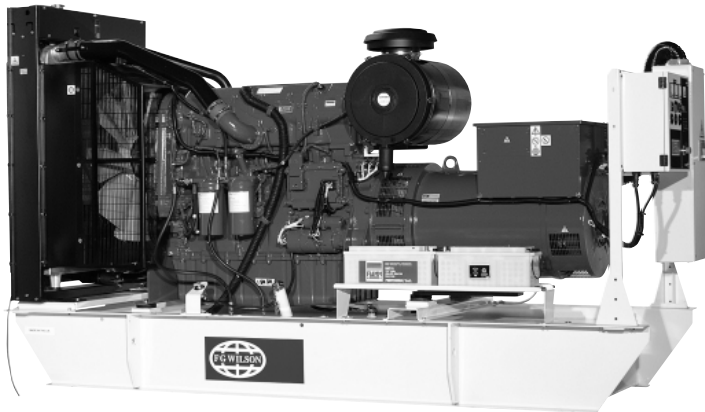


P563P1/P625E1



Output Ratings		
Generating Set Model	P563P1	P625E1
	Prime*	Standby*
480V, 60 Hz	563 kVA 450 kW	625 kVA 500 kW

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

Technical Data	
Engine Make & Model	Perkins 2806C-E16TAG1
Alternator Model	LL6014J
Base Frame Type	Heavy Duty Fabricated Steel
Circuit Breaker Type/Rating	3 Pole MCCB
Frequency	60 Hz
Engine Speed	1800
Fuel Tank Capacity: Litres (US Gal)	863 (228)
Fuel Consump, P563P1: L/hr (US Gal/hr)	115.7 (30.6)
Fuel Consump, P625E1: L/hr (US Gal/hr)	131.4 (34.7)



Engine Technical Data

Physical Data					Air System		60 Hz	
Manufacturer:	Perkins				Air Filter Type:	Replaceable Element		
Model:	2806C-E16TAG1				Combustion Air Flow:			
No. of Cylinders/Alignment:	6 in-line				m ³ /min (cfm) -Standby:	52.8 (1864)		
Cycle:	4 Stroke				-Prime:	48.5 (1713)		
Induction:	TurboCharged AA Charge Cooled				Max. Combustion Air Intake			
Cooling Method:	Water				Restriction: kPa (in H ₂ O)	0.25 (1.0)		
Governing Type:	Electronic				Radiator Cooling Airflow:			
Class:	ISO8528 G3				m ³ /min (cfm)	769 (27164)		
Compression Ratio:	15.9:1				External Restriction to			
Displacement: L (cu.in):	15.8 (964)				Cooling Airflow: Pa (in Wg)	125 (0.5)		
Bore/Stroke: mm (in)	140 (5.5) / 171 (6.7)				Cooling System		60 Hz	
Moment of Inertia: kg m ² (lb/in ²)	1.96 (6698)				Cooling System			
Engine Electrical System:					Capacity: L (US Gal)	50 (13.2)		
-Voltage/Ground	24/Negative				Water Pump Type:	Centrifugal		
-Battery Charger Amps	70				Heat Rejected to Water &			
Weight: kg (lbs) -Dry	1712 (3774)				Lube Oil: kW (Btu/min)			
-Wet	1818 (4008)				- Standby:	194.5 (11063)		
					-Prime:	176 (10011)		
Performance		60Hz			Heat Radiation to Room:			
Engine Speed: rpm	1800				kW (Btu/min) -Standby:	27.7 (1576)		
Gross Engine Power: kW (hp)					-Prime:	25.1 (1428)		
-Standby	563 (755)				Radiator Fan Load: kW (hp)	30.8 (41.3)		
-Prime	510 (684)				Lubrication System			
BMEP: kPa (psi)					Oil Filter Type:	Spin-On, Full Flow		
-Standby	2380 (345)				Total Oil Capacity L (US Gal):	68 (17.9)		
-Prime	2150 (312)				Oil Pan L (US Gal):	60 (15.9)		
Regenerative Power: kW	TBA				Oil Type:	API CG4		
					Cooling Method:	Water		
Fuel System					Exhaust System		60 Hz	
Fuel Filter Type:	Replaceable Element				Silencer Type:	Level 1		
Recommended Fuel:	Class 2 Diesel				Silencer Model & Qty:	SD150 / 1		
Fuel Consumption: L/hr (US Gal/hr)					Pressure Drop Across			
	110% Load	100% Load	75% Load	50% Load	Silencer System: kPa (in Hg)	1.25 (0.37)		
P563					Silencer Noise Reduction			
60 Hz	131 (34.7)	116 (30.6)	88 (23.3)	65 (17.1)	Level: dBA	20		
P625E					Max. Allowable Back			
60 Hz	N/A	131 (34.7)	99.2 (26.2)	69.2 (18.3)	Pressure: kPa (in Hg)	6.9 (2.0)		
					Exhaust Gas Flow: m ³ /min (cfm)			
					- Standby:	118 (4167)		
					- Prime:	108 (3813)		
					Exhaust Gas Temperature:			
					°C (°F) - Standby:	430 (806)		
					- Prime:	416 (781)		
(based on diesel fuel with a specific gravity of 0.85 and conforming to BS2869, class 2)								

