P600P1/P660E1

Output Ratings		
Generating Set Model	P600P1 Prime*	P660E1 Standby*
380-415V, 50 Hz	600 kVA 480 kW	660 kVA 528 kW

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

Technical Data	
Engine Make & Model	Perkins 2806C-E18TAG2
Alternator Model	LL6114K
Base Frame Type	Heavy Duty Fabricated Steel
Circuit Breaker Type/Rating	3 Pole ACB/MCCB
Frequency	**50 Hz**
Engine Speed	1500
Fuel Tank Capacity: Litres (US Gal)	1350 (357)
Fuel Consump, P600P1: L/hr (US Gal/hr)	116 (30.7)
Fuel Consump, P660E1: L/hr (US Gal/hr)	130 (34.3)

Engine Technical Data

Physical Data	
Manufacturer:	Perkins
Model:	2806C-E18TAG2
No. of Cylinders/Alignment:	6 in-line
Cycle:	4 Stroke
Induction:	TurboCharged
Cooling Method:	Water
Governing Type:	Electronic
Class:	ISO8528 G2
Compression Ratio:	14.5:1
Displacement: L (cu.in):	18.1 (1106)
Bore/Stroke: mm (in)	145 (5.7) / 183 (7.2)
Moment of Inertia: kg m^2 (lb/in^2)	7.44 (25424)
Engine Electrical System:	
-Voltage/Ground	24/Negative
-Battery Charger Amps	70
Weight: kg (lbs) -Dry	1832 (4039)
-Wet	1900 (4189)

Performance	50 Hz
Engine Speed: rpm	1500
Gross Engine Power: kW (hp)	
-Standby:	607 (814)
-Prime:	550 (738)
BMEP: kPa (psi)	
-Standby:	2678 (388)
-Prime:	2427 (352)
Regenerative Power: kW	20.0

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

Fuel Consumption: L/hr (US Gal/hr)

	110% Load	100% Load	75% Load	50% Load
P600P1				
50 Hz	130.0 (34.3)	116.3 (30.7)	86.0 (22.7)	60.3 (15.9)
P660E1				
50 Hz	N/A	129.9 (34.3)	94.5 (25.0)	65.0 (17.2)

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

Air System	50 Hz
Air Filter Type:	Replaceable Element
Combustion Air Flow:	
m^3min (cfm) - Standby:	42.8 (1511)
- Prime:	41.8 (1476)
Max. Combustion Air Intake Restriction: kPa (in H_2O)	6.25 (25.1)
Radiator Cooling Airflow: m^3/min (cfm)	660 (23308)
External Restriction to Cooling Airflow: Pa (in Wg)	125 (0.5)

Cooling System	50 Hz
Cooling System Capacity: L (US Gal)	61 (16.1)
Water Pump Type:	Centrifugal
Heat Rejected to Water & Lube Oil: kW (Btu/min)	
- Standby:	TBA
- Prime:	TBA
Heat Radiation to Room:	
kW (Btu/min) - Standby:	TBA
- Prime:	TBA
Radiator Fan Load: kW (hp)	8.0 (10.7)

Lubrication System	
Oil Filter Type:	Eco, Full Flow
Total Oil Capacity L (US Gal):	55.3 (14.6)
Oil Pan L (US Gal):	53.5 (14.1)
Oil Type:	API CG4 15W-40
Cooling Method:	Water

Exhaust System	50 Hz
Silencer Type:	Level 1
Silencer Model & Qty:	SD200 (1)
Pressure Drop Across Silencer System: kPa (in Hg)	0.20 (0.1)
Silencer Noise Reduction Level: dBA	11.0
Max. Allowable Back Pressure: kPa (in Hg)	6.7 (2.0)
Exhaust Gas Flow: m^3min (cfm)	
- Standby:	109 (3849)
- Prime:	109 (3849)
Exhaust Gas Temperature: °C (°F) - Standby:	541 (1006)
- Prime:	541 (1006)

Alternator Performance Data

Data Item	50 Hz		
	380/220	400/230	415/240
Motor Starting Capability* kVA	1301	1427	1525
Short Circuit Capacity%**	300	300	300
Reactances: Per Unit			
Xd	3.60	3.25	3.02
X'd	0.18	0.16	0.15
X"d	0.13	0.12	0.11

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:	LL6114K	**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. 6S)	**Total Harmonic Content LL/LN**	<2%
Wires:	6	**Radio Interference**	Suppression is in line with British Standard BSEN61000-6
Ingress Protection Rating:	IP23	**Radiant Heat:** kW (Btu/min)	
Excitation System:	Shunt	-50 Hz:	31.3 (1780)
AVR Model:	R448		

Technical Data

3 Phase Ratings and Performance at 50 Hz, 1500 RPM

Voltage	Model: P600P1 Prime		Model: P660E1 Standby	
	kVA	kW	kVA	kW
415/240	600	480	660	528
400/230	600	480	660	528
380/220	600	480	660	528

Definitions

Standby Rating

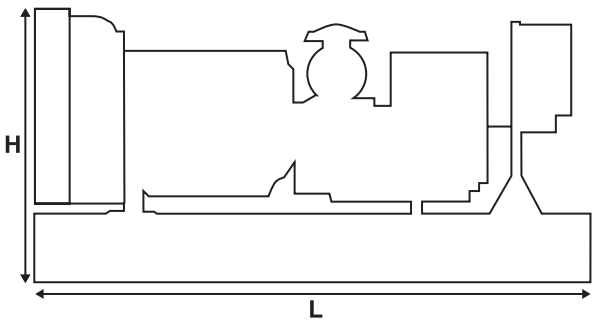
These ratings are applicable for supplying continuous electrical power (at variable load) in the event of a utility power failure. No overload is permitted on these ratings. The alternator on this model is peak continuous rated (as defined in ISO8528-3).

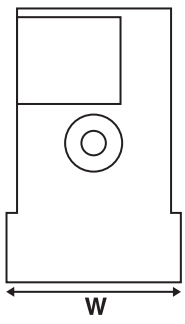
Prime Rating

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)	4727 (10423)	Length	4111 (162)
Wet (+ lube oil & coolant)	4797 (10577)	Width	1536 (60.5)
Fuel, lube oil & coolant	5942 (13102)	Height	2098 (83.0)

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 3406, IEC 60034, VDE 0530, NEMA MG-1.22.

Warranty

All equipment carries full manufacturer's warranty. Extended warranty terms available. For details on warranty cover please contact your local dealer.