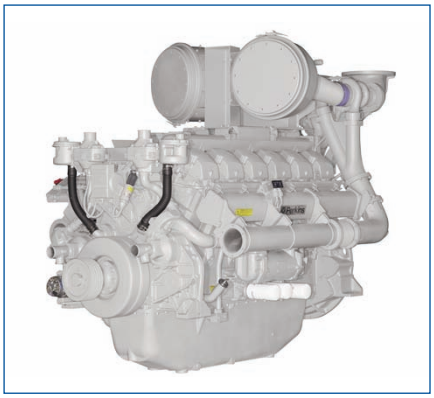

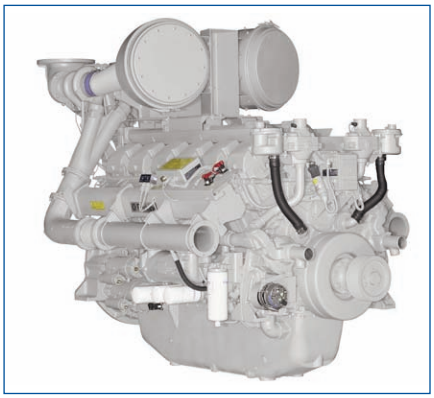

The Perkins 4000 Series family of 6, 8, 12 and 16 cylinder diesel engines was designed in advance of today's uncompromising demands within the power generation industry and includes superior performance and reliability. The 4012-46TAG3A ElectropaK is a newly developed turbocharged, air-to-air charge cooled, 12 cylinder diesel engine. Offered with either Temperate or Tropical cooling packages (with or without fuel oil cooling). Their premium design and specification features provide economic and durable operation as well as exceptional power to weight ratio, improved serviceability, low gaseous emissions, overall performance and reliability essential to the power generation market.

# 4000 Series

## 4012-46TAG3A

### Diesel Engine – ElectropaK

1579 kWm 1500 rpm

### Economic power

- Individual four valve per cylinder heads give optimised gas flows, whilst digitally governed unit fuel injectors ensure ultra-fine fuel atomisation and hence controlled rapid combustion, for efficiency and economy
- Commonality of components with other engines in the 4000 Series family allows reduced parts stocking levels

### Reliable power

- Developed and tested using latest engineering techniques
- Piston temperature are controlled by an advanced gallery jet cooling system
- All engines are tolerant of a wide range of temperatures without derate
- Perkins global product support is designed to enhance the customer experience of owning a Perkins powered machine. We deliver this through the quality of our distribution network, extensive global coverage and a range of Perkins supported OEM partnership options. So whether you are an end-user or an equipment manufacturer our engine expertise is essential to your success

### Clean, efficient power

- Exceptional power to weight ratio and compact size for easier transportation and installation
- New designed radiator assemblies with corrosion inhibiting powder coated finish; fewer pipe joints and easier access to reduce maintenance times
- Designed to provide excellent service access for ease of maintenance
- Engines designed to comply with major international standards
- Low gaseous emissions that will satisfy the requirements of ½ TA Luft (1986)

| Engine Speed (rev/min) | Type of Operation | Typical Generator Output (Net) | | Engine Power | | | |
|---|---|---|---|---|---|---|---|
| | | | | Gross | | Net | |
| | | kVA | kWe | kWm | bhp | kWm | bhp |
| 1500 | Baseload Power | 1420 | 1136 | 1256 | 1684 | 1196 | 1604 |
| | Prime Power | 1705 | 1364 | 1496 | 2006 | 1436 | 1925 |
| | Standby (maximum) | 1875 | 1500 | 1639 | 2198 | 1579 | 2117 |

The above ratings represent the engine performance capabilities guaranteed within plus or minus 3% at the reference conditions equivalent to those specified in ISO 8528/1, ISO 3046/1, BS 5514/1.

