

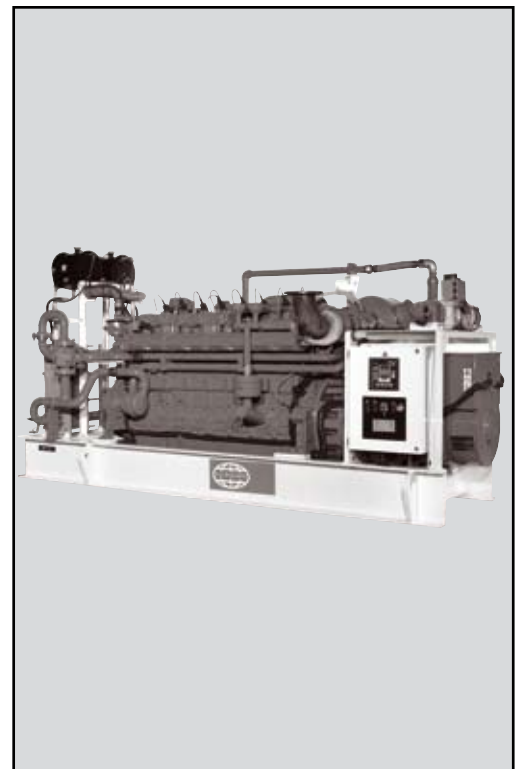
PG345B3



Output Ratings	
Generating Set Model	PG345B
	Baseload*
380-415V, 50 Hz	345 kVA 276 kW

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

Technical Data	
Engine Make & Model	Perkins 4006-23TRS1
Alternator Model	LL6114B
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) @15 C	1.43 (64.7)



Weights & Dimensions

Weights: kg (lbs)		Dimensions: mm (in)	
Wet (+ lube oil & coolant)	5300 (11687)	Length	3998 (157)
		Width	1687 (6.61)
		Height	2304 (90.70)



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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:	4006-23TRSI	Combustion Air Flow:	m ³ /min (cfm) 25.1 (886)		
No. of Cylinders/Alignment:	6 in-line	Max. Combustion Air Intake	Restriction: kPa (in H ₂ O) 3.73 (15.0)		
Cycle:	4 Stroke	Radiator Cooling Airflow:	m ³ /min (cfm) 433 (15285)		
Induction:	TurboCharged	External Restriction to	Cooling Airflow: Pa (in Wg) 190 (0.75)		
Cooling Method:	Water	Cooling System			
Governing Type:	Electronic	50 Hz			
Class:	ISO8528 G2	Cooling System	Capacity: L (US Gal) 72.0 (19.0)		
Compression Ratio:	12:1 Nominal	Water Pump Type:	Gear driven		
Displacement: L (cu.in):	22.9 (1399)	Heat Rejected to Water & Lube Oil: kW (Btu/min)	240 (13651)		
Bore/Stroke: mm (in)	160 (6.3) / 190 (7.5)	Heat Radiation to Room: kW (Btu/min) -Standby:	28.0 (1593)		
Moment of Inertia: kg m ² (lb/in ²)	4.12	Heat Rejected to Charge Cooler	kW (Btu/min) 54.0 (3072)		
Engine Electrical System:		Radiator Fan Load: kW (hp)	17.0 (22.8)		
-Voltage/Ground	24/Negative	Lubrication System			
-Battery Charger Amps	32	Oil Filter Type:	Spin-On, Full Flow		
Weight: kg (lbs) -Dry	na	Total Oil Capacity L (US Gal):	123 (32.5)		
-Wet	5300 (11687)	Oil Pan L (US Gal):	113 (29.9)		
Performance		Oil Type:			
50 Hz		Cooling Method:	Water		
Engine Speed: rpm	1500	Exhaust System			
Gross Engine Power: kW (hp)	322 (432)	50 Hz			
BMEP: kPa (psi)	1121 (162.4)	Silencer Type:	Level 1		
Fuel System		Silencer Model & Qty:	SD150		
Fuel Filter Type:		Pressure Drop Across Silencer System: kPa (in Hg)	0.12 (0.04)		
Recommended Fuel:	Natural gas with lower calorific value of 34.71MJ/m ³ and minimum methane number of 70	Silencer Noise Reduction Level: dBA	19.0		
Fuel Consumption m ³ /min (cfm)		Max. Allowable Back Pressure: kPa (in Hg)	5.2 (21.4)		
50 Hz	100% Load	Exhaust Gas Flow: m ³ /min (cfm)	65.7 (2319)		
	75% Load	Exhaust Gas Temperature: °C (°F)	480 (896)		
	50% Load	Heat Rejected to Exhaust System kW (Btu/min)	248 (14106)		
	25% Load				
	1.54 (54.4)				
	1.16 (50.0)				
	0.79 (27.9)				
	0.39 (13.8)				

Alternator Performance Data

Data Item	50 Hz		
	415/240	400/230	380/220
Motor Starting Capability* kVA	664	622	568
Short Circuit Capacity**%	300	300	300
Reactances: Per Unit			
X_d	3.22	3.47	3.48
X'_d	0.16	0.18	0.2
X''_d	0.132	0.142	0.158

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:	LL6014B	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:	22.0 (1251)
AVR Model:	R448		

Technical Data

3 Phase Ratings and Performance at 50 Hz, 1500 RPM

Voltage	Model: PG345B Baseload	
	kVA	kW
415/240	345	276
400/230	345	276
380/220	345	276

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

