

Perkins Powered Generating Sets 7.5 to 2200 kVA



FW Power is a leading supplier of Engines and Generators. All of our Generators are manufactured in the UK using only the highest quality component suppliers. Each manufacturer offers global warranties and aftermarket support through an experienced network of distributors and dealers. All Generators are extensively tested ensuring optimum performance, high reliability and low service intervals. **FW Power** offers complete project packages from ex-works supply to multi-set synchronising design build systems that use diesel, gas and CHP Generators.

Engine, Baseframe and Radiator:

- Perkins water cooled diesel engine naturally aspirated or turbo charged, governing to ISO8528-5 class G2/G3.
- Mechanical, electronic or electronic engine management system (see scope of supply).
- Replaceable filter elements for fuel, oil and air.
- 12 or 24 volt DC electrical system (see scope of supply).
- Heavy duty tropical radiator complete with fan and stone-guards.
- 8 hour capacity base fuel tank with steel wire braided fuel lines (optional above PFW 900).
- Built in anti-vibration mounts to PFW 800.
- Yuasa brand lead acid batteries.
- Industrial exhaust silencer with flexible bellows supplied loose.
- Full set of user manuals.
- Standard ISO8528 factory test.

Alternator:

- Single bearing close coupled alternator.
- Class H tropical insulation system.
- Brushless, self exciting with solid state AVR.
- Voltage regulation to within 1.5% at full load.
- Fully enclosed to IP 23 with drip proof air ducts.

Rating Definitions:

Prime Power: Variable Load: Unlimited hours usage with an average load factor of 70% of the published prime power rating over each 24 hour period. A 10% overload is available for 1 hour in every 12 hours of operation.

Standby Power: Variable Load: Limited to 500 hours annual usage up to 300 hours of which may be continuous running. No overload permitted.

Ratings are at 0.8 power factor three phase; 1.0 power factor single phase: To ISO 8528 -1, ISO 3046, BS 5514 and DIN 6271, 25°C (77°F) air inlet temperature, 99kPA barometric pressure (110m (361ft) altitude) and 30% relative humidity. Derating may be required for conditions outside these parameters.

Control Panel and Circuit Breaker:

- Set mounted Auto Mains (utility) Failure control module fitted as standard.
- Start / stop / auto / manual selection.
- Low oil pressure, high engine temperature and over-speed protection as standard.
- Configurable generator maintenance intervals to maximise engine performance.
- Seven configurable inputs.
- Eight configurable outputs.
- Configurable timers and alarms.
- Event log of fault, time and date.
- USB connectivity.
- Panel manufactured to BS EN 60950, BS EN 61000-6-2 and 4 BS EN 60068 2-1 / 2-2 / 2-6 / 2-27.
- 1A – 8,000A primary rating, 5A secondary rating.
- 3 pole MCB / MCCB / ACB (see scope of supply).

Acoustic Enclosure (Optional):

- Bolted construction.
- Barafoam acoustic insulation material.
- Lockable hinged doors.
- Centre point lift to 350 kVA, 4 point canopy lift above 350 kVA.
- Gloss powder coat paint finish.



FW Power Perkins Powered Generating Sets Summary Data Sheet

(Contact **FW Power** for Newage Stamford alternators)



