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P1500P3/P1650E3

Image for illustration purposes only.

Output Ratings

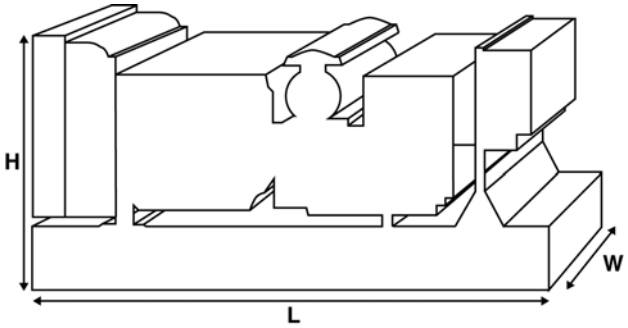
Generating Set Model	Prime*	Standby*
380-415V,50Hz	1500.0 kVA / 1200.0 kW	1650.0 kVA / 1320.0 kW
	- / -	- / -

Ratings at 0.8 power factor.

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.

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).

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.



Ratings and Performance Data

Engine Make & Model:		Perkins 4012-46TAG2A	
Alternator manufactured for FG Wilson by:		Leroy Somer	
Alternator Model:		LL8224N	
Control Panel:		PowerWizard 1.1+	
Base Frame:		Heavy Duty Fabricated Steel	
Circuit Breaker Type:		3 Pole ACB	
Frequency:		**50 Hz**	**60 Hz**
Engine Speed: RPM		1500	-
Fuel Tank Capacity: litres (US gal)			-
Fuel Consumption: l/hr (US gal/hr)			
(100% Load)	**- Prime**	296.6 (78.4)	-
	- Standby	326.3 (86.2)	-

Available Options

FG Wilson offer a range of optional features to tailor our generating sets to meet your power needs. Options include:

- Upgrade to CE Certification
- A wide range of Sound Attenuated Enclosures
- A variety of generating 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

Dimensions and Weights

Length (L) mm (in)	**Width** (W) mm (in)	**Height** (H) mm (in)	**Dry** kg (lb)	**Wet** kg (lb)
5095 (200.6)	1900 (74.8)	2435 (95.9)	10178 (22435	10385 (22895

Dry = With Lube Oil Wet = With Lube Oil and Coolant

Ratings in accordance with ISO 8528, ISO 3046, IEC 60034, BS5000 and NEMA MG-1/22.
Generating set pictured may include optional accessories.

Engine Technical Data	
No. of Cylinders / Alignment:	12 / Vee
Cycle:	4 Stroke
Bore / Stroke: mm (in)	160.0 (6.3)/190.0 (7.5)
Induction:	Turbocharged Air To Air Charge Cooled
Cooling Method:	Water
Governing Type:	Electronic
Governing Class:	ISO 8528 G2
Compression Ratio:	13.0:1
Displacement: l (cu. in)	45.8 (2797.5)
Moment of Inertia: kg m² (lb/in²)	19.30 (65951)
Engine Electrical System:	
- Voltage / Ground	24/Negative
- Battery Charger Amps	40
Weight: kg (lb) **- Dry**	4400 (9700)
- Wet	4604 (10150)

Performance	50 Hz	60 Hz
Engine Speed: rpm	1500	-
Gross Engine Power: kW (hp)		
- Prime	1331.0 (1785.0	-
- Standby	1459.0 (1957.0	-
BMEP: kPa (psi)		
- Prime	2323.0 (336.9)	-
- Standby	2546.0 (369.3)	-

Fuel System	
Fuel Filter Type:	Replaceable Element
Recommended Fuel:	Class A2 Diesel

Fuel Consumption: l/hr (US gal/hr)

Prime	110% Load	100% Load	75% Load	50% Load
50 Hz	326.3 (86.2)	296.6 (78.4)	225.7 (59.6)	159.8 (42.2)
60 Hz	-	-	-	-

Standby	110% Load	100% Load	75% Load	50% Load
50 Hz		326.3 (86.2)	246.4 (65.1)	172.6 (45.6)
60 Hz		-	-	-

(Based on diesel fuel with a specific gravity of 0.84 and conforming to BS2869, Class A2)

