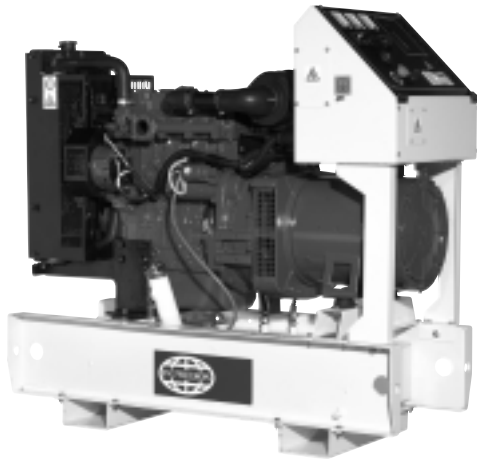


P15P2S/P16.5E2S



Output Ratings		
Generating Set Model	P15P2S	P16.5E2S
220-240V, 50 Hz	15.0 kVA	16.5 kVA
	15.0 kW	16.5 kW
240V, 60 Hz	18.0 kVA	20.0 kVA
	18.0 kW	20.0 kW

Ratings at unity pf

Technical Data		
Engine Make & Model	Perkins 404C-22G2	
Alternator Model	LLB1014N	
Base Frame Type	Heavy Duty Fabricated Steel	
Circuit Breaker Type/Rating	3 Pole MCB	
Frequency	50 Hz	60Hz
Engine Speed	1500	1800
Fuel Tank Capacity: Litres (US Gal)	45 (11.9)	45 (11.9)
Fuel Consump, P15P2S: l/hr (US Gal/hr)	5.1 (1.4)	6.3 (1.7)
Fuel Consump, P16.5E2S: l/hr (US Gal/hr)	5.8 (1.5)	7.1 (1.9)



FG Wilson (Engineering) Ltd

Old Glenarm Road, Larne, County Antrim BT40 1EJ

Northern Ireland, United Kingdom

Tel: +44 (0) 28 2826 1000 Fax: +44 (0) 28 2826 1111

www.FGWilson.com



Engine Technical Data

Physical Data		Air System		50 Hz	60 Hz
Manufacturer:	Perkins	Air Filter Type:	Replaceable Element		
Model:	404C-22G2	Combustion Air Flow:			
No. of Cylinders/Alignment:	4	m ³ /min (cfm) -Standby	1.45 (51.2)	1.74 (61.4)	
Cycle:	4 Stroke	-Prime	TBA	TBA	
Induction:	Naturally Aspirated	Max. Combustion Air Intake			
Cooling Method:	Water	Restriction: kPa (in H ₂ O)	3.0 (12)	3.0 (12)	
Governing Type:	Mechanical	Radiator Cooling			
Class:	ISO8528 G2	Airflow: m ³ /min (cfm)	29.4 (1038)	39.6 (1398)	
Compression Ratio:	23.3:1	External Restriction to			
Displacement: L (cu.in)	2.2 (135)	Cooling Airflow: Pa (in Wg)	125 (0.5)	125 (0.5)	
Bore/Stroke: mm (in)	84 (3.3) / 100 (3.9)				
Moment of Inertia: kg m ² (lb/in ²)	TBA	Cooling System		50 Hz	60 Hz
Engine Electrical System:		Cooling System			
-Voltage/Ground	12/Negative	Capacity: L (US Gal)	7.0 (1.8)	7.0 (1.8)	
-Battery Charger Amps	55	Water Pump Type:	Centrifugal		
Weight: kg (lbs) -Dry	246 (542)	Heat Rejected to Water &			
-Wet	262 (578)	Lube Oil: kW (Btu/min)			
		-Standby	18.7 (1064)	22.2 (1264)	
		-Prime	17.0 (968)	19.9 (1133)	
		Heat Radiation to Room:			
		kW (Btu/min)			
		-Standby	7.0 (398)	8.1 (461)	
		-Prime	6.5 (370)	7.3 (416)	
		Radiator Fan Load: kW (hp)	0.2 (0.3)	0.4 (0.5)	
Performance		50Hz	60Hz		
Engine Speed: rpm		1500	1800		
Gross Engine: kW (hp)					
-Standby		20.6 (27.6)	24.3 (32.6)		
-Prime		18.7 (25.1)	22.0 (29.5)		
BMEP: kPa (psi)					
-Standby		TBA	TBA		
-Prime		669 (97.1)	658 (95.4)		
Regenerative Power: kW		TBA	TBA		
Fuel System		Lubrication System			
Fuel Filter Type:	Replaceable Element	Oil Filter Type:	Spin-On, Full Flow		
Recommended Fuel:	Class 2 Diesel	Total Oil Capacity: L (US Gal)	10.6 (2.8)		
		Oil Pan: L (US Gal)	8.9 (2.4)		
		Oil Type:	API-CH-4 / ACEA E5		
		Cooling Method:	Water		
Fuel Consumption: L/hr (US Gal/hr)		Exhaust System		50 Hz	60 Hz
		Silencer Type:	Level 1		
		Silencer Qty:	1		
		Pressure Drop Across			
		Silencer System: kPa (in Hg)	TBA	TBA	
		Silencer Noise Reduction			
		Level: dB	TBA	TBA	
		Max. Allowable Back			
		Pressure: kPa (in Hg)	10.2 (3.0)	10.2 (3.0)	
		Exhaust Gas Flow: m ³ /min (cfm)			
		-Standby	3.94 (139)	4.76 (168)	
		-Prime	TBA	TBA	
		Exhaust Gas Temperature: °C (°F)			
		-Standby	505 (941)	510 (950)	
		-Prime	TBA	TBA	

