

OLYMPIAN™

GEP750-1

*Diesel Generator Set
Exclusively from your Cat® dealer*



Output Ratings		
Generating Set Model	Prime*	Standby*
-	-	-
480V, 60 Hz	675.0 kVA 540.0 kW	750.0 kVA 600.0 kW

* Refer to ratings definitions on page 4.
Ratings at .8 power factor

Technical Data		
Engine Make & Model:	Perkins 2806A-E18TAG3	
Alternator Model:	LL7024J	
Base Frame Type:	Heavy Duty Fabricated Steel	
Circuit Breaker Type:	3 Pole ACB/MCCB	
Frequency:	50 Hz	60 Hz
Engine Speed: RPM	-	1800
Fuel Tank Capacity: litres (US gal)	1000 (264.2)	
Fuel Consumption, Prime: l/hr (US gal/hr)	-	138.4 (36.6)
Fuel Consumption, Standby: l/hr (US gal/hr)	-	155.6 (41.1)

Engine Technical Data

Physical Data	
Manufacturer:	Perkins
Model:	2806A-E18TAG3
No. of Cylinders/Alignment:	6 / In Line
Cycle:	4 Stroke
Induction:	Turbocharged Air To Air Charge Cooled
Cooling Method:	Water
Governing Type:	Electronic
Governing Class:	ISO 8528 G2
Compression Ratio:	14.5:1
Displacement: l (cu.in)	18.1 (1104.5)
Bore/Stroke: mm (in)	145.0 (5.7)/183.0 (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 (lb) - Dry:	2050 (4519)
- Wet:	2158 (4758)

Air System	50 Hz	60 Hz
Air Filter Type:	Replaceable Element	
Combustion Air Flow:		
m ³ /min (cfm)	-Standby:	- 47.6 (1681)
	-Prime:	- 44.3 (1564)
Max. Combustion Air Intake		
Restriction: kPa (in H ₂ O)	-	6.3 (25.3)
Radiator Cooling Air Flow:		
m ³ /min (cfm)	-	804.0 (28393)
External Restriction to		
Cooling Air Flow: Pa (in H ₂ O)	-	125 (0.5)

Cooling System	50 Hz	60 Hz
Cooling System Capacity:		
l (US gal)	-	61.0 (16.1)
Water Pump Type:	Centrifugal	
Heat Rejected to Water & Lube Oil: kW (Btu/min)		
-Standby:	-	170.9 (9719)
-Prime:	-	163.9 (9321)
Heat Radiation to Room:		
kW (Btu/min)	-Standby:	- 45.6 (2593)
	-Prime:	- 41.6 (2366)
Radiator Fan Load: kW (hp)	-	14.0 (18.8)

Cooling system designed to operate in ambient conditions up to 50°C (122°F). Contact your local Olympian dealer for power ratings at specific site conditions.

Lubrication system	
Oil Filter Type:	Eco, Full Flow
Total Oil Capacity l (US gal):	55.5 (14.7)
Oil Pan l (US gal):	53.5 (14.1)
Oil Type:	API CH4 / CI4
Cooling Method:	Water

Performance	50 Hz	60 Hz
Engine Speed: RPM	-	1800
Gross Engine Power: kW (hp)		
-Standby:	-	678.2 (909.0)
-Prime:	-	617.5 (828.0)
BMEP: kPa (psi)		
-Standby:	-	2494.0 (361.7)
-Prime:	-	2270.0 (329.3)
Regenerative Power: kW		34.0

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
Prime				
50 Hz	-	-	-	-
60 Hz	155.3 (41.0)	138.4 (36.6)	103.3 (27.3)	72.6 (19.2)
Standby				
50 Hz	-	-	-	-
60 Hz	155.6 (41.1)	114.7 (30.3)	79.2 (20.9)	

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

Exhaust System	50 Hz	60 Hz
Silencer Type:	Level 1	
Silencer Noise Reduction	SD200 (1)	
Pressure Drop Across		
Silencer System: kPa (in Hg)	-	0.47 (0.139)
Silencer Noise Reduction		
Level: dB	-	10
Max. Allowable Back		
Pressure: kPa (in. Hg)	-	6.8 (2.0)
Exhaust Gas Flow:		
m ³ /min (cfm)	-Standby:	- 143.0 (5050)
	-Prime:	- 130.0 (4591)
Exhaust Gas Temperature: °C (°F)		
m ³ /min (cfm)	-Standby:	- 542 (1008)
	-Prime:	- 513 (955)

Alternator Performance Data

Data Item	50 Hz				60 Hz				
					480/277V	380/220V			440/254V 220/127V
Motor Starting Capability* kVA	-	-	-	-	1993	1283	-	-	1694
Short Circuit Capacity** %	300	300	300	300	300	300	300	300	300
Reactances: Per Unit									
Xd	-	-	-	-	2.840	4.530	-	-	3.380
X'd	-	-	-	-	0.140	0.220	-	-	0.170
X''d	-	-	-	-	0.111	0.178	-	-	0.132

Reactances shown are applicable to standby ratings.

* Based on 30% voltage dip.

** With optional Permanent Magnet generator or AREP excitation.

Alternator Technical Data

Physical Data	
Manufacturer:	OLYMPIAN
Model:	LL7024J
No. of Bearings:	1
Insulation Class:	H
Winding Pitch - Code:	2/3 - 6
Wires:	12
Ingress Protection Rating:	IP23
Excitation System:	AREP
AVR Model:	R450

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:	4.0%
Radio Interference:	Suppression is in line with European Standard EN61000-6
Radiant Heat: kW (Btu/min)	
-50 Hz:	-
-60 Hz:	42.6 (2423)

Consult your Olympian representative for more information

