

Exclusively from your Caterpillar® dealer



## GEUG13S1

<b>50 HZ</b>	
<b>STANDBY</b>	<b>13.0 kVA</b>
<b>PRIME</b>	<b>11.0 kVA</b>
<b>60 HZ</b>	
<b>STANDBY</b>	<b>16.0 kVA</b>
<b>PRIME</b>	<b>13.5 kVA</b>

Ratings applicable for LP Gas.  
See page 4 for Natural Gas ratings

## FEATURES

### GENERATING SET

- Complete system designed and built at ISO9001 certified facility
- Factory tested to design specifications at full load conditions
- Fully engineered with a range of options and accessories

### ENGINE

- Industrial water cooled natural gas engine
- Governor, electronic
- Electrical system, 12 VDC
- Cartridge type fuel and oil filters
- Air filter
- Battery(ies), rack and cables
- Gas shutoff valve, solenoid operated
- Gas pressure regulator
- Low oil pressure shutdown

### GENERATOR

- Self excited brushless generator
- Insulation system, class H
- Drip proof generator air intake (IP23)
- Electrical design in accordance with BS5000 Part 99, IEC60034-1, VDE0530

### CONTROL SYSTEM

- 2001K Autostart control panel
- Vibration isolated sheet steel enclosure with hinged lockable door

### MOUNTING ARRANGEMENT

- Heavy-duty fabricated steel base with lifting points
- Anti-vibration pads to ensure vibration isolation
- Engine coupled to generator with flexible disc-coupling
- Coolant and lube oil drains piped to edge of base

### COOLING SYSTEM

- Standard ambient temperatures up to 43° C (110° F)
- Fan, fan drive and charging alternator fully guarded
- Antifreeze protection coolant
- High coolant temperature shutdown
- Low coolant level shutdown
- Low coolant temperature alarm

### CIRCUIT BREAKER

- 3-pole miniature circuit breaker (mcb)
- Vibration isolated sheet steel enclosure
- Outgoing cable stub up area directly below circuit breaker

### AUTOMATIC VOLTAGE REGULATOR

- Voltage regulation  $\pm 1.0\%$
- Provides fast recovery from transient load changes

### EQUIPMENT FINISH

- All electroplated hardware
- Anticorrosive paint protection
- High gloss polyurethane paint for durability and scuff resistance

### QUALITY STANDARDS

- BS4999, BS5000, BSEN60034, BSEN61000, IEC60034

### DOCUMENTATION

- Operation and maintenance manuals provided
- Wiring diagrams included

### WARRANTY

- All equipment carries full manufacturer's warranty

5 0	H z	S T A N D B Y	1 3 . 0	k V A
		P R I M E	1 1 . 0	k V A
6 0	H z	S T A N D B Y	1 6 . 0	k V A
		P R I M E	1 3 . 5	k V A

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## OPTIONAL EQUIPMENT\*

<b>Generator</b>	Anti-condensation heater
<b>Cooling System</b>	Coolant heater Radiator transition flange
<b>Fuel System</b>	Low coolant temperature alarm Low gas pressure alarm Gas installation kit
<b>Silencer System — Open Unit</b>	Level 2 silencer system (25 dB(A)) Level 3 silencer system (35 dB(A)) Mounting kit Through wall installation kits
<b>Enclosures</b>	Sound attenuated enclosure (includes internal silencer system)
<b>Circuit Breaker</b>	Earth leakage protection, CB trip
<b>Transfer Switches</b>	TM Series manual transfer switches TC Series compact automatic transfer switches ATI Series intelligent automatic transfer switches
<b>Certification</b>	European CE certification (not available on 60 Hz models)

\*Some options may not be available on all models.  
Not all options are listed.

Consult your Olympian representative for more information



50 H z    S T A N D B Y    13.0 k V A  
              P R I M E            11.0 k V A  
 60 H z    S T A N D B Y    16.0 k V A  
              P R I M E            13.5 k V A

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**GEUG13S1 (1-Phase) 50 Hz**

