

Natural Gas Generator set data sheet (01-01-2016)



Rated 500kWel, Natural Gas



Gas Generator Set Model:	TPS625G	Gas Engine Model:	TPG12V-71G	Alternator Model:	Siemens 1FC6 455-6LA42
---------------------------------	---------	--------------------------	------------	--------------------------	-----------------------------------

50Hz 1000 r.p.m	3 Phase 4 Wires	Power Factor: Cos ϕ = 0.8	Emissions Standard	N/A
----------------------------	----------------------------	--	---------------------------	-----

RATINGS	Prime Power		Standby Power		Rated Current (A)	Remarks
	(PRP)		(LTP)			
Voltage (V)	kW	kVA	kW	kVA	Amps	
380/220	500	625	N/A	N/A	949.6	
400/230	500	625	N/A	N/A	902.1	
415/240	500	625	N/A	N/A	869.5	
440/254	500	625	N/A	N/A	820.1	

Conditions and Defintions:

1) Engine output data under ISO8528/1, ISO3046/1, BS5541/1, DIN6271 conditions.

Genset General Specifications

Gas genset model	TPS625G	Frequency (Hz)	50
Gas engine model	TPG12V-71G	Speed (rpm)	1000
Electrical output (kW)	500	Speed regulating rate	0-5% Adjustable
Electrical output (kVA)	625	Silent type dimension (L×W×H) (mm)	5120×2040×2778
Fuel	Natural gas	Net weight (kg)	11800

Engine Specifications

Manufacturer	Tide Power System	Direction of rotation	Counter clockwise from flywheel
Model	TPG12V-71G	Induction system	Turbocharged & Intercooled
Mechanical power	552 kWm	Combustion type	Spark ignition
Speed	1000 rpm	Cooling method	Water cooled
Configuration	V-type	Speed governor	Electronic
Number of cylinders	12	Oil Consumption	≤0.6 g/kW.h
Cycle	4 stroke	Coolant capacity (engine Only)	400 L
Cylinder type	Wet	Oil capacity	200 L
Bore / Stroke	190/210 mm	Gas consumption 100% load	0.3 m ³ /kW.H
Displacement	71.45 L	Oil grade	15W40-CF4 or above grade
Compression ratio	8.0:1	Starting method	24V DC motor

Alternator Specifications

50HZ/1000R.P.M

Manufacture / Brand	Siemens	Prime output power	500kW/625kVA
Model	1FC6 455-6LA42	Insulation class	F
Coupling / Bearing	Flexible / Double bearing	Voltage regulation	± 1 %
Phase	3 Phase	Type of mounting	IM B20
Power factor	Cos φ = 0.8	Type of cooling	Cooling by oneself fan
Winding pitch - code	2/3 - (wdg6)	Altitude	≤ 1000 m
Drip proof	IP 23	Overspeed	2250 min ⁻¹
Excitation	Brushless	Temperature of environment	40°C

Control Panel



- Deepsea 7320 controller
- Digital control panel
- Volts, current, frequency, rpm (instruments)
- Genset running hours
- Battery voltage and charging
- Over speed pre-alarm & shutdown
- High water temp. pre-alarm & shutdown
- Low oil pressure pre-alarm & shutdown
- Low voltage pre-alarm & shutdown
- Overcurrent pre-alarm & shutdown

Standard Features

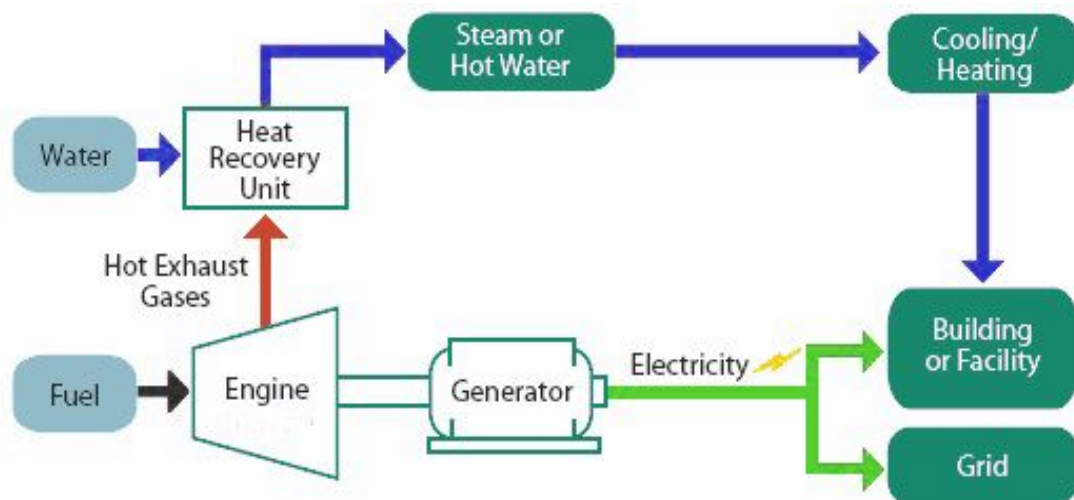
- High efficient water cooled gas engine
- Brushless alternators (Class H, with AVR.)
- Heavy duty rubber anti-vibration mountings
- Starter batteries and connecting cables
- Separate engine-drive battery charging alternator
- Industrial silencer for open type generator sets
- Circuit breaker - 3 pole (MCCB)
- Maintenance free battery
- Low coolant level sensor
- Oil filter - Air filter
- Fully welded steel baseframe
- Ignition system
- Gas train: ball valve, gas filter, gas pressure regulator, pressure gauge, electromagnetic valve;
- Wiring with IEC standard
- Factory test certificate
- Operation & Maintenance manual & Diagrams
- Worldwide product / Technical support

Tide Power System Co., Ltd. NO.1 Building, YiXu Mechanical & Electrical Park, Gaishan Town, Cangshan District, Fuzhou, Fujian, China. Our Tel.: 86-591-28068999, Fax.: 86-591-28068900 (www.tpskh.com - learn more)

Optional

- Automatic Transfer Switch (ATS)
- Canopy/Enclosure
- Water heater for severe cold weather
- Lub-oil heater for severe cold weather
- Silent containerised
- Residential silencer
- Panel for auto synchronization with Mains
- Extra air filters for time-maintenance
- Automatic oil supply system
- Extra oil filters for time-maintenance
- Parallel cabinet
- Full range of attachments and options available for alternator
- Flame arrestor in gas train
- Desulfurization system
- Gas pretreatment system
- Dehydration system
- Genset Commissioning / Testing on site

Combined Heat and Power Systems



We offer Combined Cooling Heating and Power (CHP and CCHP) packages for our gas generator sets. It can recover 75%-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.

Warranty

The goods of Tide Power System are under warranty against defects in materials and workmanship for period of 12 months after shipment arrival to the customer or 2000 hours operation 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.