



1600 Series

1606A-E93TAG4

Diesel Engine - Electropak

275 kVA Prime Power / 300 kVA Standby Power

Building upon Perkins proven reputation within the power generation industry, the 1600 Series range of Electropak engines now fit even closer to our customers needs.

The 1606A engine is a full authority electronic, 6 cylinder engine. It is economical and quiet and provides the close speed control and reliable, high performance that are demanded by our customers for their power generation business.

Focusing on our common platform theme, changes to engine envelope dimensions and connection points have been kept to a minimum, meaning that there is an easy changeover from 1300 Series to 1600 Series.

Dependable power

- The Perkins 1606A-E93TAG delivers up to 300 kVA standby at 50Hz and 344 kVA at 60Hz, providing greater productivity through an improved power to weight ratio. This world-class power density has been achieved in a 9.3 litre turbocharged engine with a hydraulic actuated unit injector fuel system; making this engine robust for all markets because of its ability to cope with the variation of fuel quality around the world.
- The 1606A has been designed to run in the most harshest conditions; from the lowest to highest ambient temperatures: -40°C to 55°C.

Low operating costs

- Service intervals are set at 500 hours as standard.
- We use the appropriate technology when and where needed which ensures low cost of ownership, simple maintenance and reduced downtime.
- The 1600 Series engine design offers common components to reduce parts inventory. eg, filters, cylinder heads, blocks and pistons.
- Perkins provides comprehensive warranty cover for two years (up to 3,000 hours), with three years on major engine components.

Flexibility

- The 1606A range has been designed to hit all the main power nodes.
- Tropical radiator is offered as standard, but could offer tailored solutions to meet your requirements.
- High power density helps reduce installation costs and is easily packaged.

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 finger tips, 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 you with a consistent quality of support across the globe.
- Throughout the entire life of a Perkins engine, we provide access to genuine OE specification 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.

| Engine Speed (rev/min) | Operation Type | Typical Generator Output (Net) | | Engine Power | |
|---------------------------|-------------------|-----------------------------------|-----|--------------|-----|
| | | kVA | kWe | Net | |
| | | | | kW | bhp |
| 1500 | Prime Power | 275 | 220 | 239 | 320 |
| | Standby (maximum) | 300 | 240 | 261 | 350 |
| 1800 | Prime Power | 313 | 250 | 272 | 365 |
| | Standby (maximum) | 344 | 275 | 299 | 401 |

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Standard ElectropaK Specification

Air inlet

- Mounted air filter and turbocharger

Fuel system

- High pressure G2 fuel system with full authority electronic control
- Electronic governing to ISO 3046-4 with stand-alone isochronous and load-sharing capabilities
- Replaceable element fuel filter with pre-filter and hand primer pump

Lubrication system

- Wet front well steel sump with filler and dipstick
- Full flow spin-on filters
- Stacked plate-type oil cooler thermostatically controlled

Cooling system

- Thermostatically controlled with belt driven circulating pump and 36 inch belt-drive fan
- Radiator supplied loose with all guards and pipes
- Air-to-air charge cooler incorporated in radiator

Electrical equipment

- 24V starter motor and 24V 45 amp alternator with DC output
- Electronic Control Module (ECM) mounted on engine with wiring looms and sensors
- 3 level engine protection system

Flywheel and housing

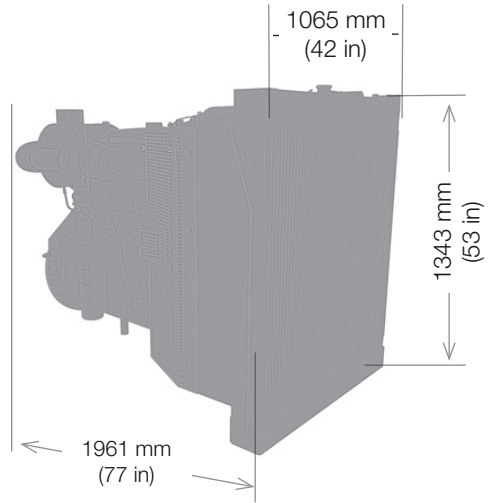
- High inertia flywheel to SAE 1 J620 Size 355.6 mm (14 in)
- Cast iron SAE 1 flywheel housing

Mountings

- Front engine mounting bracket

Optional equipment

- Sensor positions for:
 - oil pressure
 - oil temperature
 - coolant temperature
- Turbocharger exhaust outlet
- Operation and Maintenance Manual
- Parts Book
- Service Manual



Engine Data

| | |
|--------------------------------------|-----------------------------------|
| Number of cylinders | Vertical in-line 6 cylinder |
| Bore and stroke..... | 117 x 146 mm (4.6 x 5.7 in) |
| Displacement | 9.3 litres (567 in ³) |
| Aspiration | Turbocharged aftercooled |
| Cycle..... | 4 stroke |
| Combustion system..... | Direct injection |
| Engine rotation | Anti-clockwise viewed on flywheel |
| Cooling system..... | Liquid |
| Total lubrication capacity..... | 36 litres (9.5 US gal) |
| Dimensions | |
| Length - including air cleaner | 1961 mm (77 in) |
| Width..... | 1065 mm (42 in) |
| Height..... | 1343 mm (53 in) |
| Dry weight | 796 kg (1755 lbs) |

Final weight and dimensions will depend on completed specification.



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