

P350P2 / P400E2



www.FGWilson.com



| Output Ratings | | |
|----------------------|-----------------------|-----------------------|
| Generating Set Model | P350P2 Prime* | P400E2 Standby* |
| 380-415V, 50Hz | 350.0 kVA 280.0 kW | 400.0 kVA 320.0 kW |
| 220/127V, 60 Hz | - | - |

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

| Technical Data | | |
|---|-----------------------------|-------|
| Engine Make & Model: | Perkins 2306C-E14TAG2 | |
| Alternator Model: | LL6114B | |
| Base Frame Type: | Heavy Duty Fabricated Steel | |
| Circuit Breaker Type: | 3 Pole MCCB | |
| Frequency: | 50 Hz | 60 Hz |
| Engine Speed: RPM | 1500 | - |
| Fuel Tank Capacity: litres (US gal) | 791 (209.0) | |
| Fuel Consumption: P350P2 l/hr (US gal/hr) | 74.4 (19.7) | - |
| Fuel Consumption: P400E2 l/hr (US gal/hr) | 85.8 (22.7) | - |



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 | 60 Hz |
|---|---------------------------------------|--|---------------------|-------------|-------|
| Manufacturer: | Perkins | Air Filter Type: | Replaceable Element | | |
| Model: | 2306C-E14TAG2 | Combustion Air Flow: | | | |
| No. of Cylinders/Alignment: | 6 / In Line | m ³ /min (cfm) -Standby: | 32.0 (1130) | - | |
| Cycle: | 4 Stroke | -Prime: | 29.0 (1024) | - | |
| Induction: | Turbocharged Air To Air Charge Cooled | Max. Combustion Air Intake Restriction: kPa (in H ₂ O) | 6.2 (24.9) | - | |
| Cooling Method: | Water | Radiator Cooling Air Flow: | | | |
| Governing Type: | Electronic | m ³ /min (cfm) | 444.0 (15680) | - | |
| Governing Class: | ISO 8528 G2 | External Restriction to Cooling Air Flow: Pa (in H ₂ O) | 188 (0.8) | - | |
| Compression Ratio: | 15.9:1 | | | | |
| Displacement: l (cu.in) | 14.6 (890.9) | | | | |
| Bore/Stroke: mm (in) | 137.0 (5.4)/165.0 (6.5) | | | | |
| Moment of Inertia: kg m ² (lb. in ²) | 3.43 (11721) | | | | |
| Engine Electrical System: | | | | | |
| -Voltage/Ground: | 24/Negative | | | | |
| -Battery Charger Amps: | 70 | | | | |
| Weight: kg (lb) - Dry: | 1690 (3726) | | | | |
| - Wet: | 1792 (3951) | | | | |
| Performance | | 50 Hz | 60 Hz | | |
| Engine Speed: RPM | 1500 | - | | | |
| Gross Engine Power: kW (hp) | | | | | |
| -Standby: | 353.0 (473.0) | - | | | |
| -Prime: | 313.0 (420.0) | - | | | |
| BMEP: kPa (psi) | | | | | |
| -Standby: | 1935.0 (280.7) | - | | | |
| -Prime: | 1716.0 (248.9) | - | | | |
| Regenerative Power: kW | 24.0 | - | | | |
| Fuel System | | Cooling System | | | |
| Fuel Filter Type: | Eco Replaceable Element | Cooling System Capacity: | | | |
| Recommended Fuel: | Class A2 Diesel | l (US gal) | 47.0 (12.4) | - | |
| Fuel Consumption: l/hr (US gal/hr) | | Water Pump Type: | Centrifugal | | |
| 110% Load | 100% Load | 75% Load | 50% Load | | |
| <p>Heat Rejected to Water & Lube Oil: kW (Btu/min)</p> <p>-Standby: 135.0 (7677) -</p> <p>-Prime: 122.0 (6938) -</p> <p>Heat Radiation to Room: kW (Btu/min) -Standby: 17.0 (967) -</p> <p>-Prime: 16.0 (910) -</p> <p>Radiator Fan Load: kW (hp) 9.0 (12.1) -</p> <p>Cooling system designed to operate in ambient conditions up to 50°C (122°F). Contact your local FG Wilson dealer for power ratings at specific site conditions.</p> | | | | | |
| P350P2 | | | | | |
| 50 Hz | 85.8 (22.7) | 74.4 (19.7) | 56.2 (14.8) | 40.4 (10.7) | |
| 60 Hz | - | - | - | - | |
| P400E2 | | | | | |
| 50 Hz | 85.8 (22.7) | 63.7 (16.8) | 44.7 (11.8) | | |
| 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 | | |
| Oil Filter Type: | | Eco, Full Flow | | | |
| Total Oil Capacity l (US gal): | | 68.0 (18.0) | | | |
| Oil Pan l (US gal): | | 60.0 (15.9) | | | |
| Oil Type: | | API CG4 15W-40 | | | |
| Cooling Method: | | Water | | | |
| Silencer Type: | | Level 3 | | | |
| Silencer Model & Qty: | | SD152 (1) | | | |
| Pressure Drop Across Silencer System: kPa (in Hg) | | 0.01 (0.003) - | | | |
| Silencer Noise Reduction Level: dB | | 19 - | | | |
| Max. Allowable Back Pressure: kPa (in. Hg) | | 7.0 (2.1) - | | | |
| Exhaust Gas Flow: | | | | | |
| m ³ /min (cfm) -Standby: | | 66.6 (2352) - | | | |
| -Prime: | | 58.4 (2062) - | | | |
| Exhaust Gas Temperature: °C (°F) | | | | | |
| m ³ /min (cfm) -Standby: | | 494 (921) - | | | |
| -Prime: | | 502 (936) - | | | |

