



# Marine Auxiliary Engine 415GM

**400 Series**

Based on the Perkin 400 Series, the 415GM provides compact power from a robust family of 3 and 4 cylinder diesel engines, designed to meet today's uncompromising demands within the power generation industry.

The 415GM is a compact 3-cylinder naturally aspirated diesel engine. Its premium features provide economic and durable operation for prime duty, and is designed to comply with all current emission legislation.

### Powered By Your Needs

These engines offer a choice of standard build configurations to match the needs of customers for a diverse range of applications.

### World Class Product Support

At Perkins we are constantly researching, developing and investing in our products and services. Total worldwide support is provided through a network of over 130 distributors and service outlets in 184 countries, providing access to over 50,000 parts and exchange units 24 hours a day, 365 days a year.

### Lower Operating Costs

Service intervals 500 hours as standard and Perkins provides comprehensive warranty cover for 2 years, with 3 years on major engine components.

### Compact, Efficient Power

A class-leading engine package coupled with an innovative cooling package providing optimum power density. Designed for use in all territories and markets worldwide.

### Quiet, Clean Power

The 415GM 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 hours service interval and a 2 year warranty for added peace of mind. Excellent service access further improves ease of maintenance. Suitable for operation in ambient temperatures up to 50°C and sea water up to 38°C.

Engine speed rev/min	Type of operation	Typical generator output (net)		Engine power (gross)		Typical fuel consumption		
		kWe	kVa	kW	bhp	UK gals/hr	Litres/hr	US gals/hr
1500	Prime power 110%	11.1	13.8	12.3	16.5	0.8	3.7	1.0
		12.2	15.2	13.5	18.1	0.9	4.2	1.1
1800	Prime power 110%	13.2	16.5	14.7	19.7	1.0	4.5	1.2
		14.6	18.2	16.2	21.7	1.1	5.0	1.3

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 your Perkins contact. Generator powers are typical and are based on typical alternator efficiencies of 90% and a power factor (cos.θ) of 0.8.

## Benefits:

- Excellent power to weight
- Ease of Installation
- Clean, quiet, smooth operation
- Excellent fuel economy
- Easy to maintain with 500hr Service interval
- Reliability

## Standard Features

- Mounted air filters
- Electronically governed cassette type fuel injection pump
- Single element fuel filter
- Wet steel sump with filler and dipstick
- Spin-on-full-flow lube oil filter
- Thermostatically-controlled system with belt driven circulating pump
- Fresh water heat exchanger cooled engine with gear driven self priming raw water pump and ceramic seals
- Fresh water cooled exhaust manifold incorporating header tank assembly
- 12 Volt starter motor and 12 Volt 55 Amp alternator with DC output
- Oil pressure and coolant temperature switches
- Glow plug cold start aid and heater/starter switch
- 1500/1800 rev/min
- High inertia flywheel to SAE J620 Size 7 1/2 Heavy
- Flywheel housing SAE 4 Long
- Front and rear mounting brackets
- User's handbook

## Optional Equipment

- Keel cooling kit
- Onboard spares kit
- Factory test certificate
- 90 amp 12Volt alternator
- 24 Volt starter motor and 24 Volt 60 amp alternator with DC output.

## General Data

Number of cylinders	Vertical in-line 3 cylinder
Bore and stroke	84 mm x 90 mm
Displacement	1496cc
Aspiration	Natural
Cycle	4 stroke
Combustion system	Indirect injection
Compression ratio	22.5:1
Rotation	Anti-clockwise viewed on flywheel
Cooling system	8 litres
Operational angle	25° from horizontal in any direction
Dimensions	Length 650 mm Width 566 mm Height 672 mm
Dry weight	206 kg
Wet weight	213 kg

Final weight and dimensions will depend on completed specification

## Rating Definitions

### Prime power

Power for continuous service. Overload of 10% is permitted for 1 hour in very 12 hours' operation.

For further details on definitions please contact your local Perkins distributor.



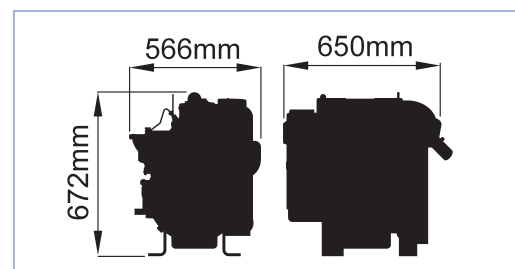
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