

1000 Series

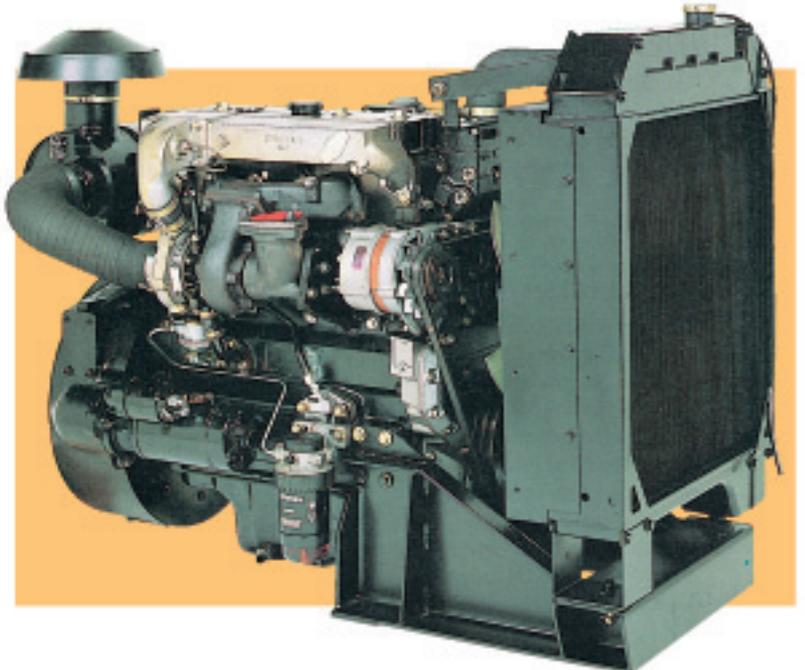
Diesel Engine –
Electropak

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

The 1004TG2 is a turbocharged, 4 cylinder, 4 litre engine. Its premium design features provide economic and durable operation offering the ideal characteristics for electrical power generation.

1004TG2

74.0 kWm 1500 rev/min
86.0 kWm 1800 rev/min



Economic power

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

Clean, efficient power

- **Operator and environmentally friendly** with low noise and 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' Electropak engine** is put into service, it will never be far from the support provided by a global network of 4000 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 53°C (46°C if a canopy is fitted).
- **Fuelled starting aid** for temperatures down to -20°C.

Engine Speed rev/min	Type of Operation	Typical Generator Output (Net)		Engine Power			
		kVA	kWe	Gross		Net	
				kWm	bhp	kWm	bhp
1500	Prime power	76.0	61.0	70.5	94.5	67.5	90.5
	Standby power	83.0	66.5	77.5	104.0	74.0	99.5
1800	Prime power	88.0	70.5	82.5	110.5	78.5	105.0
	Standby power	97.0	77.5	91.0	121.5	86.0	115.5

All ratings data based on operation under ISO 3046 conditions using typical fan sizes and drive ratios. For operation outside of these conditions please consult your Perkins Engines contact. Performance tolerance quoted by Perkins is ±5%.

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

Rating Definitions

Prime power – Power available at variable load in lieu of main power network. An overload of 10% is permitted for one hour in every twelve hours of operation.

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

Standard Electropak Specification

- Base engine
- Cast iron SAE 3 flywheel housing
- Flywheel
- Flat bottomed pressed steel sump
- Mechanical governor – speed control to BS5514 Class A1, ISO 3046-4M3
- Rotary fuel injection pump
- 12V shut off solenoid – energised to run
- Cold start aid
- Spin-on full flow fuel oil filter
- Fuel pre-filter
- Spin-on full flow oil filter
- Oil cooler
- Thermostat controlled cooling system
- Gear driven water pump
- Fan drive and 20" pusher fan
- Radiator (and piping)
- Fan guards
- Front engine mountings
- 12V engine alternator
- 12V starter motor
- Air filter
- Oil pressure switch
- Coolant temperature switch

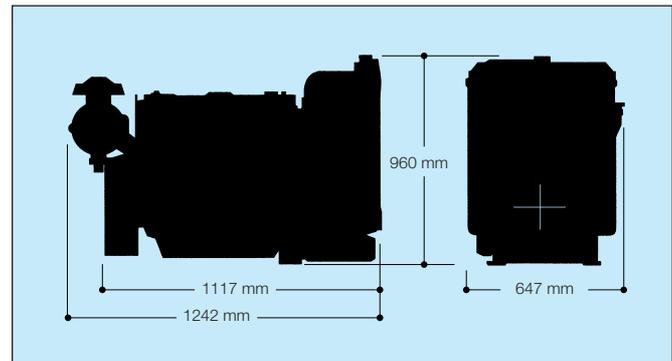
Optional Equipment

- 24V alternator
- 24V starter motor
- Water temperature gauge and sender
- Heater/starter switch
- Rear engine mountings
- Workshop manual
- Parts book
- User handbook

Electropak General Data

Number of cylinders	4
Cylinder arrangement	Vertical, in-line
Cycle	4-stroke
Induction system	Turbocharged
Combustion system	Direct injection
Cooling system	Water-cooled
Displacement	3.99 litres
Bore and stroke	100.0 mm x 127.0 mm
Compression ratio	16.0:1
Direction of rotation	Clockwise, viewed from the front
Firing order	1,3,4,2
Total lubrication system capacity	8.5 litres
Coolant capacity (inc radiator)	22.2 litres
Total weight (dry)	434 kg
Total weight (wet)	462 kg
Length	1242 mm
Width	647 mm
Height	960 mm

Fuel consumption litres/hour (UK gallons/hour)		
Power rating %	1500 rev/min	1800 rev/min
110	19.9 (4.3)	22.5 (5.0)
100	17.9 (3.9)	20.4 (4.5)
75	13.3 (2.9)	15.7 (3.4)
50	9.2 (2.0)	11.2 (2.4)



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All information in this document is substantially correct at the time of printing but may be altered subsequently by the company.

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