

Exclusively from your Caterpillar® dealer



## GEP65-3 (3-Phase)

### 50 HZ

**STANDBY 65.0 kVA / 52 kW**

**PRIME 60.0 kVA / 48 kW**

### 60 HZ

**STANDBY 75.0 kVA / 60 kW**

**PRIME 68.8 kVA / 55 kW**

## 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 diesel engine
- Governor, mechanical
- Electrical system, 12 VDC
- Cartridge type fuel and oil filters
- Air filter
- Battery(s), rack and cables

### 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, UTE51100

### CONTROL SYSTEM

- 1001 keystack 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
- Baseframe incorporates heavy-duty fabricated steel fuel tank, 8 hours running capacity

### EXHAUST SYSTEM

- Heavy duty industrial capacity exhaust silencer (approximately 10 dB reduction) supplied loose

### COOLING SYSTEM

- Standard ambient temperatures up to 50° C (122° F)
- Fan, fan drive and charging alternator fully guarded
- Antifreeze protection coolant

### CIRCUIT BREAKER

- 3-pole miniature circuit breaker (mcb) < 160 amps and 3-pole molded case circuit breaker (mccb) >= 160 amps
- Vibration isolated sheet steel enclosure with removable cover plate
- Outgoing cable stub-up area directly below circuit breaker

### AUTOMATIC VOLTAGE REGULATOR

- Voltage regulation  $\pm 0.5\%$
- 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. Extended warranty terms available.

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## OPTIONAL EQUIPMENT\*

<b>Engine</b>	Electronic governor (fully adjustable) Lube oil drain Lube oil drain valve Lube oil drain pump High lube oil temperature shutdown
<b>Generator</b>	Anti-condensation heater Quadrature droop upgrade Permanent magnet generator (PMG) AREP Excitation system
<b>Cooling System</b>	Coolant heater Low coolant temperature alarm Low coolant level shutdown Radiator transition flange Coolant drain Coolant drain valve 50% Anti-Freeze (Protection to -36°C)
<b>Fuel System</b>	Extended capacity metal basetank Bunded fuel tank (not available with canopied sets) Manual fuel pump Low fuel level shutdown Low fuel level alarm High fuel level alarm Remote fuel systems Fuel transfer systems Manual Bypass Valve
<b>Silencer System — Open Unit</b>	Level 2 silencer with mounting kit (approximately 25 dB reduction) Level 3 silencer with mounting kit (approximately 35 dB reduction) Overhead mounting kit for level 1 silencer Level 1, 2 and 3 silencer installation kits
<b>Enclosures</b>	Sound attenuated (EC) canopy Super sound attenuated (EC) canopy
<b>Handling/Trailers</b>	Oil field skid Single point lift Fixed height chassis trailer Adjustable height chassis trailer
<b>Controls</b>	Baseframe mounted terminal box instead of control panel 2001 Autostart panel 4001 Autostart panel 4001E Autostart panel 6000 Series digital synchronising control panels Access 1000 modular control panel Access 2000 modular control panel Access 4000 digital control panel Automatic mains failure (AMF) upgrades for 2001, 4001 and 4001E panels Control panel upgrades — gauges, meters, battery chargers, alarms, shutdowns
<b>Remote Annunciators</b>	8- and 16-channel remote annunciator panel for 4001 and 4001E control systems only (supplied loose) Remote annunciator upgrade — normal/run control switch Remote annunciator upgrade — lockdown stop pushbutton
<b>Circuit Breaker</b>	Upgrades from 3-pole to 4-pole breaker
<b>Transfer Switches</b>	TM Series manual load transfer panels TC Series automatic load transfer panels TI Series load transfer panels and bypass switches TX Series load transfer panels
<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.

