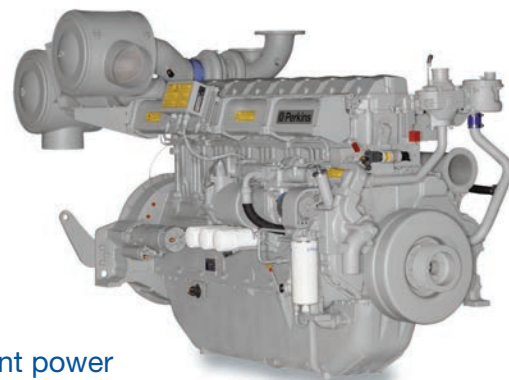


# 4000 Series 4008TAG1A/2A Diesel Engine – Electropak

844 kWm 1500 rev/min TAG1A  
947 kWm 1500 rev/min TAG2A

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 4008TAG1A/2A Electropaks are turbo-charged, air-to-air charge cooled, 8 cylinder in-line diesel engines. Offered with either Temperate or Tropical cooling packages (with or without fuel 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.



## 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 temperatures 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 surfaces; 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 for cleaner operation

| Engine Model<br>Rated Speed<br>Radiator Type | Type of<br>Operation | Typical Generator<br>Output (Net) |     | Engine Power |      |     |      |
|--|----------------------|-----------------------------------|-----|--------------|------|-----|------|
|  |                      | kVA                               | kWe | Gross        |      | Net |      |
|  |                      |                                   |     | kWm          | bhp  | kWm | bhp  |
| 4008TAG1A<br>1500 rev/min<br>Tropical        | Baseload Power       | 720                               | 576 | 644          | 864  | 606 | 813  |
|  | Prime Power          | 911                               | 728 | 805          | 1080 | 767 | 1029 |
|  | Standby (maximum)    | 1002                              | 802 | 882          | 1183 | 844 | 1132 |
| 4008TAG2A<br>1500 rev/mim<br>Tropical        | Baseload Power       | 809                               | 647 | 719          | 964  | 681 | 913  |
|  | Prime Power          | 1022                              | 818 | 899          | 1206 | 861 | 1155 |
|  | Standby (maximum)    | 1125                              | 900 | 985          | 1321 | 947 | 1270 |

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, BS5514/1.

**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.

**Full specification:** BS2869: Class A1 + A2 or ASTM D975 No 2D.

### 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 one hour in every twelve 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.

Photographs are for illustrative purposes only and may not reflect final specification.

All information in this document is substantially correct at time of printing and may be altered subsequently.

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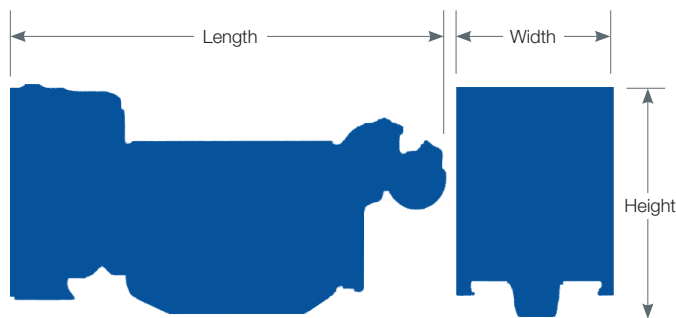
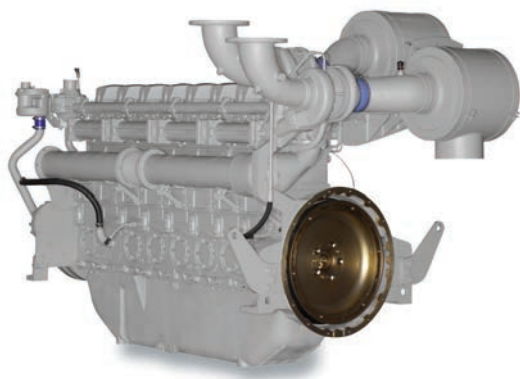
 **Perkins**<sup>®</sup>

