

# New 1000 Series

# 1004-42

Diesel Engine –  
ElectropaK

45.0 kWm 1500 rev/min  
51.5 kWm 1800 rev/min

Renowned throughout the power generation industry for their superior performance and reliability, the latest Perkins 1000 Series diesel ElectropaK easily satisfies the requirements of US EPA mobile off-highway legislation and TA Luft regulations.

The 1004-42 is a compact, naturally aspirated, 4 cylinder, larger capacity member of the family. Premium design features ensure economic and durable operation while providing the ideal characteristics for electrical power generation.



## Clean, efficient power

- **Operator and environmentally sensitive** with low noise, rapid startability and low emissions satisfying US EPA mobile off-highway legislation and TA Luft requirements.

## Reliable power

- **Suitable for operation** in ambient temperatures up to 46°C if a canopy is fitted.
- **Fuelled starting aid** for quick starting at temperatures down to -25°C.
- **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.

## Durable power

- **Maximum cooling efficiency is provided by a high capacity water pump.**
- **Leak free operation is ensured by Viton crankshaft seals** and sophisticated controlled swell joints, giving protection in the toughest conditions.
- **Inserted valve seats** enhance engine life.

## Economic power

- **Single side servicing and up to 500 hour oil and filter change** reduces service time, cost and enhances equipment availability.
- **Perkins advanced Fastram combustion system** ensures high power with low specific fuel consumption and very low levels of noise.

Engine Speed rev/min	Type of Operation	Typical Generator Output (Net)		Engine Power			
		kVA	kWe	Gross		Net	
				kWm	bhp	kWm	bhp
1500	Prime power	46.5	37.0	42.0	56.5	41.0	55.0
	Standby power	50.5	40.5	46.0	61.5	45.0	60.5
1800	Prime power	53.0	42.5	48.0	64.5	47.0	63.0
	Standby power	58.0	46.5	53.0	71.0	51.5	69.0

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 ISO 3046-4 (BS 5514) Class A1
- 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
- High flow water pump
- Fan drive and 19" 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

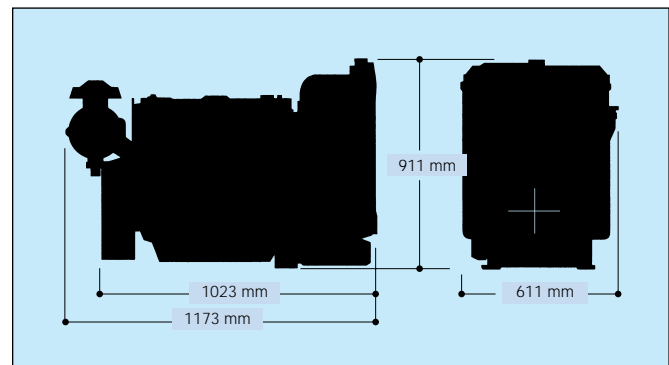
- 24V alternator
- 24V starter motor
- Water temperature gauge and sender
- Heater/starter switch
- Rear engine mountings
- Workshop manual
- Parts book
- User handbook

## ElectropaK General Data

Number of cylinders	4
Cylinder arrangement	Vertical, in-line
Cycle	4-stroke
Induction system	Naturally aspirated
Combustion system	FASTRAM Direct injection
Cooling system	Water-cooled
Displacement	4.23 litres
Bore and stroke	103.0 mm x 127.0 mm
Compression ratio	18.5:1
Direction of rotation	Clockwise, viewed from the front
Firing order	1,3,4,2
Total lubrication system capacity	6.8 litres
Coolant capacity (inc radiator)	14.7 litres
Total weight (dry)	439 kg
Total weight (wet)	460 kg

Fuel consumption litres/hour (gallons*/hour)		
Power rating %	1500 rev/min	1800 rev/min
110	12.2 (2.7)	13.9 (3.7)
100	10.6 (2.3)	12.7 (3.4)
75	8.1 (1.8)	9.5 (2.5)
50	5.6 (1.2)	6.9 (1.8)

\* @ 1500 UK  
@ 1800 US



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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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