

2800 Series 2806A-E18TAG1A Diesel Engine – Electropak

574 kWm at 1500 rpm
598 kWm at 1800 rpm

The Perkins 2800 Series is a family of well-proven 6 cylinder 16 and 18 litre in-line 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 heavy-duty industrial base, the engine offers superior performance and reliability.

The 2806A-E18TAG1A is a turbocharged and air-to-air charge cooled, 6 cylinder diesel engine of 18 litres capacity. Its premium features provide economic and durable operation, low gaseous emissions and advanced overall performance and reliability.

Economic power

- Mechanically operated unit fuel injectors with electronic control combined with carefully matched turbocharging give excellent fuel atomisation and combustion with optimum economy
- Low emissions result from electronic control of fuel injected

Reliable power

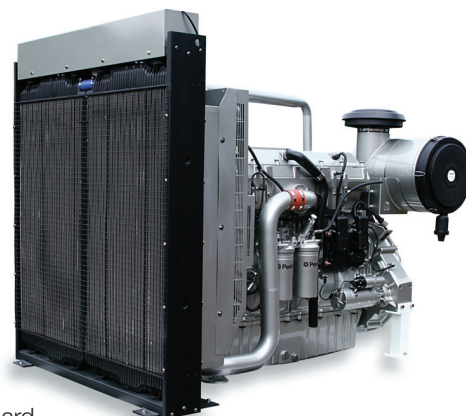
- Developed and tested using the latest engineering techniques and finite element analysis for high reliability, low oil usage and low wear rates
- High compression ratios also ensure clean rapid starting in all conditions
- Perkins global product support is designed to enhance the customer experience of owning a Perkins powered machine. We deliver this through the quality of our distribution network, extensive global coverage and a range of Perkins supported OEM partnership options. So whether you are an end-user or an equipment manufacturer our engine expertise is essential to your success

Compact, clean and efficient power

- Exceptional power to weight ratio and compact size give optimum power density with easier installation and cost effective transportation

- Designed to provide excellent service access for ease of maintenance

- The availability of a low emissions specification allows minimum environmental impact through operation, and complies with all major emissions legislation. The standard specification model provides superior fuel consumption which maximises engine efficiency



Product support

- 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

This engine does not comply with harmonized international regulated emissions limits

| Engine Speed (rev/min) | Type of Operation | Typical Generator Output (Net) | | Engine Power | | | |
|---------------------------|-------------------|--------------------------------|-----|--------------|-----|-----|-----|
| | | | | Gross | | Net | |
| | | kVA | kWe | kWm | bhp | kWm | bhp |
| 1500 | Prime Power | 600 | 480 | 540 | 724 | 522 | 700 |
| | Standby Power | 660 | 528 | 593 | 795 | 574 | 770 |
| 1800 | Prime Power | 625 | 500 | 568 | 762 | 543 | 728 |
| | Standby Power | 687 | 550 | 623 | 835 | 598 | 802 |

The above ratings represent the engine performance capabilities to conditions specified in ISO 8528/1, ISO 3046/1:1986, BS 5514. Derating may be required for conditions outside these; consult Perkins Engines Company Limited.

Generator powers are typical and are based on an average alternator efficiency and a power factor (cos. θ) of 0.8. Fuel specification: BS 2869: Part 2 1998 Class A2 or ASTM D975 D2. Lubricating oil: 15W40 to API CG4.

Rating Definitions

Prime Power: Power available at variable load with a load factor not exceeding 80% of the prime power rating. Overload of 10% is permitted for 1 hour in every 12 hours operation.

Standby Power: Power available in the event of a main power network failure up to a maximum of 500 hours per year of which up to 300 hours may be run continuously. Load factor may be up to 100% of standby power. No overload is permitted.

