

2300 Series Diesel Engine - ElectropaK **2306C-E14TAG3** 387 kWm at 1500 rpm 430 kWm at 1800 rpm

The Perkins 2300 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 aim at the standby market sector. Developed from a proven heavy-duty industrial base, the engine offers superior performance and reliability.

The 2306C-E14TAG3 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, overall performance and reliability.

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, 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

All engines in the 2300 Series family will meet the requirements of EU Stage 2/EPA Tier 2 emissions legislation and are capable of meeting 1/2 TA Luft.

Engine Speed rev/min	Type of Operation	Typical Generator Output (Net)		Engine Power			
				Gross		Net	
		kVA	kWe	kW	bhp	kW	bhp
1500	Baseload power	300	240	270	362	261	350
	Prime power	400	320	353	473	344	461
	Standby power	450	360	396	531	387	519
1800	Baseload power	344	275	316	424	299	401
	Prime power	438	350	393	527	376	504
	Standby power	500	400	447	599	430	577

The above ratings represent the engine performance capabilities to conditions specified in ISO 8528/1, ISO 3046/1:1986, BS5514/1

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.

2300 Series

2306C-E14TAG3



Standard ElectropaK Specification

Air Inlet

Mounted air filter

Fuel System

Mechanically actuated electronically controlled unit fuel injectors with full authority electronic control.
Governing to ISO8528-5 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

Literature

User's Handbook and Parts Manual

Optional Equipment

110/240 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



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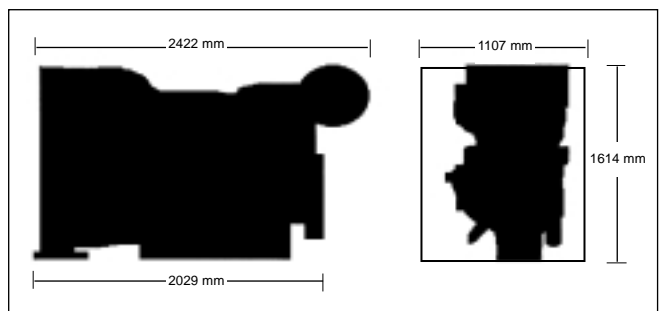
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General Data

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	137 x 165 mm
Displacement	14.6 litres
Compression Ratio	15.9:1
Direction of Rotation	Anti-clockwise, viewed on flywheel
Total Lubrication System Capacity	68 litres
Total Coolant Capacity	47 litres
Length	2422 mm
Width	1107 mm
Height	1614 mm
Total Weight (Dry)	1690 kg

Engine speed	Fuel Consumption			
	1500 rev/min		1800 rev/min	
	g/kWh	l/hr	g/kWh	l/hr
At Standby power	199	88.3	207	103.9
At Prime power	201	81.1	214	94.2
At Baseload power	201	62.4	222	78.6
At 75% of prime power	199	60.9	222	72.4
At 50% of prime power	218	42.3	229	48.4

Fuel consumption figures are for EU/EPA compliant engines.
For 1/2 TA Luft compliance please see Perkins' Technical Data Sheet



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