

# 1000 Series

## 1006TG1A

### Diesel Engine - ElectropaK

91.5 kWm 1500 rev/min

106.5 kWm 1800 rev/min

#### Economic Power

- Single side servicing for reduced service time and cost.
- Unique Quadram combustion system enables high power output plus low fuel consumption and noise.
- Rated speed is changable between 1500 rpm or 1800 rpm allowing standard builds to operate at either 50 Hz or 60 Hz.

#### Clean, Efficient Power

- Operator and environmentally friendly with low noise, rapid startability and low emissions that satisfy TA Luft requirements.

#### Durable Power

- Maximum cooling efficiency is provided by a gear driven water pump and independent fan drive.
- Leak free operation is ensured by Viton crankshaft seals and sophisticated controlled swell joints, giving protection in the toughest conditions.
- Inserted valve seats, oil spray cooled pistons and compact plate cooler give enhanced engine life.

#### Reliable Power

- Wherever a perkins' ElektropaK engine is put into service, it will never be far from the support provided by a global network of 4,000 distributors and dealers, all backed by a parts distribution centre giving 24 hour service, 365 days a year.
- Suitable for operation in ambient temperatures up to 52°C (46°C if a canopy is fitted).
- Fuelled starting aid for temperatures down to -20°C.

The Perkins 1000 Series family of ElectropaK engines are renowned throughout the power generation industry for their superior performance and reliability.

The 1006TG1A is a turbocharged, 6 cylinder, 6 litre engine. Its premium design features provide economic and durable operation offering the ideal characteristics for electrical power generation.

Engine Speed (rev/min)	Type of Operation	Typical Generator Output (Net)		Engine Power			
				Gross		Net	
		kVA	kWe	kWm	bhp	kWm	bhp
1500	Prime Power	93.0	74.5	85.5	114.5	83.0	111.5
	Standby Power	103.0	82.5	94.0	126.0	91.5	122.5
1800	Prime Power	109.0	87.0	100.5	134.5	96.5	129.5
	Standby Power	120.0	96.0	110.5	148.0	106.5	142.5

All ratings data based on operating under ISO/TR 14396/ISO 8528 conditions using typical fan sizes and drive ratios. For operation outside of these conditions please consult your Perkins contact. Performance tolerance quoted by Perkins is ±5%.

Electrical ratings assume a power factor of 0.8 and a generator efficiency of 90%.

Fuel specification: BS 2869 Part 2 1998 Class A2 or ASTM D975 D2

Lubrication oil: A single or multigrade oil to ACEA/E1 E2 or API CD/SD

#### Rating Definitions

**Prime Power:** Power available at variable load in lieu of main power network. An overload of 10% is permitted for 1 hour in every 12 hours of operation.

**Standby Power:** Power available at variable load in the event of a main power network failure. No overload is permitted.

All information in this document is substantially correct at time of printing and may be altered subsequently

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### Standard ElectropaK Specification

#### Air inlet

- Mounted air filter and turbocharger

#### Fuel system

- Rotary fuel injection pump
- Mechanical governing - speed control to BS5514 Class A1, ISO 3046-4M3
- Spin-on full flow fuel oil filters and pre-filter
- Cold start aid

#### Lubrication system

- Flat bottomed aluminium sump
- Spin-on full flow oil filters
- Oil cooler

#### Cooling system

- Thermostat controlled cooling system with gear driven water pump
- Fan drive and 22" pusher fan
- Radiator (and piping) with fan guards

#### Electrical system

- 12 volt starter motor and 55 amp alternator
- Oil pressure switch and coolant temperature switch

#### Flywheel and housing

- Cast iron SAE 3 flywheel housing
- Flywheel to SAE J620 size 10/11

#### Mountings

- Front engine mountings

### Optional Equipment

- 24 volt alternator
- 24 volt starter motor
- Water temperature gauge and sender
- Heater/Starter switch
- Rear engine mountings
- Workshop manual
- Parts book
- User handbook
- Electronic governor (12 volt only)

### General Data

Number of cylinders	6
Cylinder arrangement	Vertical in-line
Cycle	4 stroke
Induction system	Turbocharged
Combustion system	Direct injection
Cooling system	Water-cooled
Bore and stroke	100 x 127 mm
Displacement	5.99 litres
Compression ratio	16.0:1
Direction of rotation	Clockwise, viewed on the flywheel
Firing order	1,5,3,6,2,4
Total lubrication system capacity	16.1 litres
Coolant capacity (inc. radiator)	27.7 litres
Length	1559 mm
Width	709 mm
Height	1124 mm
Total weight (dry)	542kg
Total weight (wet)	576 kg

Overall dimensions and weight will depend on final specification.

Fuel consumption litres/hour (UK gallons/hour)		
Power Rating %	1500 rev/min	1800 rev/min
110	24.1 (5.3)	28.4 (6.2)
100	21.8 (4.8)	25.8 (5.7)
75	16.5 (3.6)	19.9 (4.4)
50	11.4 (2.5)	14.0 (3.1)



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