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-E18TAG2 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-E18TAG2

Diesel Engine – ElectropaK

599 kWm at 1500 rpm
591 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.
Support comes from a worldwide network of 4000 distributors and dealers.

Compact, Clean and 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.

Clean Power

The 2806C-E18TAG2 is capable of meeting the requirements of TA luft (1986).

Engine Speed (rev/min)	Type of Operation	Typical Generator Output (Net)		Engine Power			
				Gross		Net	
		kVA	kWe	kWm	bhp	kWm	bhp
1500	Continuous Baseload*	500	400	441	591	433	581
	Prime Power	635	508	550	738	542	727
	Standby (maximum)	700	560	607	814	599	803
1800	Continuous Baseload*	563	450	498	668	484	649
	Prime Power	625	500	552	740	538	721
	Standby (maximum)	688	550	605	811	591	793

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.

2800 Series

2806C-E18TAG2

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

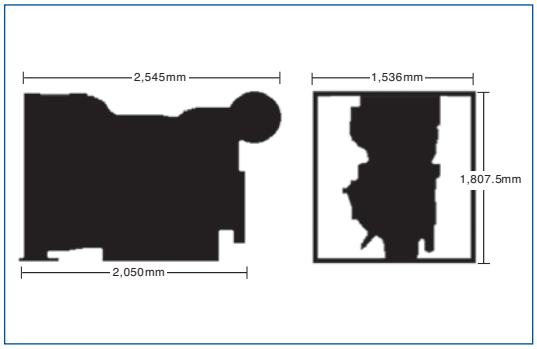
Flywheel and housing
- High inertia flywheel to SAE J620 size 18
- SAE '0' flywheel housing

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



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	55.5 litres
Total coolant capacity	61 litres
Length	2,545 mm
Width	1,536 mm
Height	1,807.5 mm
Dry weight (engine)	1,832 kg

Final weight and dimensions will depend on completed specification

Fuel Consumption				
Engine Speed	1500 rev/min		1800 rev/min	
	g/kWh	l/hr	g/kWh	l/hr
At Standby Power Rating	202	141	204	140
At Prime Power Rating	198	125	203	127
At Baseload Power Rating	195	98	201	113
At 75% of Prime Power Rating	195	92	202	95
At 50% of Prime Power Rating	200	63	211	66

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Distributed by

Publication No. 1723/10/05 Produced in England