

# 4000 Series 4006-23TAG3A Diesel Engine – ElectropaK

760 kWm at 1500 rpm  
795 kWm at 1800 rpm

The Perkins 4000 Series is a family of 6, 8, 12 and 16 cylinder diesel engines, designed to address today's uncompromising demands within the power generation industry with particular aim at the standby market sector. Developed from a proven engine range that offers superior performance and reliability.

The 4006-23TAG3A is a newly developed, turbocharged and air-to-air charge cooled, 6 cylinder diesel engine offered with either temperate or tropical cooling. Its premium features and design provide economic and durable operation as well as an exceptional power to weight ratio, excellent load acceptance and improved gaseous emissions, plus the overall performance and reliability characteristics essential to the power generation market.

## Economic power

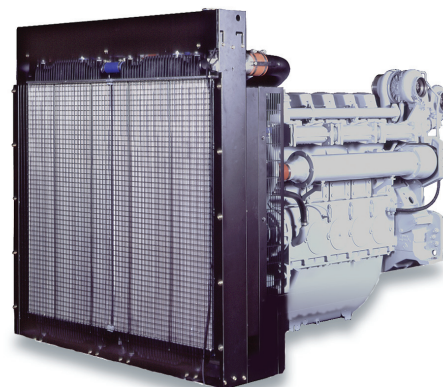
- Individual 4 valve cylinder heads giving optimised gas flows
- Unit fuel injectors ensure ultra fine fuel atomisation and hence controlled rapid combustion
- Commonality of components with other engines in the 4000 Series family for reduced stocking levels

## Reliable power

- Developed and tested using the latest engineering techniques
- Piston temperatures controlled by an advanced gallery jet cooling system
- Tolerant of a wide range of temperature without derate
- Perkins global product support is designed to enhance the customer experience of owning a Perkins powered machine. We deliver this through the quality of our distribution network, extensive global coverage and a range of Perkins supported OEM partnership options. So whether you are an end-user or an equipment manufacturer our engine expertise is essential to your success

## Compact, clean and efficient power

- Exceptional power to weight ratio and compact size give optimum power density for easier transportation and installation
- Designed to provide excellent service access for ease of maintenance
- Engines to comply with major international standards
- Low gaseous emissions that will satisfy the requirements of ½ TA Luft (1986)



## Product support

- Perkins actively pursues product support excellence by ensuring our distribution network invest in their territory – strengthening relationships and providing more value to you, our customer
- Through an experienced global network of distributors and dealers, fully trained engine experts deliver total service support around the clock, 365 days a year. They have a comprehensive suite of web based tools at their fingertips covering technical information, parts identification and ordering systems, all dedicated to maximising the productivity of your engine
- Throughout the entire life of a Perkins engine, we provide access to genuine OE specification parts and service. We give 100% reassurance that you receive the very best in terms of quality for lowest possible cost .. wherever your Perkins powered machine is operating in the world

Engine Speed (rev/min)	Type of Operation	Typical Generator Output (Net)		Engine Power			
				Gross		Net	
		kVA	kWe	kWm	bhp	kWm	bhp
1500	Continuous Baseload	640	512	566	759	540	724
	Prime Power	800	640	705	945	679	911
	Standby (maximum)	900	720	786	1054	760	1019
1800	Continuous Baseload	675	540	614	823	570	764
	Prime Power	844	675	759	1018	715	959
	Standby (maximum)	938	750	839	1125	795	1066

The above ratings represent the engine performance capabilities to conditions specified in ISO 8528/1, ISO 3046/1:1986, BS 5514/1. Derating may be required for conditions outside these; consult Perkins Engines Company Limited.

Generator powers are typical and are based on an average alternator efficiency and a power factor (cos.  $\theta$ ) of 0.8. Fuel specification: BS 2869: Part 2 1998 Class A2 or ASTM D975 D2. Lubricating oil: 15W40 to API CG4.

