

P1700P1 / P1875E1



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Output Ratings		
Generating Set Model	P1700P1 Prime*	P1875E1 Standby*
380-415V, 50Hz	1700.0 kVA 1360.0 kW	1875.0 kVA 1500.0 kW
220/127V, 60 Hz	-	-

* Refer to ratings definitions on page 4.

Ratings at 0.8 power factor.

Technical Data		
Engine Make & Model:	Perkins 4012-46TAG3A	
Alternator Model:	LL9124H	
Base Frame Type:	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)	P1700P1 :	350.4 (92.6) -
Fuel Consumption l/hr (US gal/hr)	P1875E1 :	391.0 (103.3) -



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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	60 Hz
Manufacturer:	Perkins	Air Filter Type:	Replaceable Element		
Model:	4012-46TAG3A	Combustion Air Flow:			
No. of Cylinders/Alignment:	12 / Vee	m ³ /min (cfm) -Standby:	135.0 (4767)	-	
Cycle:	4 Stroke	-Prime:	125.0 (4414)	-	
Induction:	Turbocharged Air To Air Charge Cooled	Max. Combustion Air Intake Restriction: kPa (in H ₂ O)	4.0 (16.1)	-	
Cooling Method:	Water	Radiator Cooling Air Flow:			
Governing Type:	Electronic	m ³ /min (cfm)	1920.0 (67804)	-	
Governing Class:	ISO 8528 G2	External Restriction to Cooling Air Flow: Pa (in H ₂ O)	250 (1.0)	-	
Compression Ratio:	13.0:1				
Displacement: l (cu.in)	45.8 (2794.9)				
Bore/Stroke: mm (in)	160.0 (6.3)/190.0 (7.5)				
Moment of Inertia: kg m ² (lb. in ²)	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)					
-Standby:	1643.0 (2203.0)	-			
-Prime:	1500.0 (2012.0)	-			
BMEP: kPa (psi)					
-Standby:	2868.0 (415.9)	-			
-Prime:	2618.0 (379.7)	-			
Regenerative Power: kW	120.0	-			
Fuel System		Cooling System			
Fuel Filter Type:	Replaceable Element	Cooling System Capacity:			
Recommended Fuel:	Class A2 Diesel	l (US gal)	212.0 (56.0)	-	
Fuel Consumption: l/hr (US gal/hr)		Water Pump Type:	Centrifugal		
110% Load	100% Load	75% Load	50% Load		
Heat Rejected to Water & Lube Oil: kW (Btu/min)					
-Standby: 625.0 (35543) -					
-Prime: 510.0 (29003) -					
Heat Radiation to Room:					
kW (Btu/min) -Standby: 123.0 (6995) -					
-Prime: 110.0 (6256) -					
Radiator Fan Load: kW (hp) 64.0 (85.8) -					
Cooling system 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.					
Fuel System		Lubrication System			
Fuel Filter Type:	Replaceable Element	Oil Filter Type:	Spin-On, Full Flow		
Recommended Fuel:	Class A2 Diesel	Total Oil Capacity l (US gal):	177.0 (46.8)		
Fuel Consumption: l/hr (US gal/hr)		Oil Pan l (US gal):	159.0 (42.0)		
110% Load	100% Load	75% Load	50% Load		
Oil Type: API CG4 15W-40					
Cooling Method: Water					
Fuel System		Exhaust System			
Fuel Filter Type:	Replaceable Element	Silencer Type:	Optional		
Recommended Fuel:	Class A2 Diesel	Silencer Model & Qty:	- (-)		
Fuel Consumption: l/hr (US gal/hr)		Pressure Drop Across Silencer System: kPa (in Hg)	-		
110% Load	100% Load	75% Load	50% Load		
Silencer Noise Reduction					
Level: dB 10 -					
Max. Allowable Back Pressure: kPa (in. Hg) 5.0 (1.5) -					
Exhaust Gas Flow:					
m ³ /min (cfm) -Standby: 350.0 (12360) -					
-Prime: 350.0 (12360) -					
Exhaust Gas Temperature: °C (°F)					
m ³ /min (cfm) -Standby: 480 (896) -					
-Prime: 480 (896) -					
P1700P1					
50 Hz	391.0 (103.3)	350.4 (92.6)	260.7 (68.9)	183.3 (48.4)	
60 Hz	-	-	-	-	
P1875E1					
50 Hz	391.0 (103.3)	287.1 (75.8)	198.3 (52.4)		
60 Hz	-	-	-		
(based on diesel fuel with a specific gravity of 0.85 and conforming to BS2869, Class A2)					

Alternator Performance Data

Data Item	50 Hz			60 Hz				
	415/240V	400/230V	380/220V					
Motor Starting Capability* kVA	6986	6509	5897					
Short Circuit Capacity** %	300	300	300					
Reactances: Per Unit								
Xd	2.740	2.950	3.270					
X'd	0.210	0.220	0.250					
X''d	0.107	0.116	0.128					

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:	LL9124H	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 - 6S	Total Harmonic Content LL/LN:	2.5%	
Wires:	6	Radio Interference:	Suppression is in line with European Standard EN61000-6	
Ingress Protection Rating:	IP23	Radiant Heat: kW (Btu/min)		
Excitation System:	AREP		-50 Hz:	65.6 (3731)
AVR Model:	R449		-60 Hz:	-

Technical Data

3 Phase Ratings and Performance at 50 Hz, 1500 RPM

3 Phase Ratings and Performance at 60 Hz, - RPM

Voltage	Prime Model P1700P1		Standby Model P1875E1		Voltage	Prime Model -		Standby Model -	
	kVA	kW	kVA	kW		kVA	kW	kVA	kW
415/240V	1700.0	1360.0	1875.0	1500.0					
400/230V	1700.0	1360.0	1875.0	1500.0					
380/220V	1700.0	1360.0	1875.0	1500.0					

Definitions

Standby Rating

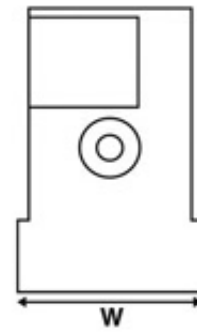
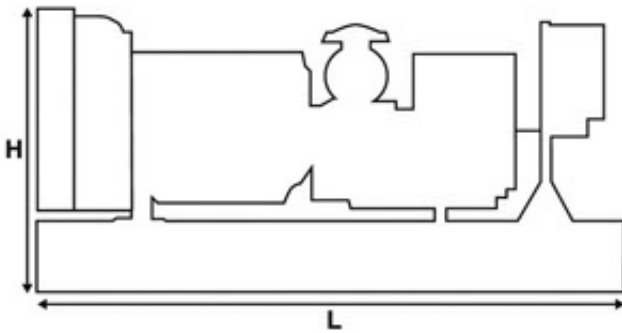
These ratings are applicable for supplying continuous electrical power (at variable load) in the event of a utility power failure. No overload is permitted on these ratings. The alternator on this model is peak continuous rated (as defined in ISO 8528-3).

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)	10890 (24008)	Length	5215 (205.3)
Wet (+ lube oil & coolant)	11115 (24504)	Width	2205 (86.8)
Fuel, lube oil & coolant	-	Height	2490 (98.0)

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