Alternator Performance Data

Data Item	60 Hz			
	380/220	440/254	480/277	220/127
Motor Starting Capability* kVA	906	1221	1453	1221
Short Circuit Capacity**%	300	300	300	300
Reactances: Per Unit				
Xd	4.32	3.23	2.72	3.23
X'd	0.18	0.13	0.11	0.13
X''d	0.141	0.106	0.089	0.106

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:	LL6014J	Voltage Regulation (steady state)	±0.5%
No. of Bearings:	Single	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 British Standard BSEN50081 &BSEN50082
Ingress Protection Rating:	IP23	Radiant Heat: kW (Btu/min)	
Excitation System:	Shunt	-60 Hz:	31.7 (1803)
AVR Model:	R448		

Technical Data

3 Phase Ratings and Performance at 60 Hz, 1800 RPM

Voltage	Model: P563P1 Prime		Model: P625E1 Standby	
	kVA	kW	kVA	kW
480/277	563	450	625	500
440/254	563	450	625	500
380/220	561	448.8	623	498.4
220/127	563	450	625	500

Definitions

Standby Rating

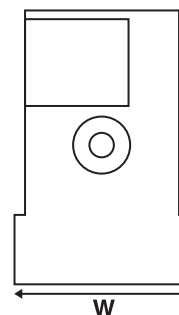
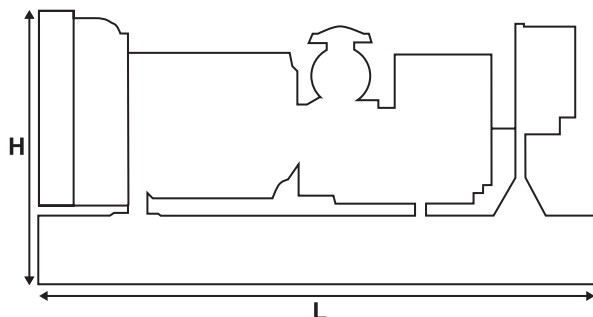
These ratings are applicable for supplying continuous electrical power (at variable load) in the event of a utility power failure. No overload is permitted on these ratings. The alternator on this model is peak continuous rated (as defined in ISO8528-3).

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)	3800 (8378)	Length	3828 (150.7)
Wet (+ lube oil & coolant)	3850 (8488)	Width	1150 (45.3)
Fuel, lube oil & coolant	4583 (10104)	Height	2173.5 (85.6)

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 is guaranteed for a period of 12 months from date of commissioning or 18 months from shipping, whichever occurs first. Extended warranty terms are available.