| Generator Model | kVA | | Engine Data | | | | | Alternator Model | Open Generator | | | | Silent Generator | | | | |
|--------------------------------|-------------|---------------|----------------|-------------|----------------|------------|-----------------------|------------------|----------------|------------|-------------|-------------|-----------------------|-------------|------------|--------------------|----------------|
| | Prime Power | Standby Power | Model | Arrangement | Displ (Litres) | Aspiration | Fuel Cons (Litres/hr) | | Length (cm) | Width (cm) | Height (cm) | Weight (Kg) | Type | Length (cm) | Width (cm) | Height (cm) | Weight (Kg) |
| <i>Single Phase Generators</i> | | | | | | | | | | | | | | | | | |
| PFW 8S | 8 | - | 403D-11G | 3 In-Line | 1.1 | Natural | 3.0 | ECO3-2L | 115 | 56 | 108 | 390 | Canopy | 160 | 73 | 118 | 650 |
| PFW 12S | 11.5 | - | 403D-15G | 3 In-Line | 1.5 | Natural | 3.7 | ECO28-1L | 115 | 56 | 117 | 470 | Canopy | 160 | 73 | 118 | 730 |
| PFW 18S | 18 | - | 404D-22G | 4 In-Line | 2.2 | Natural | 5.3 | ECO28-VL | 132 | 56 | 122 | 560 | Canopy | 160 | 73 | 118 | 820 |
| PFW 21S | 21 | - | 1103A-33G | 3 In-Line | 3.3 | Natural | 6.3 | ECO32-2S | 147 | 70 | 136 | 800 | Canopy | 181 | 76 | 135 | 1100 |
| PFW 28S | 28 | - | 1103A-33G | 3 In-Line | 3.3 | Natural | 7.1 | ECO32-1L | 147 | 70 | 136 | 800 | Canopy | 181 | 76 | 135 | 1100 |
| PFW 40S | 40 | - | 1103A-33TG1 | 3 In-Line | 3.3 | Turbo | 9.5 | ECO32-3L | 158 | 70 | 136 | 960 | Canopy | 231 | 78 | 141 | 1350 |
| <i>Three Phase Generators</i> | | | | | | | | | | | | | | | | | |
| PFW 9 | 9 | 10 | 403D-11G | 3 In-Line | 1.1 | Natural | 3.0 | EC03-1L | 115 | 56 | 108 | 390 | Canopy | 160 | 73 | 118 | 650 |
| PFW 13 | 13 | 14 | 403D-15G | 3 In-Line | 1.5 | Natural | 3.7 | EC03-2L | 115 | 56 | 117 | 470 | Canopy | 160 | 73 | 118 | 730 |
| PFW 20 | 20 | 22 | 404D-22G | 4 In-Line | 2.2 | Natural | 5.3 | EC03-1L | 132 | 56 | 122 | 560 | Canopy | 160 | 73 | 118 | 820 |
| PFW 25 | 25 | 27.5 | 1103A-33G | 3 In-Line | 3.3 | Natural | 6.3 | ECO28-2L | 147 | 70 | 136 | 800 | Canopy | 181 | 76 | 135 | 1100 |
