522 kWm at 1500 rpm India CPCBII

The Perkins[®] 2800 Series is a family of well-proven 6 cylinder, 18 litre in-line diesel engine, 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 2806D-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.



88 Perkins®

THE HEART OF EVERY GREAT MACHINE

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	Turbocharged and air-to-air charge cooled			
Cycle	4 stroke			
Combustion system	Direct injection			
Compression ratio	18.0:1			
Rotation	Anti-clockwise, viewed on flywheel			
Total lubricating capacity	67 litres	17.7 US gal		
Cooling system	Water-cooled			
Total coolant capacity	61 litres	16.1 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 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

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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
- Spin-on primary, secondary and water filter separator
- Fuel cooler

Lubrication system

- Wet sump with filler and dipstick
- Full flow spin-on filters
- 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

Flywheel and housing

- High inertia flywheel to SAE J620 size 14
- SAE '1' flywheel housing

Mountings

• Front engine mounting bracket

Literature

User's Handbook

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Engine package weights and dimensions					
Length	2545 mm	100 in			
Width	1536 mm	60.5 in			
Height	1808 mm	71 in			
Weight (dry)	2079kg	4583 lb			

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India CPCBII

		Typical generator output (Net)		Engine power			
Speed Type of rpm operation	Gross			Net			
	oporation	kVA	kWe	kWm	hp	kWm	hp
1500	Prime power	625	500	540	724	522	700

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 based on an alternator efficiency of 96% 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.

Percent of prime power	Fuel consumption at 1500 rpm g/kWh	Fuel consumption at 1500 rpm I/hr
Prime power	204	130
75%	213	102
50%	219	70

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