

900 Series

903-27

Diesel Engine –
Electropak

**34 kWm (45.5 bhp) 1800
rev/min**

The Perkins 900 Series Electropak is the latest groundbreaking generation of Perkins 3 cylinder engines. It has all of the rugged strengths of its predecessor, the world renowned 3.152 whilst employing the latest advances in combustion engineering.

The 903-27 is a naturally aspirated, 3 cylinder, 2.7 litre engine, giving increased performance while retaining the same premium design features of the D3.152 to provide economic and durable operation, again offering the ideal characteristics for electrical power generation.



Durable power

- **Benefiting from the inherent build quality of all Perkins 3 cylinder engines**, the 900 Series excels in the most demanding environments and is designed to give typically at least 10,000 productive hours before requiring an overhaul.

Economic power

- **The Fastram combustion system delivers more power and torque** than its predecessor whilst improving fuel consumption. The result, a more responsive engine which also offers service intervals for oil and filters of up to 250 hours.
- **One side servicing** for reduced service time and cost.

Reliable power

- **Perkins outstanding reputation relies heavily on our world class manufacturing capability.** Internationally recognised and customer approved quality procedures ensure unsurpassed reliability which will exceed expectations.
- **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 |
| 1800 | Prime power | 34.3 | 27.4 | 31.8 | 42.6 | 30.8 | 41.3 |
| | Standby power | 37.8 | 30.3 | 35.0 | 47.0 | 34.0 | 45.5 |

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 89%.

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 SAE size 10/11½
- Rear well aluminium 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
- 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 16" pusher fan
- Radiator (and piping)
- Fan guards
- Front engine mountings
- 12V engine alternator
- 12V starter motor
- Air filter
- Oil pressure switch
- Coolant temperature switch

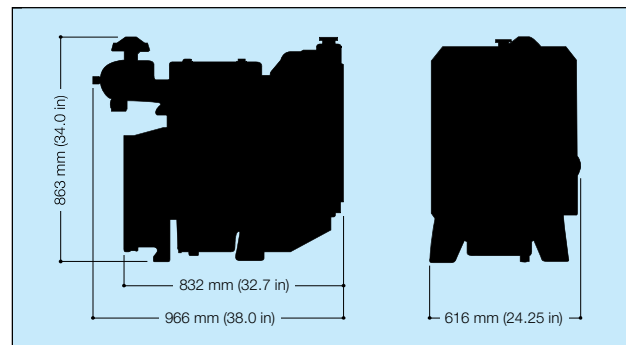
Optional Equipment

- 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 | 3 |
| Cylinder arrangement | Vertical, in-line |
| Cycle | 4-stroke |
| Induction system | Naturally aspirated |
| Combustion system | Fastram direct injection |
| Cooling system | Water-cooled |
| Displacement | 2.7 litres (164.8 in ³) |
| Bore and stroke | 95.0 mm x 127.0 mm (3.74 in x 5.00 in) |
| Compression ratio | 17.25:1 |
| Direction of rotation | Anticlockwise, viewed from the flywheel |
| Firing order | 1,2,3 |
| Total lubrication system capacity | 5.7 litres (10 UK pints) |
| Coolant capacity (inc radiator) | 10.1 litres (17.8 UK pints) |
| Total weight (dry) | 341 kg (751 lb) |
| Total weight (wet) | 356 kg (784 lb) |
| Length | 966 mm (38 in) |
| Width | 616 mm (24.25 in) |
| Height | 863 mm (34.0 in) |

| Fuel consumption litres/hour (UK gallons/hour) | |
|--|--------------|
| Power rating % | 1800 rev/min |
| 110 | 9.4 (2.1) |
| 100 | 8.2 (1.1) |
| 75 | 6.2 (1.3) |
| 50 | 4.4 (1.0) |



Perkins Engines Company Limited

Peterborough PE1 5NA UK
 Telephone +44 (0)1733 583000
 Fax +44 (0)1733 582240
 www.perkins.com

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

Distributed by