

OLYMPIAN™



GEP165

*Diesel Generator Set
Exclusively from your Caterpillar® dealer*

Output Ratings		
Generating Set Model	Prime*	Standby*
380-415V, 50Hz	150.0 kVA 120.0 kW	165.0 kVA 132.0 kW
220/127V, 60 Hz	- -	- -

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

Technical Data		
Engine Make & Model:	Perkins 1006TAG2	
Alternator Model:	LL3014H	
Base Frame Type:	Heavy Duty Fabricated Steel	
Circuit Breaker Type:	3 Pole MCCB	
Frequency:	50 Hz	60 Hz
Engine Speed: RPM	1500	-
Fuel Tank Capacity: litres (US gal)	300 (79.3)	
Fuel Consumption, Prime: l/hr (US gal/hr)	31.2 (8.2)	-
Fuel Consumption, Standby : l/hr (US gal/hr)	33.5 (8.8)	-

Engine Technical Data

Physical Data	
Manufacturer:	Perkins
Model:	1006TAG2
No. of Cylinders/Alignment:	6 / In Line
Cycle:	4 Stroke
Induction:	Turbocharged Air To Air Charge Cooled
Cooling Method:	Water
Governing Type:	Electronic
Governing Class:	ISO 8528 G2
Compression Ratio:	17.0:1
Displacement: l (cu.in)	6.0 (365.5)
Bore/Stroke: mm (in)	100.0 (3.9)/127.0 (5.0)
Moment of Inertia: kg m ² (lb. in ²)	1.61 (5502)
Engine Electrical System:	
-Voltage/Ground:	12/Negative
-Battery Charger Amps:	55
Weight: kg (lb) - Dry:	586 (1292)
- Wet:	630 (1389)

Air System	50 Hz	60 Hz
Air Filter Type:	Replaceable Element	
Combustion Air Flow:		
m ³ /min (cfm) -Standby:	10.6 (374)	-
-Prime:	10.2 (360)	-
Max. Combustion Air Intake		
Restriction: kPa (in H ₂ O)	5.0 (20.1)	-
Radiator Cooling Air Flow:		
m ³ /min (cfm)	221.2 (7811)	-
External Restriction to		
Cooling Air Flow: Pa (in H ₂ O)	125 (0.5)	-

Cooling System	50 Hz	60 Hz
Cooling System Capacity:		
l (US gal)	40.2 (10.6)	-
Water Pump Type:	Centrifugal	
Heat Rejected to Water & Lube Oil: kW (Btu/min)		
-Standby:	72.9 (4146)	-
-Prime:	64.6 (3674)	-
Heat Radiation to Room:		
kW (Btu/min) -Standby:	42.9 (2440)	-
-Prime:	27.7 (1575)	-
Radiator Fan Load: kW (hp)	7.0 (9.4)	-

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	
Oil Filter Type:	Spin-On, Full Flow
Total Oil Capacity l (US gal):	19.0 (5.0)
Oil Pan l (US gal):	16.0 (4.2)
Oil Type:	API CG4 15W-40
Cooling Method:	Water

Performance	50 Hz	60 Hz
Engine Speed: RPM	1500	-
Gross Engine Power: kW (hp)		
-Standby:	150.7 (202.0)	-
-Prime:	137.0 (184.0)	-
BMEP: kPa (psi)		
-Standby:	2015.0 (292.2)	-
-Prime:	1831.0 (265.6)	-
Regenerative Power: kW	12.6	-

Fuel System				
Fuel Filter Type:	Replaceable Element			
Recommended Fuel:	Class A2 Diesel			
Fuel Consumption: l/hr (US gal/hr)				
	110% Load	100% Load	75% Load	50% Load
Prime				
50 Hz	33.5 (8.8)	31.2 (8.2)	26.4 (7.0)	-
60 Hz	-	-	-	-
Standby				
50 Hz		33.5 (8.8)	27.8 (7.3)	-
60 Hz		-	-	-

(based on diesel fuel with a specific gravity of 0.85 and conforming to BS2869, Class A2)

Exhaust System	50 Hz	60 Hz
Silencer Type:	Level 1	
Silencer Noise Reduction	SD100 (1)	
Pressure Drop Across		
Silencer System: kPa (in Hg)	3.31 (0.977)	-
Silencer Noise Reduction		
Level: dB	20	-
Max. Allowable Back		
Pressure: kPa (in. Hg)	4.0 (1.2)	-
Exhaust Gas Flow:		
m ³ /min (cfm) -Standby:	29.9 (1056)	-
-Prime:	28.3 (999)	-
Exhaust Gas Temperature: °C (°F)		
m ³ /min (cfm) -Standby:	540 (1004)	-
-Prime:	530 (986)	-

Alternator Performance Data

Data Item	50 Hz				60 Hz				
	415/240V	400/230V 230/115V 200/115V	380/220V 220/110V	220/127V					
Motor Starting Capability* kVA	384	361	331	423	-	-	-	-	-
Short Circuit Capacity** %	300	300	300	300	300	300	300	300	300
Reactances: Per Unit									
Xd	2.580	2.780	3.080	2.150	-	-	-	-	-
X'd	0.090	0.090	0.100	0.070	-	-	-	-	-
X''d	0.052	0.056	0.062	0.043	-	-	-	-	-

Reactances shown are applicable to standby ratings.

* Based on 30% voltage dip. Improved motor starting capability is available with optional Permanent Magnet generator or AREP excitation.

** With optional Permanent Magnet generator or AREP excitation.

Alternator Technical Data

Physical Data	
Manufacturer:	OLYMPIAN
Model:	LL3014H
No. of Bearings:	1
Insulation Class:	H
Winding Pitch - Code:	2/3 - 6
Wires:	12
Ingress Protection Rating:	IP23
Excitation System:	SHUNT
AVR Model:	R250

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:	4.0%
Radio Interference:	Suppression is in line with European Standard EN61000-6
Radiant Heat: kW (Btu/min)	
-50 Hz:	11.0 (626)
-60 Hz:	-

Consult your Olympian representative for more information

