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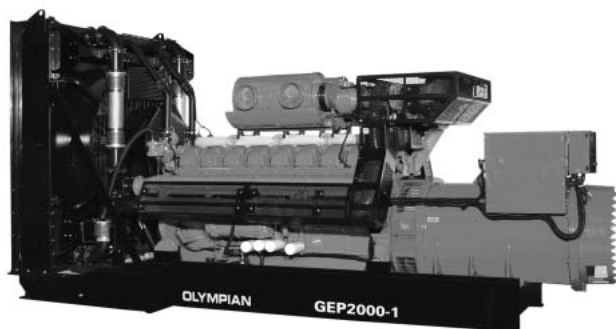


Image shown may not reflect actual package

GEP2000-1 (3-phase)

Standby 2000 kVA/1600 kW
50 Hz

FEATURES

GENERATOR SET

- Complete system designed and built at ISO 9001 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
- Isochronous electronic speed control
- Governor, electronic
- Electrical systems, 24 VDC
- Cartridge type fuel and oil filters
- Air filter
- Lube oil drain valve
- 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

- PowerWizard 1.0 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
- Generator coupled to engine by flexible disc-coupling

EXHAUST SYSTEM

- Heavy duty industrial capacity exhaust silencer (approximately 17 dBA reduction) supplied loose

COOLING SYSTEM

- Standard ambient temperature
- Fan, fan drive and charging alternator fully guarded
- Coolant drain valve
- Antifreeze protection coolant

CIRCUIT BREAKER

- 3-pole molded case circuit breaker (MCCB)
- Vibration isolated sheet steel enclosure with removable cover plate
- Outgoing cable stub-up area directly below circuit breaker

AUTOMATIC VOLTAGE REGULATOR

- Voltage regulation $\pm 0.5\%$
- 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, BS5514, IEC60034, VDE0530

DOCUMENTATION

- Operation and maintenance manuals provided
- Wiring diagrams included

WARRANTY

- All equipment carries full manufacturer's warranty

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OPTIONAL EQUIPMENT*

| System | Optional |
|-------------------------------|--|
| Engine / Baseframe | <input type="checkbox"/> Lube oil drain pump <input type="checkbox"/> Lube oil temperature shutdown <input type="checkbox"/> Oil temperature gauge (includes wiring) (not for PowerWizard 2.0) <input type="checkbox"/> Lube oil temperature displayed on panel LCD system (only available with PowerWizard 2.0) |
| Generator | <input type="checkbox"/> Anti- condensation heater <input type="checkbox"/> Permanent magnet+ R450 Regulator <input type="checkbox"/> Permanent magnet+ R450 Regulator + R731 3-phase sensing module <input type="checkbox"/> AREP winding + R450 Regulator + R731 3-phase sensing module <input type="checkbox"/> Quadrature droop kit |
| Cooling System | <input type="checkbox"/> Coolant heater 220/240 Volt <input type="checkbox"/> Low coolant temperature alarm <input type="checkbox"/> Radiator transition flange <input type="checkbox"/> 50% antifreeze |
| Silencer | <input type="checkbox"/> Residential silencer with mounting kit <input type="checkbox"/> Critical silencer with mounting kit <input type="checkbox"/> Stainless steel bellows |
| Enclosures | <input type="checkbox"/> Consult you Cat dealer for options |
| Control System | <input type="checkbox"/> Panel upgrade with PowerWizard 2.0 <input type="checkbox"/> Panel functions upgrades <ul style="list-style-type: none"> - Panel lockdown stop pushbutton with security key - Set of volt free contacts for common alarm - Volt free contacts for genset running - Speed adjust potentiometer - Voltage adjust potentiometer - Battery trickle charger ammeter - Audible alarm siren, supplied loose - Panel mounted audible alarm - Additional shutdowns with individual warning lamps - Static batter charger - Static batter charger with boost control 220/240V <input type="checkbox"/> 6100 and 6200 Series control panel and function options |
| Remote Annunciator | <input type="checkbox"/> PowerWizard annunciator (only with PowerWizard 2.0) |
| Remote Monitoring and Control | <input type="checkbox"/> PowerWizard remote monitoring and control (only with PowerWizard 2.0) |
| Circuit Breaker | <input type="checkbox"/> Upgrades from 3-pole to 4-pole breakers (2500A and 3200A) <input type="checkbox"/> AC power looms (floor standing, 2500A and 3200A) |
| Transfer Switches | <input type="checkbox"/> TI Series load transfer panels and bypass switches (2500A and 3200A) |
| Certification | <input type="checkbox"/> Upgrade to CE Certification |

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

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SPECIFICATIONS

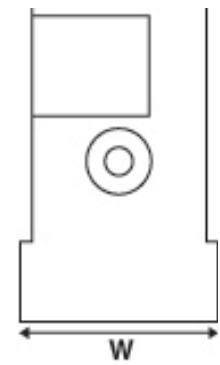
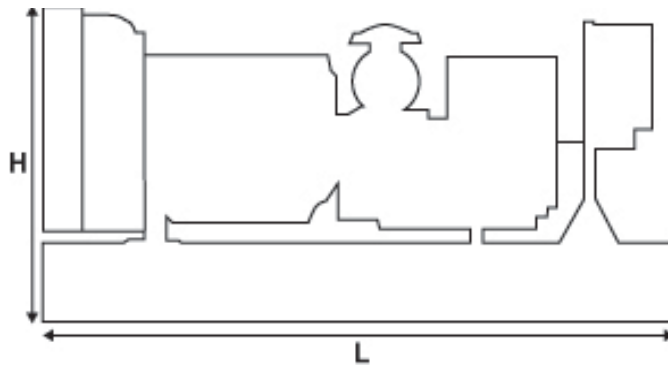
ENGINE

