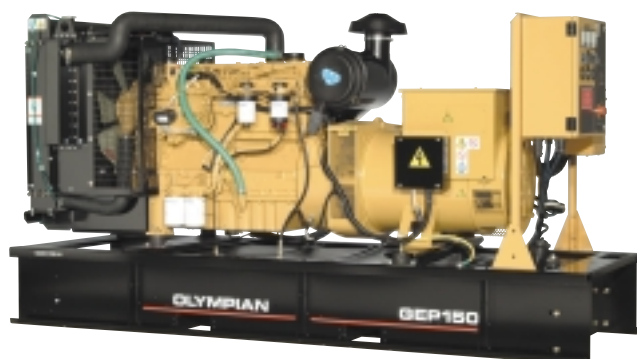


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## GEP150 (3-Phase)

50 HZ

**STANDBY 150 kVA / 120 kW**

**PRIME 135 kVA / 108 kW**

60 HZ

**STANDBY 165 kVA / 132 kW**

**PRIME 150 kVA / 120 kW**

## FEATURES

### GENERATOR 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, electronic
- 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

- 2001 keystart 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 integral plastic

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 ±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, BS5514, IEC60034, VDE0530

### DOCUMENTATION

- Operation and maintenance manuals provided
- Wiring diagrams included

### WARRANTY

- 12 months from date of initial start-up or 18 months from shipping, whichever occurs first

5 0 H z	S T A N D B Y	1 5 0 k V A / 1 2 0 k W
	P R I M E	1 3 5 k V A / 1 0 8 k W
6 0 H z	S T A N D B Y	1 6 5 k V A / 1 3 2 k W
	P R I M E	1 5 0 k V A / 1 2 0 k W

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## OPTIONAL EQUIPMENT\*

Engine	Electronic governor (fully adjustable) Lube oil drain Lube oil drain valve Lube oil drain pump High lube oil temperature shutdown
Generator	Anti-condensation heater Quadrature droop upgrade Permanent magnet generator (PMG) AREP Excitation system
Cooling System	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)
Fuel System	Integral metal fuel tank Extended capacity metal basetank Bunded fuel tank (not available with canopied sets) Manual fuel pump Low fuel level shutdown Low fuel level alarm Remote fuel systems Fuel transfer systems Manual Bypass Valve
Silencer System — Open Unit	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
Enclosures	Sound attenuated (EC) canopy Super sound attenuated (EC) canopy
Handling/Trailers	Oil field skid Single point lift
Controls	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
Remote Annunciators	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
Circuit Breaker	Upgrades from 3-pole to 4-pole breaker
Transfer Switches	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
Certification	European CE certification

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

50 Hz	STANDBY	150 kVA / 120 kW
	PRIME	135 kVA / 108 kW
60 Hz	STANDBY	165 kVA / 132 kW
	PRIME	150 kVA / 120 kW

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## SPECIFICATIONS



### GENERATOR

Make	Olympian
Model	LL3014F
Type	Self-excited, brushless
Voltage regulation	±0.5% at steady state from no load to full load
Frequency	±0.25% 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

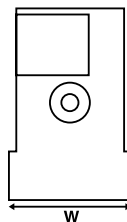
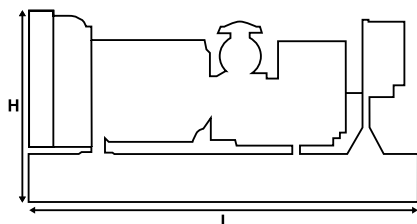


### ENGINE

Manufacturer	Perkins
Model	1006TAG
Type	4-Cycle
Aspiration	Turbocharged AA Charge Cooled
Cylinder configuration	In-line 6
Displacement — L (cu in)	5.99 (366)
Bore/stroke — mm (in)	100/127 (3.94/5.0)
Compression ratio	17.0:1
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	146 (196)
60 Hz	164 (219)
Prime	
50 Hz	135 (181)
60 Hz	150 (201)
BMEP — kPa (psi)	
Standby	
50 Hz	1964 (285)
60 Hz	1836 (266)
Prime	
50 Hz	1767 (256)
60 Hz	1610 (234)
Regenerative power — kW (hp)	
50 Hz	12.6 (16.9)
60 Hz	16.2 (21.7)
Motor starting capability — kW (hp)	
50 Hz	108 (145)
60 Hz	120 (161)
Governor	
Type	Electronic
Class	ISO 8528 G3

## GENERATOR SET DIMENSIONS AND WEIGHTS



Model	Length mm (in)	Width mm (in)	Height mm (in)	Weight* kg (lb)
GEP150	2700 (106.3)	900 (35.4)	1460 (57.5)	1417 (3125)

\*Includes oil and coolant

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

Consult your Olympian representative for more information

50 Hz STANDBY 150 kVA / 120 kW  
PRIME 135 kVA / 108 kW  
60 Hz STANDBY 165 kVA / 132 kW  
PRIME 150 kVA / 120 kW

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## GEP150 (3-Phase)