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

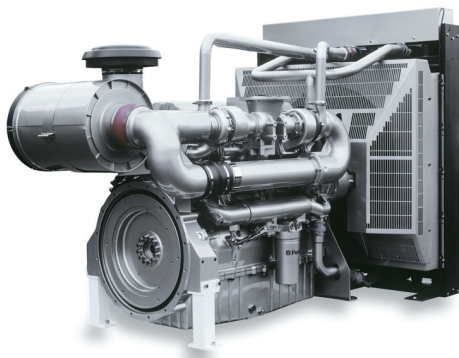
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THE HEART OF EVERY GREAT MACHINE

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598 kWm at 1800 rpm



Standard Electropak specification

Air inlet

- Mounted air filter

Fuel system

- Mechanically actuated electronically controlled unit fuel injectors with full authority electronic control
- Governing to ISO 8528-5 class G2 with isochronous capability
- Replaceable 'Ecoplus' fuel filter elements with primary filter/water separator
- Fuel cooler

Lubrication system

- Wet sump with filler and dipstick
- Full-flow replaceable 'Ecoplus' filter
- Oil cooler integral with filter header

Cooling system

- Gear-driven circulating pump
- Mounted belt-driven pusher fan
- Radiator incorporating air-to-air charge cooler, (supplied loose)
- System designed for ambients up to 50°C
- Low coolant level switch

Electrical equipment

- 24 volt starter motor and 24 volt 70 amp alternator with DC output
- ECM mounted on engine with wiring looms and sensors
- 3 level engine protection system

Flywheel and housing

- High inertia flywheel to SAE J620 size 18
- SAE '0' flywheel housing

Mountings

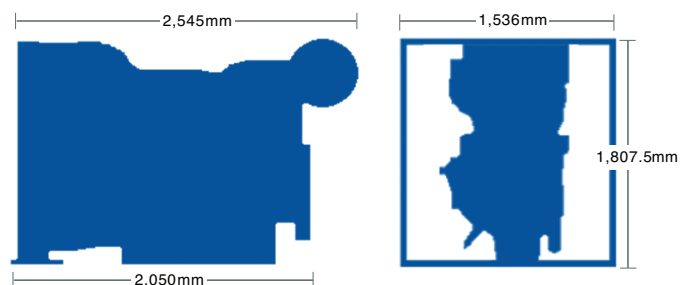
- Front engine mounting bracket

Literature

- User's Handbook

Optional equipment

- 110 volt/240 volt immersion heater
- Additional speed sensor
- Temperature and pressure sensors for gauges
- Electric hours counter
- Air filter rain hood
- Twin starters/facility for second starter
- Tool kit
- Parts manual/Workshop manual



| Engine Speed | Fuel Consumption | | | |
|--------------------|------------------|------|--------------|------|
| | 1500 rev/min | | 1800 rev/min | |
| | g/kWh | l/hr | g/kWh | l/hr |
| Standby | 201 | 134 | 203 | 141 |
| Prime Power | 203 | 123 | 202 | 127 |
| Baseload Power | 199 | 90 | – | – |
| 75% of Prime Power | 199 | 90 | 201 | 95 |
| 50% of Prime Power | 203 | 61 | 210 | 66 |

General data

| | |
|---|---|
| Number of cylinders | 6 |
| Cylinder arrangement | Vertical in-line |
| Cycle | 4 stroke |
| Induction system | Turbocharged and air-to-air charge cooled |
| Combustion system | Direct injection |
| Cooling system | Water-cooled |
| Bore and stroke | 145 mm x 183 mm |
| Displacement | 18.1 litres |
| Compression ratio | 14.5:1 |
| Direction of rotation | Anti-clockwise, viewed on flywheel |
| Total lubrication system capacity | 62 litres |
| Total coolant capacity | 61 litres |
| Total dry weight | 2050 kg |
| Dimensions – Length | 2545 mm |
| Width | 1536 mm |
| Height | 1808 mm |

Final weight and dimensions will depend on completed specification

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Publication No. PN1870/09/12 Produced in England
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