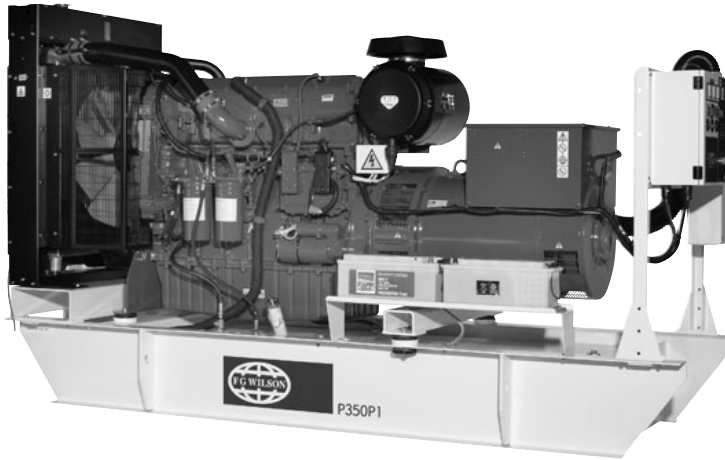


P350P1/P380E1



Output Ratings		
Generating Set Model	P350P1	P380E1
	Prime*	Standby*
380-415V, 50 Hz	350 kVA	380 kVA
	280 kW	304 kW
480V, 60 Hz	400 kVA	419 kVA
	320 kW	335 kW

* Refer to ratings definitions on page 4.
Ratings at 0.8 pf

Technical Data		
Engine Make & Model	Perkins 2306C-E14TAG2	
Alternator Model	LL6014B	
Base Frame Type	Heavy Duty Fabricated Steel	
Circuit Breaker Type/Rating	3 Pole MCCB	
Frequency	50 Hz	60Hz
Engine Speed	1500	1800
Fuel Tank Capacity: Litres (US Gal)	782 (207)	
Fuel Consump, P350P1: l/hr (US Gal/hr)	75.2 (19.9)	81.5 (21.5)
Fuel Consump, P380E1: l/hr (US Gal/hr)	81.8 (21.6)	88.7 (23.4)



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Engine Technical Data

Physical Data		Air System		50 Hz	60 Hz
Manufacturer:	Perkins	Air Filter Type:	Replaceable Element		
Model:	2306C-E14TAG2	Combustion Air Flow:			
No. of Cylinders/Alignment:	6 in-line	m ³ /min (cfm) -Standby:	32.2 (1137)	35.8 (1264)	
Cycle:	4 Stroke	-Prime:	29.0 (1024)	35.0 (1236)	
Induction:	Turbocharged, AA Charge Cooled	Max. Combustion Air Intake			
Cooling Method:	Water	Restriction: kPa (in H ₂ O)	6.23 (25)	6.23 (25)	
Governing Type:	Electronic	Radiator Cooling			
Class:	ISO 8528 G3	Airflow: m ³ /min (cfm)	438 (15468)	530 (18717)	
Compression Ratio:	15.9:1	External Restriction to			
Displacement: L (cu.in)	14.6 (891)	Cooling Airflow: Pa (in Wg)	196 (0.79)	196 (0.79)	
Bore/Stroke: mm (in)	137 (5.4) / 165 (6.5)	Cooling System		50 Hz	60 Hz
Moment of Inertia: kg m ² (lb/in ²)	1.65 (5633)	Cooling System			
Engine Electrical System:		Capacity: L (US Gal)	47 (12.4)	47 (12.4)	
-Voltage/Ground	24/Negative	Water Pump Type:	Centrifugal		
-Battery Charger Amps	70	Heat Rejected to Water & Lube Oil: kW (Btu/min)			
Weight: kg (lbs) -Dry	1690 (3726)	-Standby:	135 (7678)	146 (8304)	
-Wet	1792 (3951)	-Prime:	122 (6939)	136 (7736)	
Performance	50Hz	60Hz	Heat Radiation to Room:		
Engine Speed: rpm	1500	1800	kW (Btu/min) -Standby:	39 (2218)	42 (2389)
Gross Engine Power: kW (hp)			-Prime:	37 (2104)	41 (2332)
-Standby:	353 (473)	393 (527)	Radiator Fan Load: kW (hp)	9 (12.1)	17 (22.8)
-Prime:	313 (420)	365 (489)			
BMEP: kPa (psi)			Lubrication System		
-Standby:	1930 (280)	1790 (260)	Oil Filter Type:	Spin on, Full Flow	
-Prime:	1710 (248)	1660 (241)	Total Oil Capacity L (US Gal):	68 (18.0)	
Regenerative Power: kW	TBA	TBA	Oil Pan L (US Gal):	60 (15.9)	
Fuel System					
Fuel Filter Type:	Replaceable Element				
Recommended Fuel:	Class 2 Diesel				
Fuel Consumption: L/hr (US Gal/hr)					
	110% Load	100% Load	75% Load	50% Load	
P350P1					
50 Hz	81.8 (21.6)	75.2 (19.9)	56.8 (15.0)	39.5 (10.4)	
60 Hz	88.7 (23.4)	81.5 (21.5)	62.7 (16.6)	43.0 (11.4)	
P380E1					
50 Hz		81.8 (21.6)	61.5 (16.2)	42.4 (11.2)	
60 Hz		88.7 (23.4)	68.4 (18.1)	47.0 (12.4)	
(based on diesel fuel with a specific gravity of 0.85 and conforming to BS2869, class 2)					
		Exhaust System	50 Hz	60 Hz	
		Silencer Type:	Level 1		
		Silencer Model & Qty:	SD150 (1)		
		Pressure Drop Across			
		Silencer System: kPa (in Hg)	0.12 (0.04)	0.55 (0.16)	
		Silencer Noise Reduction			
		Level: dB	19	17	
		Max. Allowable Back			
		Pressure: kPa (in Hg)	6.77 (1.99)	6.77 (1.99)	
		Exhaust Gas Flow: m ³ /min (cfm)			
		-Standby:	79.1 (2793)	84.2 (2973)	
		-Prime:	70.1 (2476)	80.7 (2850)	
		Exhaust Gas Temperature:			
		°C (°F) -Standby:	461 (862)	430 (806)	
		- Prime:	449 (840)	418 (784)	

