Engine Technical Data

Physical Data	
Manufacturer:	Perkins
Model:	2806C-E16TAG2
No. of Cylinders/Alignment:	6 in-line
Cycle:	4 Stroke
Induction:	Turbocharged AA Charge Cooled
Cooling Method:	Water
Governing Type:	Electronic
Class:	ISO8528 G3
Compression Ratio:	15.9:1
Displacement: L (cu.in):	15.8 (964)
Bore/Stroke: mm (in)	140 (5.5) / 171 (6.7)
Moment of Inertia: kg m^2 (lb/in^2)	1.96 (6698)
Engine Electrical System:	
-Voltage/Ground	24/Negative
-Battery Charger Amps	70
Weight: kg (lbs) -Dry	1712 (3774)
-Wet	1818 (4008)

Performance	50 Hz
Engine Speed: rpm	1500
Gross Engine Power: kW (hp)	
-Standby:	483 (648)
-Prime:	445 (597)
BMEP: kPa (psi)	
-Standby:	2450 (355)
-Prime:	2260 (328)
Regenerative Power: kW	TBA

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
P500				
50 Hz	113.9 (30.1)	106.1 (28.0)	80.3 (21.2)	57.8 (15.3)
P550E				
50 Hz	N/A	113.9 (30.1)	88.3 (23.3)	62.2 (16.4)

(based on diesel fuel with a specific gravity of 0.85 and conforming to BS2869, class 2)

Air System	50 Hz
Air Filter Type:	Replaceable Element
Combustion Air Flow:	
m^3min (cfm) -Standby:	41.3 (1458)
-Prime:	38.1 (1345)
Max. Combustion Air Intake Restriction: kPa (in H_2O)	2.5 (10)
Radiator Cooling Airflow:	
m^3/min (cfm)	564 (19915)
External Restriction to Cooling Airflow: Pa (in Wg)	187 (0.75)

Cooling System	50 Hz
Cooling System Capacity: L (US Gal)	50 (13.2)
Water Pump Type:	Centrifugal
Heat Rejected to Water & Lube Oil: kW (Btu/min)	
-Standby:	179.4 (10200)
-Prime:	165.3 (9402)
Heat Radiation to Room:	
kW (Btu/min) -Standby:	48.8 (2753)
-Prime:	46 (2616)
Radiator Fan Load: kW (hp)	14.5 (19.4)

Lubrication System	
Oil Filter Type:	Spin-On, Full Flow
Total Oil Capacity L (US Gal):	68 (17.9)
Oil Pan L (US Gal):	60 (15.9)
Oil Type:	API CG4
Cooling Method:	Water

Exhaust System	50 Hz
Silencer Type:	Level 1
Silencer Model & Qty:	SD150 (1)
Pressure Drop Across Silencer System: kPa (in Hg)	1.13 (0.33)
Silencer Noise Reduction Level: dBA	18
Max. Allowable Back Pressure: kPa (in Hg)	6.9 (2.0)
Exhaust Gas Flow: m^3min (cfm)	
- Standby:	90 (3178)
- Prime:	83 (2931)
Exhaust Gas Temperature:	
°C (°F) - Standby:	459 (858)
- Prime:	457 (855)

Alternator Performance Data

Data Item	50 Hz		
	415/240	400/230	380/220
Motor Starting Capability* kVA	1258	1175	1067
Short Circuit Capacity%**	300	300	300
Reactances: Per Unit			
Xd	2.90	3.13	3.46
X'd	0.12	0.13	0.15
X"d	0.099	0.106	0.118

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:	Leroy-Somer	**Overspeed:** RPM	2250
Model:	LL6014H	**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**	<4%
Wires:	6	**Radio Interference**	Suppression is in line with British Standard BSEN50081 & BSEN50082
Ingress Protection Rating:	IP23	**Radiant Heat:** kW (Btu/min)	
Excitation System:	Shunt	-50 Hz:	23.7 (1348)
AVR Model:	R448		

Technical Data

3 Phase Ratings and Performance at 50 Hz, 1500 RPM

Voltage	Model: P500P1 Prime		Model: P550E1 Standby	
	kVA	kW	kVA	kW
415/240	500	400	550	440
400/230	500	400	550	440
380/220	500	400	550	440

Definitions

Standby Rating

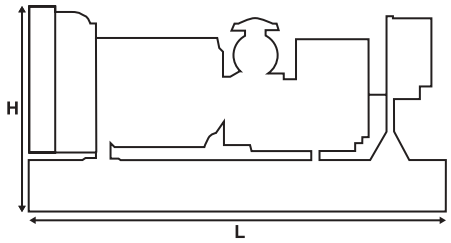
These ratings are applicable for supplying continuous electrical power (at variable load) in the event of a utility power failure. No overload is permitted on these ratings. The alternator on this model is peak continuous rated (as defined in ISO8528-3).

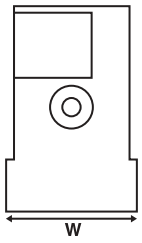
Prime Rating

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)	3760 (8289)	Length	3828 (150.7)
Wet (+ lube oil & coolant)	3810 (8400)	Width	1200 (47.2)
Fuel, lube oil & coolant	4543 (9994)	Height	2174 (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.

Warranty

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