| PFW 30 | 30 | 32.5 | 1103A-33G | 3 In-Line | 3.3 | Natural | 7.1 | ECO22-2S | 147 | 70 | 136 | 800 | Canopy | 181 | 76 | 135 | 1100 |
| PFW 40 | 40 | 44 | 1103A-33TG1 | 3 In-Line | 3.3 | Turbo | 9.5 | ECO32-3S | 158 | 70 | 136 | 960 | Canopy | 231 | 78 | 141 | 1350 |
| PFW 45 | 45 | 49.5 | 1103A-33TG1 | 3 In-Line | 3.3 | Turbo | 10.7 | ECO32-1L | 158 | 70 | 136 | 960 | Canopy | 231 | 78 | 141 | 1350 |
| PFW 60 | 60 | 66 | 1103A-33TG2 | 3 In-Line | 3.3 | Turbo | 14.1 | ECO32-2L | 163 | 70 | 144 | 960 | Canopy | 231 | 78 | 141 | 1350 |
| PFW 65 | 65 | 71 | 1104A-44TG1 | 4 In-Line | 4.4 | Turbo | 14.8 | ECO32-3L | 180 | 70 | 148 | 960 | Canopy | 277 | 86 | 156 | 1500 |
| PFW 80 | 80 | 88 | 1104A-44TG2 | 4 In-Line | 4.4 | Turbo | 18.7 | ECP34-1S | 180 | 70 | 148 | 1080 | Canopy | 277 | 86 | 156 | 1545 |
| PFW 100 | 100 | 110 | 1104C-44TAG2 | 4 In-Line | 4.4 | Turbo A | 22.6 | ECP34-2S | 186 | 72 | 149 | 1130 | Canopy | 277 | 86 | 156 | 1595 |
| PFW 140 | 140 | 154 | 1006TAG | 6 In-Line | 6.0 | Turbo A | 31.5 | ECP34-2L | 231 | 77 | 158 | 1310 | Canopy | 290 | 95 | 190 | 1830 |
| PFW 150 | 150 | 164 | 1006TAG2 | 6 In-Line | 6.0 | Turbo A | 41.0 | ECP34-2L | 231 | 77 | 158 | 1350 | Canopy | 290 | 95 | 190 | 1870 |
| PFW 180 | 180 | 196 | 1106C-E66TAG4 | 6 In-Line | 6.6 | Turbo A | 40.2 | ECO38-1S | 236 | 79 | 170 | 1590 | Canopy | 345 | 115 | 187 | 2150 |
| PFW 200 | 200 | 220 | 1306C-E87TAG3 | 6 In-Line | 8.7 | Turbo A | 45.2 | ECO38-2S | 254 | 86 | 187 | 1830 | Canopy | 345 | 115 | 247 ⁽⁴⁾ | 2390 |
| PFW 225 | 225 | 250 | 1306C-E87TAG4 | 6 In-Line | 8.7 | Turbo A | 43.0 | ECO38-3SN | 254 | 86 | 187 | 1920 | Canopy | 345 | 115 | 247 ⁽⁴⁾ | 2480 |
| PFW 250 | 250 | 275 | 1306C-E87TAG6 | 6 In-Line | 8.7 | Turbo A | 48.0 | ECO38-1LN | 254 | 86 | 187 | 1920 | Canopy | 345 | 115 | 247 ⁽⁴⁾ | 2480 |
| PFW 300 | 300 | 330 | 2206A-E13TAG2 | 6 In-Line | 12.5 | Turbo A | 60.0 | ECO38-2LN | 318 | 113 | 215 | 3580 | Canopy | 528 | 165 | 240 | 4900 |
| PFW 350 | 350 | 370 | 2206A-E13TAG2 | 6 In-Line | 12.5 | Turbo A | 71.0 | ECO38-3LN | 318 | 113 | 215 | 3580 | Canopy | 528 | 165 | 240 | 4900 |
| PFW 400 | 400 | 437 | 2206A-E13TAG3 | 6 In-Line | 12.5 | Turbo A | 81.0 | ECO40-1S | 318 | 113 | 215 | 3700 | Canopy | 528 | 165 | 240 | 5020 |
