

P20P2 / P22E2



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Output Ratings		
Generating Set Model	P20P2 Prime*	P22E2 Standby*
380-415V, 50 Hz	20.0 kVA 16.0 kW	22.0 kVA 17.6 kW
220/127V, 60 Hz	22.5 kVA 18.0 kW	25.0 kVA 20.0 kW

* Refer to ratings definitions on page 4.

Ratings at 0.8 power factor.

Technical Data		
Engine Make & Model:	Perkins 404C-22G2	
Alternator Model:	LL1014N	
Base Frame Type:	Heavy Duty Fabricated Steel	
Circuit Breaker Type:	3 Pole MCB	
Frequency:	50 Hz	60 Hz
Engine Speed: RPM	1500	1800
Fuel Tank Capacity: litres (US gal)	45 (11.9)	
Fuel Consumption: P20P2 l/hr (US gal/hr)	5.4 (1.4)	6.1 (1.6)
Fuel Consumption: P22E2 l/hr (US gal/hr)	6.1 (1.6)	6.9 (1.8)



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Alternator Performance Data

Data Item	50 Hz				60 Hz				
	415/240V	400/230V	380/220V						440/254V 220/127V
Motor Starting Capability* kVA	46	43	39						43
Short Circuit Capacity** %	0	0	0						0
Reactances: Per Unit									
Xd	1.740	1.880	2.080						2.090
X'd	0.110	0.120	0.130						0.130
X''d	0.053	0.058	0.064						0.064

Reactances shown are applicable to prime 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:	LL1014N	Voltage Regulation (steady state) (%):	+/- 0.5	
No. of Bearings:	1	Wave Form NEMA = TIF:	50	
Insulation Class:	H	Wave Form IEC = THF:	2.0%	
Winding Pitch Code:	2/3 - 6	Total Harmonic Content LL/LN:	4.0%	
Wires:	12	Radio Interference:	Suppression is in line with European Standard EN61000-6	
Ingress Protection Rating:	IP23	Radiant Heat: kW (Btu/min)		
Excitation System:	SHUNT		-50 Hz:	2.7 (154)
AVR Model:	R230		-60 Hz:	2.9 (165)

Technical Data

3 Phase Ratings and Performance at 50 Hz, 1500 RPM

3 Phase Ratings and Performance at 60 Hz, 1800 RPM

Voltage	Prime Model P20P2		Standby Model P22E2		Voltage	Prime Model P20P2		Standby Model P22E2	
	kVA	kW	kVA	kW		kVA	kW	kVA	kW
415/240V	20.0	16.0	22.0	17.6					
400/230V	20.0	16.0	22.0	17.6	220/127V	22.5	18.0	25.0	20.0
380/220V	20.0	16.0	22.0	17.6					
					440/254V	-	-	-	-

Definitions

Standby Rating

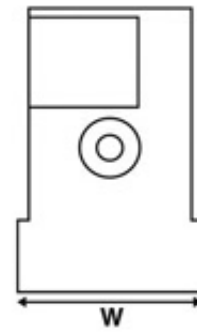
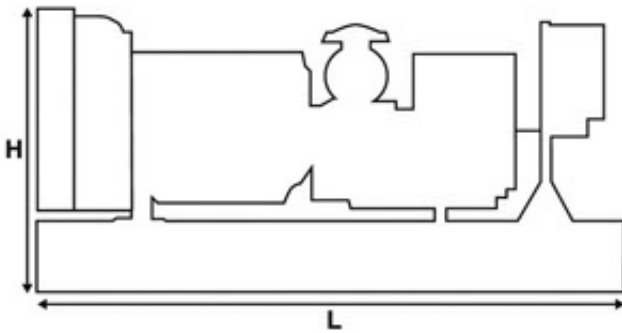
These ratings are applicable for supplying continuous electrical power (at variable load) in the event of a utility power failure. No overload is permitted on these ratings. The alternator on this model is peak continuous rated (as defined in ISO 8528-3).

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. Fuel consumption data at full load with diesel fuel with specific gravity of 0.85 and conforming to BS2869: 1998, Class A2.



Weights and Dimensions

Weights: kg (lb)		Dimensions: mm (in)	
Net (+ lube oil)	469 (1034)	Length	1320 (52.0)
Wet (+ lube oil & coolant)	476 (1049)	Width	552 (21.7)
Fuel, lube oil & coolant	514 (1133)	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 3046, IEC 60034, VDE 0530, NEMA MG-1.22.

FG Wilson is a fully accredited ISO 9001 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