

400 Series

Diesel engine - ElectropaK 403C-11G

- 9.4 kWm 1500 rev/min
- 11.5 kWm 1800 rev/min
- 18.8 kWm 3000 rev/min
- 20.1 kWm 3600 rev/min

The Perkins 400 Series provides compact power from a robust family of 2, 3 and 4 cylinder diesel engines, designed to meet today's uncompromising demands within the power generation industry.

The 403C-11G is a compact 3-cylinder naturally aspirated diesel engine. Its premium features provide economic and durable operation for standby duty, low gaseous emissions, overall performance and reliability.

Compact, Efficient power

A class-leading engine package coupled with an innovative, newly designed cooling pack provides optimum power density, making installation and transportation easier and cheaper. This package has been specially designed to hit the key power nodes required by the power generation industry.

Quiet, clean power

The 403C-11G has an exceptionally low noise signature making it the ideal choice for power generation in any environment. A high compression ratio also ensures clean rapid starting in all conditions. Design features ensure maximum cleanliness in terms of emissions throughout the engines operating life.

Reliable power

Developed and tested using the latest engineering techniques this engine reliably provides power when you need it. Operating and maintenance costs are reduced through excellent fuel and oil economy whilst whole-life costs are enhanced by a 500 hour service interval and a 2 year warranty. Excellent service access further improves maintenance and support is provided by a worldwide network of 4000 distributors and dealers.

Engine speed rev/min	Type of Operation	Typical generator output (net)		Engine Power			
				Gross		Net	
		KVA	kWe	kW	bhp	kW	bhp
1500	Prime Power	9.1	7.3	8.6	11.5	8.5	11.4
	Standby (maximum)	10.0	8.0	9.5	12.7	9.4	12.6
1800	Prime Power	11.4	9.1	10.7	14.3	10.4	13.9
	Standby (maximum)	12.4	9.9	11.8	15.8	11.5	15.4
3000	Prime Power	17.5	14.0	17.9	24.0	17.0	22.8
	Standby (maximum)	18.9	15.1	19.7	26.4	18.8	25.2
3600	Prime Power	18.4	14.7	20.2	27.1	18.0	24.1
	Standby (maximum)	20.4	16.3	22.3	29.9	20.1	27.0

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 typical alternator efficiencies and a power factor (cos ϕ) of 0.8

Fuel specification: BS 2869: Part 2 1998 Class A2 or ASTM D975 D2

Lubricating oil: To API CH4/ACEA E5

Rating Definitions

Prime Power: Power available at variable load in lieu of a main power network. Overload of 10% is permitted for 1 hour in every 12 hours' operation

Standby (maximum): Power available at variable load in the event of a main power network failure. No overload is permitted

400 Series 403C-11G

Standard ElectropaK Specification

Air Inlet

Mounted air filter

Fuel System

Mechanically governed cassette type fuel injection pump
Spin-on full-flow fuel filter

Lubrication System

Wet steel sump with filler and dipstick
Spin-on full-flow lub. oil filter

Cooling System

Thermostatically-controlled system with belt driven circulating pump and pusher fan
Mounted radiator piping and guards

Electrical Equipment

12 Volt starter motor and 12 Volt 55 Amp alternator with DC output

Oil pressure and coolant temperature switches

12 Volt shut off solenoid energised to run

Glow plug cold start aid and heater/starter switch

Flywheel and Housing

1500/1800 rev/min

High inertia flywheel to SAE J620 Size 6¹/₂ Heavy

Flywheel housing SAE 5 Long

3000/3600 rev/min

High inertia flywheel to SAE J620 Size 6¹/₂ Light

Flywheel housing SAE 5 Short

Mountings

Front and rear engine mounting bracket

Literature

User's Handbook

Optional Equipment

Exhaust silencer

Workshop manual

Parts book



Perkins Engines Company Limited

Peterborough PE1 5NA

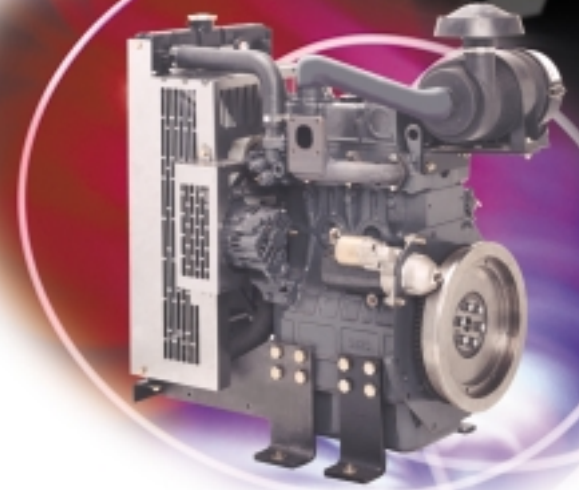
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All information in this leaflet is substantially correct at the time of printing but may be changed subsequently by the Company

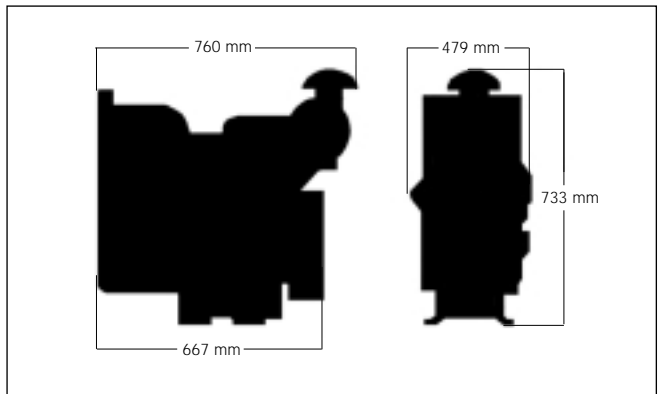


General Data

Number of cylinders	3
Cylinder Arrangement	Vertical in-line
Cycle	4 stroke
Induction System	Natural Aspiration
Combustion System	Indirect injection
Cooling System	Water-cooled
Bore & Stroke	77 x 81mm
Displacement	1131cc
Compression Ratio	23:1
Direction of Rotation	Anti-clockwise viewed on flywheel
Total Lubrication System Capacity	4.9 litres
Total Coolant Capacity	5.21 litres
Length	760mm
Width	479mm
Height	733mm
Dry Weight (Engine)	134 kg (1500/1800 rev/min) 116 kg (3000/3600 rev/min)

Fuel Consumption

Engine speed	1500 rev/min		1800 rev/min		3000 rev/min		3600 rev/min	
	g/kWh	l/hr	g/kWh	l/hr	g/kWh	l/hr	g/kWh	l/hr
At Standby Power	261	2.9	269	3.8	280	6.5	278	7.4
At Prime Power	256	2.6	259	3.3	277	5.9	273	6.5
At 75% of Prime Power	258	2.0	257	2.4	284	4.5	281	5.1
At 50% of Prime Power	285	1.5	279	1.8	320	3.4	324	3.9



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