

2800 Series

2806C-E16TAG1

Diesel Engine – ElectropaK

433 kWm at 1500 rpm
542 kWm at 1800 rpm



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 ensure clean rapid starting in all conditions.
- Support comes from a worldwide network of 4,000 distributors and dealers.

Compact, Efficient Power

- Exceptional power to weight ratio and compact size give optimum power density and make installation and transportation easier and cheaper.
- Designed to provide excellent service access for ease of maintenance.

The Perkins 2800 Series is a family of well-proven 6 cylinder in-line diesel engines, designed to address today's uncompromising demands within the power generation industry, with particular focus on the standby market sector. Developed from a proven heavy-duty industrial base, the engine offers superior performance and reliability.

The 2806C-E16TAG1 is a turbocharged and air-to-air charge-cooled, 6 cylinder diesel engine. Its premium features provide economic and durable operation for standby duty, low gaseous emissions and advanced overall performance and reliability.

Engine Speed (rev/min)	Type of Operation	Typical Generator Output (Net)		Engine Power			
				Gross		Net	
		kVA	kWe	kWm	bhp	kWm	bhp
1500	Baseload power*	353	283	316	423	304	408
	Prime power	453	363	402	538	390	523
	Standby power	503	403	445	596	433	581
1800	Baseload power*	449	359	407	546	386	518
	Prime power	575	460	510	683	489	656
	Standby power	637	509	563	754	542	727

The above ratings represent the engine performance capabilities to conditions specified in ISO 8528/1, ISO 3046/1:1986, BS 5514/1.

* Baseload ratings indicated are under development and will be available later.

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. ϕ) of 0.8.

Fuel specification: BS 2869: Part 2 1998 Class A2 or ASTM D975 D2.

Lubricating oil: 15W40 to API CG4.

Rating Definitions

Baseload Power: Power available for continuous full load operation. Overload of 10% permitted for 1 hour in every 12 hours operation.

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.

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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 G3 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 fan
- Radiator supplied loose incorporating air-to-air charge cooler
- System designed for ambients up to 50°C

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

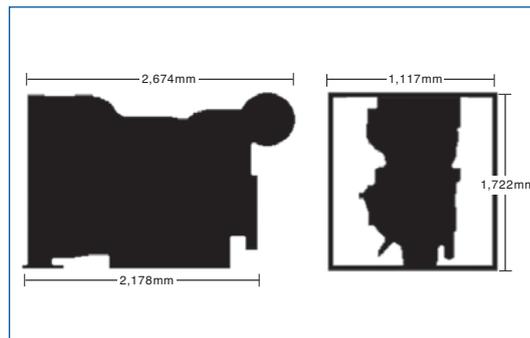
- High inertia flywheel to SAE J620 size 14
- SAE 1/2 flywheel housing

Mountings

- Front engine mounting bracket

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
- Additional manuals
- User's handbook and parts manual



Engine Speed	Fuel Consumption			
	1500 rev/min		1800 rev/min	
	g/kWh	l/hr*	g/kWh	l/hr*
At standby power	205	104.9	209	134.1
At prime power	206	95.0	204	117.8
At 75% of prime power	209	71.6	208	89.1
At 50% of prime power	221	49.4	230	63.6

* Assumes fuel density of 0.85 kg/litres

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	140 mm x 171 mm
Displacement	15.8 litres
Compression ratio	15.8:1
Direction of rotation	Anti-clockwise, viewed on flywheel
Total lubrication system capacity	68 litres
Total coolant capacity	50 litres
Dimensions	Length 2674 mm Width 1117 mm Height 1722 mm
Dry weight (engine)	1,712 kg

Final weight and dimensions will depend on completed specification



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