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## SPECIFICATIONS



### GENERATOR

Make..... Olympian  
 Model..... LL2014H  
 Type..... Self-excited, brushless  
 Voltage regulation..... ±0.5% at steady state from  
 from no load to full load  
 Frequency..... ±0.8% for constant load from  
 no load to full load  
 Waveform distortion..... THD <4%  
 Radio interference..... Compliance with BS800 and  
 VDE Class G&N  
 Telephone Interference..... TIF <50, THF <2%  
 Overspeed limit..... 2250 rpm  
 Insulation..... Class H  
 Temperature rise..... Within Class H limits  
 Deration..... Consult factory for available outputs

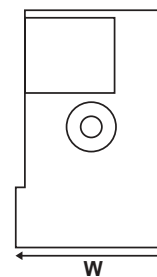
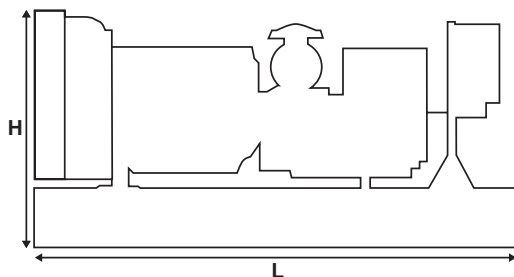


### ENGINE

Manufacturer..... Perkins  
 Model..... 1004TG2  
 Type..... 4-Cycle  
 Aspiration..... Turbocharged  
 Cylinder configuration..... In-line 4  
 Displacement — L (cu in)..... 3.99 (243)  
 Bore/stroke — mm (in)..... 100/127 (3.9/5.0)  
 Compression ratio..... 16.0:1  
 Engine speed — rpm  
 50 Hz..... 1500  
 60 Hz..... 1800

Piston speed — m/sec (ft/sec)  
 50 Hz..... 6.35 (20.8)  
 60 Hz..... 7.62 (25.0)  
 Maximum power at rated rpm — kW (hp)  
 Standby  
 50 Hz..... 77.5 (104)  
 60 Hz..... 91.0 (122)  
 Prime  
 50 Hz..... 70.5 (94.5)  
 60 Hz..... 72.7 (111)  
 BMEP — kPa (psi)  
 Standby  
 50 Hz..... 1503 (218)  
 60 Hz..... 1521 (221)  
 Prime  
 50 Hz..... 1413 (205)  
 60 Hz..... 1383 (201)  
 Regenerative power — kW (hp)  
 50 Hz..... 9.5 (12.7)  
 60 Hz..... 12.7 (17.0)  
 Motor starting capability — kW (hp)  
 50 Hz..... 61.0 (81.8)  
 60 Hz..... 71.0 (95.2)  
 Governor  
 Type..... Mechanical  
 Class..... ISO 8528 G2

## GENERATING SET DIMENSIONS AND WEIGHTS



Model	Length mm (in)	Width mm (in)	Height mm (in)	Weight* kg (lb)
GEP65-3	2149 (84.6)	752 (29.6)	1341 (52.8)	920 (2029)

Note: General configuration not to be used for installation. See general dimension drawings for detail.

\*Includes oil and coolant

Consult your Olympian representative for more information

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## GEP65-3 (3-Phase)

Generator Set Technical Data		50 Hz		60 Hz	
		Standby	Prime	Standby	Prime
<b>Package Performance</b> Power rating	kVA (kW)	65.0 (52.0)	60.0 (48.0)	75.0 (60.0)	68.8 (55.0)
<b>Lubricating System</b> Type: Oil pump & lubrication sump Oil filter: Spin-on, full flow Oil cooler: Water Oil type required: API CD 15W-40 Total lube system capacity Oil pan capacity	L (U.S. Gal) L (U.S. Gal)	8.1 (2.14) 6.9 (1.8)		8.1 (2.14) 6.9 (1.82)	
<b>Fuel System</b> Fuel Tank Capacity Generator set fuel consumption** 100% load 75% load 50% load	L (U.S. Gal) L/hr (U.S. g/hr) L/hr (U.S. g/hr) L/hr (U.S. g/hr)	176 (46.5) 15.3 (4.0) 11.6 (3.1) 8.4 (2.2)	14.0 (3.7) 10.8 (2.8) 7.9 (2.1)	176 (46.5) 17.9 (4.7) 14.0 (3.7) 10.4 (2.7)	16.5 (4.4) 13.1 (3.4) 9.9 (2.6)
<b>Engine Electrical System</b> Voltage/ground: 12 vDC/negative Battery charging alternator ampere rating	amps	55		55	
<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)	19.7 (5.2) 2.0 (6.6) 5520 (1458) 70 (158) 7 (13) 37.0 (2105) 22.6 (1258) 2.5 (3.4)	34.0 (1934)	19.7 (5.2) 3.0 (9.9) 7080 (1871) 70 (158) 6 (11) 41.0 (2334) 24.1 (1371) 4.3 (5.8)	38.0 (2163) 21.9 (1246)
<b>Air Requirements</b> Combustion air flow Maximum air cleaner restriction Radiator cooling air Generator cooling air	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)	5.0 (177) 3.0 (12.0) 146 (5156) 16.2 (572)	4.8 (170)	6.3 (222) 3.0 (12.0) 176 (6215) 19.2 (678)	4.8 (170)
<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)	6.0 (1.77) 14.5 (488) 584 (1083)	13.6 (480)	6.0 (1.77) 17.4 (615) 560 (1040)	13.6 (480) 559 (1038)
<b>Generator Set Noise Rating*</b> (without attenuation) at 1 m (3.28 ft)	dBA	94.0		96.8	

