2300 Series

Diesel Engine - ElectropaK

2306C-E14TAG2

344 kWm at 1500 rpm
376 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-E14TAG2 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 the 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	275	220	248	333	239	321
	Prime power	350	280	313	420	304	408
	Standby power	400	320	353	473	344	461
1800	Baseload power	313	250	289	388	272	364
	Prime power	400	320	365	489	348	466
	Standby power	438	350	393	527	376	505

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.

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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 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 50ºC

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

Perkins

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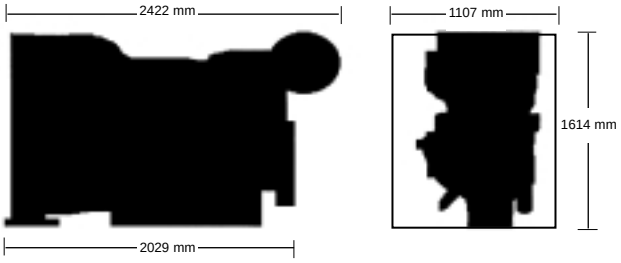
General Data

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

Fuel Consumption				
Engine speed	1500 rev/min		1800 rev/min	
	g/kWh	l/hr	g/kWh	l/hr
At Standby power	201	81.1	208	91.5
At Prime power	197	70.6	211	85.7
At Baseload power	204	56.2	222	70.5
At 75% of prime power	203	52.5	219	66.0
At 50% of prime power	213	38.0	232	45.3

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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