

# Generating Set

## TECHNICAL DATA SHEET SGT150



Silent / Closed Type  
Image for illustration purposes only.

Prime Power*	Standby Power**	Voltage/Ph	Hz/rpm***	PF
135 kVA/108 kWe	150 kVA/120 kWe	400/3Ph	50/1500	0.8

### Prime power\*

Unlimited hours usage with an average load factor of 80% of the published Prime power over each 24 hours period. A 10% overload is available for 1 hour in every 12 hours operation.

### Standby power\*\*

Limited to 500 hours annual usage with an average load factor of 80% of the published Standby power rating over each 24 hour period. Up to 300 hours of annual usage may be run continuously. No overload is permitted on Standby power. Available in 60HZ for all voltage ratings.\*\*\*

### Standard Reference Conditions

Note: Standard reference conditions 40°C (104°F) Air Inlet Temp, 100m (328 ft) A.S.L. 30% relative humidity.

Diesel Generator Set	
Engine Make /Model	PERKINS 1106A-70TG1
Alternator Make /Model	Leroy Somer TAL-044-H
Control Panel	DSE 6120
Base Frame / Silent Canopy	Robust Structure/ Corrosion Resistant
Circuit Breaker Type	3 Pole MCCB (4P Available as optional)
Built in Base Fuel Tank Capacity	280L
Battery	Maintenance free Lead Acid

Dimensions	Length (mm)	Width (mm)	Height (mm)	Weight (KG)
Close Type	3222	1122	1470	1737
Open Type	2546	950	1512	1408

ENGINE SPECIFICATIONS		LUBRICATION SYSTEM	
Engine Make Model	PERKINS 1106A-70TG1	Oil Filter Type	Spin-On Full Flow
No. of Cylinders	6 vertical in-line	Total Oil Capacity	18 L
Cycle	4 Stroke	Oil Type	API-CH-4 or ACEA E5
Aspiration	Turbocharged	AIR SYSTEM	
Cooling Method	Water cooled	Air Filter Type	Dry Element
Governing Type	Mechanical	Combustion Air Flow (PRP)	7.64 m <sup>3</sup> /min
Governing Class	G2 - ISO 8528 Part 1	Combustion Air Flow (ESP)	8.09 m <sup>3</sup> /min
Compression Ratio	18.2:1	Max Air Filter Intake Restriction	5 kPa
Displacement	7.01 L		
Bore/Stroke	105 x 135 mm		
Dynamic Charging Alternator			

COOLING SYSTEM		Exhaust System	
Total Coolant Capacity (L)	21 L	Muffler Type	Residential Grade
Cooling Fan Air Flow	182 m <sup>3</sup> / min	Max. Back Pressure	6 kPa
Radiator Fan Load	4.4 kW	Exhaust Gas Flow (PRP/ESP)	20.75 /22.6 m <sup>3</sup> / min
Cooling system design	50°C	Exhaust Gas Temperature	≤576°C
Heat Radiation to Room (PRP)	15.3 kW		

Comply with Standards
ISO 3046, BS 5514, DIN 6271, NEMA-MGI, DIN EN, BS 5000, IEC 60034, IEC 60947-2

Powered By:







## Why Sun & Energy Generator Technology (SGT)?

When you are running a business every competitive advantage counts, choosing a right Generator Set can make all the difference to bottom line.

### 1. Features & Benefits:

- SGT Gen set is powered by Perkins Engine, the world leader having over 85 years of innovation and excellence, with customers support in 182 countries from 3500 outlets.
- SGT Gen set is powered by Leroy Somer France Alternator, the Global number 1 in Alternators, with over 99 years of Experience, Having 120+ active patents, in over 40 countries and over 80 service centers.
- SGT Gen set is equipped with DSE controller, one of the world's top manufacturers in UK, having over 40 years of excellence, the most advanced and user friendly controller.
- Low fuel consumption, saving on fuel spend
- Compact and rugged design, saving on transport and storage cost
- Designed to occupy less space considering critical applications and cities where space is at a premium.
- Low noise and vibration, considering critical applications where noise level matters
- Easy maintenance and long service intervals, saving on maintenance cost
- Subject to rigorous tests including load acceptance, cooling, vibration and noise level prior shipment to customer.
- Simple to operate and environment friendly in worst ambient conditions
- Equipped with built-in fuel tank sufficient for 8 to 10 hours of operations.
- Fully Engineering wide range of optional accessories available.

