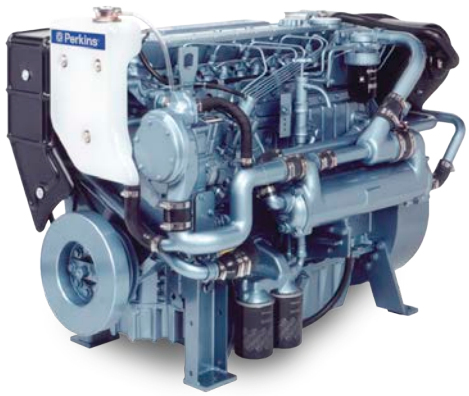
1000 Series 6TWGM Marine Auxiliary Engine

125.5 kW (168.2 hp) gross prime power @ 1500 rpm

Based on Perkins universally acclaimed 1000 Series and renowned throughout the power generation industry for its superior performance and reliability. The Perkins 6TWGM is a turbocharged, charge air-cooled, six cylinder, six litre engine, one of a family of engines ranging from 39.5 to 161 kWm.



Operator and environmentally friendly with low noise, rapid startability and low emissions. This is achieved with the 'FASTRAM' combustion system and fully closed breather system.

Competitive engine and parts pricing, extended service intervals and exceptionally low fuel consumption make the 6TWGM a cost effective choice with significant owner savings over alternative engines.

You can expect unbeatable expertise and friendly service from Perkins.

Specification		
Number of cylinders	6 vertical in-line	
Bore and stroke	100 x 127 mm	3.9 x 5 in
Displacement	5.99 litres	365.5 in^3
Aspiration	Turbocharged, air to water cooled	
Cycle	4 stroke	
Combustion system	Direct injection	
Compression ratio	17:1	
Rotation	Anti-clockwise, viewed on flywheel	
Total lubricating capacity	15 litres	4 US gal
Cooling system	Water cooled	
Total coolant capacity	24 litres	6.3 US gal

www.Perkins.com/Marine

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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 250 hours as standard and Perkins provides comprehensive warranty cover for two years, with three years on major engine components

Economic power

- One side servicing for reduced service time and cost. Unique Fastram combustion system enables high output with lower fuel consumption and noise. Extended service intervals, including 250 hour (or 12 months) oil change period, and competitively priced parts provide low cost of ownership. Electronic governor gives close control and means that the rated speed can be set at site to either 1500 rpm or 1800 rpm allowing standard builds to operate at either 50 Hz or 60 Hz

Durable power

- Maximum cooling efficiency is provided by a gear driven water pump. Leak free operation is ensured by Viton crankshaft seals and sophisticated controlled swell joints, giving protection in the toughest conditions. Inserted valve seats, oil spraycooled pistons and compact plate cooler give enhanced engine life

Reliable power

- Suitable for operation in ambient temperatures up to 50°C and sea waters up to 38°C. Fuelled starting aid for temperatures down to -20°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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Marine Power

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Technical information

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

- Cooling system Thermostat controlled fresh water heat exchanger cooling system with gear driven raw and fresh water pumps, deaaration header tank and high quality silicone hoses or engine with gear driven fresh water pump adapted for keel cooling
- Air intake filter with removable element
- SAE 3 Backend with SAE 10/11 ½ in flywheel
- Fresh water cooled exhaust manifold and rear mounted turbocharger with insulation cover
- Raw water cooled charge air cooler
- Rotary type fuel injection pump with electronic governor. Speed control to BS5514 Class AO. Integral energise-to-run stop control
- High inclination engine sump, short starboard side dipstick and engine mounted sump drain pump
- Integral plate-type engine lube oil cooler and twin element spin-on oil filters
- Closed engine breather system
- High mounted, single element fuel pre-filter and sedimenter
- Cold start aid
- Alarm switches

Optional equipment

- 12 or 24 volt insulated electrics or 12 volt earth return electrics
- Heat exchanger or adapted for keel cooling
- Exhaust outlets-either dry with bellows and silencer or variable position water injected outlet
- Fuel filters with change over facility
- Double skinned high pressure fuel pipes with alarmed collector
- Engine mounting brackets
- PTO facility
- 5000 hrs parts kit
- Toolkit
- Controller kit (12 or 24 volt) providing generator paralleling option

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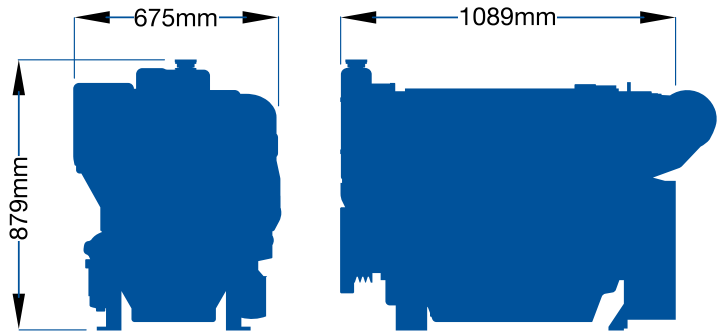

Engine package weights and dimensions		
Length	1089 mm	43 in
Width	675 mm	27 in
Height	879 mm	35 in
Weight (dry)	620 kg	1367 lb

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Speed rpm	Type of operation	Typical generator output (Net)		Engine power			
				Gross		Net	
		kVA	kWe	kW	hp	kW	hp
1500	Prime power	145.9	116.7	125.5	168.2	125.5	168.2
	110%	160.4	128.3	138.0	184.9	138.0	184.9

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.

Percent of prime power	Fuel consumption at 1500 rpm g/kWh	Fuel consumption at 1500 rpm l/hr
100% power	6.9	31.5
110% power	7.8	35.3

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 6 kPa, maximum inlet restriction 3 kPa.

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

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

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