| PFW 450 | 450 | 491 | 2506A-E15TAG1 | 6 In-Line | 15.2 | Turbo A | 95.0 | ECO40-2S | 340 | 113 | 222 | 3900 | Canopy | 438 | 125 | 227 | 4900 |
| PFW 500 | 500 | 546 | 2506A-E15TAG2 | 6 In-Line | 15.2 | Turbo A | 106.0 | ECO40-3S | 340 | 113 | 222 | 3900 | Canopy | 438 | 125 | 227 | 4900 |
| PFW 600 | 600 | 660 | 2806A-E18TAG1A | 6 In-Line | 18.0 | Turbo A | 130.0 | ECO40-1.5L | 340 | 154 | 227 | 4700 | Canopy | 438 | 165 | 229 | 5800 |
| PFW 650 | 650 | 710 | 2806A-E18TAG2 | 6 In-Line | 18.0 | Turbo A | 138.0 | ECO40-2L | 340 | 154 | 227 | 4700 | Canopy | 438 | 165 | 229 | 5800 |
| PFW 745 | 745 | 815 | 4006C-23TAG2A | 6 In-Line | 23.0 | Turbo A | 149.0 | HCI634G | 397 | 171 | 232 | 6350 | Canopy ⁽²⁾ | 810 | 210 | 300 | 8200 |
| PFW 800 | 800 | 850 | 4006C-23TAG3A | 6 In-Line | 23.0 | Turbo A | 164.0 | HCI634G | 397 | 171 | 232 | 6350 | Canopy ⁽²⁾ | 810 | 210 | 300 | 8200 |
| PFW 910 | 910 | 1000 | 4008TAG1A | 8 Vee | 30.0 | Turbo A | 195.0 | HCI634H | 465 | 205 | 227 | 7500 | Canopy ⁽²⁾ | 895 | 257 | 299 | 10000 |
| PFW 1000 | 1000 | 1100 | 4008TAG2A | 8 Vee | 30.0 | Turbo A | 220.0 | HCI634J | 465 | 205 | 227 | 7500 | Canopy ⁽²⁾ | 895 | 257 | 299 | 10000 |
| PFW 1250 | 1250 | 1350 | 4012-46TWG2A | 12 Vee | 46.0 | Turbo W | 259.0 | PI734A/B | 473 | 178 | 245 | 8900 | Container | 12000 | 2438 | 2890 | ⁽³⁾ |
| PFW 1360 ⁽¹⁾ | 1360 | 1500 | 4012-46TWG3A | 12 Vee | 46.0 | Turbo W | 283.0 | PI734B | 473 | 198 | 245 | 9000 | Container | 12000 | 2438 | 2890 | ⁽³⁾ |
| PFW 1500 ⁽¹⁾ | 1500 | 1650 | 4012-46TAG2A | 12 Vee | 46.0 | Turbo A | 268.0 | PI734C | 499 | 219 | 251 | 10000 | Container | 12000 | 2438 | 2890 | ⁽³⁾ |
| PFW 1700 | 1700 | 1870 | 4012-46TAG3A | 12 Vee | 46.0 | Turbo A | 370.0 | PI734E | 510 | 216 | 281 | 10600 | Container | 12000 | 2438 | 2890 | ⁽³⁾ |
| PFW 1840 ⁽¹⁾ | 1840 | 2024 | 4016TAG1A | 16 Vee | 61.0 | Turbo A | 408.0 | PI734E | 571 | 278 | 351 | 13200 | Container | 12000 | 2438 | 2890 | ⁽³⁾ |
| PFW 2000 ⁽¹⁾ | 2000 | 2200 | 4016TAG2A | 16 Vee | 61.0 | Turbo A | 439.0 | PI734F | 571 | 278 | 351 | 13200 | Container | 12000 | 2438 | 2890 | ⁽³⁾ |

