondary - 1 no.		
Filter capacity	5 Micron	**Exhaust System**	
Filter change period	500 Hours. / 6 months* (whichever is earlier)	Silencer type	Hospital-grade
		No. of silencers	One
Air Intake System		Exhaust pipe dia.	125mm
Type of air filter	Dry type	Silencer insertion loss	32% approx.
No. of air filters	One	Max. allowable back pressure	75 mm of Hg

Alternator Technical Details			
Make	Crompton Greaves Ltd.	AVR type	SR - 7/6
Frame	G1R250SD	Voltage regulation	+/-1%
Rating KVA	125	Excitation current in Adc	
KW	100	- No load	0.5 Amps
Voltage variation	+/-20%	- Full load	2.5 Amps
Rated full load current	173.9	Short-circuit ratio	0.469
Enclosure-as per IS: 4691	IP 23	Wave form distortion THF	Less than 4%
Altitude MSL	1000 m	Stator winding connection	Star connected
Ambient	40°C	Bearings - DE	Not available
Insulation - Stator	Class H	- NDE	6313.2RS
- Rotor	Class H	Cable entry	Left Hand Side from D.E.
Temp. Rise - IS : 12802 above 40°C Amb	125°C	Terminal box position	Mounted on top of alternator
		Lubrication	"Castrol AP3 / Shell Alvania G3 / Servogem 3"
Governing standards	IS: 13364 (Part 1 & 2), IS: 4722, BS 5000 (PART 99), IEC 34.	Over speed	2250 rpm
Excitation type	Self excited, Self regulated, Brushless	Weight	486 KG
Rectifier bridge type	3 Phase 6 Pulse	Direction of rotation	Clockwise from Drive end
System response time	500 ms	Cooling air	30 m3 / min

Genset Control Panel	
SG 1100 : Standard Supply	SG 2200 : Optional
Features	Features
Start/Stop	Start/Stop
Local and Remote Start/Stop	Local and Remote Start/Stop
Generator Set Breaker Control	Mains Monitoring
Easily Accessible	Generator Set Breaker Control
	Main Breaker Control
Display	Easily Accessible
Engine Parameters:	
RPM	**Display**
Oil Pressure	Engine Parameters:
Coolant Temperature	RPM
Hour Meter	Oil Pressure
Battery Volts	Coolant Temperature
Battery Charging Voltage	Hour Meter
Running Status	Battery Volts
Event Recording	Battery Charging Voltage
Electrical Parameters	Running Status
Voltage, Current, Hz, kVA, PF, kWh, kW and kVAR	Event Recording
Genset Breaker Status	**Electrical Parameters**
Engine Protection	Voltage, Current, Hz, kVA, PF, kWh, kW and kVAR
High Water Temperature	Breaker Status
Low Lube Oil Pressure	**Engine Protection**
Engine Over speed Shutdown	High Water Temperature
Electrical Protection	Low Lube Oil Pressure
kW Overload	Engine Over speed Shutdown
Unbalanced Load	**Electrical Protection**
Under/Over Voltage	kW Overload
Under/Over Frequency	Unbalanced Load
Over Current Protection	Under/Over Voltage
Breakers	Under/Over Frequency
4 pole D.G. outgoing contactors of 250amp. rating	Over Current Protection
	Breakers
	4 Pole D.G. outgoing contactors of 250 amp. rating
	4 Pole mains contactor of 250 amp. rating

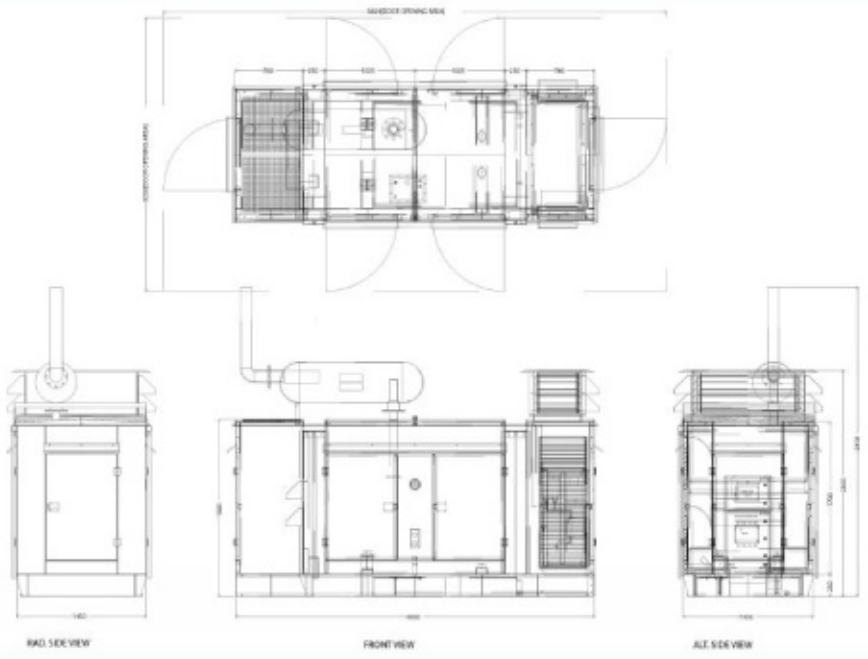
Generator Set Parameters			
Performance Data			
Fuel consumption*:		g/hp-h	Ltrs/Hrs.
	- 100 % Load	148.7	27.45
	- 75 % Load	147.2	20.38
	- 50 % Load	157.5	14.54
Lube oil consumption*	0.014 Ltrs/ Hr.		

*Note: with 5% tolerance

Generator Set Accessories			
Base Frame		**Antivibration Mounts**	
Construction	Folded sheet metal, CRCA	Make	Polybond
Colour	Black	Location	Above the base frame
Fuel Tank		**Canopy**	
Capacity	320 liters.	Surface material	M. S. CRCA, 1.6 Thk.
Location	Inside canopy	Accoustic material	35mm synth. foam
Construction	M. S. CRCA, 2.0 Thk.	Colour	Royal blue
Attachments	Breather	Ventilation - Fresh air inlet	Top of alternator end
		- Hot air	Top of radiator end
Batteries		Lighting system	D C bulb with door switch
Make	HBL nife	Total air requirement	10000 CFM
Rating	1X24 Volts	Attachments	Dial type fule gauge
AH capacity	20		Emergency stop switch
			Diesel filling cap with lock

Optional Accessories	
High & low fuel level switch	Amf panel with mains contactor
Electronic fuel level gauge	Leroy somer or stamford alternator
Electronic governor	

Genset Dimensions



Length (mm)	4000
Width (mm)	1450
Height (mm)	2500
Weight (Dry) Kgs.	3000
Weight (Wet) Kgs.	3200

Warranty Policy

1. Only metal parts come under warrantee and is limited to manufacturing defects and poor workmanship.
2. The warrantee period is valid through 26 months from the date of dispatch or 24 months from the date of commissioning or 5000 hours of operation (which ever occurs first).

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Specifications are subject change due to continuous improvement of the product.