THE HEART OF EVERY GREAT MACHINE

# 4000 Series 4008TAG1A/2A Diesel Engine – Electropak

844 kWm 1500 rev/min TAG1A

947 kWm 1500 rev/min TAG2A



See General data

## Standard Electropak specification

### Air inlet

- Mounted oil filters and turbochargers

### Fuel system

- Unit fuel injectors with lift pump and hand stop control
- Digital electronic governor to ISO 3046 Part 4 Class A1
- 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

- Gear driven circulating pump
- Twin thermostats
- Crankshaft pulley for fan drive
- Powder coated radiator assemblies comprising: water radiator; air charge cooled radiator; fuel oil cooling (optional); all pipes, hoses and clips; fan; pulley; fan belts and safety guards

### Electrical system

- 24 volt starter motor and 24 volt/40 amp alternator with integral regulator and DC output
- 24 volt combined high coolant temperature/low oil pressure switch
- Overspeed switch and magnetic pickup
- Turbine inlet temperature shutdown switch
- 24 volt stop solenoid (energised to run)

### Flywheel and housing

- Flywheel to SAE J620 size 18
- SAE 0 flywheel housing

## Optional equipment

### Other optional extra equipment available:

Choice of Temperate or Tropical radiators available dependent on operational cooling requirements

Fuel oil cooling radiator available integral to radiator assemblies

Twin heavy duty air cleaner – paper element with pre-cleaner

Changeover lubricating oil filter

Changeover fuel oil filter

Immersion heater with thermostat

Air starters

Instrument panel

Note: This list is not exhaustive, further options may be available to meet particular applications on enquiry to Perkins Sales Department

| 4008TAG1A (1500 rev/min)                    |       |           |
|---|-------|-----------|
| Fuel Consumption for Temperate and Tropical |       |           |
| Engine Speed                                | g/kWh | litres/hr |
| At Standby Maximum Power Rating             | 210   | 218       |
| At Prime Power Rating                       | 206   | 195       |
| At Continuous Baseload Rating               | 203   | 154       |
| At 75% of Prime Power Rating                | 201   | 143       |
| At 50% of Prime Power Rating                | 207   | 98        |

| 4008TAG2A (1500 rev/min)                    |       |           |
|---|-------|-----------|
| Fuel Consumption for Temperate and Tropical |       |           |
| Engine Speed                                | g/kWh | litres/hr |
| At Standby Maximum Power Rating             | 209   | 240       |
| At Prime Power Rating                       | 206   | 215       |
| At Continuous Baseload Rating               | 206   | 172       |
| At 75% of Prime Power Rating                | 206   | 162       |
| At 50% of Prime Power Rating                | 207   | 111       |

## General data

|                                   |   |                          |
|-----------------------------------|---|--------------------------|
| Number of cylinders               | 8 vertical in-line                        |                          |
| Bore and stroke                   | 160 mm x 190 mm (6.3 x 7.5 in)            |                          |
| Displacement                      | 30.561 litres (1865 cu in)                |                          |
| Aspiration                        | 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                              |                          |
| Total lubrication system capacity | 153 litres (40.4 US gal)                  |                          |
|                                   | Temperate cooling                         | Tropical cooling         |
| Ambient coolant clearance TAG1A   | 41°C                                      | 50°C                     |
| Ambient coolant clearance TAG2A   | 35°C                                      | 50°C                     |
| Total coolant capacity            | 143 litres (37.8 US gal)                  | 149 litres (39.4 US gal) |
| Dimensions – Length               | 3852 mm (151.7 in)                        | 3711 mm (146 in)         |
| Width                             | 2046 mm (80.5 in)                         | 2046 mm (80.5 in)        |
| Height                            | 2067 mm (81.3 in)                         | 2146 mm (84.5 in)        |
| Dry weight                        | 4270 kg (9414 lb) *                       | 4320 kg (9524 lb)*       |

\* For fuel cooler, add 6 kg

Final weight and dimensions will depend on completed specification

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