

Exclusively from your Caterpillar® dealer



GEP55-2 (3-Phase)

50 HZ

STANDBY 55.0 kVA / 44.0 kW

PRIME 50.0 kVA / 40.0 kW

FEATURES

GENERATING 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, mechanical
- Electrical system, 12 VDC
- Cartridge type fuel and oil filters
- Air filter
- Battery(ies), 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

- 1001 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 heavy-duty fabricated steel 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, BSEN60034, BSEN61000, IEC60034

DOCUMENTATION

- Operation and maintenance manuals provided
- Wiring diagrams included

WARRANTY

- All equipment carries full manufacturer's warranty

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OPTIONAL EQUIPMENT*

Engine	Electronic governor (fully adjustable) Lube oil drain piped to edge of baseframe Lube oil drain valve Lube oil drain pump
Generator	Anti-condensation heater
Cooling System	Coolant heater Low coolant temperature alarm Low coolant level shutdown Radiator transition flange Coolant drain piped to edge of baseframe Permanent magnet generator (PMG) Quadrature droop upgrade AREP Excitation system
Fuel System	Manual fuel pump Low fuel level shutdown Low fuel level alarm High fuel level alarm Kit for remote fuel systems Bunded fuel tank to DEFRA regulations Extended capacity metal base tank Manual bypass valve Drip catchment area in base tank for environmental protection/cleaning purposes 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
Handling	Single point lift
Controls	Baseframe mounted terminal box instead of control-panel PowerWizard 1.0 panel PowerWizard 2.0 panel 6000 Series digital synchronising control panels
Remote Annunciators	PowerWizard Annunciator
Circuit Breaker	Upgrades from 3-pole to 4-pole breaker
Transfer Switches	TM Series manual load transfer panels ATI Series load transfer panels and bypass switches
Certification	European CE certification (not available on 60 Hz models)

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

Consult your Olympian representative for more information

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SPECIFICATIONS



GENERATOR

Make Olympian
 Model LL2014D
 Type Self-excited, brushless
 Voltage regulation ±0.5% at steady state from
 from no load to full load
 Frequency ±0.8% for constant load from
 no load to full load
 Waveform distortion THD <4%
 Radio interference Compliance with EN61000-6
 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

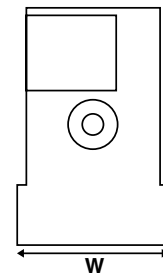
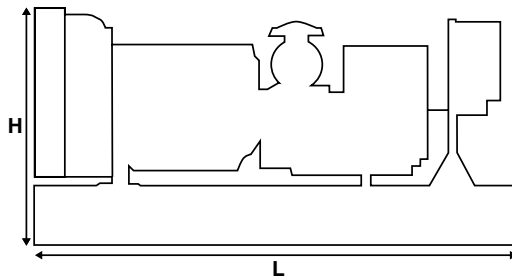
Piston speed — m/sec (ft/sec)
 50 Hz 6.4 (20.8)
 Maximum power at rated rpm — kW (hp)
 Standby
 50 Hz 62.5 (84.0)
 Prime
 50 Hz 56.2 (75.0)
 BMEP — kPa (psi)
 Standby
 50 Hz 1137 (164.9)
 Prime
 50 Hz 1022 (148.2)
 Regenerative power — kW (hp)
 50 Hz 8.1 (10.9)
 Governor
 Type Mechanical
 Class ISO 8528 G2



ENGINE

Manufacturer Perkins
 Model 1103C-44TG2/3
 Type 4-Stroke
 Aspiration Turbocharged
 Cylinder configuration In-line 4
 Displacement — L (cu in) 4.4 (268.5)
 Bore/stroke — mm (in) 105/127 (4.1/5.0)
 Compression ratio 18.2:1
 Engine speed — rpm
 50 Hz 1500

