

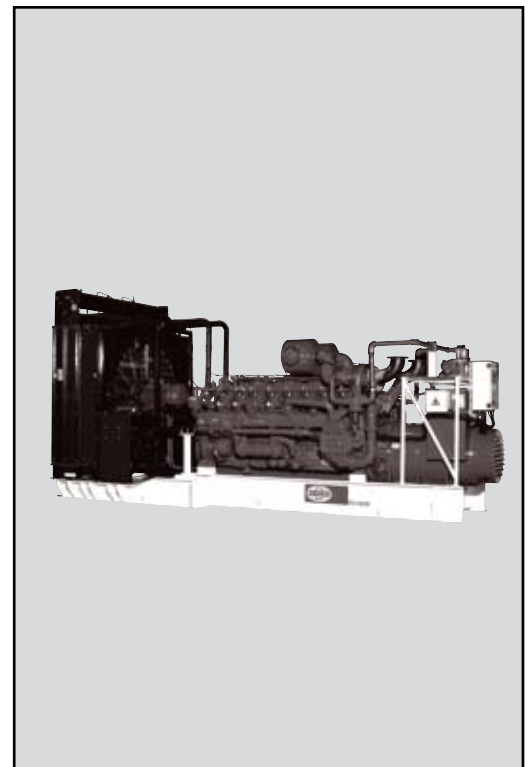
PG1000B



| Output Ratings | |
|----------------------|----------------------|
| Generating Set Model | PG1000B Baseload* |
| 380-415V, 50 Hz | 1000 kVA 800 kW |

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

| Technical Data | |
|--|-----------------------------|
| Engine Make & Model | Perkins 4016TES1 |
| Alternator Model | LL8124H |
| Base Frame Type | Heavy Duty Fabricated Steel |
| Circuit Breaker Type/Rating | 3 Pole MCCB |
| Frequency | 50 Hz |
| Engine Speed | 1500 |
| Fuel Consumption m ³ /min (cfm) | 4.3 (152) |



Weights & Dimensions

| Weights: kg (lbs) | | Dimensions: mm (in) | |
|----------------------------|---------------|---------------------|-------------|
| Wet (+ lube oil & coolant) | 13000 (28665) | Length | 6247 (245) |
| | | Width | 2060 (90.5) |
| | | Height | 3110 (12.2) |



FG Wilson has manufacturing facilities in the following locations:

Northern Ireland • Brazil • China • India • USA

With headquarters in Northern Ireland, FG Wilson operates through a Global Dealer Network. To contact your local Sales Office please visit the FG Wilson website at

www.FGWilson.com



Engine Technical Data

| Physical Data | | Air System | | 50 Hz | |
|--|---|---|---------------------|-----------------------------|--|
| Manufacturer: | Perkins | Air Filter Type: | Replaceable Element | | |
| Model: | 4016TESI | Combustion Air Flow: | | | |
| No. of Cylinders/Alignment: | 16V | m^3/min (cfm) | 70.8 (2500) | | |
| Cycle: | 4 Stroke | Max. Combustion Air Intake | | | |
| Induction: | TurboCharged | Restriction: kPa (in H ₂ O) | 3.8 (15.3) | | |
| Cooling Method: | Water | Radiator Cooling Airflow: | | | |
| Governing Type: | Electronic | m^3/min (cfm) | 1260 (44491) | | |
| Class: | ISO8528 G2 | External Restriction to | | | |
| Compression Ratio: | 9.5:1 | Cooling Airflow: Pa (in Wg) | 125 (0.5) | | |
| Displacement: L (cu.in): | 61.12 (3730) | Cooling System | | | |
| Bore/Stroke: mm (in) | 160 (6.3) / 190 (7.5) | 50 Hz | | | |
| Moment of Inertia: kg m ² (lb/in ²) | 10.17 (34751) | Cooling System | | | |
| Engine Electrical System: | | Capacity: L (US Gal) | 155 (41.0) | | |
| -Voltage/Ground | 24/Negative | Water Pump Type: | Gear Driven | | |
| -Battery Charger Amps | 32 | Heat Rejected to Water & Lube Oil: kW (Btu/min) | 771 (43855) | | |
| Weight: kg (lbs) -Dry | 5820 (12833) | Heat Radiation to Room: kW (Btu/min) -Standby: | 89.0 (506) | | |
| -Wet | 6120 (13495) | Heat Rejected to Charge Cooler kW (Btu/min) | 150 (8532) | | |
| Performance | | 50 Hz | | Radiator Fan Load: Electric | |
| Engine Speed: rpm | 1500 | | | | |
| Gross Engine Power: kW (hp) | 842 (1129) | | | | |
| BMEP: kPa (psi) | 1104 (162) | | | | |
| Fuel System | | Lubrication System | | | |
| Fuel Filter Type: | | | | | |
| Recommended Fuel: | Natural gas with lower calorific value of 34.71MJ/m ³ and minimum methane number of 70 | | | | |
| Fuel Consumption m^3/min (cfm) | | | | | |
| 50 Hz | 100% Load | 75% Load | 50% Load | 25% Load | |
| | 4.3 (152) | 3.3 (117) | 2.2 (77.7) | 1.2 (42.4) | |
| | | Exhaust System | | | |
| | | 50 Hz | | | |
| | | Silencer Type: | Level 1 | | |
| | | Silencer Model & Qty: | SD250 | | |
| | | Pressure Drop Across Silencer System: kPa (in Hg) | tba | | |
| | | Silencer Noise Reduction Level: dBA | 15 | | |
| | | Max. Allowable Back Pressure: kPa (in Hg) | 5.4 (21.4) | | |
| | | Exhaust Gas Flow: m^3/min (cfm) | 127 (175) | | |
| | | Exhaust Gas Temperature: °C (°F) | 430 (806) | | |
| | | Heat Rejected to Exhaust System kW (Btu/min) | 631 (35892) | | |