ManufacturerPerkins
 Model4016TAG1A
 Type.....4 Stroke
 AspirationTurbocharged Air-to-Air Charge Cooled
 Cylinder configuration.....16/Vee
 Displacement — L (cu in)61.1 (3,730.0)
 Bore/Stroke — mm (in)160.0 (6.3)/190.0 (7.5)
 Compression ratio13.6:1
 Engine speed (rpm)1,500
 Maximum power at rated rpm — kW (hp)
 50 Hz Standby.....1741.0 (2,335.0)
 BMEP — kPa (psi)
 50 Hz Standby.....2279.0 (330.5)
 Regenerative power — kW160.0
 Governor
 Type.....Electronic
 Class.....ISO 8528 G2

GENERATOR

ManufacturerOlympian
 ModelLL9124H
 No. of bearings1
 Insulation classH
 Winding pitch code2/3 – 6S
 Wires.....6
 Ingress protection ratingIP23
 Excitation systemAREP
 AVR modelR450
 Overspeed (rpm).....2,250
 Voltage regulation (steady state) (%).....±0.5
 Wave Form NEMA = TIF.....50
 Wave Form IEC = THF2.0%
 Total harmonic content LL/LN2.5%
 Radio interference.....Suppression is in line with European
 Standard EN61000-6
 Radiant heat — kW (Btu/min).....70.1 (3,987)

GENERATOR SET DIMENSIONS AND WEIGHTS



| Model | Length | Width | Height | Weight* |
|-----------|--------------------|-------------------|--------------------|-----------------------|
| GEP2000-1 | 5725 mm (225.4 in) | 2300 mm (90.6 in) | 3020 mm (118.9 in) | 15 700 kg (34,613 lb) |

*Includes oil and coolant

Note: Dimensions not for installation. See general dimension drawings for detail.

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TECHNICAL DATA

| Generator Set — 50 Hz | | | Standby | |
|---|---------------------|---------------------|---|--------|
| Package Performance Power rating | kVA (kW) | | 2000 (1600) | |
| Lubricating System Type Oil filter Oil cooler Oil type Total oil capacity Oil pan capacity | | | Wet sump Spin-on, full flow Water API CG4 15W-40 | |
| | L | Gal | 238 | 62.9 |
| | L | Gal | 214 | 56.5 |
| Fuel System Fuel tank capacity Fuel consumption* 100% load 75% load 50% load | L | Gal | | |
| | L/hr | Gal/hr | 419.6 | 110.8 |
| | L/hr | Gal/hr | 306.9 | 81.1 |
| | L/hr | Gal/hr | 206.4 | 54.5 |
| Engine Electrical System Voltage/Ground Battery charger alternator current | | | 24 VDC/negative 40 | |
| Cooling System Water pump type Cooling system capacity Heat rejected to coolant and lube oil Heat rejected to engine room Radiator fan load | L | Gal | Centrifugal | |
| | kW | Btu/min | 355 | 93.8 |
| | kW | Btu/min | 629 | 35,771 |
| | kW | hp | 177 | 10,066 |
| | kW | hp | 63.5 | 85.2 |
| Air Requirements Combustion air flow Max. combustion air intake restriction Radiator cooling air flow External restriction to cooling air flow | m ³ /min | cfm | 140 | 4,944 |
| | kPa | in H ₂ O | 3.7 | 14.9 |
| | m ³ /min | cfm | 2058 | 72,678 |
| | kPa | in H ₂ O | 250 | 1 |
| Exhaust System Maximum allowable backpressure Exhaust flow rate Exhaust temperature (dry) | kPa | in Hg | 9.3 | 2.7 |
| | m ³ /min | cfm | 343 | 12,113 |
| | Deg C | Deg F | 439 | 822 |

*Fuel consumption data at indicated load with diesel fuel with a specific gravity of 0.85 and conforming to BS2869, Class A2.

| Generator Technical Data | 50 Hz | | |
|-----------------------------------|----------|----------|----------|
| | 415/240V | 400/230V | 380/220V |
| Motor starting capability* (SkVA) | 6986 | 6509 | 5897 |
| Short circuit capability** (%) | 300 | 300 | 300 |
| Reactance per unit | | | |
| X _d | 2.950 | 3.170 | 3.510 |
| X' _d | 0.220 | 0.240 | 0.260 |
| X'' _d | 0.115 | 0.124 | 0.138 |

*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.

Note: Reactance shown are applicable to prime ratings.

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RATINGS AT AVAILABLE VOLTAGES

| 50 Hz Standby | | | |
|---------------|---------|------|------|
| Voltage Code | Voltage | kVA | kW |
| V502 | 415/240 | 2000 | 1600 |
| V503 | 400/230 | 2000 | 1600 |
| V504 | 380/220 | 2000 | 1600 |

Ratings at 27° C (80° F) air inlet temperature, 152.4 m (500 ft) A.S.L., 60% relative humidity, 0.8 pf.

RATING DEFINITIONS

STANDBY

These ratings are applicable for supplying continuous electric power (at variable load) in the event of a utility power failure. No overload is permitted on these ratings. The alternators on these models are peak continuous rated (as defined in ISO 8528-3).

STANDBY 2000 kVA/1600 kW
50 Hz

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