

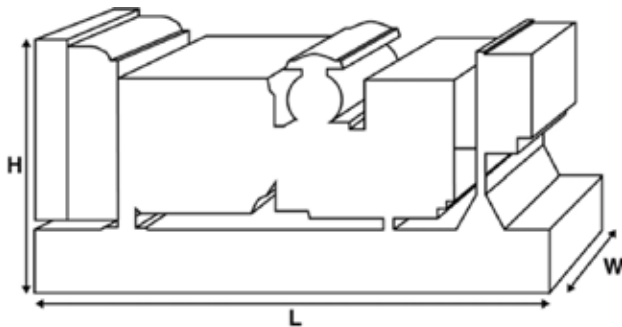


# P150-5 - Data Centre Continuous

## Output Ratings

| Voltage, Frequency | DCC |     | Overload |
|--------------------|-----|-----|----------|
| 400/230 V, 50 Hz   | kVA | 135 | 150      |
|                    | kW  | 108 | 120      |
|                    | kVA |     |          |
|                    | kW  |     |          |

Ratings at 0.8 power factor.  
Please refer to the output ratings technical data section for specific generator set outputs per voltage.



## Dimensions and Weights

|              |    |             |
|--------------|----|-------------|
| Length       | mm | 2450 (96.5) |
| Width        | mm | 1010 (39.8) |
| Height       | mm | 1544 (60.8) |
| Weight (Dry) | kg | 1320 (2910) |
| Weight (Wet) | kg | 1341 (2956) |

Ratings in accordance with ISO 8528, ISO 3046, IEC 60034, BS5000 and NEMA MG-1.22.  
Generator set pictured may include optional accessories.

## Data Centre Continuous (DCC) Rating

These ratings are applicable for supplying continuous electrical power (with no restrictions on average variable load factor up to 100% constant 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. The DCC rating is also consistent with DCP rating defined in ISO8528-1 (2018)

## Standard Reference Conditions

Note: Standard reference conditions 25°C (77°F) Air Inlet Temp, 100m (328 ft) A.S.L. 30% relative humidity.  
Fuel consumption data at full load with diesel fuel with specific gravity of 0.85 and conforming to BS2869: 1998, Class A2.

FG Wilson offer a range of optional features to allow you to tailor our generator sets to meet your power needs.  
Options available include:

- Upgrade to CE Certification
- A wide range of Sound Attenuated Enclosures
- A variety of generator set control and synchronising panels
- Additional alarms and shutdowns
- A selection of exhaust silencer noise levels

For further information on all of the standard and optional features accompanying this product please contact your local Dealer or visit:

[www.fgwilson.com](http://www.fgwilson.com)

# P150-5 - DCC



## Ratings and Performance Data

|                           |                    |                             |       |
|---------------------------|--------------------|-----------------------------|-------|
| Engine Make               |                    | Perkins                     |       |
| Engine Model:             |                    | 1106A-70TG1                 |       |
| Alternator Make           |                    | FG Wilson                   |       |
| Alternator Model:         |                    | FGL30080                    |       |
| Control Panel:            |                    | FG100                       |       |
| Base Frame:               |                    | Heavy Duty Fabricated Steel |       |
| Circuit Breaker Type:     |                    | 3 Pole MCCB                 |       |
| Frequency:                |                    | 50 HZ                       | 60 HZ |
| Engine Speed: RPM         | rpm                | 1500                        | 1800  |
| Fuel Tank Capacity:       | litres (US gal)    | 327 (86.38)                 |       |
| Fuel Consumption DCC      | litres (US gal)/hr | 29.9 (7.9)                  |       |
| Fuel Consumption Overload | litres (US gal)/hr | 33.4 (8.8)                  |       |

## Engine Technical Data

|                      |                                         |              |
|----------------------|-----------------------------------------|--------------|
| No. of Cylinders     |                                         | 6            |
| Alignment            |                                         | IN LINE      |
| Cycle                |                                         | 4 STROKE     |
| Bore                 | mm (in)                                 | 105 (4.1)    |
| Stroke               | mm (in)                                 | 135 (5.3)    |
| Induction            |                                         | TURBOCHARGED |
| Cooling Method       |                                         | WATER        |
| Governing Type       |                                         | MECHANICAL   |
| Governing Class      |                                         | ISO 8528 G2  |
| Compression Ratio    |                                         | 18.2:1       |
| Displacement         | L (cu. in)                              | 7 (427.8)    |
| Moment of Inertia:   | kg m <sup>2</sup> (lb/in <sup>2</sup> ) | 1.4 (4784)   |
| Voltage              |                                         | 12           |
| Ground               |                                         | Negative     |
| Battery Charger Amps |                                         | 65           |
| Engine Weight Dry    | kg (lb)                                 | 725 (1598)   |
| Engine Weight Wet    | kg (lb)                                 | 748 (1649)   |

