



The Perkins 4000 Series family of 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 4008TAG is a turbocharged, air to air charge-cooled 8 cylinder in-line diesel engine. Its 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.

# **Perkins**®

## 4000 Series 4008TAG

Diesel Engine – Electro Unit

787 kWm 1500 rev/min 776 kWm 1800 rev/min

#### Economic power

Individual 4 valve cylinder heads give optimised gas flows, while unit fuel injectors ensure ultra fine fuel atomisation and hence controlled rapid combustion for efficiency and economy.

Commonality of components with other engines in 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. Service is provided through the extensive Perkins network of over 4000 distributors and dealers worldwide.

#### Clean, efficient power

Exceptional power to weight ratio and compact size for easier transportation and installation.

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 Speed (rev/min)	Type of Operation	Typical Generator Output <sub>(Net)</sub>		Engine Power			
				Gross		Net	
		kVA	kWe	kWm	bhp	kWm	bhp
1500	Baseload Power Prime Power Standby (maximum)	672 849 935	538 679 748	595 744 816	798 998 1094	566 715 787	759 959 1055
1800	Baseload Power Prime Power Standby (maximum)	660 836 921	528 669 737	594 742 814	796 995 1091	556 704 784	745 944 1041

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.

Ratings conditions: 25°C air inlet temperature, barometer pressure 100 kPa, relative humidity 30%. Please consult your distributor or the factory for ratings in 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: BS 2869 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 1 hour in every 12 hours operation. Standby (maximum): Power available at variable load in the event of a main power network failure for a maximum of 500 hours per year. No overload is permitted.

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

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### 4000 Series 4008TAG

#### Standard Electro Unit Specification

#### Air inlet

Mounted air filters and turbochargers

#### Fuel system

- Unit fuel injectors with lift pump and hand stop control н.
- 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 н.

#### Cooling system

- Gear driven circulating pump ×.
- Twin thermostats ÷.
- Crankshaft pulley for fan drive

#### Electrical equipment

- 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**

The following optional extras equipment is available to make up the specifications to Perkins ElectropaK specification: Tropical radiator including: Water pipes, clips and hoses Fan, fan guards and belts Other optional extra equipment available Twin heavy duty air cleaner - paper element with pre-cleaner Changeover lubricating oil filter Changeover fuel oil filter Immersion heater with thermostat Water pipes, clips and hoses for radiator Air starters Instrument panel NB This list is not exhaustive, further options may be available to meet to

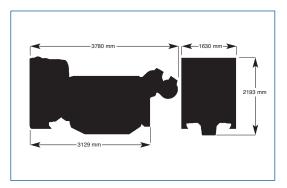
particular applications on enquiry to Perkins Sales Department

### **88** Perkins<sup>®</sup>

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Fuel Consumption (g/kWh)						
Engine Speed	1500 rev/min	1800 rev/min				
Standby Maximum Rating	207	213				
Prime Power Rating	202	212				
Baseload Power Rating	199	205				
75% of Prime Power Rating	196	203				
50% of Prime Power Rating	202	210				
25% of Prime Power Rating	218	220				

#### General Data

Number of cylinders Cylinder arrangement Cycle Induction system

Combustion system Cooling system Displacement Bore and stroke Compression ratio Direction of rotation

Firing order **Total lubrication** system capacity

Total coolant capacity Total weight (dry) Length Width Height

8 Vertical in-line 4 stroke Turbocharged Air to air charge cooled Direct injection Water-cooled 30.561 litres 160 x 190 mm 13.6:1 Anti-clockwise, viewed from flywheel end 1, 4, 7, 6, 8, 5, 2, 3

165.6 litres Electro Unit ElectropaK 48 litres 3120 kg 2855 mm 1585 mm 1775 mm

162 litres 3730 kg 3780 mm 1630 mm 2193 mm

Final weight and dimensions will depend on completed specification

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