

5006A-E23TAG Electric Power Engines

Power range 1500 rpm

533-788 kW (engine gross power)

Emissions

Fuel optimised

The Perkins® 5006A-E23TAG has been designed to offer reliable power for all electric power applications, including standby, prime, critical and data centres.

Engineered and built specifically for the power generation market, the Perkins® 5000 Series is a power-packed engine range built to be dependable, versatile and offer low daily operating costs.



Features and benefits

- The 5000 Series delivers **maximised productivity** through outstanding load acceptance, achieving NFPA110 Type 10 and ISO 8528-5 G2 and G3 performance class and deliver high altitude capability.

The engine build and performance have been designed from the ground up with **ultimate productivity and dependability** in mind, so customers can be confident that power will be available when required. They have been tested around the world, in the harshest environments, to deliver performance, no matter the conditions.

- Excellent oil consumption through dedicated piston, ring and liner assembly and low fuel consumption deliver **minimised daily operating costs**.

- Design of core engine components mean the 5000 Series **delivers more power**, more quickly no matter the demands of the application or the environment in which it is placed.

A single point customer electronics connection supports **ease of integration and service accessibility** is provided from a single side with 500 hours or two year oil and fuel service interval whichever comes first.

- The 5000 Series utilises **advanced technology**, with full authority electronics, that easily integrates into the customer's chosen telematic solutions and is optimised for efficiency in fuel consumption.

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Specification

	5006A-E23TAG	
	TAG1	TAG2
Configuration	Electro unit/ElectropaK	
Cylinders	6 vertical in-line, 4 stroke	
Displacement, litres (in ³)	22.921 (1398.73)	
Aspiration	Turbocharged and air-to-air chargecooled	
Bore and stroke, mm (in)	160 × 190 (6.3 × 7.5)	
Combustion system	Direct injection	
Compression ratio	13.8:1	
Exhaust aftertreatment	N/A	
Rotation (viewed from flywheel)	Anti-clockwise	
Total lubricating oil capacity, litres (US gal)	113.4 (30)	
Cooling system	Watercooled	
Total coolant capacity, litres (US gal)	120 (31.7)	

Technical Information

Model	Speed	Type of Operation	Engine Power		Typical Generator Output* (Net)		Prime Fuel Consumption			
			Gross	Net			ESP	100%	75%	50%
	rpm		kW (hp)	kW (hp)	kVA	kWe	g/kWh	g/kWh	g/kWh	g/kWh
5006A-E23TAG1	1500	Prime/DCP/LTP	660 (885)	638 (856)	750	600	197	198	198	199
		Standby/ESP	724 (971)	702 (941)	825	660				
		COP	533 (715)	511 (685)	600	480	TBC			
5006A-E23TAG2	1500	Prime/DCP/LTP	703 (943)	681 (913)	800	640	202	200	197	197
		Standby/ESP	788 (1057)	766 (1027)	900	720				
		COP	567 (760)	545 (731)	640	512	TBC			

*Generator powers are typical and based on typical alternator efficiencies and a power factor (cos θ) or 0.8.

5006 50 Hz platform has a 94% assumed alternator efficiency.

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Standard Equipment

	5006A-E23TAG	
	TAG1	TAG2
Electro unit or ElectropaK	Both	
Radiator fitted	Loose	
Fuel filter, engine mounted	✓	
Water separator	N/A	
Fuel priming pump (manual/electric)	Electric	
Fuel cooler (not required for most installations)	ElectropaK only	
Air filter, engine mounted	✓	
Engine ECM, engine mounted	✓	
Wiring harness to ECM	✓	
Wiring harness (all connectors to single customer interface)	✓	
Starter motor	✓	
Battery charging alternator	✓	
Flywheel housing	✓	
Flywheel	✓	
Fan	ElectropaK only	
Fan guard	ElectropaK only	
Temp and oil pressure for automatic stop/ alarm configurable	✓	

