

# OLYMPIAN™



## GEP563-1

*Diesel Generator Set  
Exclusively from your Cat® dealer*

### Output Ratings

Generating Set Model	Prime*	Standby*
-	-	-
480V, 60 Hz	513.0 kVA 410.4 kW	563.0 kVA 450.4 kW

\* Refer to ratings definitions on page 4.  
Ratings at 0.8 power factor.

### Technical Data

<b>Engine Make &amp; Model:</b>	Perkins 2506A-E15TAG3	
<b>Alternator Model:</b>	LL6114D	
<b>Base Frame Type:</b>	Heavy Duty Fabricated Steel	
<b>Circuit Breaker Type:</b>	3 Pole MCCB	
<b>Frequency:</b>	<b>50 Hz</b>	<b>60 Hz</b>
<b>Engine Speed: RPM</b>	-	1800
<b>Fuel Tank Capacity: litres (US gal)</b>	928 (245.2)	
<b>Fuel Consumption, Prime: l/hr (US gal/hr)</b>	-	100.0 (26.4)
<b>Fuel Consumption, Standby : l/hr (US gal/hr)</b>	-	112.2 (29.6)

## Engine Technical Data

Physical Data	
<b>Manufacturer:</b>	Perkins
<b>Model:</b>	2506A-E15TAG3
<b>No. of Cylinders/Alignment:</b>	6 / In Line
<b>Cycle:</b>	4 Stroke
<b>Induction:</b>	Turbocharged Air To Air Charge Cooled
<b>Cooling Method:</b>	Water
<b>Governing Type:</b>	Electronic
<b>Governing Class:</b>	ISO 8528 G2
<b>Compression Ratio:</b>	16.0:1
<b>Displacement:</b> l (cu.in)	15.2 (927.6)
<b>Bore/Stroke:</b> mm (in)	135.0 (5.3)/167.0 (6.6)
<b>Moment of Inertia:</b> kg m <sup>2</sup> (lb. in <sup>2</sup> )	4.29 (14660)
<b>Engine Electrical System:</b>	
-Voltage/Ground:	24/Negative
-Battery Charger Amps:	70
<b>Weight:</b> kg (lb) - Dry:	1633 (3600)
- Wet:	1714 (3779)

Air System	50 Hz	60 Hz
<b>Air Filter Type:</b>	Paper Element 18"	
<b>Combustion Air Flow:</b>		
m <sup>3</sup> /min (cfm)	-Standby:	- 38.0 (1342)
	-Prime:	- 34.3 (1211)
<b>Max. Combustion Air Intake</b>		
<b>Restriction:</b> kPa (in H <sub>2</sub> O)	-	6.2 (24.9)
<b>Radiator Cooling Air Flow:</b>		
m <sup>3</sup> /min (cfm)	-	822.0 (29029)
<b>External Restriction to</b>		
<b>Cooling Air Flow:</b> Pa (in H <sub>2</sub> O)	-	125 (0.5)

Cooling System	50 Hz	60 Hz
<b>Cooling System Capacity:</b>		
l (US gal)	-	38.3 (10.1)
<b>Water Pump Type:</b>	Centrifugal	
<b>Heat Rejected to Water &amp; Lube Oil:</b> kW (Btu/min)		
-Standby:	-	132.0 (7507)
-Prime:	-	129.0 (7336)
<b>Heat Radiation to Room:</b>		
kW (Btu/min)	-Standby:	- 61.0 (3469)
	-Prime:	- 53.0 (3014)
<b>Radiator Fan Load:</b> kW (hp)	-	28.0 (37.6)
Cooling system designed to operate in ambient conditions up to 50° C (122° F). Contact your local Olympian dealer for power ratings at specific site conditions.		

Lubrication system	
<b>Oil Filter Type:</b>	Eco, Full Flow
<b>Total Oil Capacity</b> l (US gal):	62.0 (16.4)
<b>Oil Pan</b> l (US gal):	53.0 (14.0)
<b>Oil Type:</b>	API CI4 15W-40
<b>Cooling Method:</b>	Water

Performance	50 Hz	60 Hz
<b>Engine Speed:</b> RPM	-	1800
<b>Gross Engine Power:</b> kW (hp)		
-Standby:	-	498.0 (668.0)
-Prime:	-	454.0 (609.0)
<b>BMEP:</b> kPa (psi)		
-Standby:	-	2315.0 (335.7)
-Prime:	-	2110.0 (306.1)
<b>Regenerative Power:</b> kW	N/A	53.0

Fuel System				
<b>Fuel Filter Type:</b>	Replaceable Element			
<b>Recommended Fuel:</b>	Class A2 Diesel			
<b>Fuel Consumption:</b> l/hr (US gal/hr)				
	<b>110% Load</b>	<b>100% Load</b>	<b>75% Load</b>	<b>50% Load</b>
<b>Prime</b>				
50 Hz	-	-	-	-
60 Hz	112.2 (29.6)	100.0 (26.4)	73.2 (19.3)	52.4 (13.8)
<b>Standby</b>				
50 Hz	-	-	-	-
60 Hz	112.2 (29.6)	80.5 (21.3)	56.0 (14.8)	
(based on diesel fuel with a specific gravity of 0.85 and conforming to BS2869, Class A2)				

Exhaust System	50 Hz	60 Hz
<b>Silencer Type:</b>	Industrial	
<b>Silencer Noise Reduction</b>	SD150 (1)	
<b>Pressure Drop Across</b>		
<b>Silencer System:</b> kPa (in Hg)	-	0.23 (0.068)
<b>Silencer Noise Reduction</b>		
<b>Level:</b> dB	-	11
<b>Max. Allowable Back</b>		
<b>Pressure:</b> kPa (in. Hg)	-	6.8 (2.0)
<b>Exhaust Gas Flow:</b>		
m <sup>3</sup> /min (cfm)	-Standby:	- 105.3 (3719)
	-Prime:	- 96.0 (3390)
<b>Exhaust Gas Temperature:</b> °C (°F)		
m <sup>3</sup> /min (cfm)	-Standby:	- 511 (952)
	-Prime:	- 515 (959)

Consult your Olympian representative for more information

## Alternator Performance Data

Data Item	50 Hz				60 Hz				
					480/277V	380/220V			440/254V 220/127V
Motor Starting Capability* kVA	-	-	-	-	1089	709	-	-	930
Short Circuit Capacity** %	300	300	300	300	300	300	300	300	300
Reactances: Per Unit									
Xd	-	-	-	-	3.350	5.110	-	-	3.990
X'd	-	-	-	-	0.180	0.270	-	-	0.215
X''d	-	-	-	-	0.126	0.193	-	-	0.150

Reactances shown are applicable to standby ratings.

\* Based on 30% voltage dip.

\*\* With optional Permanent Magnet generator or AREP excitation.

## Alternator Technical Data

Physical Data	
Manufacturer:	OLYMPIAN
Model:	LL6114D
No. of Bearings:	1
Insulation Class:	H
Winding Pitch - Code:	2/3 - 6
Wires:	12
Ingress Protection Rating:	IP23
Excitation System:	SHUNT
AVR Model:	R450M

Operating Data	
Overspeed: RPM	2250
Voltage Regulation (steady state) (%):	+/- 0.5
Wave Form NEMA = TIF:	50
Wave Form IEC = THF:	2.0%
Total Harmonic Content LL/LN:	2.0%
Radio Interference:	Suppression is in line with European Standard EN61000-6
Radiant Heat: kW (Btu/min)	
-50 Hz:	-
-60 Hz:	33.4 (1899)

Consult your Olympian representative for more information

