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## P660-5



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  $25^{\circ}$ 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.

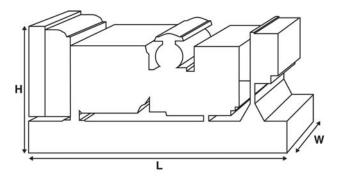




Image for illustration purposes only.

Ratings and Performance Data			
Engine Make & Model:		Perkins 2806A-E1	8TAG1A
Alternator manufactured for FG Wilson by:		WEG	
Alternator Model:		GTA 312 AEDJ	
Control Panel:		PowerWizard 1.1+	-
Base Frame:		Heavy Duty Fabric	ated Steel
Circuit Breaker Type:		3 Pole MCCB	
Frequency:		50 Hz	60 Hz
Engine Speed: rpm		1500	-
Fuel Tank Capacity: litres (US gal)		1132 (29	99.0)
Fuel Consumption: I/hr (US gal/hr)			
(100% Load)	- Prime	119.9 (31.7)	-
- 5	Standby	132.9 (35.1)	-

#### **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	d Weights			
Length (L) mm (in)	Width (W) mm (in)	Height (H) mm (in)	<b>Dry</b> kg (lb)	<b>Wet</b> kg (lb)
3900 (153.5)	1461 (57.5)	2156 (84.9)	4114 (9070)	4182 (9220)
Dry = With Lube	Oil	Wet = With Lube	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:	6 / In Line
Cycle:	4 Stroke
Bore / Stroke: mm (in)	145.0 (5.7)/183.0 (7.2)
Induction:	Turbocharged Air To Air Charge Cooled
Cooling Method:	Water
Governing Type:	Electronic
Governing Class:	ISO 8528 G2
Compression Ratio:	14.5:1
Displacement: I (cu. in)	18.1 (1104.5)
Moment of Inertia: kg m² (lb/in²)	7.05 (24091)
Engine Electrical System:	
- Voltage / Ground	24/Negative
- Battery Charger Amps	70
Weight: kg (lb) - Dry	2050 (4519)
- Wet	2158 (4758)

Performance		50 Hz	60 Hz
Engine Speed: rpm		1500	-
Gross Engine Powe	er: kW (hp)		
	- Prime	539.7 (724.0)	-
	- Standby	592.7 (795.0)	-
BMEP: kPa (psi)			
	- Prime	2381.0 (345.4)	-
	- Standby	2615.0 (379.3)	-

Fuel System	
Fuel Filter Type:	Eco Replaceable Element
Recommended Fuel:	Class A2 Diesel or BSEN590

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

	110%	100%	75%	50%
Prime	Load	Load	Load	Load
50 Hz	132.9 (35.1)	119.9 (31.7)	90.2 (23.8)	62.5 (16.5)
60 Hz	-	-	-	-

	100%	75%	50%
Standby	Load	Load	Load
50 Hz	132.9 (35.1)	99.0 (26.2)	68.1 (18.0)
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:	Non Canister		nister
Combustion Air Flow: m³/min (	cfm)		
	- Prime	34.0 (1201)	-
	- Standby	36.0 (1271)	-
Max. Combustion Air Intake Restriction: $kPa$ (in $H_2O$ )		6.4 (25.7)	-

Cooling System	50 Hz	60 Hz
Cooling System Capacity: 1 (U	gal) 68.5 (18.	1) -
Water Pump Type:	C	Centrifugal
Heat Rejected to Water & Lu	e Oil:	
kW (Btu/min)	- Prime 208.0 (118	29) -
	- Standby 222.0 (126	25) -
Heat Radiation to Room: Hear	radiated from engine and alter	nator
kW (Btu/min)	- Prime 70.3 (399	8)
	- Standby 80.5 (457	8)
Radiator Fan Load: kW (hp)	9.0 (12.1	) -
Radiator Cooling Airflow: m³/r	nin (cfm) 373.2 (1317	79) -
External Restriction to Cooling Airflow: Pa (in H <sub>2</sub> O)	125 (0.5	) -

Lubrication System	
Oil Filter Type:	Eco, Full Flow
Total Oil Capacity: I (US gal)	62.0 (16.4)
Oil Pan: I (US gal)	53.0 (14.0)
Oil Type:	API CH4 / CI4
Oil Cooling Method:	Water

Designed to operate in ambient conditions up to  $50^{\circ}$ C ( $122^{\circ}$ F). Contact your local FG Wilson Dealer for power ratings at specific site conditions.

Exhaust System	50 Hz	60 Hz
Maximum Allowable Back Pressure: kPa (in Hg)	6.9 (2.0)	-
Exhaust Gas Flow: m³/min (cfm)		
- Prime	96.0 (3390)	-
- Standby	104.0 (3673)	-
Exhaust Gas Temperature: °C (°F)		
- Prime	568 (1054)	-
- Standby	571 (1060)	-

Alternator Physical Data	
Manufactured for FG Wilson by:	WEG
Model:	GTA 312 AEDJ
No. of Bearings:	1
Insulation Class:	Н
Winding Pitch Code:	2/3 - NA
Wires:	12
Ingress Protection Rating:	IP21
Excitation System:	AUX COIL
AVR Model:	GRT7-TH4E

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:	5.0%			
Radio Interference:	Suppression is in line with European Standard EN61000-6			
Radiant Heat: kW (Btu/min)				
- 50 Hz	38.5 (2189)			
- 60 Hz	-			

Alternator Performance Data:	50 Hz	60 Hz		
Data Item	380/220V			
Motor Starting Capability* kVA	1163			
Short Circuit Capacity** %	300			
Reactances: Per Unit				
Xd	2.381			
X'd	0.191			
X"d	0.152			

Output Ratings Technical Data 50 Hz					
Voltage	Prime:		Standby:		
	kVA	kW	kVA	kW	
380/220V	600.0	480.0	660.0	528.0	

Output Ratings Technical Data 60 Hz						
Voltage	Prime:		Standby:			
	kVA	kW	kVA	kW		

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

# **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. 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.

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General Information