

1200 Series E70 TAG2M Marine Auxiliary Engine

164 kW (220 hp) @ 1800 rpm

Based on Perkins universally acclaimed 1206 Series and renowned throughout the power generation industry for its superior performance and reliability. The Perkins® E70M is a turbocharged, charge air-cooled, six cylinder, seven litre engine, one of a family of engines ranging from 120 to 240 kWm @110% load (see rating definition).

Operator and environmentally friendly with low noise, rapid startability and low emissions.

Competitive engine and parts pricing, extended service intervals and exceptionally low fuel consumption make the E70M a cost effective choice with significant owner savings over alternative engines.

You can expect unbeatable expertise and friendly service from Perkins.



Emissions

EPA Tier 3, IMO 2, CCNR Stage 2.

| Specification | | |
|----------------------------|------------------------------------|---------------------|
| Number of cylinders | 6 vertical in-line | |
| Bore and stroke | 105 x 135 mm | 4.1 x 5.3 in |
| Displacement | 7 litres | 427 in ³ |
| Aspiration | Turbocharged, air to water cooled | |
| Cycle | 4 stroke | |
| Combustion system | Direct injection | |
| Compression ratio | 16.5:1 | |
| Rotation | Anti-clockwise, viewed on flywheel | |
| Total lubricating capacity | 21 litres | 5.5 US gal |
| Cooling system | Water cooled | |
| Total coolant capacity | 38 litres | 10 US gal |

www.Perkins.com/Marine

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All information in this document is substantially correct at time of printing and may be altered subsequently.
Final weight and dimensions will depend on completed specification.

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 **Perkins®**

THE HEART OF EVERY GREAT MACHINE

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Features and benefits

Powered by your needs

- Perkins engines can be tailored specifically for you.

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

Lower operating costs

- Service intervals 500 hours as standard and Perkins provides comprehensive warranty cover for two years, with three years on major engine components

Economic power

- Unique combustion system enables high output with lower fuel consumption and noise. Competitively priced parts provide low cost of ownership

Durable power

- Maximum cooling efficiency is provided by a gear driven water pump. Inserted valve seats, oil spray cooled pistons and compact plate oil cooler give enhanced engine life

Reliable power

- Suitable for operation in ambient temperatures up to 50°C and sea waters up to 32°C. Starting aid for temperatures down to -15°C. Approved by classification societies and marine authorities

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
- To find your local distributor: www.perkins.com/distributor

E-mail: Marine@Perkins.com Web: www.Perkins.com/Marine

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 **Perkins®**
Marine Power

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Technical information

Benefits

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

Standard features

- Versatile base frame
- 3 Cooling options – Heat exchanger, Keel or Radiator
- Gear driven fresh and auxiliary water pumps
- Hydraulic tappets
- Air intake filter with removable element
- SAE 2 flywheel housing
- Twin pocket flywheel housing
- Water cooled turbo – suitable for gas tight applications
- Fresh water cooled exhaust manifold
- CuNi 90 -10 charge air cooler
- Electronic high pressure common rail fuel system
- Full electronic control system
- Engine harness with IP55 Customer connect for engine sensors and SAE J1939 CAN bus
- Integral plate-type engine oil cooler
- High inclination engine sump
- Crankcase ventilation system
- Base mounted primary and secondary fuel filter with integrated drip tray
- Cold start aid, ECM controlled to -15°C

Optional equipment

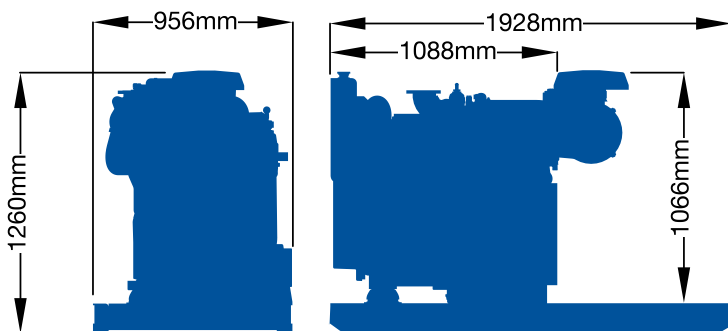
- 12 or 24 volt insulated electrics
- 2 Exhaust options – Water injected or Dry
- Duplex oil and fuel filters
- Double skinned high pressure fuel pipes
- Block heaters
- Sump drain pump engine mounted
- Marine classification society (MCS) approval (TBA)
- DTO (Design to Order) – Custom design capability
- Additional Air/Electric starters

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| Engine package weights and dimensions | | |
|---------------------------------------|---------|---------|
| Length | 1928 mm | 76 in |
| Width | 956 mm | 38 in |
| Height | 1260 mm | 50 in |
| Weight (dry) | 1157 kg | 2551 lb |

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| Speed rpm | Type of operation | Typical generator output (Net) | | Engine power | | | |
|-----------|-------------------|--------------------------------|-----|--------------|-----|-----|-----|
| | | | | Gross | | Net | |
| | | kVA | kWe | kW | hp | kW | hp |
| 1800 | Prime power | 187.5 | 150 | 164 | 220 | 164 | 220 |
| | 110% | 205.0 | 164 | 180 | 241 | 180 | 241 |

Rating definitions

Prime power: Power for continuous service. Overload of 10% is permitted for 1 hour in every 12 hours' operation.

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

| Percent of prime power | Fuel consumption at 1800 rpm g/kWh | Fuel consumption at 1800 rpm l/hr |
|------------------------|------------------------------------|-----------------------------------|
| 100% power | 218.9 | 42.8 |
| 110% power | 209.8 | 45.0 |

These ratings represent the performance capabilities to conditions specified in ISO 3046/1:1995.

Test Conditions Air temperature 25°C (80°F) barometric pressure 100 kPa (29.5 in Hg), relative humidity 30%, maximum exhaust back pressure 15 kPa, maximum inlet restriction 5 kPa.

For operation outside of these conditions please consult your Perkins contact. Performance tolerance quoted by Perkins is ± 5%.

Electrical ratings assume a power factor of 0.8 and a generator efficiency of 93%.

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