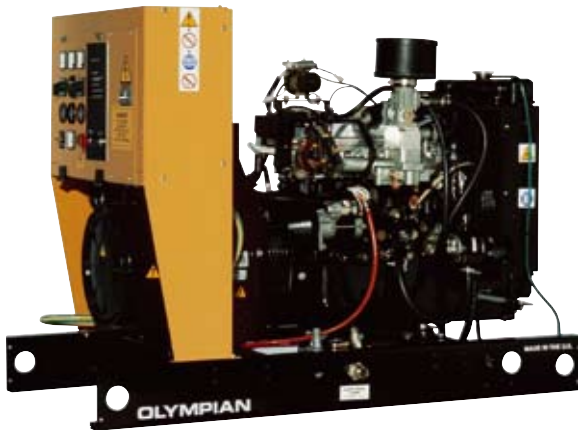


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GEUG16-1

50 HZ	
STANDBY	16.5 kVA
PRIME	14.0 kVA
60 HZ	
STANDBY	20.0 kVA
PRIME	16.9 kVA

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 0.5 %
- 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

50	Hz	STANDBY	16.5	kVA
		PRIME	14.0	kVA
60	Hz	STANDBY	20.0	kVA
		PRIME	16.9	kVA

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OPTIONAL EQUIPMENT*

Generator	Anti-condensation heater
Cooling System	Coolant heater Radiator transition flange
Fuel System	Low coolant temperature alarm Low gas pressure alarm Gas installation kit
Silencer System — Open Unit	Level 2 silencer system (25 dB(A)) Level 3 silencer system (35 dB(A)) Mounting kit Through wall installation kits
Enclosures	Sound attenuated enclosure (includes internal silencer system)
Circuit Breaker	Upgrades from 3-pole to 4-pole breaker Earth leakage protection, CB trip
Transfer Switches	TM Series manual transfer switches TC Series compact automatic transfer switches ATI Series intelligent automatic transfer switches
Certification	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

5 0 H z S T A N D B Y 1 6 . 5 k V A
 P R I M E 1 4 . 0 k V A
 6 0 H z S T A N D B Y 2 0 . 0 k V A
 P R I M E 1 6 . 9 k V A

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GEUG16-1 (3-Phase) 50 Hz

Generator Set Technical Data		LP Gas		Natural Gas	
		Standby	Prime	Standby	Prime
Package Performance Power rating	kVA (kW)	16.5 (13.2)	14.0 (11.2)	15.0 (12.0)	12.5 (10.0)
Lubricating System 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)	
Fuel System Generator set fuel consumption 100% load 75% load 50% load	m ³ /hr (cfh) m ³ /hr (cfh) m ³ /hr (cfh)	2.2 (76.9) 1.6 (58.2) 1.1 (40.6)	1.9 (65.5) 1.4 (49.8) 1.0 (34.8)	5.1 (180) 3.9 (137) 2.7 (95.3)	4.3 (151) 3.3 (116) 2.3 (80.5)
Engine Electrical System Ignition system: Electronic, Distributorless Voltage/ground: 12 vDC/negative Battery charging alternator ampere rating	amps	45		45	
Cooling System 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 ₂ O (ft H ₂ 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) 2.90 (5.22) 14.1 (804) 7.46 (424) 0.50 (0.67)	12.1 (685) 12.1 (685) 6.4 (362) 0.50 (0.67)	6.1 (1.61) 2.0 (6.5) 2280 (602) 76.0 (169) 3.10 (5.58) 12.9 (734) 6.8 (387) 0.50 (0.67)	10.8 (614) 10.8 (614) 5.7 (324) 0.50 (0.67)
Air Requirements Combustion air flow Maximum air cleaner restriction Radiator cooling air Generator cooling air External restriction to cooling airflow	m ³ /min (cfm) kPa (in H ₂ O) m ³ /min (cfm) m ³ /min (cfm) Pa (in H ₂ O)	1.31 (46.4) 1.5 (6.0) 63.0 (2225) 9.0 (318) 247 (1.0)	1.12 (39.4) 	1.14 (40.2) 1.5 (6.0) 63.0 (2225) 9.0 (318) 247 (1.0)	0.95 (33.5)
Exhaust System Maximum allowable backpressure Exhaust flow at rated power Exhaust temperature at rated power (dry exhaust)	kPa (in Hg) m ³ /min (cfm) °C (°F)	17.3 (5.12) 3.87 (137) 568 (1054)	3.23 (114) 3.23 (114) 552 (1026)	17.3 (5.12) 3.57 (126) 580 (1076)	2.90 (102) 2.90 (102) 557 (1035)
Generator Set Noise Rating* (without attenuation) at 1 m (3.28 ft)	dBA	TBA		TBA	

