

# 1000 Series

## 1006TG2A

### Diesel Engine - ElectropaK

100.0 kWm 1500 rev/min

118.0 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 1006TG2A 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<br>(rev/min) | Type of<br>Operation | Typical Generator<br>Output (Net) |       | Engine Power |       |       |       |
|---------------------------|----------------------|-----------------------------------|-------|--------------|-------|-------|-------|
|                           |                      |                                   |       | Gross        |       | Net   |       |
|                           |                      | kVA                               | kWe   | kWm          | bhp   | kWm   | bhp   |
| 1500                      | Prime Power          | 102.5                             | 82.0  | 95.5         | 128.0 | 91.0  | 122.0 |
|                           | Standby Power        | 112.5                             | 90.0  | 105.0        | 141.0 | 100.0 | 134.0 |
| 1800                      | Prime Power          | 120.5                             | 96.5  | 113.5        | 152.5 | 107.0 | 143.5 |
|                           | Standby Power        | 132.5                             | 106.0 | 125.0        | 167.5 | 118.0 | 158.0 |

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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