Alternator Performance Data

| Data Item | 50 Hz | | |
|---------------------------------------|---------|---------|---------|
| | 415/240 | 400/230 | 380/220 |
| Motor Starting Capability* kVA | 3319 | 3093 | 2803 |
| Short Circuit Capacity**% | 300 | 300 | 300 |
| Reactances: Per Unit | | | |
| X_d | 3.29 | 3.54 | 3.92 |
| X'_d | 0.23 | 0.25 | 0.28 |
| X''_d | 0.129 | 0.139 | 0.154 |

Reactances shown are applicable to baseload 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 | | Operating Data | |
|-----------------------------------|-------------|--|--|
| Manufacturer: | FG Wilson | Overspeed: RPM | 2250 |
| Model: | LL8124H | Voltage Regulation (steady state) | ±0.5% |
| No. of Bearings: | Single | Wave Form NEMA =TIF | <50 |
| Insulation Class: | H | Wave Form IEC=THF | <2% |
| Winding Pitch (Code): | 2/3 (No.6S) | Total Harmonic Content LL/LN | <3.5% |
| Wires: | 6 | Radio Interference | Suppression is in line with British Standard BSEN50081 & BSEN50082 |
| Ingress Protection Rating: | IP23 | Radiant Heat: kW (Btu/min) | |
| Excitation System: | AREP | -50 Hz: | 52.0 (2970) |
| AVR Model: | R449 | | |

Technical Data

3 Phase Ratings and Performance at 50 Hz, 1500 RPM

| Voltage | Model: PG1000B Baseload | |
|---------|----------------------------|-----|
| | kVA | kW |
| 415/240 | 1000 | 800 |
| 400/230 | 1000 | 800 |
| 380/220 | 1000 | 800 |

Definitions

Baseload (Continuous) Rating

These ratings are applicable for supplying continuous electrical power for full load operations. There is no overload available. The ratings represent the engine performance in accordance with ISO3046 at reference conditions equivalent to those specified in ISO3046/1 based on the use of natural gas having a lower calorific value of 34.71MJ/m³

Standard Reference Conditions

Note: Standard reference conditions 27°C (80°F) Air Inlet Temp, 152.4m (500ft) A.S.L. 60% relative humidity. All engine performance data based on the above mentioned maximum continuous ratings. Fuel consumption data at full load using gas fuel with a lower calorific value of 34.71MJ/m³

General Data

Documents

A full set of operation and maintenance manuals, circuit wiring diagrams, and commissioning/fault finding instruction leaflets.

Generating Set Standards

The equipment meets the following standards: BS5000, ISO 8528, ISO 3046, IEC 60034, VDE 0530, NEMA MG-1.22.

FG Wilson is a fully accredited ISO9001 company.

Warranty

All equipment carries full manufacturer's warranty. Extended warranty terms available. For details on warranty cover please contact your local dealer, or visit our website, www.FGWilson.com