Generator Set Technical Data		LP Gas		Natural Gas	
		Standby	Prime	Standby	Prime
<b>Package Performance</b> Power rating	kVA (kW)	13.0 (13.0)	11.0 (11.0)	11.8 (11.8)	10.0 (10.0)
<b>Lubricating System</b> Type: Full pressure Oil filter: Spin-on, full flow Oil type required: API CF-4 Total lube system capacity Oil pan capacity	L (U.S. Gal) L (U.S. Gal)	4.5 (1.18) 4.0 (1.05)		4.5 (1.18) 4.0 (1.05)	
<b>Fuel System</b> Generator set fuel consumption 100% load 75% load 50% load	m³/hr (cfh) m³/hr (cfh) m³/hr (cfh)	2.2 (76.4) 1.6 (57.6) 1.1 (39.2)	1.8 (64.7) 1.4 (49.1) 1.0 (33.6)	5.1 (179) 3.8 (133) 2.6 (92.0)	4.3 (152) 3.3 (115) 2.2 (78.9)
<b>Engine Electrical System</b> Ignition system: Electronic, Distributorless Voltage/ground: 12 vDC/negative Battery charging alternator ampere rating	amps	45		45	
<b>Cooling System</b> Water pump type: Centrifugal Cooling system capacity Maximum coolant static head Coolant flow rate Minimum temperature to engine Temperature rise across engine Heat rejected to coolant at rated power Total heat radiated to room at rated power Radiator fan load	L (U.S. Gal) m H <sub>2</sub> O (ft H <sub>2</sub> O) L/hr (U.S. gal/hr) °C (°F) °C (°F) kW (Btu/min) kW (Btu/min) kW (hp)	6.1 (1.61) 2.0 (6.5) 2280 (602) 76.0 (169) 2.9 (5.2) 13.9 (792) 7.4 (418) 0.50 (0.67)	11.9 (674) 6.3 (355) 0.50 (0.67)	6.1 (1.61) 2.0 (6.5) 2280 (602) 76.0 (169) 3.1 (5.6) 12.7 (721) 6.7 (380) 0.50 (0.67)	10.8 (614) 5.7 (324) 0.50 (0.67)
<b>Air Requirements</b> Combustion air flow Maximum air cleaner restriction Radiator cooling air Generator cooling air External restriction to cooling airflow	m³/min (cfm) kPa (in H <sub>2</sub> O) m³/min (cfm) m³/min (cfm) Pa (in H <sub>2</sub> O)	1.32 (46.5) 1.5 (6.0) 63.0 (2225) 9.0 (318) 247 (1.0)	1.11 (39.3) 1.5 (6.0) 63.0 (2225) 9.0 (318) 247 (1.0)	1.14 (40.9) 1.5 (6.0) 63.0 (2225) 9.0 (318) 247 (1.0)	1.0 (34.1) 1.5 (6.0) 63.0 (2225) 9.0 (318) 247 (1.0)
<b>Exhaust System</b> Maximum allowable backpressure Exhaust flow at rated power Exhaust temperature at rated power (dry exhaust)	kPa (in Hg) m³/min (cfm) °C (°F)	17.3 (5.12) 3.87 (137) 568 (1054)	3.22 (114) 552 (1026)	17.3 (5.12) 3.57 (126) 580 (1076)	2.94 (104) 557 (1035)
<b>Generator Set Noise Rating*</b> (without attenuation) at 1 m (3.28 ft)	dBA	TBA		TBA	

\*dBA levels are for guidance only

Generator Technical Data		50 Hz		
		240V	230V	220V
<b>Motor Starting Capability:</b> Self Excited (kVA)		33.0	31.0	29.0
<b>Full Load Efficiency</b> Standby % Prime %		87.5 87.6	87.2 87.6	87.0 87.6
<b>Reactances (per unit)</b>				
Xd	1.18	1.29	1.41	
X'd	0.16	0.17	0.19	
Reactances X" d	0.074	0.081	0.089	
are shown Xq	0.59	0.64	0.70	
applicable to the X" q	0.106	0.116	0.126	
standby LPG rating X2	N/A	N/A	N/A	
X0	N/A	N/A	N/A	
<b>Time Constants:</b>	t'd 40 ms	t" 6 ms	t'do 360 ms	ta 8 ms

Consult your Olympian representative for more information

5 0 H z S T A N D B Y 1 3 . 0 k V A  
 P R I M E 1 1 . 0 k V A  
 6 0 H z S T A N D B Y 1 6 . 0 k V A  
 P R I M E 1 3 . 5 k V A

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**GEUG13S1 (1-Phase) 60 Hz**

