

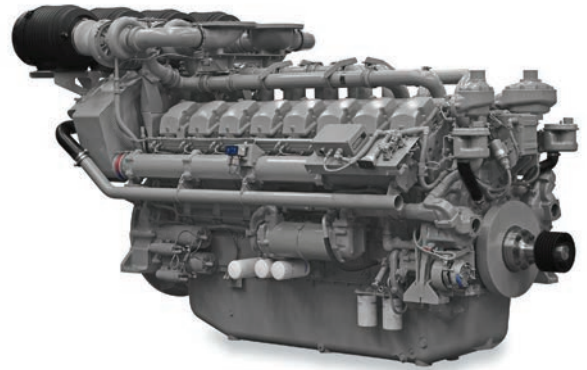
# 4000 Series 4016-61TRG1 Diesel Engine – Electropak

1684 kWm @ 1500 rpm net standby power

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 4016-61TRG1 is a turbocharged, air-to-water charge-cooled, 16 cylinder 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. The 4016-61TRG1 is specially tuned for improved load acceptance response in standby duty.



Specification				
Number of cylinders	16 60° Vee form			
Bore and stroke	160 x 190 mm	6.3 x 7.5 in		
Displacement	61.123 litres	3730 in <sup>3</sup>		
Aspiration	Quad turbocharged. air to water charge cooled			
Cycle	4 stroke			
Combustion system	Direct injection			
Compression ratio	13:1			
Rotation	Anti-clockwise, viewed from flywheel end			
Total lubricating capacity	237.2 litres	62.7 US gal		
Cooling system	Water-cooled			
	Temperate		Tropical	
Total coolant capacity	210 litres	55.5 US gal	215 litres	56.8 US gal

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 **Perkins®**

THE HEART OF EVERY GREAT MACHINE

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## Features and benefits

### Dependable power

- Individual 4 valve cylinder heads give 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](http://www.perkins.com/platinum) 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](http://www.perkins.com/distributor)

\*Terms and conditions apply

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## Technical information

### Air inlet

- 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
- Raw water pump

### 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
- Removal of raw water pump

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Engine package weights and dimensions				
	Temperate		Tropical	
Length	3302 mm	130.0 in	3302 mm	130.0 in
Width	1723 mm	68 in	1723 mm	68 in
Height	2128 mm	84 in	2128 mm	84 in
Weight (dry)	5570 kg	12280 lb	5570 kg	12280 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	1400	1120	1269	1700	1179	1579
	Prime power	1850	1480	1648	2208	1558	2088
	Standby power	2000	1600	1774	2377	1684	2257

The above ratings represent the engine performance capabilities 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

**Continuous baseload:** 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.

Rating	Fuel consumption at 1500 rpm g/kWh	Fuel consumption at 1500 rpm l/hr
Standby power	195	401
Prime power	194	371
Baseload power	192	283
75%	192	275
50%	192	136
25%	186	89

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