Alternator Performance Data

Data Item	50 Hz			60 Hz
	240	230	220	240
Reactances: Per Unit				
X_d	1.37	1.49	1.63	1.97
X'_d	0.18	0.20	0.22	1.26
X''_d	0.086	0.094	0.102	0.124

Reactances shown are applicable to prime ratings

Alternator Technical Data

Physical Data		Operating Data	
Manufacturer:	FG Wilson	Overspeed: RPM	2250
Model:	LLB1014N	Voltage Regulation (steady state)	+/- 1%
No. of Bearings:	1	Wave Form NEMA =TIF	<50
Insulation Class:	H	Wave Form IEC= THF	<2%
Winding Pitch (Code):	2/3 (M)	Total Harmonic Content LL/LN	< 4%
Wires:	4	Radio Interference	Suppression is in line with British Standard BSEN61000-6-2 & BSEN61000-6-4
Ingress Protection Rating:	IP23	Radiant Heat: kW (Btu/min)	
Excitation System:	Shunt	-50 Hz	3.1 (173)
AVR Model:	R230	-60 Hz	3.4 (191)

Technical Data

1 Phase Ratings and Performance at 50 Hz, 1500 RPM

1 Phase Ratings and Performance at 60 Hz, 1800 RPM

Voltage	Model: P15P2S Prime		Model: P16.5E2 Standby		Voltage	Model: P15P2S Prime		Model: P16.5E2S Standby	
	kVA	kW	kVA	kW		kVA	kW	kVA	kW
240	15.0	15.0	16.5	16.5	240	18.0	18.0	20.0	20.0
230	15.0	15.0	16.5	16.5					
220	15.0	15.0	16.5	16.5					

Definitions

Standby Rating

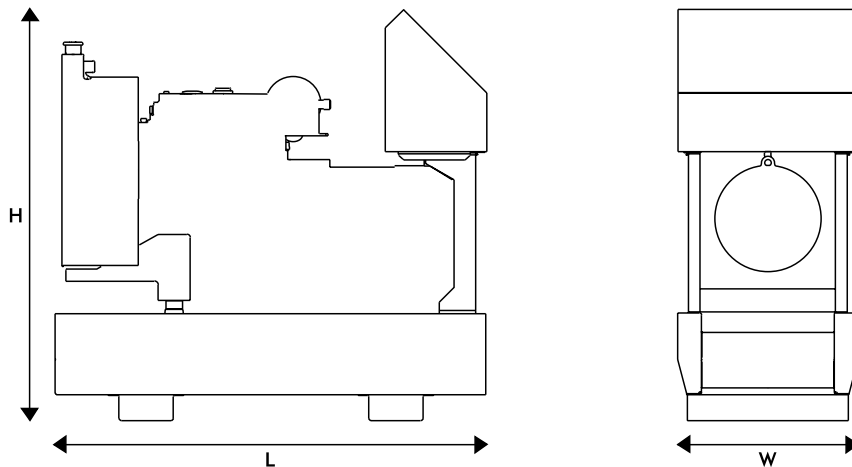
These ratings are applicable for supplying continuous electrical power (at variable load) in the event of a utility power failure. No overload is permitted on these ratings. The alternator on this model is peak continuous rated (as defined in ISO8528-3).

Prime Rating

These ratings are applicable for supplying continuous electrical power (at variable 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.

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 with diesel fuel with specific gravity of 0.85 and conforming to BS2869: 1998, Class A2.



Weights & Dimensions

Weights: kg (lbs)		Dimensions: mm (in)	
Net (+ lube oil)	TBA	Length	1320 (52)
Wet (+ lube oil & coolant)	TBA	Width	552 (21.7)
Fuel, lube oil & coolant	TBA	Height	1258 (49.5)

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 3406, 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