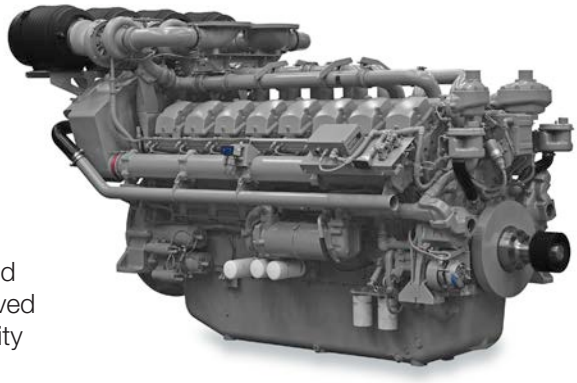
4000 Series 4016-61TRG3 Diesel Engine – ElectropaK

2083 kWm @ 1500 rpm

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 4016-61TRG ElectropaK is a turbocharged, air-to-water charge cooled, 16 cylinder diesel engine.

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	16 60° Vee form			
Bore and stroke	160 x 190 mm		6.3 x 7.5 in	
Displacement	61.123 litres		3730 in^3	
Aspiration	Quad turbocharged. air to water charge cooled			
Cycle	4 stroke			
Combustion system	Direct injection			
Compression ratio	13.6:1			
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	260 litres	68.7 US gal	270 litres	71.3 US gal

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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.
Final weight and dimensions will depend on completed specification.

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THE HEART OF EVERY GREAT MACHINE

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Features and benefits

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 temperature are controlled by an advanced gallery jet cooling system
- All engines are tolerant of a wide range of temperatures without derate

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 finish; 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

Product support excellence

- Perkins actively pursues product support excellence by ensuring our distribution network invest in their territory – strengthening relationships and providing more value to you, our customer
- Through an 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 fingertips covering technical information, parts identification and ordering systems, all dedicated to maximising the productivity of your engine
- Throughout the entire life of a Perkins engine, we provide access to genuine OE specification parts and service. We give 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

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Technical information

Air inlet

- Mounted air filters and turbochargers

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 fuel oil filters

Lubrication system

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

Cooling system

- Two triple thermostats
- System designed for ambients up to 50ºC
- Powder coated radiator comprising: water radiator, air charge-cooled radiator, fuel oil cooling (optional), all pipes, hoses and clips, fan, pulleys, fan belts and safety guards.

Electrical equipment

- 24 volt starter motor and 24 volt alternator with integral regulator and DC output
- Turbine inlet temperature shutdown switch
- Twin high coolant temperate shutdown switches
- Twin low oil pressure shutdown switches
- Air shut off valve wiring harness - fully wired

Flywheel and housing

- Flywheel to SAE J620 size 18, 533.4 mm (21 in)
- SAE 00 flywheel housing

Optional equipment

- Choice of either damper guard or radiator drive pulley arrangement
- Immersion heater with thermostat

Note: This list is not exhaustive, further options are available. Please ask your Perkins representative for more details.

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Engine package weights and dimensions				
	Temperate		Tropical	
Length	4542 mm	179 in	4562 mm	180 in
Width	2185 mm	86 in	2185 mm	86 in
Height	3175 mm	125 in	3736 mm	147 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	1800	1440	1600	2144	1500	2010
	Prime power	2250	1800	1975	2647	1875	2513
	Standby (maximum)	2500	2000	2183	2925	2083	2791

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: 25ºC 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.

Percent of prime power	Fuel consumption at 1500 rpm g/kWh	Fuel consumption at 1500 rpm l/hr
Standby (maximum)	209	529
Prime power	205	470
Baseload power	200	371
75%	200	344
50%	204	234
25%	220	126

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