OLYMPIAN™

GEP50-4

Diesel Generator Set
Exclusively from your Cat dealer

EU Stage II Emissions Compliant
Suitable for Mobile Applications in the European Community

Output Ratings

Generating Set Model	Prime*	Standby*
380-415V,50Hz	45.0 kVA 36.0 kW	49.7 kVA 39.8 kW
	- -	- -

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

Technical Data

Engine Make & Model:	Perkins 1103C-33TG2/3	
Alternator Model:	LL2014C	
Base Frame Type:	Fbc2 - (08Hr)	
Circuit Breaker Type:	3 Pole MCB	
Frequency:	**50 Hz**	**60 Hz**
Engine Speed: RPM	1500	-
Fuel Tank Capacity: litres (US gal)	219 (57.9)	
Fuel Consumption, Prime: l/hr (US gal/hr)	10.6 (2.8)	-
Fuel Consumption, Standby : l/hr (US gal/hr)	11.8 (3.1)	-

Engine Techncial Data

Physical Data

Manufacturer:	Perkins
Model:	1103C-33TG2/3
No. of Cylinders/Alignment:	3 / In Line
Cycle:	4 Stroke
Induction:	Turbocharged
Cooling Method:	Water
Governing Type:	Mechanical
Governing Class:	ISO 8528 G2
Compression Ratio:	18.2:1
Displacement: l (cu.in)	3.3 (201.4)
Bore/Stroke: mm (in)	105.0 (4.1)/127.0 (5.0)
Moment of Inertia: kg m² (lb. in²)	1.14 (3896)
Engine Electrical System:	
-Voltage/Ground:	12/Negative
-Battery Charger Amps:	65
Weight: kg (lb) **- Dry:**	420 (926)
- Wet:	438 (966)

Air System

	50 Hz	60 Hz
Air Filter Type:	Replaceable Element	
Combustion Air Flow:		
m³/min (cfm) **-Standby:**	3.1 (109)	-
-Prime:	2.9 (102)	-
Max. Combustion Air Intake		
Restriction: kPa (in H_2O)	5.0 (20.1)	-
Radiator Cooling Air Flow:		
m³/min (cfm)	62.4 (2204)	-
External Restriction to		
Cooling Air Flow: Pa (in H_2O)	125 (0.5)	-

Cooling System

	50 Hz	60 Hz
Cooling System Capacity:		
l (US gal)	10.2 (2.7)	-
Water Pump Type:	Centrifugal	
Heat Rejected to Water &		
Lube Oil: kW (Btu/min)		
-Standby:	29.0 (1649)	-
-Prime:	26.4 (1501)	-
Heat Radiation to Room:		
kW (Btu/min) **-Standby:**	8.5 (483)	-
-Prime:	7.7 (438)	-
Radiator Fan Load: kW (hp)	1.0 (1.3)	-

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):	8.3 (2.2)
Oil Pan l (US gal):	7.8 (2.1)
Oil Type:	API CG4 / CH4 15W-40
Cooling Method:	Water

Performance

	50 Hz	60 Hz
Engine Speed: RPM	1500	-
Gross Engine Power: kW (hp)		
-Standby:	46.5 (62.0)	-
-Prime:	41.9 (56.0)	-
BMEP: kPa (psi)		
-Standby:	1127.0 (163.5)	-
-Prime:	1016.0 (147.4)	-
Regenerative Power: kW	7.7	-

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	11.8 (3.1)	10.6 (2.8)	7.9 (2.1)	5.6 (1.5)
60 Hz	-	-	-	-
Standby				
50 Hz		11.8 (3.1)	8.7 (2.3)	6.1 (1.6)
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:	Industrial	
Silencer Noise Reduction	SD50 (1)	
Pressure Drop Across		
Silencer System: kPa (in Hg)	1.14 (0.337)	-
Silencer Noise Reduction		
Level: dB	15	-
Max. Allowable Back		
Pressure: kPa (in. Hg)	12.0 (3.5)	-
Exhaust Gas Flow:		
m³/min (cfm) **-Standby:**	7.7 (272)	-
-Prime:	7.0 (247)	-
Exhaust Gas Temperature: °C (°F)		
m³/min (cfm) **-Standby:**	660 (1220)	-
-Prime:	610 (1130)	-

Consult your Olympian representative for more information

Alternator Performance Data

Data Item	50 Hz				60 Hz				
	415/240V	400/230V	380/220V						
Motor Starting Capability* kVA	90	84	76	-	-	-	-	-	-
Short Circuit Capacity % **	300	300	300	300	300	300	300	300	300
Reactances: Per Unit									
Xd	2.662	2.866	3.175	-	-	-	-	-	-
X'd	0.120	0.130	0.140	-	-	-	-	-	-
X''d	0.059	0.063	0.070	-	-	-	-	-	-

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:	LL2014C
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:	Supression is in line with European Standard EN61000-6
Radiant Heat: kW (Btu/min)	
-50 Hz:	5.7 (324)
-60 Hz:	-

Consult your Olympian representative for more information

Technical Data

3 **Phase Ratings and Performance at 50 Hz, 1500 RPM**

Voltage	Prime		Standby	
	kVA	kW	kVA	kW
415/240V	45.0	36.0	49.8	39.8
400/230V	45.0	36.0	49.7	39.8
380/220V	44.8	35.8	49.4	39.5

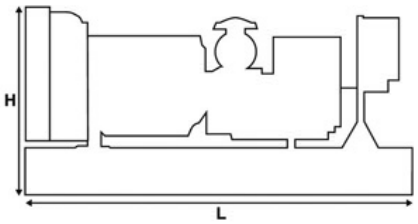
3 **Phase Ratings and Performance at 60 Hz, - RPM**

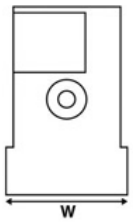
Voltage	Prime		Standby	
	kVA	kW	kVA	kW

Weights & Dimensions

Weights: kg (lb)	
Net (+ lube oil)	909 (2004)
Wet (+ lube oil & coolant)	922 (2033)
Fuel, lube oil & coolant	1107 (2442)

Dimensions: mm (in)	
Length	1925 (75.8)
Width	1120 (44.1)
Height	1361 (53.6)





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

Definitions

Standby Rating

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. The alternator on this model is peak continuous rated (as defined in ISO 8528-3).

Prime Rating

These ratings are applicable for supplying continuous electrical 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.

Standard Reference Conditions

Note: Standard reference conditions 25°C (77°F) air inlet temp, 100m (328ft) A.S.L. 30% relative humidity. Fuel consumption data at full load with diesel fuel with specific gravity of 0.85 and conforming to BS2869: 1998, Class A2.

General Data

Documents

A full set of operation and maintenance manuals and circuit wiring diagrams.

Quality Standards

BS4999, BS5000, BSEN60034, BSEN61000, IEC60034.

Warranty

All equipment carries full manufacturer's warranty.

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