## Engine Performance Data

|                             |           | 50 Hz        | 60 Hz        |
|-----------------------------|-----------|--------------|--------------|
| Engine Speed                | rpm       | 1500         | 1800         |
| Gross Engine Power DCC      | kW (hp)   | 123.7 (166)  | 140.5 (188)  |
| Gross Engine Power Overload | kW (hp)   | 136.9 (184)  | 155.4 (208)  |
| BMEP DCC                    | kPa (psi) | 1411 (204.6) | 1336 (193.7) |
| BMEP Overload               | kPa (psi) | 1562 (226.5) | 1477 (214.2) |

# P150-5 - DCC



## Fuel System

|                     |                  |                     |            |           |            |
|---------------------|------------------|---------------------|------------|-----------|------------|
| Fuel Filter Type:   |                  | Replaceable Element |            |           |            |
| Recommended Fuel:   |                  | Class A2 Diesel     |            |           |            |
| Fuel Consumption at |                  | 110 % Load          | 100 % Load | 75 % Load | 50 % Load  |
| 50 Hz DCC:          | l/hr (US gal/hr) | 33.4 (8.8)          | 29.9 (7.9) | 22.6 (6)  | 16.2 (4.3) |
| 50 Hz Overload      | l/hr (US gal/hr) | -                   |            |           |            |
| 60 Hz DCC           | l/hr (US gal/hr) |                     |            |           |            |
| 60 Hz Overload      | l/hr (US gal/hr) | -                   |            |           |            |

(Based on diesel fuel with a specific gravity of 0.85 and conforming to BS2869 classA2,EN590)

## Air System

|                                        |                           | 50 Hz         | 60 Hz |
|----------------------------------------|---------------------------|---------------|-------|
| Air Filter Type:                       |                           | Paper Element |       |
| Combustion Air Flow DCC                | m <sup>3</sup> /min (cfm) | 7.6 (270)     |       |
| Combustion Air Flow Overload           | m <sup>3</sup> /min (cfm) | 8.1 (286)     |       |
| Max. Combustion Air Intake Restriction | kPa                       | 5 (20.1)      |       |

## Cooling System

|                                             |                           | 50 Hz        | 60 Hz |
|---------------------------------------------|---------------------------|--------------|-------|
| Cooling System Capacity                     | l (US gal)                | 21 (5.5)     |       |
| Water Pump Type:                            |                           | Centrifugal  |       |
| Heat Rejected to Water & Lube Oil: DCC      | kW (Btu/min)              | 74.9 (4259)  |       |
| Heat Rejected to Water & Lube Oil: Overload | kW (Btu/min)              | 82 (4663)    |       |
| Heat Radiation to Room*: DCC                | kW (Btu/min)              | 23 (1308)    |       |
| Heat Radiation to Room*: Overload           | kW (Btu/min)              | 27 (1535)    |       |
| Radiator Fan Load:                          | kW (hp)                   | 4.4 (5.9)    |       |
| Radiator Cooling Airflow:                   | m <sup>3</sup> /min (cfm) | 228.6 (8073) |       |
| External Restriction to Cooling Airflow:    | Pa (in H <sub>2</sub> O)  | 125 (0.5)    |       |

\*: Heat radiated from engine and alternator  
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.