GENERATING SET DIMENSIONS AND WEIGHTS



Model	Length mm (in)	Width mm (in)	Height mm (in)	Weight* kg (lb)
GEP55-2	2150 (84.6)	752 (29.6)	1366 (53.8)	904 (1933)

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

*Includes oil and coolant

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GEP55-2 (3-Phase)

Generator Set Technical Data		50 Hz	
		Standby	Prime
Package Performance Power rating	kVA (kW)	55.0 (44.0)	50.0 (40.0)
Lubricating System Type: Oil pump & lubrication sump Oil filter: Spin-on, full flow Oil cooler: Water Oil type required: API-CC/SE Total lube system capacity Oil pan capacity	L (U.S. Gal) L (U.S. Gal)	8.0 (2.1) 7.0 (1.8)	
Fuel System Fuel Tank Capacity Generator set fuel consumption** 100% load 75% load 50% load	L (U.S. Gal) L/hr (U.S. g/hr) L/hr (U.S. g/hr) L/hr (U.S. g/hr)	175 (46.2) 13.3 (3.5) 11.7 (3.1) 9.0 (2.4) 8.0 (2.1) 5.4 (1.8) 4.8 (1.3)	
Engine Electrical System Voltage/ground: 12 vDC/negative Battery charging alternator ampere rating	amps	65	
Cooling System 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) m H ₂ O (ft H ₂ O) L/hr (U.S. gal/hr) °C (°F) °C (°F) kW (Btu/min) kW (Btu/min) kW (hp)	13.0 (3.4) 10.2 (33.5) 8520 (2251) 70.0 (158) 7.0 (12.6) 34.0 (1934) 30.0 (1706) 8.0 (455) 6.0 (341) 1.0 (1.3)	
Air Requirements Combustion air flow Maximum air cleaner restriction Radiator cooling air External restriction to cooling airflow Generator cooling air	m ³ /min (cfm) kPa (in H ₂ O) m ³ /min (cfm) Pa (in H ₂ O) m ³ /min (cfm)	4.2 (149) 4.1 (145) 8.0 (32.1) 97.8 (3454) 125 (0.5) 16.2 (572)	
Exhaust System Maximum allowable backpressure Exhaust flow at rated power Exhaust temperature at rated power (dry exhaust)	kPa (in Hg) m ³ /min (cfm) °C (°F)	15.0 (4.4) 11.8 (417) 10.9 (385) 583 (1081) 535 (995)	
Generator Set Noise Rating* (without attenuation) at 1 m (3.28 ft)	dBA	92.5	

*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		
	415/240V	400/230V	380/220V
Motor Starting Capability: Self Excited (kVA) AREP PMG	105 137 137	99 129 129	90 118 118
Full Load Efficiency Standby % Prime %	87.8 88.3	87.8 88.4	87.6 88.1
Reactances (per unit) Xd Saturated X'd Reactances X"d are shown Xq applicable to X"q standby rating X2 X0	2.81 0.12 0.060 1.68 0.074 0.067 0.005	3.02 0.13 0.065 1.81 0.080 0.072 0.005	3.35 0.14 0.072 2.01 0.088 0.080 0.006
Time Constants:	t'd 50 ms	t" 5 ms	t'do 1177 ms
			ta 8 ms

With AREP Excited Option AR20A/AR21A *With PMG Excited Option AR18A/AR19A

Consult your Olympian representative for more information

*Exclusively from your Caterpillar® dealer***RATINGS AT AVAILABLE VOLTAGES**

50 Hz					
Voltage Code	Voltage	Standby		Prime	
		kVA	kW	kVA	kW
VOPT502	415/240	55.0	44.0	50.0	40.0
VOPT503	400/230	55.0	44.0	50.0	40.0
VOPT504	380/220	55.0	44.0	50.0	40.0

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.

Consult your Olympian representative for more information

5 0 H z

S T A N D B Y
P R I M E

5 5 . 0 k V A / 4 4 . 0 k W
5 0 . 0 k V A / 4 0 . 0 k W

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