

Generator set data sheet

1200 kW GAS 01-01-2012



Photo For Reference Only

SANTUM Engine: TPG16V-97G Four-Cycle Gas Engine	Alternator :	SIEMENS 1FC6564-6LA42	Generator Model:	TPS1500G
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50Hz 1000 r.p.m	3 Phase 4 Wires	Power Factor: Cos ϕ = 0.8	Emissions Certification:	N/A
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RATINGS	Prime Power		Standby Power		Rated Current
	<i>(PRP)</i>		<i>(LTP)</i>		<i>(A)</i>
Voltage (V)	kW	kVA	kW	kVA	Amps
440/254	1200	1500	1320	1650	1968.3
415/240	1200	1500	1320	1650	2086.9
400/230	1200	1500	1320	1650	2165.1
380/220	1200	1500	1320	1650	2279.1

RATINGS:

All three Phase generator sets are rated at 0.8 power factor. **TIDE Power** reserves the right to change the design or specifications without notice and without any obligation or liability whatsoever.

Prime Power:

Available continuously at variable load in lieu of commercially purchased power for an unlimited number of hours per year in accordance with ISO8528-1, and an overload of 10% permitted for one hour in every twelve hours of operation in accordance with ISO 3046-1.

Standby Power:

Emergency Standby Power in variable load applications in accordance with ISO8528-1 in the event of a utility power failure. No overload available for this service as relevant alternators are peak continuous rated at 27°C.

Genset General Specifications

Genset model	TPS1500G	² Electrical efficiency	38%
Engine model	TPG16V-97G	² Thermal efficiency	45%
Electrical output(kW/kVA)	1200/1500	Speed regulating rate	0-5% Adjustable
¹ Thermal output(kW/kVA)	1413/1766	³ Dimension (mm)	7200×2200×2650
Rated voltage(V)	400/230	³ Net Mass(kg)	24000
Frequency(HZ)	50		
Speed (rpm)	1000		

Engine Specifications

Gas Engine	TPG16V-97G	^{4,5} Heat consumption (kJ/kWh)	≤10000
Rated power(kW)	1320	^{4,5} Gas consumption (m ³ /h)	≤347.4
Number and layout of cylinders	16-cylinder, V-type	Oil consumption (g/kWh)	≤0.8
Fuel	Natural gas	Lowest speed (rpm)	700
Ignition type	Spark plug ignition	Exhaust temperature (°C)	≤700
Intake gas pressure required(kPa)	10~400	Starting method	24V DC electric starting
Bore×Stoke(mm)	190×215	Governor	Woodward Electronic
Displacement(L)	95.2	Direction of rotation	Facing to flywheel
Cooling Mode	Heat exchanger	Lubricating method	Pressure and splash lubrication
Compression ratio	10:1		

Alternator Specifications

Manufacture / Brand	SIEMENS	Prime Output Power(kW/kVA)	1200/1500
Model	1FC6564-6LA42	Standby Output Power(kW/kVA)	1320/1650
AVR Model	6GA2491-1A	Insulation class	Class F
Type of bearing	Double	Voltage regulation	Automatic
Phase	3	Steady-state voltage variation	Isolated operation ±1%
Power Factor	0.8		Parallel operation ±2.5%
Efficiency	94.10%	Transient voltage variation	-15 ~ +20%
Drip Proof	IP23	Temperature	≤40°C
Type of excitation	THYRIPART ^R excitation	Altitude	<1000m

GPL Series Control Pannel



- Lockable hinged door
- Terminal box & Woodward distributing module mounted
- Air-break Switch equipped
- With IG control module
- key switches(ABB,Schneider and Siemens) as optional
- Fault alarm protection circuit
- Watt transducer,AC voltmeter, AC ammeter, frequency meter, power meter, power factor meter, DC voltmeter,voltage potentiometer separately equipped

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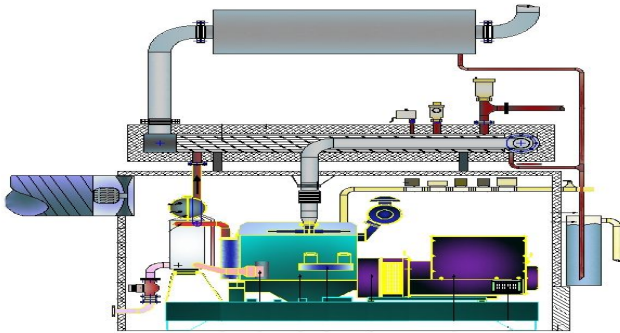
Standard Features

- ▲ High efficient water cooled gas engine
- ▲ Brushless alternators (Class H, with AVF)
- ▲ Heavy duty rubber anti-vibration mountir
- ▲ 24V starter batteries and connecting cables
- ▲ Industrial silencer for open type generator sets
- ▲ GPL Series Control Panel
- ▲ Wiring with IEC standard
- ▲ Remote water tower
- ▲ Fully guarded engine driven fan
- ▲ Circuit Breaker - 3 pole (MCCB)
- ▲ Oil filter - Air filter
- ▲ Fully welded steel baseframe
- ▲ Altronic Ignition System and STITT spark plug
- ▲ Equipped with gas pressure regulator, Pressure Gauge, Mixer, electromagnetic valve, Gas shutoff valve
- ▲ Factory Test Certificate
- ▲ Operation & Maintenance Manual & Diagrams
- ▲ Worldwide Product / Technical Support

Optional

- △ Automatic Transfer Switch (ATS)
- △ Residential silencer for open type generat
- △ Water heater for severe cold weather
- △ Lub-oil heater for severe cold weather
- △ Maintenance free battery
- △ Radiator with cap and drain point
- △ Extra air filters for time-maintenance
- △ Extra oil filters for time-maintenance
- △ Low coolant level sensor
- △ CZECH COMAP IG-NT auto synchronization
- △ Full range of attachments and options available for alternator

Combined Heat and Power System



We offer Combined Heat and Power (CHP) packages for our complete range of gas generator sets. It can recover over 90% combined electrical and thermal efficiency, resulting in major reductions in your overall energy costs. In the past years we have supplied CHP systems to Germany, Russia, Indonesia etc. We have the experience and capabilities to meet your total energy requirements.

Please consult our sales department to learn more.

Warranty

The goods of Tide Power System are under warranty against defects in materials and workmanship for a period of 12 months or 3000 hours whichever come first from the date of delivery to the end user (except the damageable spare parts of genset caused by incorrect man-made operation), and that the aforementioned warranty for the same token is back up by the engine & alternator manufactures and their global distributors.

Notes:

1. Exhaust gas cooled to 120°C with natural gas.
2. with 5% exhaust-gas oxygen.
3. Weights and dimensions represent a generator set with its standard features only. See outline drawing for other configurations.
4. At ISO 3046 reference conditions, altitude 1000 mbar, air inlet temperature 40°C.
5. Based on pipeline natural gas with heat value of 38mJ/Nm³.
6. Fisher pressure regulator, IMPCO Mixer, Fisher electromagnetic valve.

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