Alternator Performance Data

| Data Item | 50 Hz | | | | 60 Hz | | | | |
|--------------------------------|----------|----------------------------------|----------------------|----------|-------|--|--|--|--|
| | 415/240V | 400/230V 230/115V 200/115V | 380/220V 220/110V | 220/127V | | | | | |
| Motor Starting Capability* kVA | 797 | 745 | 678 | 886 | | | | | |
| Short Circuit Capacity** % | 300 | 300 | 300 | 300 | | | | | |
| Reactances: Per Unit | | | | | | | | | |
| Xd | 2.987 | 3.216 | 3.563 | 2.620 | | | | | |
| X'd | 0.172 | 0.185 | 0.205 | 0.153 | | | | | |
| X''d | 0.120 | 0.130 | 0.143 | 0.107 | | | | | |

Reactances shown are applicable to prime 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: | LL6114B | Voltage Regulation (steady state) (%): | +/- 0.5 | |
| No. of Bearings: | 1 | Wave Form NEMA = TIF: | 50 | |
| Insulation Class: | H | Wave Form IEC = THF: | 2.0% | |
| Winding Pitch Code: | 2/3 - 6 | Total Harmonic Content LL/LN: | 2.0% | |
| Wires: | 12 | Radio Interference: | Suppression is in line with European Standard EN61000-6 | |
| Ingress Protection Rating: | IP23 | Radiant Heat: kW (Btu/min) | | |
| Excitation System: | SHUNT | | -50 Hz: | 24.1 (1371) |
| AVR Model: | R448 | | -60 Hz: | - |

Technical Data

3 Phase Ratings and Performance at 50 Hz, 1500 RPM

3 Phase Ratings and Performance at 60 Hz, - RPM

| Voltage | Prime Model P350P2 | | Standby Model P400E2 | | Voltage | Prime Model - | | Standby Model - | |
|----------|--------------------|-------|----------------------|-------|---------|---------------|----|-----------------|----|
| | kVA | kW | kVA | kW | | kVA | kW | kVA | kW |
| 415/240V | 350.0 | 280.0 | 400.0 | 320.0 | | | | | |
| 400/230V | 350.0 | 280.0 | 400.0 | 320.0 | | | | | |
| 380/220V | 350.0 | 280.0 | 400.0 | 320.0 | | | | | |
| 230/115V | 350.0 | 280.0 | 400.0 | 320.0 | | | | | |
| 220/127V | 345.0 | 276.0 | 380.0 | 304.0 | | | | | |
| 220/110V | 350.0 | 280.0 | 400.0 | 320.0 | | | | | |
| 200/115V | 350.0 | 280.0 | 400.0 | 320.0 | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

Definitions

Standby Rating

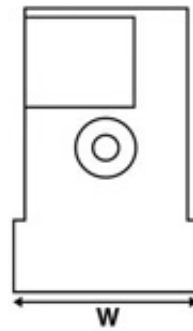
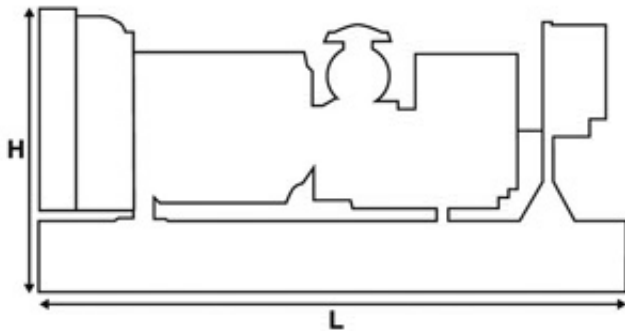
These ratings are applicable for supplying continuous electrical power (at variable load) in the event of a utility power failure. No overload is permitted on these ratings. The alternator on this model is peak continuous rated (as defined in ISO 8528-3).

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 27°C (80°F) Air Inlet Temp, 152.4m (500ft) A.S.L. 60% relative humidity. Fuel consumption data at full load with diesel fuel with specific gravity of 0.85 and conforming to BS2869: 1998, Class A2.



Weights and Dimensions

| Weights: kg (lb) | | Dimensions: mm (in) | |
|----------------------------|-------------|---------------------|--------------|
| Net (+ lube oil) | 3316 (7311) | Length | 3601 (141.8) |
| Wet (+ lube oil & coolant) | 3366 (7421) | Width | 1110 (43.7) |
| Fuel, lube oil & coolant | 4034 (8893) | Height | 2070 (81.5) |