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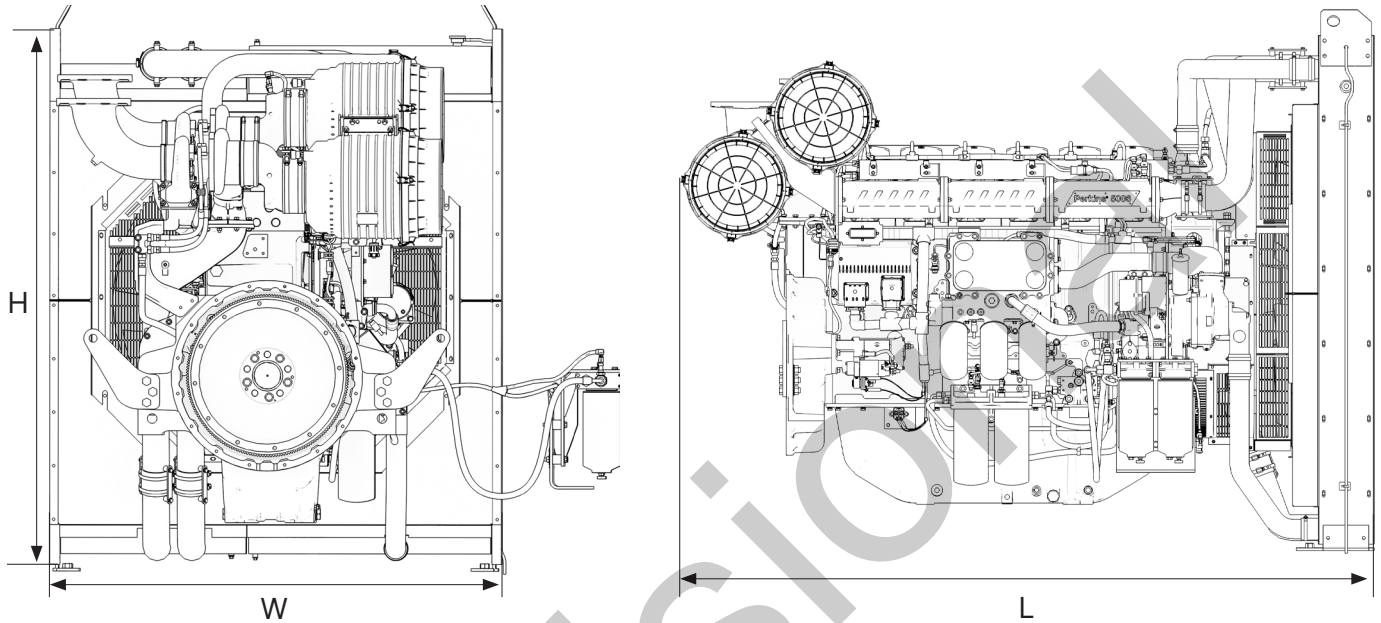
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Engine Package Weights and Dimensions



5006A-E23TAG		
TAG1 / TAG2		
Configuration	Electro unit	ElectropaK
Dimensions, H x L x W, mm (in)	1745 × 2276 × 1446 (68.7 × 89.6 × 56.9)	2126 × 2730 × 1690 (83.7 × 107.4 × 66.5)
Dry weight, kg (lb)	2405 (5303)	2885 (6361)

Continuous operating power (COP): Unlimited hours usage with an average load factor of 100 percent of the published continuous operating power. No overload is permitted on continuous operating power.

Prime power: Unlimited hours usage with an average load factor of 80 percent of the published prime power over each 24 hour period. A 10 percent overload is available for one hour in every 12 hours operation. No overload is permitted.

Data centre power (DCP): Power available for variable or continuous electrical loads in a data centre application. Up to 100 percent load factor of the published DCP power is permitted for unlimited time. An overload of 10 percent is permitted for one hour in every 12 hours of operation. No overload is permitted. DCP power definition relies on ISO8528-1 2018 standard to be followed by generator set manufacturer, and will support Tier I to Tier IV classifications of data centres as per UPTIME institute guidelines.

Standby power: Limited to 500 hours annual usage with an average load factor of 80 percent of the published standby power over each 24 hour period. Up to 300 hours of annual usage may be run continuously. No overload is permitted.

Limited-time running power (LTP): Maximum of 500 hours annual usage with an average load factor of 100 percent of the published LTP power.