4000 Series 4012-46TAG0A Diesel Engine – ElectropaK

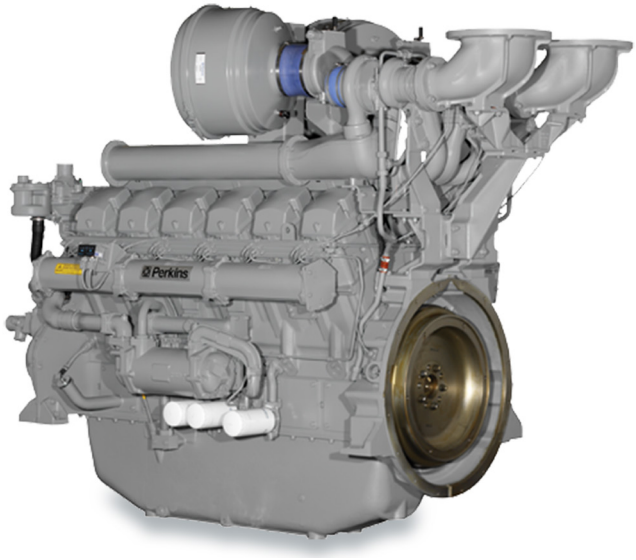
1158 kWm @ 1500 rpm net standby power

The Perkins® 4000 Series family of 6, 8, 12 and 16 cylinder diesel engines, designed to address today's uncompromising demands within the power generation industry with particular aim at the standby market sector.

Developed from a proven engine range that offers superior performance and reliability.

The 4012-46TAG0A ElectropaK is a 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.



Specification				
Number of cylinders	12 60º Vee form			
Bore and stroke	160 x 190 mm		6.3 x 7.5 in	
Displacement	45.842 litres		2797 in^3	
Aspiration	Turbocharged and air to air charge cooled			
Cycle	4 stroke			
Combustion system	Direct injection			
Compression ratio	13:1			
Rotation	Anti-clockwise, viewed from flywheel end			
Total lubricating capacity	177 litres		46.7 US gal	
Cooling system	Water-cooled			
	Temperate		Tropical	
Total coolant capacity	207 litres	54.6 US gal	210 litres	55.5 US gal

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Photographs are for illustrative purposes only and may not reflect final specification.
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Final weight and dimensions will depend on completed specification.

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Features and benefits

Dependable power

- Individual 4 valve cylinder heads giving optimised gas flows
- Unit fuel injectors ensure ultra fine fuel atomisation and hence controlled rapid combustion
- Commonality of components with other engines in the 4000 Series family for reduced stocking levels
- Capable emissions of TA Luft (1986)

Low operating costs

- Oil change service intervals are set at 500 hours as standard
- Designed to provide low cost of ownership, simple maintenance and reduced downtime
- Class leading warranty
  Prime power - 12 months unlimited hours. For engines that operate less than 6,000 hours the warranty is available for two years or until the application reaches 6,000 hours (whichever is sooner).
  Standby power - three years or 1,500 hours (whichever is sooner).
  See Perkins Warranty Policy for further details
- Perkins Platinum Protection - comprehensive cover from as little as 5 percent* of the cost of your engine
  Talk to your local distributor or visit www.perkins.com/platinum protection for more details

World class product support

- Our experienced global network of distributors and dealers, fully trained engine experts deliver total service support around the clock, 365 days a year. They have a comprehensive suite of web based tools at their disposal, covering technical information, parts identification and ordering systems, all dedicated to maximising the productivity of your engine
- Perkins actively pursues product support excellence by insisting our distribution network invest in their territory to provide customers with a consistent quality of support across the globe
- Throughout the entire life of a Perkins engine, we provide access to genuine parts giving 100% reassurance that you receive the very best in terms of quality for lowest possible cost, wherever your Perkins powered machine is operating in the world
  To find your local distributor: www.perkins.com/distributor

*Terms and conditions apply

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Technical information

Air inlet system

- Mounted air filter and turbocharger

Fuel system

- Direct fuel injection system with fuel lift pump
- Digital governing to ISO 8528-5 Class G2 with isochronous capability
- Full flow spin-on filters

Lubrication system

- Wet full aluminium sump with filler and dipstick
- Full flow spin-on oil filters

Cooling system

- Two twin thermostats
- System designed for ambient temperatures of up to 50°C

Electrical equipment

- 24V starter motor and 24V alternator with integral regulator and DC output
- Turbine inlet temperature protection
- Twin high coolant temperature protection switch
- Twin low oil pressure protection switch

Flywheel and housing

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

Optional equipment

- 4 metre wiring harness
- Secondary electric start
- Immersion heater
- Single exhaust outlet pipe
- Exhaust counter flanges
- Temperate radiator kit
- 21” flywheel

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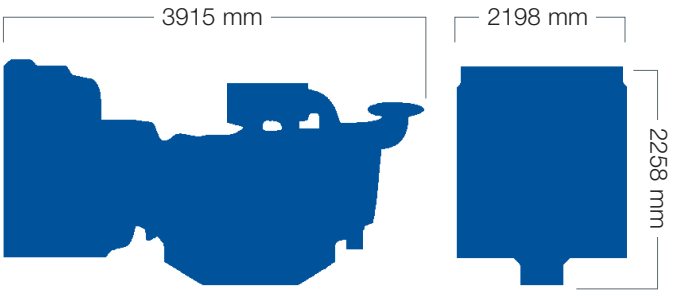

Engine package weights and dimensions		
Length	3915 mm	154 in
Width	2198 mm	86.5 in
Height	2258 mm	88.9 in
Weight (dry)	4400 kg	9700 lb

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Speed rpm	Type of operation	Typical generator output (Net)		Engine power			
				Gross		Net	
		kVA	kWe	kWm	hp	kWm	hp
1500	Baseload power	1000	800	906	1215	842	1129
	Prime power	1250	1000	1117	1497	1053	1412
	Standby (maximum)	1375	1100	1222	1638	1158	1552

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.

Percent of prime power	Fuel consumption at 1500 rpm g/kWh	Fuel consumption at 1500 rpm l/hr
Standby (maximum)	196	278
Prime power	197	255
Continuous baseload	199	210
75%	201	195
50%	208	135

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