Generator Set Technical Data		50 Hz		60 Hz	
		Standby	Prime	Standby	Prime
<b>Package Performance</b> Power rating		kVA (kW)			
		150 (120)	135 (108)	165 (132)	150 (120)
<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)		19.0 (5.0)	
		L (U.S. Gal)		16.0 (4.2)	
<b>Fuel System</b> Fuel Tank Capacity Generator set fuel consumption** 100% load 75% load 50% load		L (U.S. Gal)		290 (76.6)	
		L/hr (U.S. g/hr)		34.1 (9.00) 31.2 (8.24)	
		L/hr (U.S. g/hr)		26.1 (6.90) 23.9 (6.31)	
		L/hr (U.S. g/hr)		18.1 (4.79) 16.5 (4.37)	
<b>Engine Electrical System</b> Voltage/ground: 12 vDC/negative Battery charging alternator ampere rating		amps		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)		37.2 (9.8)	
		m H <sub>2</sub> O (ft H <sub>2</sub> O)		6.8 (22.5)	
		L/hr (U.S. gal/hr)		8400 (2219)	
		°C (°F)		76 (169)	
		°C (°F)		8 (14)	
		kW (Btu/min)		69.4 (3947) 64.6 (3674)	
		kW (Btu/min)		34.1 (1940) 21.7 (1234)	
		kW (hp)		9.0 (12.1)	
<b>Air Requirements</b> Combustion air flow Maximum air cleaner restriction Radiator cooling air Generator cooling air					
		m <sup>3</sup> /min (cfm)		8.7 (308) 8.3 (293)	
		kPa (in H <sub>2</sub> O)		5.0 (20.1)	
		m <sup>3</sup> /min (cfm)		192 (6780)	
		m <sup>3</sup> /min (cfm)		22.2 (784)	
<b>Exhaust System</b> Maximum allowable backpressure Exhaust flow at rated power Exhaust temperature at rated power (dry exhaust)					
		kPa (in Hg)		6.0 (1.77)	
		m <sup>3</sup> /min (cfm)		25.5 (899) 23.8 (839)	
		°C (°F)		583 (1081) 568 (1054)	
<b>Generator Set Noise Rating*</b> (without attenuation) at 1 m (3.28 ft)		dBA		tba	

\*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)	315	293	264	346	348	292	261	242	219
AREP Excited*** (kVA)	420	390	351	463	463	390	348	321	289
PM Excited**** (kVA)	420	390	351	463	463	390	348	321	289
<b>Full Load Efficiency</b>									
Standby %	92.2	92.3	92.1	92.0	93.1	92.9	92.6	92.3	91.9
Prime %	92.5	92.6	92.5	92.1	93.2	93.1	92.9	92.6	92.3
<b>Reactances (per unit)</b>									
Saturated Xd	2.93	3.16	3.50	2.40	2.89	3.44	3.87	4.17	4.62
Saturated X'd	0.10	0.11	0.12	0.08	0.10	0.12	0.14	0.15	0.16
Reactances are shown Xq	0.065	0.070	0.078	0.053	0.064	0.076	0.086	0.092	0.102
applicable to the standby rating X"q	1.75	1.89	2.09	1.44	1.73	2.06	2.32	2.49	2.76
X2	0.077	0.083	0.092	0.063	0.076	0.091	0.102	0.110	0.122
X0	0.071	0.077	0.085	0.058	0.070	0.084	0.094	0.101	0.112
	0.005	0.006	0.006	0.004	0.005	0.006	0.007	0.007	0.008
<b>Time Constants:</b>									
	t'd 100 ms.			t'd 10 ms.		t'do 2723 ms.		ta 15 ms.	

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

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

Consult your Olympian representative for more information.

5 0 H z	S T A N D B Y	1 5 0 k V A / 1 2 0 k W
	P R I M E	1 3 5 k V A / 1 0 8 k W
6 0 H z	S T A N D B Y	1 6 5 k V A / 1 3 2 k W
	P R I M E	1 5 0 k V A / 1 2 0 k W

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## RATINGS AT AVAILABLE VOLTAGES

50 Hz					
Voltage Code	Voltage	Standby		Prime	
		kVA	kW	kVA	kW
VOPT502	415/240	150.0	120.0	135.0	108.0
VOPT503	400/230	150.0	120.0	135.0	108.0
VOPT504	380/220	150.0	120.0	135.0	108.0
VOPT506	230/115	150.0	120.0	135.0	108.0
VOPT507	220/127	138.0	110.0	125.0	100.0
VOPT508	220/110	150.0	120.0	135.0	108.0
VOPT510	200/115	150.0	120.0	135.0	108.0

60 Hz					
Voltage Code	Voltage	Standby		Prime	
		kVA	kW	kVA	kW
VOPT601	480/277	165.0	132.0	150.0	120.0
VOPT603	440/254	165.0	132.0	150.0	120.0
VOPT605	380/220	165.0	132.0	150.0	120.0
VOPT606	240/120	165.0	132.0	150.0	120.0
VOPT607	230/115	165.0	132.0	150.0	120.0
VOPT608	220/127	165.0	132.0	150.0	120.0
VOPT609	220/110	165.0	132.0	150.0	120.0
VOPT610	208/120	165.0	132.0	150.0	120.0
VOPT611	240/139	165.0	132.0	150.0	120.0

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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	PRIME	135 kVA / 108 kW
60 Hz	STANDBY	165 kVA / 132 kW
	PRIME	150 kVA / 120 kW

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