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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 1004TG1 is a turbocharged 4 cylinder, 4 litre engine. Its premium features provide economic and durable operation offering the ideal characteristics for electrical power generation.

1004TG1

64.0 kWm 1500 rev/min
69.5 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.

Durable power

- **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 the Perkins global network of 4000 distributors and dealers, 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	65.0	52.0	60.0	80.5	58.0	78.0
	Standby power	71.5	57.5	66.0	88.5	64.0	86.0
1800	Prime power	70.5	56.5	66.5	89.0	63.0	84.5
	Standby power	77.5	62.0	73.0	98.0	69.5	93.0

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

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

Rating Definitions

Prime power – Power available for variable load in lieu of main power network. An overload of 10% is permitted for 1 hour in every 12 hours' 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
- Thermostat controlled cooling system
- Belt-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

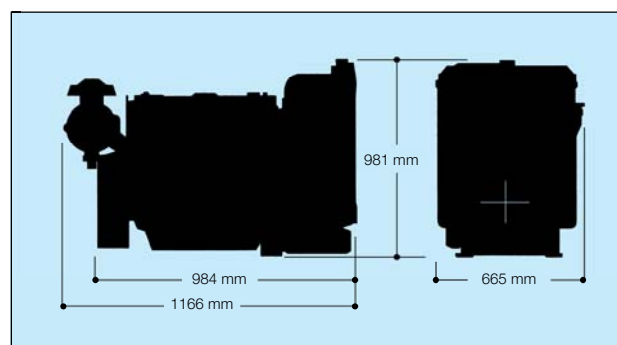
Optional Equipment

- 24V alternator
- 24V starter motor
- Water temperature gauge and sender
- Heater/starter switch
- Rear engine mountings
- Workshop manual
- Parts book
- User's 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	8.1 litres
Coolant capacity (inc radiator)	18.7 litres
Total weight (dry)	433 kg
Total weight (wet)	458 kg
Length	1166 mm
Width	665 mm
Height	981 mm

Fuel consumption litres/hour (UK gallons/hour)		
Power rating	1500 rev/min	1800 rev/min
Standby power	16.4 (3.6)	18.8 (4.1)
Prime power	14.5 (3.2)	17.1 (3.7)
75% of prime power	10.9 (2.4)	13.2 (2.9)
50% of prime power	7.7 (1.7)	9.6 (2.1)



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All information in this leaflet is substantially correct at the time of printing but may be changed subsequently by the Company.

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