

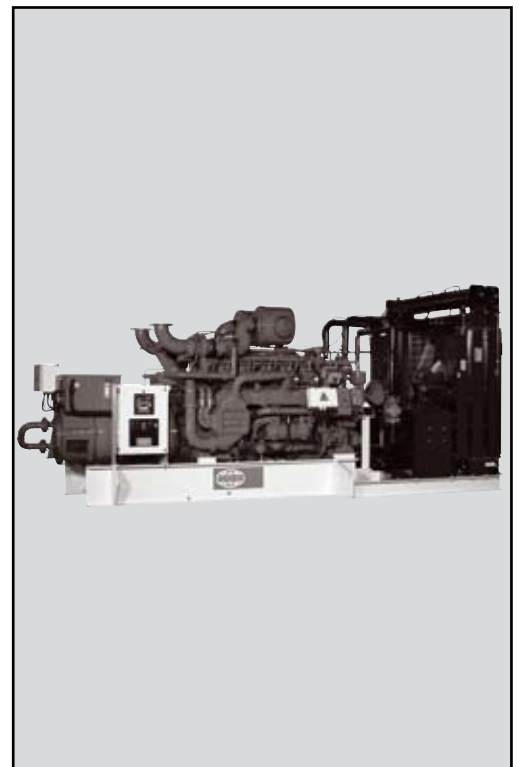
PG750B



Output Ratings	
Generating Set Model	PG750B Baseload*
380-415V, 50 Hz	750 kVA 600 kW

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

Technical Data	
Engine Make & Model	Perkins 4012TES1
Alternator Model	LL7024P
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)	3.10 (109)



Weights & Dimensions

Weights: kg (lbs)		Dimensions: mm (in)	
Wet (+ lube oil & coolant)	8700 (19184)	Length	5585 (220)
		Width	2198 (86.5)
		Height	2601 (102)



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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:	4012TESI	Combustion Air Flow:			
No. of Cylinders/Alignment:	12V	m ³ /min (cfm)	52.0 (1836)		
Cycle:	4 Stroke	Max. Combustion Air Intake			
Induction:	TurboCharged	Restriction: kPa (in H ₂ O)	3.8 (15.2)		
Cooling Method:	Water	Radiator Cooling Airflow:			
Governing Type:	Electronic	m ³ /min (cfm)	887 (31320)		
Class:	ISO8528 G2	External Restriction to			
Compression Ratio:	9.5:1	Cooling Airflow: Pa (in Wg)	125 (0.5)		
Displacement: L (cu.in):	45.84 (2797)	Cooling System			
Bore/Stroke: mm (in)	160 (6.3) / 190 (7.5)	50 Hz			
Moment of Inertia: kg m ² (lb/in ²)	6.04 (20639)	Cooling System			
Engine Electrical System:		Capacity: L (US Gal)	135 (35.7)		
-Voltage/Ground	24/Negative	Water Pump Type:	Gear Driven		
-Battery Charger Amps	32	Heat Rejected to Water & Lube Oil: kW (Btu/min)	525 (29858)		
Weight: kg (lbs) -Dry	4680 (10319)	Heat Rejected to Charge Cooler kW (Btu/min)	122 (6938)		
-Wet	4908 (10822)	Heat Radiation to Room: kW (Btu/min) -Standby:	47.0 (2673)		
Performance		50 Hz		Radiator Fan Load: Electric	
Engine Speed: rpm	1500	Lubrication System			
Gross Engine Power: kW (hp)	632 (847)	Oil Filter Type:	Spin-On, Full Flow		
BMEP: kPa (psi)	1104 (1.60)	Total Oil Capacity L (US Gal):	178 (47.0)		
		Oil Pan L (US Gal):	159 (42.0)		
		Oil Type:	API-CF4		
		Cooling Method:	Water		
Fuel System		Exhaust System		50 Hz	
Fuel Filter Type:		Silencer Type:	Level 1		
Recommended Fuel:	Natural gas with lower calorific value of 34.71MJ/m ³ and minimum methane number of 70	Silencer Model & Qty:	SD150		
Fuel Consumption m ³ /min(cfm)		Pressure Drop Across Silencer System: kPa (in Hg)	1.25 (0.37)		
50 Hz	100% Load	Silencer Noise Reduction Level: dBA	18.0		
	3.1 (110)	Max. Allowable Back Pressure: kPa (in Hg)	5.4 (21.7)		
	75% Load	Exhaust Gas Flow: m ³ /min (cfm)	127 (4484)		
	2.4 (84.7)	Exhaust Gas Temperature: °C (°F)	424 (795)		
	50% Load	Heat Rejected to Exhaust System kW (Btu/min)	457 (25991)		
	1.6 (56.5)				
	25% Load				
	0.85 (30.0)				

Alternator Performance Data

Data Item	50 Hz		
	415/240	400/230	380/220
Motor Starting Capability* kVA	2613	2446	2228
Short Circuit Capacity**%	300	300	300
Reactances: Per Unit			
X_d	2.58	2.77	3.07
X'_d	0.12	0.13	0.15
X''_d	0.098	0.105	0.116

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:	LL7024P	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.6)	Total Harmonic Content LL/LN	<4%
Wires:	12	Radio Interference	Suppression is in line with British Standard BSEN50081 & BSEN50082
Ingress Protection Rating:	IP23	Radiant Heat: kW (Btu/min)	
Excitation System:	Shunt	-50 Hz:	36.0 (2017)
AVR Model:	R448		

Technical Data

3 Phase Ratings and Performance at 50 Hz, 1500 RPM

Voltage	Model: PG750B Baseload	
	kVA	kW
415/240	750	600
400/230	750	600
380/220	750	600

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

