

1200 Series 1206E-E70TTAG3 Diesel Engine – ElectropaK

EPA Tier 4 Interim
1206E-E70TTAG3 – 169 kWm @ 1800 rev/min

Building on its already strong EPA Tier 4 range, Perkins is pleased to announce the natural expansion of the 1200 Series to include the new ElectropaK range.

The whole engine has been built around the demands of our customers and as such offers a great package with a simple integration design.

Perkins have developed a reputation for designing and building reliable and durable engines suitable for the most demanding applications.

Engine data

Number of cylinders	6 vertical in-line
Bore and stroke.....	105 mm x 135 mm (4.13 in x 5.3 in)
Displacement	7.01 litres (427.7 in ³)
Aspiration	Series turbocharged aftercooled
Cycle.....	4 stroke
Combustion system.....	Direct injection
Compression ratio	16.5:1
Rotation.....	Anti-clockwise, viewed on flywheel
Total lubricating capacity.....	13-16 litres (3.4-4.2 US gal)
Cooling system.....	Liquid
Total coolant capacity	15.2 litres (4 US gal)
Dimensions	
Length (inc air filter).....	1902 mm (74.9 in)
Width.....	916 mm (36.0 in)
Height.....	1617 mm (63.7 in)
Dry weight	1200 kg (2645.5 lbs)
(includes aftertreatment)	

Final weight and dimensions will depend on completed specification

Emissions

Designed to meet EPA Tier 4 Interim (US).

Dependable power

World-class manufacturing capability and processes coupled with proven core engine designs assure reliability, quiet operation, and many hours of productive life.

Turbocharging with smart wastegate available on all ratings.

Flexibility

A number of standard aftertreatment configurations as well as loose supply available to optimise installation. Tropical radiator is supplied as standard although we can offer alternatives if required.

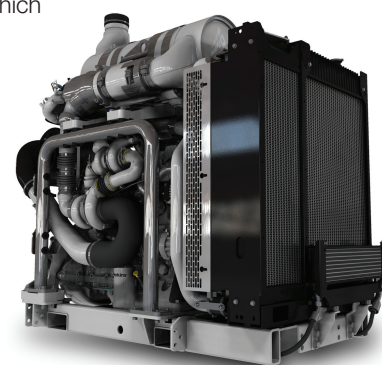
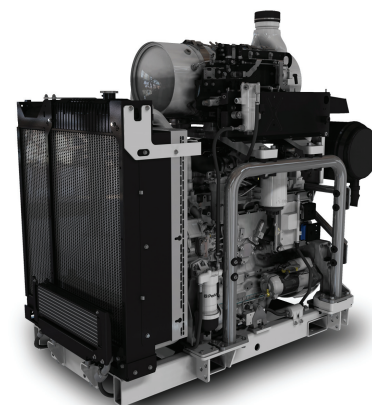
Lifetime of low cost

Fuel consumption optimized prime power and continuous running applications. No additional fluids or additives are required which lowers operating costs.

Hydraulic tappets, multi-vee belts, minimum 5000 hour diesel particulate filter ash service interval and 500-hour oil change intervals enable low-cost maintenance.

Local support, global coverage

- Perkins recognise that the customer relationship is important to machine manufacturers and we can offer a range of flexible solutions to help provide appropriate support, either to the OEM's network or directly to the machine customer.
- Perkins information systems enable our distributors to quickly diagnose engine faults and identify the right parts. The Perkins logistics operation is able to dispatch more than 45,000 different parts from stock, reaching the customer within 24 hours.
- Extended Service Contracts – protect and plan the cost of ownership.



Engine Speed (rev/min)	Type of Operation	Generator Output		Engine Power			
				Gross		Net	
		kVA	kWe	kWm	bhp	kWm	bhp
1800	Prime Power	169	135	162	217	152	204
	Standby Power	188	150	180	241	169	227

The above ratings represent the generating set performance capabilities to conditions specified in ISO 8528/5.