Air Systems	50 Hz	60 Hz
Air Filter Type:	Replaceable Element	
Combustion Air Flow: m³/min (cfm)		
- Prime	120.0 (4238)	-
- Standby	128.0 (4520)	-
Max. Combustion Air Intate Restriction: kPa (in H_2O)	4.0 (16.1)	-

Cooling System	50 Hz	60 Hz
Cooling System Capacity: l (US gal)	207.0 (54.7)	-
Water Pump Type:	Centrifugal	
Heat Rejected to Water & Lube Oil:		
kW (Btu/min) **- Prime**	428.0 (24340)	-
- Standby	485.0 (27581)	-
Heat Radiation to Room: Heat radiated from engine and alternator		
kW (Btu/min) **- Prime**	147.9 (8411)	
- Standby	171.6 (9759)	
Radiator Fan Load: kW (hp)	42.0 (56.3)	-
Radiator Cooling Airflow: m³/min (cfm)	1212.0 (42801)	-
External Restriction to Cooling Airflow: Pa (in H_2O)	250 (1.0)	-

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)	177.0 (46.8)
Oil Pan: l (US gal)	159.0 (42.0)
Oil Type:	API CG4 15W-40
Oil Cooling Method:	Water

Exhaust System	50 Hz	60 Hz
Silencer Type:	Optional	
Silencer Model & Quantity:	- (-)	
Pressure Drop Across Silencer System: kPa (in Hg)	-	-
Silencer Noise Reduction Level: dB	10	-
Maximum Allowable Back Pressure: kPa (in Hg)	5.0 (1.5)	-
Exhaust Gas Flow: m³/min (cfm)		
- Prime	315.0 (11124)	-
- Standby	315.0 (11124)	-
Exhaust Gas Temperature: °C (°F)		
- Prime	450 (842)	-
- Standby	450 (842)	-

Alternator Physical Data	
Manufactured for FG Wilson by:	Leroy Somer
Model:	LL8224N
No. of Bearings:	1
Insulation Class:	H
Winding Pitch Code:	2/3 - 6S
Wires:	6
Ingress Protection Rating:	IP23
Excitation System:	AREP
AVR Model:	R450M

Alternator Operating Data	
Overspeed: rpm	2250
Voltage Regulation: (Steady state)	+/- 0.5
Wave Form NEMA = TIF:	50
Wave Form IEC = THF:	2.0%
Total Harmonic content LL/LN:	3.5%
Radiant Heat: kW (Btu/min)	Suppression is in line with European Standard EN61000-6
- 50 Hz	66.6 (3787)
- 60 Hz	-

Alternator Performance Data:	50 Hz			60 Hz
Data Item	415/240V	400/230V	380/220V	
Motor Starting Capability* kVA	3924	3658	3316	
Short Circuit Capacity %**	300	300	300	
Reactances: Per Unit				
Xd	3.510	3.778	4.186	
X'd	0.226	0.244	0.270	
X"d	0.126	0.136	0.151	

Reactances shown are applicable to prime ratings.
*Based on 30% voltage dip at 0.6 power factor.
**With optional permanent magnet generator or AREP excitation.

Voltage Technical Data 50 Hz				
Voltage	**Prime:**		**Standby:**	
	kVA	**kW**	**kVA**	**kW**
415/240V	1500.0	1200.0	1650.0	1320.0
400/230V	1500.0	1200.0	1650.0	1320.0
380/220V	1500.0	1200.0	1650.0	1320.0

Voltage Technical Data 60 Hz				
Voltage	**Prime:**		**Standby:**	
	kVA	**kW**	**kVA**	**kW**

General Information

Documentation

A full set of operation and maintenance manuals and circuit wiring diagrams.

Generating Set Standards

The equipment meets the following standards: BS5000, ISO 8528, ISO 3046, IEC 60034, NEMA MG-1.22.

FG Wilson is a fully accredited ISO 9001 company.

Warranty

All prime equipment carries a one year manufacturer's warranty. Standby equipment, limited to 500 running hours per year, has a two year manufacturer's warranty. For details on warranty cover please contact your local Dealer, or visit our website: FGWilson.com.

Dealer contact details:

FG Wilson manufactures product in the following locations:

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.

FG Wilson is a trading name of Caterpillar (NI) Limited.

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