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 2806C-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.

2800 Series

2806C-E18TAG1A

Diesel Engine – ElectropaK

565 kWm at 1500 rpm
598 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 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.

Certified against the requirements of EU2007 Stage II (EU97/68/EC Stage II) legislation for non-road mobile machinery, powered by constant speed engines and is capable of meeting ½ TA Luft (1986) emissions legislation.

Engine Speed (rev/min)	Type of Operation	Typical Generator Output (Net)		Engine Power			
				Gross		Net	
		kVA	kWe	kWm	bhp	kWm	bhp
1500	Continuous Baseload*	450	360	407.3	546	391	525
	Prime Power	591	473	532.0	713	514	689
	Standby (maximum)	650	520	583.8	783	565	758
1800	Prime Power	625	500	567.7	761	543	729
	Standby (maximum)	687	550	623.0	835	598	802

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

All information in this document is substantially correct at time of printing and may be altered subsequently

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2800 Series

2806C-E18TAG1A

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 50ºC
- Low coolant level switch

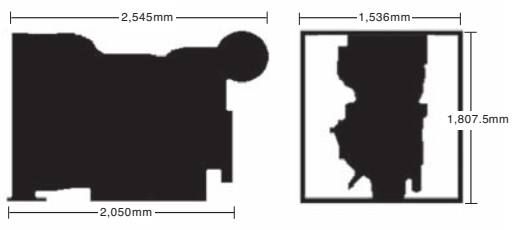
Electrical equipment
- 24 volt starter motor and 24 volt 70 amp alternator with DC output
- ECM mounted on engine with wiring looms and sensors
- 3 level engine protection system

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



Fuel Consumption				
Engine Speed	1500 rev/min		1800 rev/min	
	g/kWh	l/hr	g/kWh	l/hr
Standby	205	134	207	144
Prime power	216	129	206	130
Baseload power	214	97	-	0
75% of prime power	214	96	212	100
50% of prime power	212	63	226	71

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 1807.5 mm

Final weight and dimensions will depend on completed specification

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