Generator powers are typical and are based on typical alternator efficiencies and a power factor.

Fuel specification: Ultra Low Sulphur Diesel should be used. Lubricating oil: multi-grade oil conforming to CJ4 must be used.

Rating Definitions

Prime Power: Power available at variable load in lieu of a main power network. Overload of 10% is permitted for 1 hour in every 12 hours' operation.

Standby Power: Power available at variable load in the event of a main power network failure. No overload is permitted.

Photographs are for illustrative purposes only and may not reflect final specification.

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Engine specification

Air inlet

- Standard air cleaners

Control system

- Full electronic control system
- All connectors and wiring looms waterproof and designed to withstand harsh environments
- Flexible and configurable software features and well supported SAE J1939 CAN bus enables highly integrated machines

Cooling system

- Tropical radiator as standard ensures optimal cooling performances all year round in any state
- 50:50 water glycol mix

Standard emissions control equipment

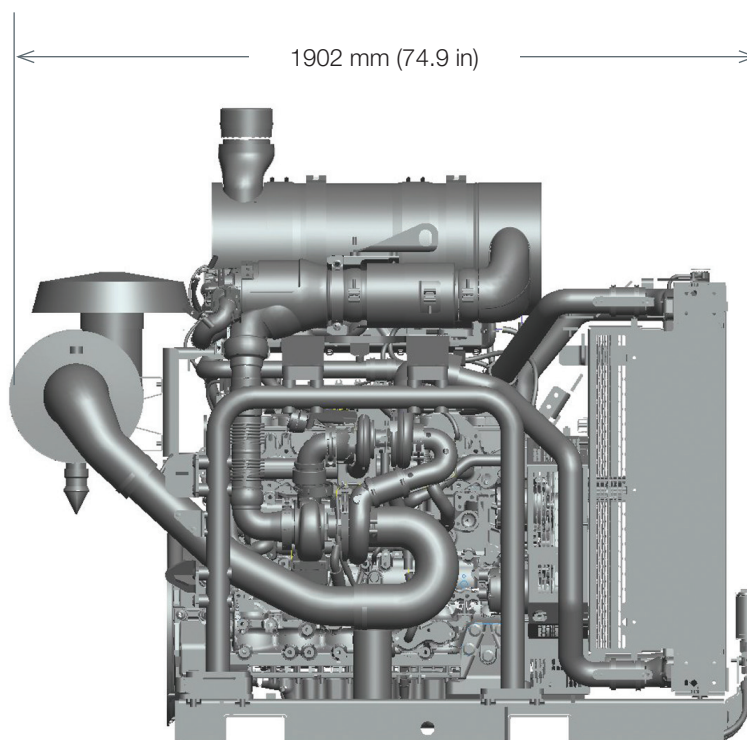
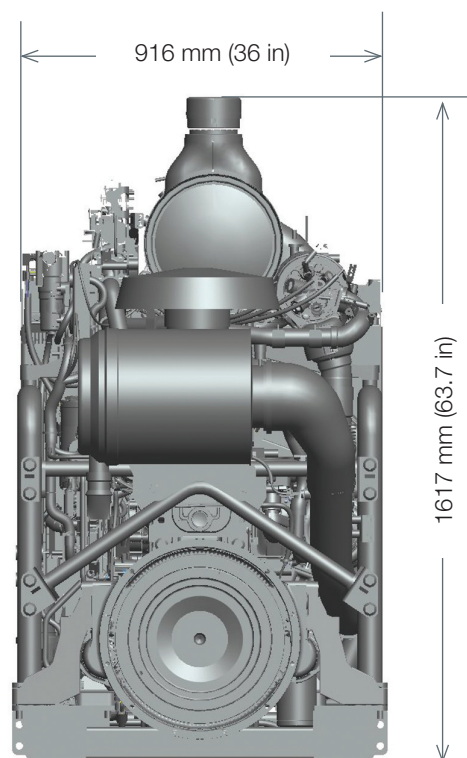
- NRS – NOx Reduction System

