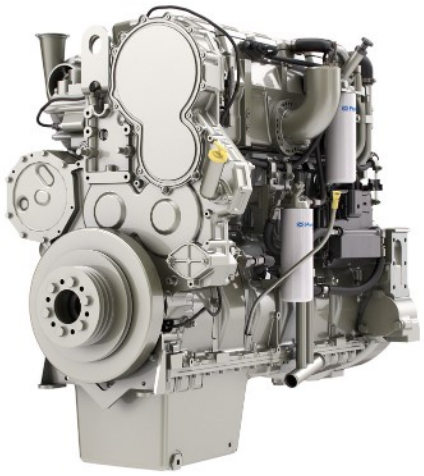
2800 Series 2806A-E18TTAG4 Diesel Engine – ElectropaK

623 kWm at 1500 rpm gross prime power
720 kWm at 1800 rpm gross prime power

The Perkins 2800 Series is a family of well-proven 6 cylinder, 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-E18TTAG4 is a series 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.



Specification		
Number of cylinders	6 vertical in-line	
Bore and stroke	145 x 183 mm	5.7 x 7.2 in
Displacement	18.1 litres	1104 in^3
Aspiration	Series turbocharged and air-to-air charge cooled	
Cycle	4 stroke	
Combustion system	Direct injection	
Compression ratio	14:1	
Rotation	Anti-clockwise, viewed on flywheel	
Total lubricating capacity	68 litres	18 US gal
Cooling system	Water-cooled	
Total coolant capacity	110 litres	29.1 US gal

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Features and benefits

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 US EPA 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

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Technical information

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 fuel filter elements with primary filter/water separator
- Fuel cooler

Lubrication system

- Wet sump with filler and dipstick
- Full-flow replaceable 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 50ºC
- Low coolant level switch

Electrical equipment

- 24 volt starter motor and 24 volt 50 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 14
- SAE ‘1’ flywheel housing

Mountings

- Front engine mounting bracket

Literature

- Operation and Maintenance Manual

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Engine package weights and dimensions		
Length	2538 mm	100 in
Width	1691 mm	67 in
Height	2126 mm	84 in
Weight (dry)	2361 kg	5205 lb

Speed rpm	Type of operation	Typical generator output (Net)		Engine power			
				Gross		Net	
		kVA	kWe	kWm	hp	kWm	hp
1500	Prime power	700	560	623	835	596	799
	Standby power	770	616	685	919	655	878
1800	Prime power	826	727	720	965	693	929
	Standby power	909	909	793	1063	766	1027

The above ratings represent the engine performance capabilities to conditions specified in ISO 8528/1, ISO 3046/1:2002. **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:** EN590 or ASTM D975 Grades No. 1-D or No. 2-D. **Lubricating oil:** 15W40 to API CH4.

Rating definitions

Prime power: Power available at variable load with a load factor not exceeding 70% 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 70% of standby power. No overload is permitted.

Percent of prime power	Fuel consumption at 1500 rpm g/kWh	Fuel consumption at 1500 rpm l/hr	Fuel consumption at 1800 rpm g/kWh	Fuel consumption at 1800 rpm l/hr
Standby power	196	162	206	197
Prime power	196	147	206	179
75%	194	109	198	129
50%	200	75	201	87