*dBA levels are for guidance only

Generator Technical Data	50 Hz			
	380/220V	400/230V	415/240V	
Motor Starting Capability: Self Excited (kVA)	39.0	43.0	46.0	
Full Load Efficiency Standby % Prime %	87.9 88.1	87.9 88.1	87.8 88.0	
Reactances (per unit) Xd X'd Reactances are shown applicable to the standby LPG rating	1.71 0.11 0.053 0.86 0.073 0.063 0.005	1.55 0.09 0.047 0.77 0.066 0.057 0.004	1.44 0.09 0.044 0.72 0.061 0.053 0.004	
Time Constants:	t'd 25 ms	t'' 2.5 ms	t'do 409 ms	ta 4 ms

Consult your Olympian representative for more information

50 H z S T A N D B Y 1 6 . 5 k V A
 P R I M E 1 4 . 0 k V A
 60 H z S T A N D B Y 2 0 . 0 k V A
 P R I M E 1 6 . 9 k V A

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GEUG16-1 (3-Phase) 60 Hz

Generator Set Technical Data		LP Gas		Natural Gas	
		Standby	Prime	Standby	Prime
Package Performance Power rating	kVA (kW)	20.0 (16.0)	16.9 (13.5)	18.8 (15.0)	16.9 (13.5)
Lubricating System 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)	
Fuel System Generator set fuel consumption 100% load 75% load 50% load	m ³ /hr (cfh) m ³ /hr (cfh) m ³ /hr (cfh)	2.6 (91.2) 1.9 (68.8) 1.4 (47.8)	2.2 (77.4) 1.7 (58.9) 1.2 (41.1)	6.3 (221) 4.7 (167) 3.3 (116)	5.6 (198) 4.3 (151) 3.0 (105)
Engine Electrical System Ignition system: Electronic, Distributorless Voltage/ground: 12 vDC/negative Battery charging alternator ampere rating	amps	45		45	
Cooling System 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 ₂ O (ft H ₂ 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 (169) 2.8 (5.04) 2.5 (4.5) 17.1 (970) 14.6 (827) 9.0 (512) 7.7 (436) 0.9 (1.2) 0.9 (1.2)		6.1 (1.61) 2.7 (8.9) 2700 (713) 76 (169) 2.5 (4.5) 2.5 (4.5) 16.1 (915) 14.6 (827) 8.5 (483) 7.7 (436) 0.9 (1.2) 0.9 (1.2)	
Air Requirements Combustion air flow Maximum air cleaner restriction Radiator cooling air Generator cooling air External restriction to cooling airflow	m ³ /min (cfm) kPa (in H ₂ O) m ³ /min (cfm) m ³ /min (cfm) Pa (in H ₂ O)	1.58 (55.7)	1.33 (47.1) 1.5 (6.0) 75.6 (2670) 10.8 (382) 247 (1.0)	1.14 (40.2)	1.51 (53.3) 1.5 (6.0) 75.6 (2670) 10.8 (382) 247 (1.0)
Exhaust System Maximum allowable backpressure Exhaust flow at rated power Exhaust temperature at rated power (dry exhaust)	kPa (in Hg) m ³ /min (cfm) °C (°F)	17.3 (5.12) 4.83 (170) 4.00 (141) 600 (1112) 584 (1083)		17.3 (5.12) 4.89 (173) 4.36 (154) 612 (1134) 605 (1121)	
Generator Set Noise Rating* (without attenuation) at 1 m (3.28 ft)	dBA	TBA		TBA	

*dBA levels are for guidance only

Generator Technical Data		60 Hz			
		220/127V			
Motor Starting Capability: Self Excited (kVA)		43.0			
Full Load Efficiency Standby % Prime %		88.3 88.6			
Reactances (per unit)	Xd	tba			
	X'd	tba			
Reactances	X" d	tba			
are shown	Xq	tba			
applicable to the	X" q	tba			
standby LPG rating	X2	tba			
	X0	tba			
Time Constants:	t'd	t"	t'do	ta	
	25 ms	2.5 ms	409 ms	4 ms	

Consult your Olympian representative for more information

50	H z	S T A N D B Y	16.5	k V A
		P R I M E	14.0	k V A
60	H z	S T A N D B Y	20.0	k V A
		P R I M E	16.9	k V A

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RATINGS AT AVAILABLE VOLTAGES

50 Hz					
Voltage Code	Voltage	Standby - kVA (kW)		Prime - kVA (kW)	
		LP	Natural	LP	Natural
VOPT502	415/240	16.5 (13.2)	15.0 (12.0)	14.0 (11.2)	12.5 (10.0)
VOPT503	400/230	16.5 (13.2)	15.0 (12.0)	14.0 (11.2)	12.5 (10.0)
VOPT504	380/220	16.5 (13.2)	15.0 (12.0)	14.0 (11.2)	12.5 (10.0)

60 Hz					
Voltage Code	Voltage	Standby - kVA (kW)		Prime - kVA (kW)	
		LP	Natural	LP	Natural
VOPT608	220/127	20.0 (16.0)	18.8 (15.0)	16.9 (13.5)	16.9 (13.5)

Ratings at 27° C (80° F), 152.4 m (500 ft), 60% humidity, 0.8 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.