Flywheels and flywheel housing

- SAE3 flywheel housing

Fuel and fuel system

- Electronic high pressure common rail
- Innovative filter design – ensures maximum protection of the engine
- Flat bottomed, isolated, aluminium sump



Fuel Consumption		
Engine Speed	1800 rev/min	
	g/kWh	l/hr
Standby	213	52
Prime Power	219	48
75% of Prime Power	223	37

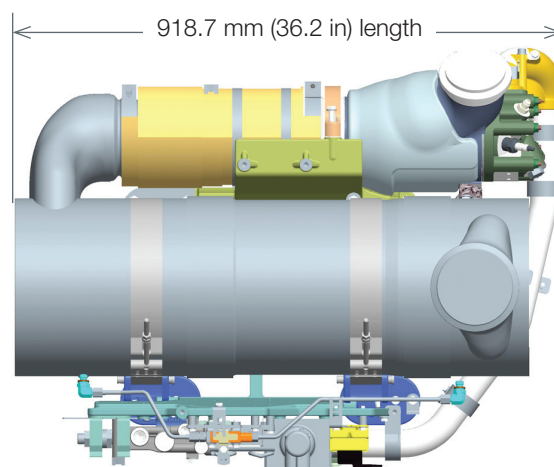
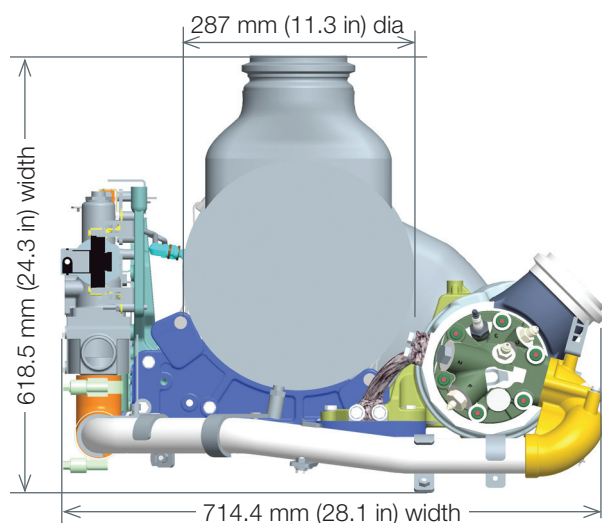
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Aftertreatment configuration



Technology

The DPF technology chosen is a wall flow filter configuration that performs through the whole work cycle of the engine thus allowing it to work efficiently.

Power

Using our advanced research and development techniques, we have perfectly matched the aftertreatment to the engine. The engine performance has then been optimised to give the maximum power and the regeneration is invisible to the generating set user.

Regeneration

High Temperature Regenerations System maximises fuel efficiency during regeneration.

Mounting

Frame or remote installation options provide OEM flexibility for many arrangements.

Service

5,000 hour DPF ash service interval.

Available in 12 or 24 volt systems.

		≤172 kW	≥172 kW
1	Length	918.7 mm (36.2 in)	918.7 mm (36.2 in)
2	Width	714.4 mm (28.1 in)	714.4 mm (28.1 in)
3	Height	618.5 mm (24.3 in)	643.9 mm (25.3 in)
4	Diameter	287 mm (11.3 in)	337.8 mm (13.3 in)
Weight		124 kg (273.4 lbs)	134 kg (295.4 lbs)

Final weight and dimensions will depend on completed specification

Aftertreatment

- CEM – Clean Emissions Module
- High Temperature Regeneration System
- DOC – Diesel Oxidation Catalyst
- DPF – Diesel Particulate Filter and regeneration system supplied, with a range of inlet and outlet options
- 3" flex pipe connection kit with rotatable elbow for 60° and 90° RS inlet flexibility

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