



P2500-1D - Data Centre Continuous

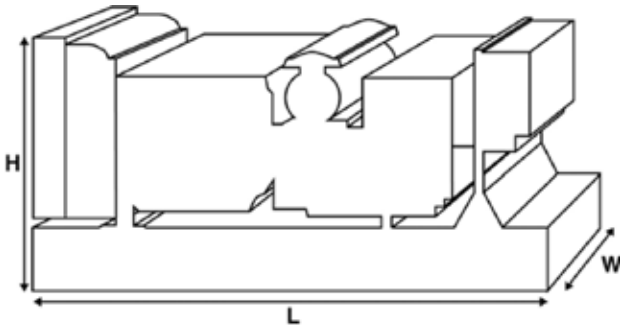
Output Ratings

Voltage, Frequency DCC

400/230 V, 50 Hz	kVA	2500	
	kW	2000	



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	6038
Width	mm	2180
Height	mm	2900
Weight (Dry)	kg	13478
Weight (Wet)	kg	13878

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.

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

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Ratings and Performance Data

Engine Make	Perkins	
Engine Model:	4016-61TRG3X	
Alternator Make	Leroy Somer	
Alternator Model:	LL9324R	
Control Panel:	DSE7410	
Base Frame:	Heavy Duty Fabricated Steel	
Circuit Breaker Type:	3 Pole ACB-Option	
Frequency:	50 HZ	
Engine Speed: RPM	rpm	1500
Fuel Tank Capacity:	litres (US gal)	N/A (N/A)
Fuel Consumption DCC	litres (US gal)	528.4 (139.6)
Fuel Consumption Overload	litres (US gal)	

Engine Technical Data

No. of Cylinders	16	
Alignment	60deg Vee	
Cycle	4 STROKE	
Bore	mm (in)	160 (6.3)
Stroke	mm (in)	190 (7.5)
Induction	TURBOCHARGED AIR TO WATER CHARGE COOLED	
Cooling Method	WATER	
Governing Type	ELECTRONIC	
Governing Class	ISO 8528 G3	
Compression Ratio	13.0:1	
Displacement	L (cu. in)	61.1 (3730)
Moment of Inertia:	kg m ² (lb/in ²)	20.72 (70803)
Voltage	24	
Ground	Negative	
Battery Charger Amps	55	
Engine Weight Dry	kg (lb)	5570 (12280)
Engine Weight Wet	kg (lb)	5847 (12890)

Engine Performance Data

50 Hz

Engine Speed	rpm	1500
Gross Engine Power DCC	kW (hp)	2183 (2927.4)
Gross Engine Power Overload	kW (hp)	
BMEP DCC	kPa (psi)	2857.2 (414.4)
BMEP Overload	kPa (psi)	

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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)		528.4 (139.6)	389.2 (102.8)	266.9 (70.5)
50 Hz Overload	l/hr (US gal/hr)				

(Based on diesel fuel with a specific gravity of 0.86 and conforming to BS2869 classA2,EN590)

Air System

50 Hz

Air Filter Type:	Replaceable Element				
Combustion Air Flow DCC	m ³ /min (cfm)	175 (6180)			
Combustion Air Flow Overload	m ³ /min (cfm)				
Max. Combustion Air Intake Restriction	kPa	3.7 (14.9)			

Cooling System

50 Hz

Cooling System Capacity	l (US gal)	400 (105.7)			
Water Pump Type:	Centrifugal				
Heat Rejected to Water & Lube Oil: DCC	kW (Btu/min)	830 (47201)			
Heat Rejected to Water & Lube Oil: Overload	kW (Btu/min)				
Heat Radiation to Room*: DCC	kW (Btu/min)	236.8 (13467)			
Heat Radiation to Room*: Overload	kW (Btu/min)				
Radiator Fan Load:	kW (hp)	77 (103.3)			
Radiator Cooling Airflow:	m ³ /min (cfm)	2184 (77127)			
External Restriction to Cooling Airflow:	Pa (in H ₂ O)	250 (1)			

*: 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)	238 (62.9)			
Oil Pan Capacity:	l (US gal)	213 (56.3)			
Oil Type:	API CG 15W-40 CH4				
Oil Cooling Method:	WATER				

Exhaust System

50 Hz

Maximum Allowable Back Pressure:	kPa (in Hg)	4 (1.2)			
Exhaust Gas Flow: DCC	m ³ /min (cfm)	525 (18540)			
Exhaust Gas Flow: Overload	m ³ /min (cfm)				
Exhaust Gas Temperature: DCC	°C (°F)	560 (1040)			
Exhaust Gas Temperature: Overload	°C (°F)				

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Alternator Physical Data

No. of Bearings:	1
Insulation Class:	H
Winding Pitch:	2/3
Winding Code	6S
Wires:	6
Ingress Protection Rating:	IP23
Excitation System:	AREP
AVR Model:	D510

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: %	3.5
Radio Interference:	EN61000-6
Radiant Heat: 50 Hz kW (Btu/min)	79 (4493)

Alternator Performance Data 50 Hz:

Voltage Code		415/240 V	400/230 V	380/220 V
Motor Starting Capability*	kVA	4583	4264	3856
Short Circuit Capacity	%	300	300	300
Reactances	X _d	2.848	3.037	3.396
	X' _d	0.219	0.239	0.259
	X'' _d	0.107	0.115	0.128

Reactances shown are applicable to DCC ratings.

*Based on 30% voltage dip at 0.4 power factor.



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Dealer Contact Details

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.

Caterpillar (NI) Limited is the manufacturer of FG Wilson brand diesel generating sets, and our facilities manufacture products in the following locations:

Brazil • China • India

With headquarters in Northern Ireland, FG Wilson products are distributed through a Global Dealer Network.

To contact your local Sales Office, please visit the FG Wilson website at www.fgwilson.com.

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