Ratings are for 50 Hz, 380 - 415 volts three phase and 220 - 240 volts single phase.

⁽¹⁾ Standby kVA's for 380 volts are approximately 3% lower than published, please contact **FW Power**.

⁽²⁾ Optional container available (30 ft PFW 745/800, 40 ft PFW 910/1000).

⁽³⁾ Please contact **FW Power**.

⁽⁴⁾ 187 Without silencer fitted.

Turbo A - Turbocharged, air to air aftercooler / Turbo W - Turbocharged, air to water aftercooler.

Fuel consumption is based upon prime power at 100 % load. (Fuel consumption will vary depending upon fuel specific gravity and quality).

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| FW Power Perkins Powered Generators Scope of Supply with 7120 and 7220 Control Panels | PFW 9 to PFW 80 | PFW 100 | PFW 140 PFW 150 | PFW 180 | PFW 200 to PFW 500 | PFW 600 PFW 650 | PFW 730 PFW 800 | PFW 900 PFW 1000 | PFW 1250 to PFW 1700 | PFW 1840 PFW 2000 |
|--|---|----------------|----------------------------|----------------|-----------------------------------|----------------------------|----------------------------|-----------------------------|-------------------------------------|------------------------------|
| Tropical Radiator | STD | STD | STD | STD | STD | STD | STD | STD | STD | STD |
| Temperate Radiator | - | - | - | - | - | - | OPT | OPT | OPT | - |
| Fan Guard | STD | STD | STD | STD | STD | STD | STD | STD | STD | STD |
| Radiator Matrix Guard | STD | STD | STD | STD | STD | STD | STD | STD | STD | STD |
| Air, Fuel and Oil Filters | STD | STD | STD | STD | STD | STD | STD | STD | STD | STD |
| Governor Type | MECHANICAL | ELECTRONIC | ELECTRONIC | ECU | ECU | ECU | ELECTRONIC | ELECTRONIC | ELECTRONIC | ELECTRONIC |
| DC System 12/24V | 12 V | 12 V | 12 V | 12 V | 24 V | 24 V | 24 V | 24 V | 24 V | 24 V |
| Low Oil Protection | STD | STD | STD | STD | STD | STD | STD | STD | STD | STD |
| High Engine Temperature Protection | STD | STD | STD | STD | STD | STD | STD | STD | STD | STD |
| Overspeed Protection | STD | STD | STD | STD | STD | STD | STD | STD | STD | STD |
| Low Coolant Level Protection | OPT | OPT | STD | STD | STD | STD | STD | STD | STD | STD |
| High Exhaust Temperature | - | - | - | - | - | - | OPT | OPT | STD | STD |
| DC Wiring | STD | STD | STD | STD | STD | STD | STD | STD | STD | STD |
| Baseframe Without Fuel Tank | - | - | - | - | - | - | - | STD | STD | STD |
| 8 Hour Capacity Base Fuel Tank | STD | STD | STD | STD | STD | STD | STD | OPT | OPT | OPT |
| Steel Wire Braided Fuel Lines | STD | STD | STD | STD | STD | STD | STD | STD | STD | STD |
| Fuel Contents Gauge | STD | STD | STD | STD | STD | STD | STD | OPT | OPT | OPT |
| Anti Vibration Mounts Between Generator and Baseframe | STD | STD | STD | STD | STD | STD | STD | - | - | - |
| Anti Vibration Mounts Under Baseframe | - | - | - | - | - | - | - | STD | STD | STD |
| Yuasa Brand Lead Acid Battery | STD | STD | STD | STD | STD | STD | STD | STD | STD | STD |
| Exhaust Flexible Section | STD | STD | STD | STD | STD | STD | STD | STD | STD | STD |
| Industrial Exhaust Silencer | STD | STD | STD | STD | STD | STD | STD | STD | STD | STD |
| Standard ISO8528 Works Test | STD | STD | STD | STD | STD | STD | STD | STD | STD | STD |
| Standard Paint Finish | STD | STD | STD | STD | STD | STD | STD | STD | STD | STD |
| User Manual | STD | STD | STD | STD | STD | STD | STD | STD | STD | STD |
| Control Panel Mounted on Anti Vibration Mounts | STD | | | | | | | | | |
| DSE Control Panel | 7120 | | | | | 7220 | | | | |
| Monitoring | LCD DISPLAY | | | | | | | | | |
| Start / Stop / Auto / Manual Selection | VIA SOFT TOUCH MEMBRANE BUTTONS ON PANEL FASCIA | | | | | | | | | |
| Generator Amps | STD | | | | | | | | | |
| Generator Volts | STD | | | | | | | | | |
| Generator Frequency | STD | | | | | | | | | |
| Engine Speed | STD | | | | | | | | | |
| Engine Oil Pressure | STD | | | | | | | | | |
| Engine Water Temperature | STD | | | | | | | | | |
| Battery Volts | STD | | | | | | | | | |
| Mains Volts | STD | | | | | | | | | |
| Mains Frequency | STD | | | | | | | | | |
| Hours Run | STD | | | | | | | | | |
| Generator kVA | - | | | | | STD | | | | |
| Generator kW | - | | | | | STD | | | | |
| Generator Power Factor | - | | | | | STD | | | | |
| Generator kVA _r , kWh, kVA _h , kVA _r h | - | | | | | STD | | | | |
| DSE Contant Potential Battery Charger with On / Off Switch | OPTIONAL | | | | | STD (5 AMP) | | | | |
| 3 Pole MCB / MCCB / ACB | PLEASE REFER TO NOTE BELOW | | | | | | | | | |
| Overspeed Protection | STD | | | | | | | | | |
| Low Coolant Level Protection | OPTIONAL | | | | | STD | | | | |
| High Engine Temperature Protection | STD | | | | | | | | | |
| Low Oil Pressure Protection | STD | | | | | | | | | |
| Charge Fail Indication | STD | | | | | | | | | |
| Event Logging | STD | | | | | | | | | |
| Engine Exercise Mode | STD | | | | | | | | | |
| Maintenance Scheduling | STD | | | | | | | | | |
| Emergency Stop Button | STD | | | | | | | | | |
| RS232 / RS485 | STD | | | | | | | | | |

| Amps (Prime Power) | Guide to Control Panel and Circuit Breaker |
|---------------------------|--|
| Upto 250 A | Alternator mounted panel with MCB/MCCB internally mounted (MCB fitted upto 100 Amps) |
| 250 - 913 A | Alternator mounted panel with alternator mounted MCCB |
| 914 A to 1600 A | Alternator mounted panel with MCCB optional (set mounted) |
| Over 1600 A | Alternator mounted panel with ACB optional (freestanding cubicle) |

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