(Contd.)

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TECHNICAL DATA SHEET

SGT150



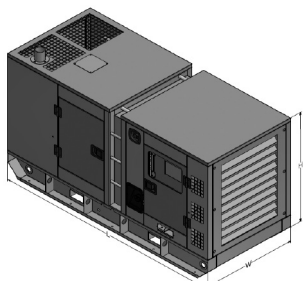
PERKINS Engine  
1106A-70TG1



Leroy Somer  
TAL-044-H



DSE6120 MKII AUTO  
START & AUTO MAINS  
FAILURE CONTROL



SGT ENCLOSURE/CANOPY

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Sun & Energy

Engine Fuel System	
Recommended Fuel	Class A2 Diesel
Fuel Consumption Standby	33.8 L/hr
Fuel Consumption 100% PRP	30.3 L/hr
Fuel Consumption 75% PRP	22.7 L/hr
Fuel Consumption 50% PRP	15.9 L/hr

ALTERNATOR SPECIFICATIONS	
Alternator Make /Model	Leroy Somer TAL-044-H
AVR Model	R120
Number of Poles	4
Number of Winding Leads	6
Type of Bearing	Single Bearing
Insulation Class - Temp Rise	Cont. H - 125/40 C
Ingress Protection Rating	IP 23
Excitation System	Self Excited
Voltage Regulation	+/- 1%
Harmonic Coefficient THF	< 2%
Tel. influence TIF	< 50
Cooling air flow	0.25 m <sup>3</sup> / Sec

Controller Make & Model	DeepSea 612
Operation Mode	AMF
Display	Graphic Back-lit LCD (128x64) pixels
Ingress Protection Rating	IP65
Binary Inputs/Outputs	6 / 4
Analog Inputs	3
Measurement	Vac, A, Hz, kVA, kW, Vdc
Event Log	Alarms log, Hrs log
Communication	USB

Please refer to Controller Data Sheet for more details.

Enclosure Type	Acoustic & Weather Proof
Drainage	Fuel and Water Drainage Provision
Transportation	Tested Single Point Lifting Facility & Forklift Pockets
Ingress Protection	IP 23
Lifting	ISO Standard Lifting
Canopy RAL Color	RAL 9010 - Powder coated
Base frame RAL Color	RAL 9011 - Powder coated
Noise Pressure level @	67.6db(A)+/-3db @ 7 mt

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## 2. WARRANTY POLICY:

- Sun & Energy Generator technology products has a warranty for all prime equipment, limited to 2000 running hours or 12 months warranty & For Standby equipment, Limited to 500 running hours or 12 months warranty whichever occur first against manufacturing defect.
- Wearing parts (filters), incorrect man-made operation, Back up Genset maintenance failures are excluded from the warranty policy
- For more details please refer to <https://www.sunergysolar.ae>

## 3. DOCUMENTAION

Operation and Maintenance Manual, GAD, Wiring Diagram & FAT Report are Accompanied with Genset.

## 4. OPTIONAL FEATURES

### A. Engine

- Heavy-Duty Air Filter
- Coolant Heater
- Lubricant Oil Heater
- Fuel and Water Separator
- Lube Oil Rotary Pump

### B. Alternator

- Anti Condensation Heater
- PMG + AVR
- Double Bearing Alternator
- RTDs For Bearing and Winding

### C. Cooling System:

- 55 degree Radiator
- Remote Radiator

### D. Control System:

- AMF / Parallel
- Remote Annunciators
- 4 p manual/Motorized Circuit breaker

### E. Automatic Transfer Switch (ATS):

- Contractor or Breaker type ATS
- Motorized changeover type ATS

### F. Start Battery:

- Nickel-cadmium battery
- Maintenance-free battery
- Battery charger and selector switch
- Charging current meter

### G. Exhaust Muffler:

- Residential grade
- Critical grade
- Hospital grade

### H. Available for voltages :

400/230V,480/277V,380/220V,440/254V,  
416/240V,220/127V, 208/120V