### Rating Definitions

**Baseload Power:** Power available for continuous full load operation. No overload is permitted on baseload power. **Prime Power:** Power available at variable load with a load factor not exceeding 80% of the prime power rating. There is no overload permitted on baseload power. **Standby Power:** Power available in the event of a main power network failure up to a maximum of 500 hours per year of which up to 300 hours may be run continuously. Load factor may be up to 100% of standby power. No overload is permitted.

Photographs are for illustrative purposes only and may not reflect final specification.

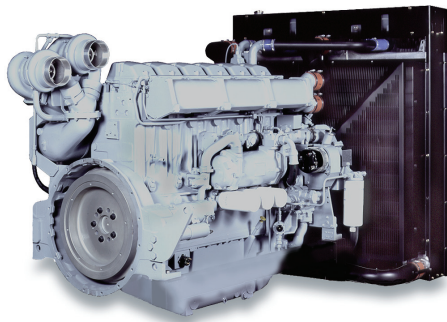
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THE HEART OF EVERY GREAT MACHINE

# 4000 Series 4006-23TAG3A Diesel Engine – Electropak

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795 kWm at 1800 rpm



## Standard Electropak specification

### Air inlet

- Mounted air filter

### Fuel system

- Direct fuel injection system, fuel lift pump
- Fuel cooler

### Governing

- Heinzmann digital governor – governing to ISO 8528-5 Class G2

### Lubrication system

- Wet sump with filler and dipstick
- Lubrication oil filters
- Oil cooler with separate filter header

### Cooling system

- Twin thermostats, water pump
- System designed for ambients up to 35°C or 50°C
- Radiator supplied loose incorporating air-to-air charge cooler

### Electrical equipment

- 24 volt starter motor, 24 volt 70 amp battery charging alternator with integral voltage regulator and activating switch
- High coolant temperature switch
- Low oil pressure switch

### Flywheel and housing

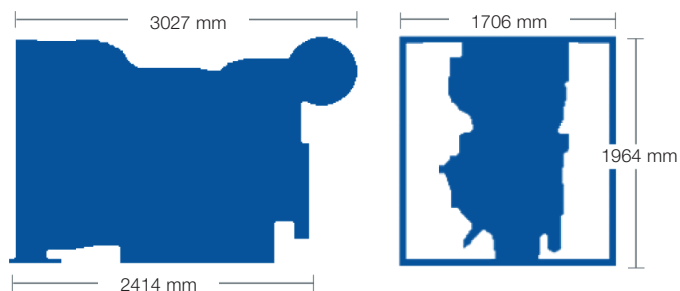
- SAE J620 size 18 flywheel
- SAE '0' flywheel housing

### Literature

- User's Handbook and Parts Manual

## Optional equipment

- Heavy-duty air cleaners – paper element with pre-cleaner
- Changeover lubrication oil filter
- Changeover fuel filter
- Immersion heater with thermostat
- Additional manuals
- 4 metre wiring harness
- Tropical or temperate radiator kit
- Temperate fan



Engine Speed	Fuel Consumption			
	1500 rev/min		1800 rev/min	
	g/kWh	l/hr	g/kWh	l/hr
Standby	212	194	230	224
Prime Power	210	172	226	200
Baseload Power	208	137	213	152
75% of Prime Power	210	130	214	144
50% of Prime Power	213	90	205	96

## General data

Number of cylinders .....	6
Cylinder arrangement .....	Vertical in-line
Cycle .....	4 stroke
Induction system .....	Turbocharged and air-to-air charge cooled
Combustion system .....	Direct injection
Cooling system .....	Water-cooled
Bore and stroke .....	160 x 190 mm
Displacement .....	22.921 litres
Compression ratio .....	13.6:1
Direction of rotation .....	Anti-clockwise, viewed on flywheel
Firing order .....	1, 5, 3, 6, 2, 4
Total lubrication system capacity .....	113.4 litres
Total coolant capacity .....	105 litres
Dimensions – Length .....	3027 mm
Width .....	1706 mm
Height .....	1964 mm
Dry weight (engine) .....	2524 kg

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