

# 1100 Series

## Diesel Engine - ElectropaK

### 1103A-33TG1

**42 kWm at 1500 rpm**  
**51 kWm at 1800 rpm**

Building upon Perkins proven reputation within the power generation industry, the 1100 Series range of ElectropaK engines now fit even closer to customer's needs.

In the world of power generation success is only gained by providing more for less. With the 1103A-33TG1 Perkins has engineered even higher levels of reliability, yet lowered the cost of ownership.

1100A units are designed for territories that do not require compliance to EPA or EU emissions legislation. These units are able to meet TA luft legislation.

### Compact, efficient power

- 1100 Series is the result of an intensive period of customer research that has guided the development of the range.
- The new 3.3 litre cylinder block ensures bore roundness is maintained under the pressures of operation. It also ensures combustion and mechanical noise is lowered.
- A new cylinder head has re-established Perkins mastery of air control.

### Quality by design

- Product design and Class A manufacturing improvements enhance product reliability while maintaining Perkins legendary reputation for durability.

### Cost effective power

- Compact size and low noise.
- Lower fuel consumption and oil use.
- 500 hour service intervals.
- 2 year warranty.

### Product Support

- Total service and support is provided through a worldwide network of 4000 distributors and service outlets.

Engine speed rev/min	Type of Operation	Typical generator output (net)		Engine power			
				Gross		Net	
		kVA	kWe	kWm	bhp	kWm	bhp
1500	Prime power	45	36	42.2	56.6	41.3	55.4
	Standby power	49.6	39.7	46.5	62.4	45.6	61.2
1800	Prime power	53.1	42.5	50.5	67.7	48.9	65.6
	Standby power	58.7	46.9	55.6	74.6	53.9	72.3

The above ratings represent the engine performance capabilities to conditions specified in ISO 8528/1, ISO 3046/1:1986, BS5514/1 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.  $\phi$ ) of 0.8  
 Fuel specification: BS 2869: Part 2 1998 Class A2 or DIN EN 590  
 Lubricating oil: 15W40 to API CG4

#### Rating Definitions

**Prime power:** Variable load. Unlimited hours usage with an average load factor of 80% of the published prime power over each 24 hour period. A 10% overload is available for 1 hour in every 12 hours of operation.

**Standby power:** Variable load. Limited to 500 hours annual usage, up to 300 hours of which may be continuous running. No overload is permitted.

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## 1103A-33TG1

### Standard ElectropaK Specification

#### Air Inlet

Mounted air filter

#### Fuel System

Rotary type pump  
Ecoplus fuel filter

#### Lubrication System

Wet sump with filler and dipstick  
Spin-on oil filter

#### Cooling System

Thermostatically controlled system with gear-driven circulation pump and belt-driven pusher fan  
Mounted radiator and piping

#### Electrical Equipment

12-Volt starter motor and 12 Volt 65 Amp alternator with DC output  
12 volt shutdown solenoid energised to run

#### Flywheel and Housing

High inertia flywheel to SAE J620 Size 10/111/2  
SAE 3 flywheel housing

#### Mountings

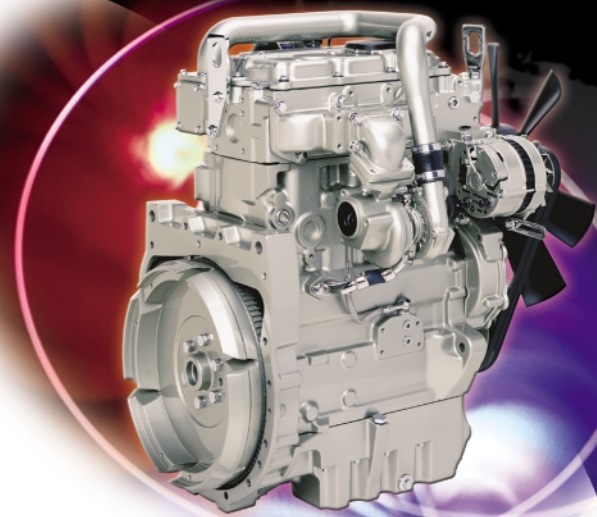
Front engine mounting bracket

#### Literature

User's Handbook

#### Optional Equipment

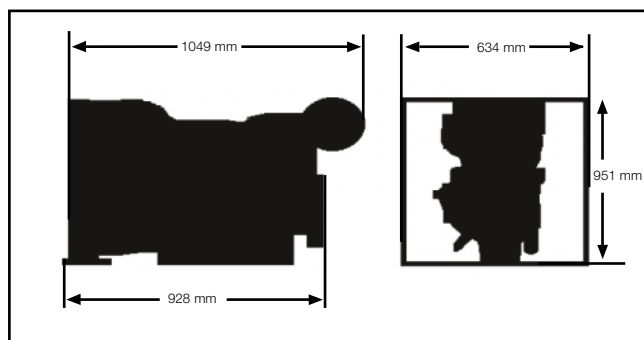
Workshop manual  
Parts book



### General Data

<b>Number of Cylinders</b>	3
<b>Cylinder Arrangement</b>	Vertical in-line
<b>Cycle</b>	4 stroke
<b>Induction system</b>	Turbocharged
<b>Combustion System</b>	Direct injection
<b>Cooling System</b>	Water-cooled
<b>Bore &amp; Stroke</b>	105 x 127 mm
<b>Displacement</b>	3.3 litres
<b>Compression Ratio</b>	17.25:1
<b>Direction of Rotation</b>	Anti Clockwise (view from flywheel)
<b>Total Lubrication System Capacity</b>	7.9 litres
<b>Total Coolant Capacity</b>	10.2 litres
<b>Length</b>	1049 mm
<b>Width</b>	634 mm
<b>Height</b>	951 mm
<b>Dry Weight (approx.)</b>	420 kg

Engine Speed	Fuel consumption			
	1500 rev/min		1800 rev/min	
	g/kWh	l/hr	g/kWh	l/hr
At standby power	221	12.0	217	14.3
At prime power	215	10.7	215	12.9
At 75% of prime power	218	8.2	221	9.9
At 50% of prime power	227	5.7	235	7.1



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