Alternator Performance Data

Data Item	50 Hz				60 Hz				
	415/240	400/230 230/115 200/115	380/220 220/110	220/127	480/277 240/139	380/220 220/110	240/120 208/120	440/254 220/127	230/115
Motor Starting Capability* kVA	664	622	568	734	729	482	568	627	529
Short Circuit Capacity** %	300	300	300	300	300	300	300	300	300
Reactances: Per Unit									
X_d	3.22	3.47	3.84	2.70	3.30	4.55	4.18	3.89	4.31
X'_d	0.16	0.18	0.20	0.14	0.17	0.23	0.21	0.20	0.22
X''_d	0.132	0.142	0.158	0.111	0.136	0.187	0.172	0.160	0.177

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:	LL6014B	Voltage Regulation (steady state)	+/-0.5%
No. of Bearings:	1	Wave Form NEMA = TIF	<50
Insulation Class:	H	Wave Form IEC = THF	<2%
Winding Pitch Code:	2/3 - (No.6)	Total Harmonic Content LL/LN	<4%
Wires:	12	Radio Interference	Suppression is in line with Standard EN61000-6
Ingress Protection Rating:	IP23	Radiant Heat: kW (Btu/min)	
Excitation System:	SHUNT	-50 Hz	22 (1251)
AVR Model:	R448	-60 Hz	23 (1308)

Technical Data

3 Phase Ratings and Performance at 50 Hz, 1500 RPM

3 Phase Ratings and Performance at 60 Hz, 1800 RPM

Voltage	Model: P350P1 Prime		Model: P380E1 Standby		Voltage	Model: P350P1 Prime		Model: P380E1 Standby	
	kVA	kW	kVA	kW		kVA	kW	kVA	kW
415/240	350	280	380	304	480/277	400	320	419	335.2
400/230	350	280	380	304	440/254	396	316.8	419	335.2
380/220	350	280	380	304	380/220	346	276.8	381	304.8
230/115	350	280	380	304	240/139	400	320	419	335.2
220/127	330	264	355	284	240/120	381	304.8	419	335.2
220/110	350	280	380	304	230/115	363	290.4	399	319.2
200/115	350	280	380	304	220/127	396	316.8	419	335.2
					220/110	346	276.8	381	304.8
					208/120	381	304.8	419	335.2

Definitions

Standby Rating

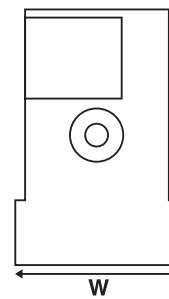
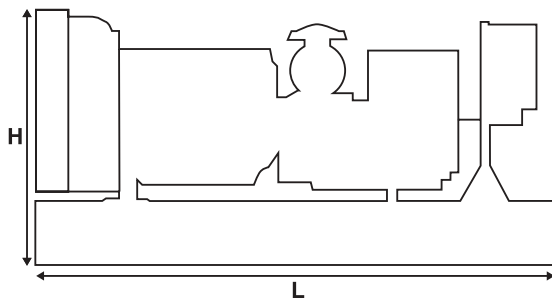
These ratings are applicable for supplying continuous electrical power (at variable load) in the event of a utility power failure. No overload is permitted on these ratings. The alternator on this model is peak continuous rated (as defined in ISO8528-3).

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)	3160 (6967)	Length	3601 (142)
Wet (+ lube oil & coolant)	3210 (7078)	Width	1110 (43.7)
Fuel, lube oil & coolant		Height	2065 (81.3)

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