Generator Set Technical Data		LP Gas		Natural Gas	
		Standby	Prime	Standby	Prime
<b>Package Performance</b> Power rating	kVA (kW)	16.0 (16.0)	13.5 (13.5)	15.0 (15.0)	13.0 (13.0)
<b>Lubricating System</b> Type: Full pressure Oil filter: Spin-on, full flow Oil type required: API CF-4 Total lube system capacity Oil pan capacity	L (U.S. Gal) L (U.S. Gal)	4.5 (1.18) 4.0 (1.05)		4.5 (1.18) 4.0 (1.05)	
<b>Fuel System</b> Generator set fuel consumption 100% load 75% load 50% load	m <sup>3</sup> /hr (cfh) m <sup>3</sup> /hr (cfh) m <sup>3</sup> /hr (cfh)	2.6 (92.2) 2.0 (69.6) 1.3 (47.4)	2.2 (78.2) 1.7 (58.4) 1.2 (40.7)	6.4 (225) 4.8 (168) 3.3 (115)	5.5 (195) 4.1 (146) 2.9 (101)
<b>Engine Electrical System</b> Ignition system: Electronic, Distributorless Voltage/ground: 12 vDC/negative Battery charging alternator ampere rating	amps	45		45	
<b>Cooling System</b> Water pump type: Centrifugal Cooling system capacity Maximum coolant static head Coolant flow rate Minimum temperature to engine Temperature rise across engine Heat rejected to coolant at rated power Total heat radiated to room at rated power Radiator fan load	L (U.S. Gal) m H <sub>2</sub> O (ft H <sub>2</sub> O) L/hr (U.S. gal/hr) °C (°F) °C (°F) kW (Btu/min) kW (Btu/min) kW (hp)	6.1 (1.61) 2.7 (8.9) 2700 (713) 76.0 (169) 2.8 (5.0) 17.1 (970) 9.0 (512) 0.9 (1.2)	2.5 (4.5) 14.5 (826) 7.7 (436) 0.9 (1.2)	6.1 (1.61) 2.7 (8.9) 2700 (713) 76.0 (169) 2.5 (4.5) 16.1 (912) 8.5 (481) 0.9 (1.2)	2.5 (4.5) 14.0 (797) 7.4 (421) 0.9 (1.2)
<b>Air Requirements</b> Combustion air flow Maximum air cleaner restriction Radiator cooling air Generator cooling air External restriction to cooling airflow	m <sup>3</sup> /min (cfm) kPa (in H <sub>2</sub> O) m <sup>3</sup> /min (cfm) m <sup>3</sup> /min (cfm) Pa (in H <sub>2</sub> O)	1.58 (55.7) 1.5 (6.0) 75.6 (2670) 10.8 (382) 247 (1.0)	1.33 (47.0)	1.51 (53.3) 1.5 (6.0) 75.6 (2670) 10.8 (382) 247 (1.0)	1.31 (46.2)
<b>Exhaust System</b> Maximum allowable backpressure Exhaust flow at rated power Exhaust temperature at rated power (dry exhaust)	kPa (in Hg) m <sup>3</sup> /min (cfm) °C (°F)	17.3 (5.12) 4.8 (170) 600 (1112)	4.0 (142) 584 (1083)	17.3 (5.12) 4.9 (173) 612 (1134)	4.2 (149) 605 (1121)
<b>Generator Set Noise Rating*</b> (without attenuation) at 1 m (3.28 ft)	dBA	TBA		TBA	

\*dBA levels are for guidance only

Generator Technical Data	60 Hz			
	240/120V		220/110V	
<b>Motor Starting Capability:</b> Self Excited (kVA)	29.0		25.0	
<b>Full Load Efficiency</b> Standby % Prime %	87.0 87.3		85.5 86.1	
<b>Reactances (per unit)</b> Xd X'd Reactances are shown applicable to the standby LPG rating X2 X0	1.75 0.23 0.110 0.87 0.157 N/A N/A		2.08 0.28 0.131 1.04 0.186 N/A N/A	
<b>Time Constants:</b>	t'd 40 ms	t'' 6 ms	t'do 360 ms	ta 8 ms

Consult your Olympian representative for more information

5 0 H z S T A N D B Y 1 3 . 0 k V A  
 P R I M E 1 1 . 0 k V A  
 6 0 H z S T A N D B Y 1 6 . 0 k V A  
 P R I M E 1 3 . 5 k V A

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**RATINGS AT AVAILABLE VOLTAGES**

1 PHASE 50 Hz					
Voltage Code	Voltage	Standby - kVA (kW)		Prime - kVA (kW)	
		LP	Natural	LP	Natural
VOPT525	220	13.0 (13.0)	11.8 (11.8)	11.0 (11.0)	10.0 (10.0)
VOPT523	230	13.0 (13.0)	11.8 (11.8)	11.0 (11.0)	10.0 (10.0)
VOPT521	240	13.0 (13.0)	11.8 (11.8)	11.0 (11.0)	10.0 (10.0)

1 PHASE 60 Hz					
Voltage Code	Voltage	Standby - kVA (kW)		Prime - kVA (kW)	
		LP	Natural	LP	Natural
VOPT626	220/110	15.9 (15.9)	15.0 (15.0)	13.5 (13.5)	13.0 (13.0)
VOPT622	240/120	16.0 (16.0)	15.0 (15.0)	13.5 (13.5)	13.0 (13.0)

Ratings at 27° C (80° F), 152.4 m (500 ft), 60% humidity, 1.0 pf

**RATING DEFINITIONS**

**STANDBY**

These ratings are applicable for supplying continuous electrical power (at variable load) in the event of a utility power failure. No overload is permitted on these ratings. When used at standby rating the alternator will be peak continuous rated (as defined in ISO8528-3).

**PRIME POWER**

These ratings are applicable for supplying continuous power (at variable load) in lieu of commercially purchased power. There is no limitation to the annual hours of operation and this model can supply 10% overload power for 1 hour in 12 hours.