\*dBA levels are for guidance only

\*\*Fuel consumption data at indicated load with diesel fuel with a specific gravity of 0.85 and conforming to BS2869:1998 Class A2.

Generator Technical Data	50 Hz				60 Hz				
	415/240V	400/230V	380/220V	220/127V	480/277V	440/254V	208/120V	230/115V	380/220V
<b>Motor Starting Capability:</b>									
Self Excited (kVA)	150	140	126	168	166	139	125	114	104
AREP Excited*** (kVA)	195	183	165	221	215	183	162	150	136
PM Excited**** (kVA)	195	183	165	221	215	183	162	150	136
<b>Full Load Efficiency</b>									
Standby %	90.3	90.2	89.9	90.2	91.1	90.7	90.2	89.9	89.2
Prime %	90.6	90.5	90.3	90.4	91.3	91.0	90.6	90.2	89.7
<b>Reactances (per unit)</b>									
Saturated X'd	2.66	2.86	3.17	2.36	2.75	3.27	3.68	3.96	4.39
Reactances are shown X"q	0.10	0.11	0.12	0.09	0.10	0.12	0.14	0.15	0.17
applicable to the standby rating X"q	0.048	0.052	0.058	0.043	0.050	0.060	0.067	0.072	0.080
X2	1.59	1.71	1.90	1.41	1.65	1.96	2.20	2.37	2.63
X0	0.060	0.065	0.072	0.054	0.063	0.074	0.084	0.090	0.100
	0.054	0.059	0.065	0.048	0.056	0.067	0.075	0.081	0.090
	0.005	0.005	0.006	0.004	0.005	0.006	0.007	0.008	0.008
<b>Time Constants:</b>	t'd 50 ms		t" 5 ms		t'do 1365 ms			ta 10 ms	

\*\*\*With AREP Excited Option AR20A/AR21A

\*\*\*\*With PMG Excited Option AR18A/AR19A

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## RATINGS AT AVAILABLE VOLTAGES

50 Hz					
Voltage Code	Voltage	Standby		Prime	
		kVA	kW	kVA	kW
VOPT502	415/240	65	52	60	48
VOPT503	400/230	65	52	60	48
VOPT504	380/220	65	52	60	48
VOPT506	230/115	65	52	60	48
VOPT507	220/127	65	52	60	48
VOPT508	220/110	65	52	60	48
VOPT510	200/115	65	52	60	48

60 Hz					
Voltage Code	Voltage	Standby		Prime	
		kVA	kW	kVA	kW
VOPT601	480/277	75.0	60.0	68.8	55.0
VOPT603	440/254	75.0	60.0	68.8	55.0
VOPT605	380/220	75.0	60.0	68.8	55.0
VOPT606	240/120	75.0	60.0	68.8	55.0
VOPT607	230/115	75.0	60.0	68.8	55.0
VOPT608	220/127	75.0	60.0	68.8	55.0
VOPT609	220/110	75.0	60.0	68.8	55.0
VOPT610	208/120	75.0	60.0	68.8	55.0
VOPT611	240/139	75.0	60.0	68.8	55.0

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.

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