

# P1825/P2000E

Output Ratings		
Voltage, Frequency	Prime	Standby
400V,50Hz	1825.1 kVA / 1460.1 kW	2000.0 kVA / 1600.0 kW
	- / -	- / -

Ratings at 0.8 power factor.

Please refer to the output ratings technical data section for specific generator set outputs per voltage.

#### **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.

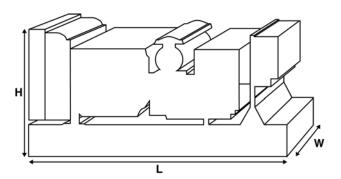
#### Standby Rating

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.





# Image for illustration purposes only.

Ratings and Performance Data			
Engine Make & Model:		Perkins® 4016TA	GIA
Alternator manufactured for FG Wilson by:		Leroy Somer	
Alternator Model:		LL9224F	
Control Panel:		PowerWizard 1.1	+
Base Frame:		Heavy Duty Fabri	cated Steel
Circuit Breaker Type:		3 Pole ACB – Op	tion
Frequency:		50 Hz	60 Hz
Engine Speed: RPM		1500	-
Fuel Tank Capacity: litres (US gal)		-	
Fuel Consumption: I/hr (US gal/hr)			
(100% Load)	- Prime	378.2 (99.9)	-
-	Standby	419.9 (110.9)	-

# **Available Options**

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

- Upgrade to CE Certification
- A wide range of Sound Attenuated Enclosures
- A variety of generator 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 an	nd Weights			
Length (L) mm (in)	Width (W) mm (in)	Height (H) mm (in)	<b>Dry</b> kg (lb)	<b>Wet</b> kg (lb)
5752 (226.5)	2300 (90.6)	3020 (118.9)	15139 (33376)	15455 (34072)
Dry = With Lube	Oil	Wet = With Lub	e Oil and Coolant	

Ratings in accordance with ISO 8528, ISO 3046, IEC 60034, BS5000 and NEMA MG-1.22. Generator set pictured may include optional accessories.

Engine Technical Data		
No. of Cylinders / Alignment:		16 / 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:	Cooling Method:	
Governing Type:	Electronic	
Governing Class:	Perning Class: ISO 8528 G2	
Compression Ratio:		13.6:1
Displacement: I (cu. in)		61.1 (3730.0)
Moment of Inertia: kg m² (lb/in²)		20.72 (70803)
Engine Electrical System	:	
- Voltage / G	Ground	24/Negative
- Battery Charge	r Amps	40
Weight: kg (lb)	- Dry	5570 (12280)
	- Wet	5847 (12890)

Performance		50 Hz	60 Hz
Engine Speed: rpm		1500	-
Gross Engine Pow	rer: kW (hp)		
	- Prime	1588.0 (2130.0)	-
	- Standby	1741.0 (2335.0)	-
BMEP: kPa (psi)			
	- Prime	2079.0 (301.5)	-
	- Standby	2279.0 (330.5)	-

F	uel Syster	n			
F	Fuel Filter Type: Replaceable Element			nent	
R	ecommer	nded Fuel:	C	lass A2 Diesel c	or BSEN590
F	uel Consu	Imption: I/hr (US g	jal/hr)		
		110%	100%	75%	50%
	Prime	Load	Load	Load	Load
	50 Hz	419.9 (110.9)	378.2 (99.9)	277.6 (73.3)	188.6 (49.8)
	60 Hz	-	-	-	-
			100%	75%	50%
	Standby	/	Load	Load	Load
	50 Hz		419.9 (110.9)	305.4 (80.7)	204.8 (54.1)
	60 Hz		-	-	-

(Based on diesel fuel with a specific gravity of 0.85 and conforming to BS2869, Class A2)

Air Systems	50 Hz	60 Hz
Air Filter Type:	Replaceable	Element
Combustion Air Flow: m <sup>3</sup> /min (cfm)		
- Prime	132.0 (4662)	-
- Standby	140.0 (4944)	-
Max. Combustion Air Intake Restriction: kPa (in H <sub>2</sub> O)	3.7 (14.9)	-

Cooling System	50 Hz	60 Hz
Cooling System Capacity: I (US gal)	316.0 (83.5)	-
Water Pump Type:	Centrifu	ıgal
Heat Rejected to Water & Lube Oil:		
kW (Btu/min) - Prin	ne 586.0 (33325)	-
- Stand	<b>by</b> 629.0 (35771)	-
Heat Radiation to Room: Heat radiated fro	om engine and alternator	
kW (Btu/min) - Prin	ne 171.2 (9736)	
- Stand	by 185.0 (10521)	
Radiator Fan Load: kW (hp)	63.5 (85.2)	-
Radiator Cooling Airflow: m³/min (cfm)	2058.0 (72678)	-
External Restriction to Cooling Airflow: Pa (in H <sub>2</sub> O)	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: I (US gal)	238.0 (62.9)
Oil Pan: I (US gal)	214.0 (56.5)
Oil Type:	API CG4 15W-40
Oil Cooling Method:	Water

Exhaust System	50 Hz	60 Hz
Maximum Allowable Back Pressure: <sup>kPa</sup> (in Hg)	9.3 (2.7)	-
Exhaust Gas Flow: m³/min (cfm)		
- Prime	343.0 (12113)	-
- Standby	343.0 (12113)	-
Exhaust Gas Temperature: °C (°F)		
- Prime	439 (822)	-
- Standby	439 (822)	-

Alternator Physical Data	
Manufactured for FG Wilson by:	Leroy Somer
Model:	LL9224F
No. of Bearings:	1
Insulation Class:	Н
Winding Pitch Code:	2/3 - 6S
Wires:	6
Ingress Protection Rating:	IP23
Excitation System:	AREP
AVR Model:	R449

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%
Radio Interference:	Suppression is in line with European Standard EN61000-6
Radiant Heat: kW (Btu/min)	
- 50 Hz	78.0 (4436)
- 60 Hz	-

Alternator Performance Data:		50	Hz	60 Hz			
Data Item	415/240V	400/230V	380/220V				
Motor Starting Capability* kVA	4683	4364	3955				
Short Circuit Capacity** %	300	300	300				
Reactances: Per Unit							
Xd	3.347	3.604	3.994				
X'd	0.258	0.278	0.308				
X"d	0.133	0.144	0.159				

Reactances shown are applicable to prime ratings. \*Based on 30% voltage dip at 0.4 power factor. \*\*With optional permanent magnet generator.

Output Ratings Technical Data 50 Hz					Output Ratings Technical Data 60 Hz					
Voltage	Prime:		Standby:		Voltage	Prime:		Standby:		
	kVA	kW	kVA	kW		kVA	kW	kVA		
415/240V	1825.1	1460.1	2000.0	1600.0						
400/230V	1825.1	1460.1	2000.0	1600.0						
380/220V	1823.9	1459.1	1999.8	1599.8						

### Documentation

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

#### **Generator 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 with unlimited hours or two year manufacturer's warranty limited to 6,000 running hours. Standby equipment, limited to 500 running hours per year, has a three year manufacturer's warranty.

# 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.