

# OLYMPIAN™



## GEP88-2

*Diesel Generator Set  
Exclusively from your Caterpillar® dealer*

Output Ratings		
Generating Set Model	Prime*	Standby*
380-415V, 50Hz	80.0 kVA 64.0 kW	88.0 kVA 70.4 kW
220/127V, 60 Hz	- -	- -

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

Technical Data		
Engine Make & Model:	Perkins 1104C-44TAG1	
Alternator Model:	LL2014L	
Base Frame Type:	Heavy Duty Fabricated Steel	
Circuit Breaker Type:	3 Pole MCB	
Frequency:	50 Hz	60 Hz
Engine Speed: RPM	1500	-
Fuel Tank Capacity: litres (US gal)	175 (46.2)	
Fuel Consumption, Prime: l/hr (US gal/hr)	18.1 (4.8)	-
Fuel Consumption, Standby : l/hr (US gal/hr)	19.7 (5.2)	-

# Engine Technical Data

Physical Data	
Manufacturer:	Perkins
Model:	1104C-44TAG1
No. of Cylinders/Alignment:	4 / 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:	18.3:1
Displacement: l (cu.in)	4.4 (268.5)
Bore/Stroke: mm (in)	105.0 (4.1)/127.0 (5.0)
Moment of Inertia: kg m <sup>2</sup> (lb. in <sup>2</sup> )	1.51 (5160)
Engine Electrical System:	
-Voltage/Ground:	12/Negative
-Battery Charger Amps:	65
Weight: kg (lb) - Dry:	500 (1102)
- Wet:	520 (1146)

Air System	50 Hz	60 Hz
Air Filter Type:	Replaceable Element	
Combustion Air Flow:		
m <sup>3</sup> /min (cfm) -Standby:	5.5 (195)	-
-Prime:	5.3 (186)	-
Max. Combustion Air Intake		
Restriction: kPa (in H <sub>2</sub> O)	8.0 (32.1)	-
Radiator Cooling Air Flow:		
m <sup>3</sup> /min (cfm)	187.8 (6632)	-
External Restriction to		
Cooling Air Flow: Pa (in H <sub>2</sub> O)	125 (0.5)	-

Cooling System	50 Hz	60 Hz
Cooling System Capacity:		
l (US gal)	17.5 (4.6)	-
Water Pump Type:	Centrifugal	
Heat Rejected to Water & Lube Oil: kW (Btu/min)		
-Standby:	44.5 (2531)	-
-Prime:	35.9 (2042)	-
Heat Radiation to Room:		
kW (Btu/min) -Standby:	6.5 (370)	-
-Prime:	5.3 (301)	-
Radiator Fan Load: kW (hp)	2.8 (3.8)	-
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):	8.0 (2.1)
Oil Pan l (US gal):	7.0 (1.8)
Oil Type:	API-CC/SE
Cooling Method:	Water

Performance	50 Hz	60 Hz
Engine Speed: RPM	1500	-
Gross Engine Power: kW (hp)		
-Standby:	82.5 (111.0)	-
-Prime:	75.0 (101.0)	-
BMEP: kPa (psi)		
-Standby:	1500.0 (217.6)	-
-Prime:	1364.0 (197.8)	-
Regenerative Power: kW	8.2	-

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	19.7 (5.2)	18.1 (4.8)	14.0 (3.7)	9.8 (2.6)
60 Hz	-	-	-	-
Standby				
50 Hz		19.7 (5.2)	15.2 (4.0)	10.7 (2.8)
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	SD50 (1)	
Pressure Drop Across		
Silencer System: kPa (in Hg)	1.60 (0.472)	-
Silencer Noise Reduction		
Level: dB	21	-
Max. Allowable Back		
Pressure: kPa (in. Hg)	15.0 (4.4)	-
Exhaust Gas Flow:		
m <sup>3</sup> /min (cfm) -Standby:	13.7 (484)	-
-Prime:	12.9 (456)	-
Exhaust Gas Temperature: °C (°F)		
m <sup>3</sup> /min (cfm) -Standby:	489 (912)	-
-Prime:	491 (916)	-

## Alternator Performance Data

Data Item	50 Hz				60 Hz				
	415/240V	400/230V	380/220V						
Motor Starting Capability* kVA	218	206	189	-	-	-	-	-	-
Short Circuit Capacity** %	300	300	300	300	300	300	300	300	300
Reactances: Per Unit									
Xd	2.400	2.590	2.860	-	-	-	-	-	-
X'd	0.080	0.090	0.100	-	-	-	-	-	-
X''d	0.040	0.043	0.048	-	-	-	-	-	-

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:	LL2014L
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:	6.8 (387)
-60 Hz:	-

Consult your Olympian representative for more information