## Lubrication System

|                     |            |                      |
|---------------------|------------|----------------------|
| Oil Filter Type:    |            | Spin-on, Full flow   |
| Total Oil Capacity: | l (US gal) | 16.5 (4.4)           |
| Oil Pan Capacity:   | l (US gal) | 14.9 (3.9)           |
| Oil Type:           |            | API CH4 / CI4 15W-40 |
| Oil Cooling Method: |            | WATER                |

## Exhaust System

|                                   |                           | 50 Hz      | 60 Hz |
|-----------------------------------|---------------------------|------------|-------|
| Maximum Allowable Back Pressure:  | kPa (in Hg)               | 6 (1.8)    |       |
| Exhaust Gas Flow: DCC             | m <sup>3</sup> /min (cfm) | 20.8 (733) |       |
| Exhaust Gas Flow: Overload        | m <sup>3</sup> /min (cfm) | 22.7 (800) |       |
| Exhaust Gas Temperature: DCC      | °C (°F)                   | 576 (1069) |       |
| Exhaust Gas Temperature: Overload | °C (°F)                   | 576 (1069) |       |

# P150-5 - DCC



## Alternator Physical Data

|                            |       |
|----------------------------|-------|
| No. of Bearings:           | 1     |
| Insulation Class:          | H     |
| Winding Pitch:             | 2/3   |
| Winding Code               | 6P/6S |
| Wires:                     | 4     |
| Ingress Protection Rating: | IP23  |
| Excitation System:         | SHUNT |
| AVR Model:                 | R120  |

\* dependant on voltage code selected

## Alternator Operating Data

|                                      |            |
|--------------------------------------|------------|
| Overspeed: rpm                       | 2250       |
| Voltage Regulation: (Steady state) % | +/- 0.5    |
| Wave Form NEMA = TIF:                | 50         |
| Wave Form IEC = THF: %               | 2          |
| Total Harmonic content LL/LN: %      | 2          |
| Radio Interference:                  | EN61000-6  |
| Radiant Heat: 50 Hz kW (Btu/min)     | 10.6 (603) |
| Radiant Heat: 60 Hz kW (Btu/min)     | 0 ()       |

## Alternator Performance Data 50 Hz:

|                            |      | 415/240 V | 400/230 V | 380/220 V | 220/127 V |
|----------------------------|------|-----------|-----------|-----------|-----------|
| Voltage Code               |      |           |           |           |           |
|                            |      |           | 200/115 V |           |           |
| Motor Starting Capability* | kVA  | 213       | 200       | 182       | 237       |
| Short Circuit Capacity**   | %    | 270       | 270       | 270       | 270       |
| Reactances                 | Xd   | 3.36      | 3.62      | 4.008     | 2.77      |
|                            | X'd  | 0.156     | 0.168     | 0.186     | 0.128     |
|                            | X''d | 0.101     | 0.101     | 0.112     | 0.077     |

Reactances shown are applicable to DCC ratings.

\*Based on 30% voltage dip at 0.6 power factor.

\*\* With optional independant excitation system (PMG / AUX winding)



# P150-5 - DCC

## Output Ratings 50 Hz

|              |     | DCC |     | Overload |  |
|--------------|-----|-----|-----|----------|--|
| Voltage Code | kVA | kW  | kVA | kW       |  |
| 415/240V     | 135 | 108 | 150 | 120      |  |
| 400/230V     | 135 | 108 | 150 | 120      |  |
| 380/220V     | 130 | 104 | 142 | 113.6    |  |
| 230/115V     | 135 | 108 | 150 | 120      |  |
| 220/127V     | 135 | 108 | 148 | 118.4    |  |
| 220/110V     | 130 | 104 | 142 | 113.6    |  |
| 200/115V     | 135 | 108 | 150 | 120      |  |
| 240V         |     |     |     |          |  |
| 230V         |     |     |     |          |  |
| 220V         |     |     |     |          |  |



## P150-5 - DCC

### Dealer Contact Details



☎ 01953 454540

✉ [enquiries@stuartgroup.co.uk](mailto:enquiries@stuartgroup.co.uk)

🌐 [www.stuartgroup.co.uk](http://www.stuartgroup.co.uk)

Stuart House, Hargham Road, Shropham, Norfolk, NR17 1DT

### Documentation

Operation and maintenance manual including circuit wiring diagrams.

### Generator Set Standards

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

### Warranty

6.8 – 750 kVA electric power generation products in DCC applications the warranty period is 12 months from date of start-up, unlimited hours (8760) or 24 months from date of start-up, limited to 500 hours per year.

730 – 2500 kVA electric power generation products in DCC applications the warranty period is 12 months from date of start-up, unlimited hours (8760 hours) or 24 months from date of start-up, limited to 6000 hours or 36 months from date of start-up, limited to 500 hours per year.

FG Wilson manufactures product in the following locations:

Northern Ireland • Brazil • China • India

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](http://www.fgwilson.com).

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In line with our policy of continuous product development, we reserve the right to change specification without notice

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