



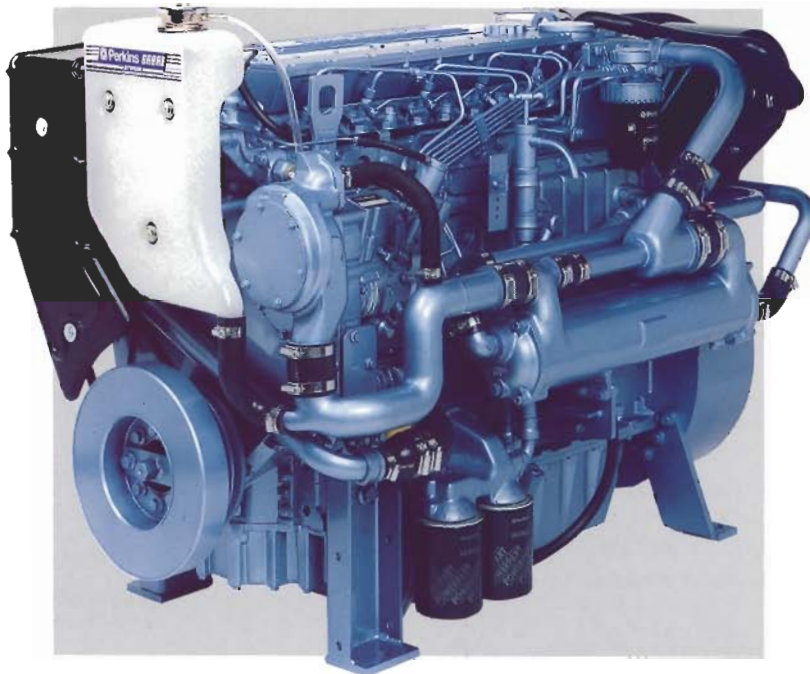
# 6TWGM

125.5 kWm 1500 rev/min  
146.0 kWm 1800 rev/min

## Marine Gen Set Power

From the Perkins Sabre marine partnership and based on Perkins universally acclaimed 1000 Series and renowned throughout the power generation industry for its superior performance and reliability.

The Perkins Sabre 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.



### Economic Power

- **One side servicing** and translucent header tank 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 1500rpm or 1800rpm allowing standard builds to operate at either 50Hz or 60Hz

### 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 spray cooled 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
- **Over 4,000 distributors and dealers** offer full parts and service support worldwide
- **Approved by classification societies and marine authorities**

Engine Speed rpm	Type of Operation	Typical Generator Output		Nett Engine Power	
		kVA	kWe	kWm	bhp
1500	Prime (Continuous)	145.9	116.7	125.5	168.2
	Standby (Maximum)	160.4	128.3	138.0	184.9
1800	Prime (Continuous)	169.8	135.8	146.0	195.7
	Standby (Maximum)	187.1	149.7	161.0	218.8

Note: All engine rating data based on operation under ISO 3046/1:1995 conditions.

**Test Conditions** Air temperature 25°C (80.6°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 Perkins contact. Performance tolerance quoted by Perkins is ±5%. Electrical ratings assume a power factor of 0.8 and a generator efficiency of 93%.

### Rating Definitions

**Prime power** – Power available at variable load in lieu of main power network. An overload of 10% is permitted for one hour in every twelve hours of operation.

**Standby power** – Power available at variable load in the event of a main power network failure. No overload is permitted.

## Standard Engine Specification

- **Base engine with:-**
- **Cooling system**  
Thermostat controlled fresh water heat exchanger cooling system with gear driven raw and fresh water pumps, deaeration 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 10/11½ 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 BS 5514 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 lub 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

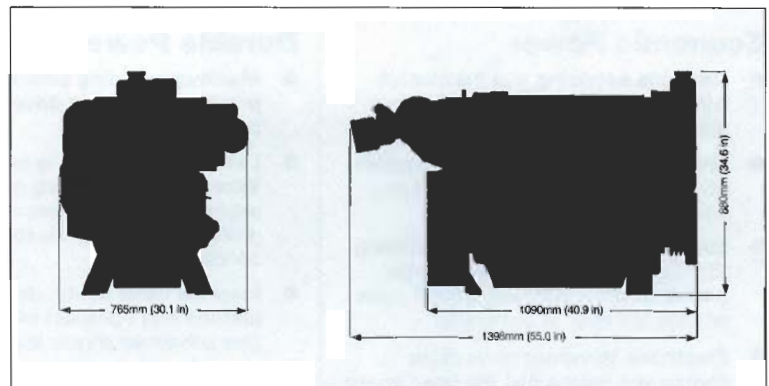
- **12 or 24 volt** insulated electrics or 12 volt earth return electrics
- **Heat exchanger** or adapted for keel cooling with radiator cooled version available
- **Exhaust outlets** – either dry with bellows and silencer or variable position water injected outlet
- **Fuel filters** with change over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

## General Data

<b>Number of cylinders</b>	6, in line
<b>Cycle</b>	4-stroke
<b>Induction system</b>	Turbocharged, raw water to air charge cooled
<b>Combustion system</b>	Direct injection
<b>Compression ratio</b>	17.0:1
<b>Cubic capacity</b>	5.99 litres (365 in <sup>3</sup> )
<b>Total weight (wet)</b>	659 kg (1450 lbs)

### Typical Fuel Consumption

rev/min	1500 rpm		1800 rpm	
	litre/hour	UKgall/hour	litre/hour	UKgall/hour
<b>At 110% of power rating</b>	<b>35.3</b>	<b>7.8</b>	<b>38.99</b>	<b>8.6</b>
<b>At 100% of power rating</b>	<b>31.5</b>	<b>6.9</b>	<b>36.08</b>	<b>7.9</b>
<b>At 75% of power rating</b>	<b>24.1</b>	<b>5.3</b>	<b>27.79</b>	<b>6.1</b>
<b>At 50% of power rating</b>	<b>16.6</b>	<b>3.6</b>	<b>19.49</b>	<b>4.3</b>



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