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GEP30-2 (3-Phase)

50 HZ

STANDBY 30.0 kVA / 24.0 kW

PRIME 27.0 kVA / 21.6 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

ALTERNATOR

- Self excited brushless generator
- Insulation system, class H
- Drip proof generator air intake (IP23)
- Electrical design in accordance with BS4999, BS5000, BSEN60034, BSEN61000, IEC60034

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, BS5514, 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 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 |
| Fuel System | Manual fuel pump Low fuel level shutdown Low fuel level alarm High fuel level alarm Remote fuel systems 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 |
| 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



ALTERNATOR

Make Olympian
 Model LL1014Q
 Type Self-excited, brushless
 Voltage regulation ±0.5% at steady state 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

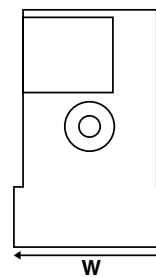
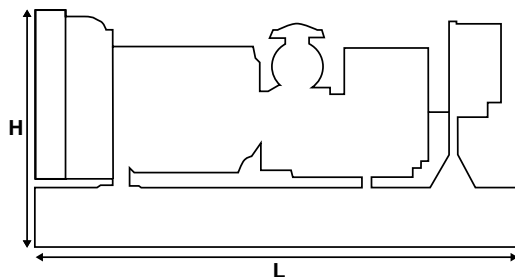
Piston speed — m/sec (ft/sec)
 50 Hz 6.4 (20.8)
 Maximum power at rated rpm — kW (hp)
 Standby
 50 Hz 31.0 (42.0)
 Prime
 50 Hz 27.9 (37.0)
 BMEP — kPa (psi)
 Standby
 50 Hz 752 (109)
 Prime
 50 Hz 676 (101.3)
 Regenerative power — kW (hp)
 50 Hz 7.7 (10.3)
 Governor
 Type Mechanical
 Class ISO 8528 G2



ENGINE

Manufacturer Perkins
 Model 1103C-33G2/3
 Type 4-Cycle
 Aspiration Naturally Aspirated
 Cylinder configuration In-line 3
 Displacement — l (cu in) 3.3 (201.4)
 Bore/stroke — mm (in) 105/127 (4.1/5.0)
 Compression ratio 19.25:1
 Engine speed — rpm
 50 Hz 1500

GENERATOR SET DIMENSIONS AND WEIGHTS



| Model | Length mm (in) | Width mm (in) | Height mm (in) | Weight* kg (lb) |
|---------|-------------------|------------------|-------------------|--------------------|
| GEP30-2 | 1770 (69.7) | 714 (28.1) | 1368 (53.9) | 800 (1764) |

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

*Includes oil and coolant

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GEP30-2 (3-Phase)

| Generating Set Technical Data | | 50 Hz | |
|---|---|--|-------------------------------------|
| | | Standby | Prime |
| Package Performance Power rating | kVA (kW) | 30.0 (24.0) | 27.0 (21.6) |
| Lubricating System Type: Oil pump & lubrication sump Oil filter: Spin-on, full flow Oil cooler: Water Oil type required: API-CH4/CI4 Total lube system capacity Oil pan capacity | l (U.S. gal) l (U.S. gal) | 8.3 (2.2) 7.8 (2.1) | |
| Fuel System Fuel Tank Capacity Generating 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) | 144 (38.0) 7.5 (2.0) 5.8 (1.5) 4.0 (1.1) | 6.8 (1.8) 5.2 (1.4) 3.7 (1.0) |
| 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) | 10.2 (2.7) 10.2 (33.5) 7530 (1989) 70 (3.4) 1.9 (3.4) 18.0 (1024) 6.0 (341) 0.3 (0.4) | 16.0 (910) 6.0 (341) |
| 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) | 2.2 (76) 3.0 (12.0) 61.8 (2182) 125 (0.5) 9.0 (318) | 2.2 (77) 3.0 (12.0) |
| 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) 5.3 (185) 570 (1058) | 5.5 (194) 515 (959) |
| Generating Set Noise Rating* (without attenuation) at 1 m (3.28 ft) | dBA | 93.3 | |

*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 | | |
|---|--|--|--|
| | 240V | 230V | 220V |
| Motor Starting Capability: Self Excited (kVA) AREP PMG | 62 - - | 58 - - | 53 - - |
| Full Load Efficiency Standby % Prime % | 88.4 88.8 | 88.3 88.8 | 88.0 88.8 |
| Reactances (per unit) Xd Saturated X'd Reactances X" d are shown Xq applicable to the X"q standby rating X2 X0 | 2.02 0.11 0.056 1.01 0.078 0.068 0.005 | 2.18 0.12 0.060 1.09 0.084 0.073 0.006 | 2.41 0.13 0.066 1.20 0.093 0.081 0.006 |
| Time Constants: | t'd 25 ms | t" 2.5 ms | t'do ta 452 ms 4 ms |

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RATINGS AT AVAILABLE VOLTAGES

| 50 Hz | | | | | |
|----------------|---------|---------|------|-------|------|
| Voltage Code | Voltage | Standby | | Prime | |
| | | kVA | kW | kVA | kW |
| VOPT502 | 415/240 | 30.0 | 24.0 | 27.0 | 21.6 |
| VOPT503 | 400/230 | 30.0 | 24.0 | 27.0 | 21.6 |
| VOPT504 | 380/220 | 30.0 | 24.0 | 27.0 | 21.6 |

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

3 0 k V A / 2 4 . 0 k W
2 7 k V A / 2 1 . 6 k W

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