

4000 Series 4008TAG1A/2A Diesel Engine – Electropak

844 kWm 1500 rev/min TAG1A
924 kWm 1500 rev/min TAG2A
Emission Compliant

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

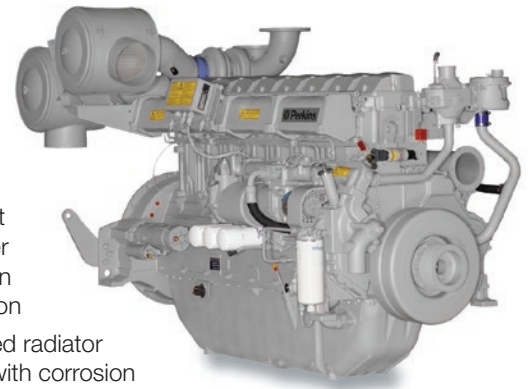
- Individual four valve per cylinder heads give optimised gas flows, whilst digitally governed unit fuel injectors ensure ultra fine fuel atomisation and hence controlled rapid combustion, for efficiency and economy
- Commonality of components with other engines in the 4000 Series family allows reduced 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 Rated Speed Radiator Type	Type of Operation	Typical Generator Output (Net)		Engine Power			
				Gross		Net	
		kVA	kWe	kWm	bhp	kWm	bhp
4008TAG1A 1500 rev/min Tropical	Baseload Power	720	576	644	864	602	807
	Prime Power	911	728	805	1080	767	1029
	Standby (maximum)	1002	802	882	1183	844	1132
4008TAG2A 1500 rev/min Tropical	Baseload Power	809	647	719	964	681	913
	Prime Power	1022	818	899	1206	861	1155
	Standby (maximum)	1093	874	962	1290	924	1239

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.

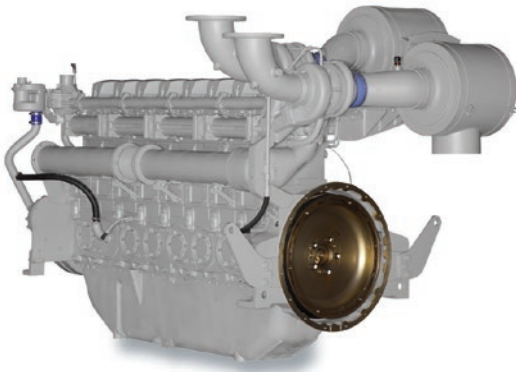
Full specification: BS2869: Class A1 + A2 or ASTM D975 No 2D.

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.

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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

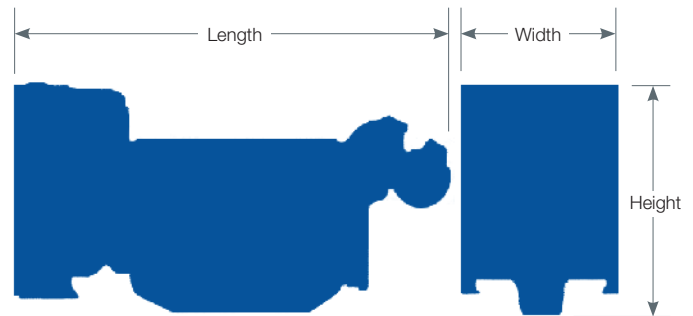
Changeover fuel oil filter

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



See General data

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
At 25% of Prime Power Rating	217	52

4008TAG2A (1500 rev/min)		
Fuel Consumption for Temperate and Tropical		
Engine Speed	g/kWh	litres/hr
At Standby Maximum Power Rating	221	286
At Prime Power Rating	214	226
At Continuous Baseload Rating	205	175
At 75% of Prime Power Rating	203	163
At 50% of Prime Power Rating	206	109
At 25% of Prime Power Rating	218	59

General data

Number of cylinders	.....8 vertical in-line	
Bore and stroke	.....160 mm x 190 mm	
Displacement	.....30.561 litres	
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	
	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	..... 149 litres
Dimensions – Length	..... 3852 mm	.....3711 mm
Width	..... 2046 mm	.....2046 mm
Height	..... 2067 mm	.....2146 mm
Dry weight	..... 4270 kg *	.....4320 kg *

* For fuel cooler, add 6 kg

Final weight and dimensions will depend on completed specification