**Rating conditions:** 25°C air inlet temperature, barometric pressure 100 kPa, relative humidity 30%. Please consult your distributor or the factory for ratings in other ambient conditions.
*Note: For full ratings please refer to Perkins Engines Company Limited. All electrical ratings are based on an average alternator efficiency and a power factor of 0.8.*
**Fuel specification:** BS2869: Class A2.

Rating Definitions
**Baseload Power:** Power available for continuous full load operation. No overload is permitted.
**Prime Power:** Power available for variable load with an average load factor not exceeding 80% of the prime power rating in any 24 hour period. Overload of 10% permitted for 1 hour in every 12 hours operation
**Standby (maximum):** Power available at variable load in the event of a main power network failure up to a maximum of 500 hours per year. No overload is permitted.



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# 4000 Series

## 4012-46TAG3A

### Standard ElectropaK Specification

#### Air inlet
- Mounted air filters and turbochargers

#### Fuel System
- Direct fuel injection system with fuel lift pump
- Governing to ISO 8528-5 class G2 with isochronous capability
- Full-flow spin-on fuel oil filters

#### Lubrication System
- Wet sump with filler and dipstick
- Full-flow spin-on oil filters
- Engine jacket water/lub oil temperature stabiliser

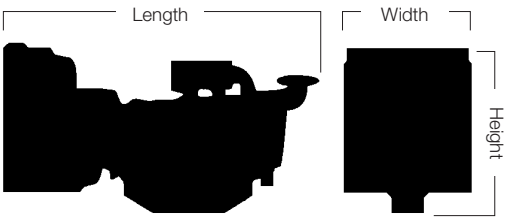
#### Cooling System
- Two twin thermostats
- System designed for ambients up to 50ºC
- Powder coated radiator comprising: water radiator; air charge cooled radiator; fuel oil cooling (optional); all pipes, hoses and clips; fan; pulleys; fan belts and safety guards

#### Electrical Equipment
- 24 volt starter motor and 24 volt alternator with integral regulator and DC output
- Overspeed switch and magnetic pickup
- Turbine inlet temperature shutdown switch
- Twin high coolant temperate shutdown switches
- Twin low oil pressure shutdown switches

#### Flywheel and Housing
- Flywheel to SAE J620 size 18
- SAE 00 flywheel housing

### Optional Equipment

Choice of temperature or tropical radiators available dependant on operational cooling requirements
Fuel oil cooler integral to the radiator assembly
Immersion heater with thermostat
*Note: This list is not exhaustive, for further options please contact your Perkins representative*




*See 'General Data - Dimensions' below*

| Fuel Consumption | | |
|---|---|---|
| Engine Speed | 1500 rev/min | |
| | g/kWh | l/hr |
| Standby | 213 | 391 |
| Prime power | 212 | 354 |
| Continuous baseload | 212 | 295 |
| 75% of prime power | 208 | 260 |
| 50% of prime power | 203 | 169 |

### General Data

| | | | |
|---|---|---|---|
| Number of cylinders | | 12 | |
| Cylinder arrangement | | 60º Vee form | |
| Bore and stroke | | 160 x 190 mm | |
| Displacement | | 45.842 litres | |
| Induction system | | Turbocharged and air to air charge cooled | |
| Cycle | | 4 stroke | |
| Combustion system | | Direct injection | |
| Compression ratio | | 13.6:1 | |
| Rotation | | Anti-clockwise, viewed from flywheel end | |
| Cooling system | | Water-cooled | |
| Firing order | | 1A, 6B, 5A, 2B, 3A, 4B, 6A, 1B, 2A, 5B, 4A, 3B | |
| Total lubrication system capacity | | 177.6 litres | |
| | | Temperate | Tropical |
| Total coolant capacity | | 198 litres | 207 litres |
| Total weight | | 6026 kg | 6026 kg |
| Dimensions | Length | 3971mm | 3935 mm |
| | Width | 2192 mm | 2164 mm |
| | Height | 2260 mm | 2610 mm |

Final weight and dimensions will depend on completed specification

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