MARINE DIESEL ENGINE

MARINE PROPULSION POWER RANGE [374–4500kW]
MARINE AUXILIARY GENERATOR CAPACITY [180 – 4600kWe]
Limitless Blue Skies and Oceans

Earth friendly
Safe &
Economical navigation
Life cycle value

Low emission
Low fuel consumption
Low vibration
Low noise
High efficiency
High reliability
Easy maintenance
Easy installation

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Low emission
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Clean and Reliable Technology

IMO Tier III* requires ships built from 2016 onwards in designated emission control areas (ECAs) to have an 80% Nox reduction from Tier I levels. By 2020, sulfur content of less than 0.5% will be required for all ships as well. Time and time again, YANMAR technology has proven itself to be reliable in a wide range of commercial marine engines. In addition to this, to stay a head of the game we are continually making new technology that meets tightening emissions regulations. In addition to providing our customers with the products they need, we also improve “Life Cycle Value” of our products. With a focus on harmony with nature, YANMAR delivers optimized solutions that support longer ship life.

YANMAR EcoDiesel is addressing the stricter IMO Tier II regulation NOx limits with improvements to combustion technologies of engine.

ASSIGN combustion system

- **Staggered Layout Multi-Hole Nozzle**
  The vibration noise mainly in the low frequency band was difficult to reduce until now. However, we can drastically reduce it by the metal spring with high quality vibration damping performance. We will contribute to further improvement of the shipboard environment.

- **Air Flow Motion**
  The optimally shaped air intake port generates a suitable swirl (vortex flow) in the combustion chamber as well as a squish in the compression stroke. This promotes fuel / air mixing, improving combustion efficiency.

High pressure miller cycle system

- **Miller type cam**
  By finishing the intake stroke earlier, the intake air expands and temperature in the cylinder decreases, and by reducing air temperature before combustion in the next compression stroke, the NOx emission is reduced.

- **High pressure ratio turbocharger**
  Increasing the intake pressure by high pressure ratio turbocharger during the short intake stroke ensures the quantity of charged air and fixes the cylinder pressure to restrain the increase of the specific fuel consumption.
NEW TECHNOLOGY
YANMAR SOLUTION

**SCR system**

SCR system developed in-house by YANMAR to meet to IMO Tier III NOx regulations.

YANMAR has developed SCR system that meets to IMO Tier III regulations, which require an 80%, i.e. big reduction in NOx compared with Tier I. Making use of our original technology and wealth of experience, we have created a system whose design and functionality are optimized for marine vessels, and which is perfectly matched for use with diesel engines, both in ECA and non-ECA waters. In addition, repeated verification tests have been conducted on ocean-going vessels (equipped with SCR system for 3 auxiliary engines) to further improve the system.

- **Maintaining highly NOx reduction performance whilst ensuring safety.**
  
  The by-pass branching section and catalytic reactor have been integrated into a single unit, achieving high-performance NOx reduction. Engines equipped with our SCR system is obtained NOx certification (Scheme A), whilst maintaining performance onboard. Additionally, a urea injection nozzle is installed downstream from the branching section, preventing ammonia from leaking into the by-pass line.

- **Long lifetime of catalyst.**
  
  Catalyst degradation occurs due to the flow of small amounts of exhaust gas into the catalyst line when the by-pass is in operation. Specification not to flow the exhaust gas realizes longer lifetime of catalyst.

<table>
<thead>
<tr>
<th></th>
<th>Standard spec.</th>
<th>Optional spec.</th>
<th>Optional spec. 1</th>
<th>Optional spec. 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Changeover valve installed to catalytic reactor outlet</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purge air</td>
<td>Req'd</td>
<td>Not req'd</td>
<td>Not req'd</td>
<td></td>
</tr>
<tr>
<td>Blower fan unit</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

* General height of catalytic reactor outlet becomes higher than standard.
* To be included as hull side 2019.

**2-stage turbocharging system**

Ultra low fuel consumption of 4-stroke medium speed diesel engine.

YANMAR has always pursued low fuel consumption as its corporate creed “Fuel reward to Nation” since foundation. This time, we developed the “2-stage turbocharging system” compliant with IMO secondary regulation, further evolving the engine, achieving fuel economy far superior to the conventional engine.

- **Evolution of high pressure Miller cycle system**
  
  We acquired the air by using the “2 stage turbocharging system” in spite of advanced closing timing of suction valve to compare with “1 stage turbocharging system”.
  
  As a result, we could achieve the low fuel consumption in wide load.

- **Simple system**
  
  It is easy to maintain the system, because it is simple system that two turbochargers and two air coolers are only connected by suction air pipes and exhaust pipe.

- **Unchanged mountability and Good acceleration**
  
  We arranged turbocharger & air-cooler unit on both sides of the engine. By this structure, we could achieve the equivalent mountability as the base engine by keeping the height of engine. This engine has good acceleration at low load by adapting dynamic pressure type exhaust manifold.

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![SCR system diagram](image-url)

![2-stage turbocharging system diagram](image-url)
NEW TECHNOLOGY
YANMAR SOLUTION

Marine dual fuel engine

- Safe System for use in single-engine-single-shaft vessels
  YANMAR has developed a unique control system. Through multiplexing of devices, this system achieves safety and redundancy even with single-engine-single-shaft vessels, allowing you to navigate with peace of mind.

- Switch fuels even at 100% output
  Freely select which fuel to use. The system makes it possible to switch from diesel mode to gas mode during navigation, with no output restrictions. Furthermore, during emergencies the system can shift safely and instantaneously from gas mode back to diesel mode.

- Can operate with natural gas in any region
  Through real-time analysis of cylinder internal pressure together with high-speed control, this system avoids abnormal combustion (knocking) even when running on natural gases with a low methane number. Offering superior combustion stability, this engine can operate with natural gas in any region and with no output restrictions.

- Comply with environmental regulations by using both diesel and gas fuels.
  The use of natural gas is now attracting attention within the marine engine sector, both as a means of addressing fluctuating fuel costs, and as a way of reducing the burden on the environment. Basing on our reliable engines that will improve life cycle value for our customers, YANMAR have developed a dual fuel engine that can use both diesel and gas, which complies with IMO NOx Tier III regulations as well as SOx Emission Control Area.

Marine spring vibration isolating system

- Reduce vibration noise inside ship
  The vibration noise mainly in the low frequency band was difficult to reduce until now. However, we can drastically reduce it by the metal spring with high quality vibration damping performance. We will contribute to further improvement of the shipboard environment.

- Maintenance-free
  There is no creep phenomenon in the metallic spring vibration isolating system, so it is almost unnecessary to replace and maintenance, and contributes to cost reduction.

- Latest system to help comfort and reduce maintenance
  In YANMAR, utilizing the technology accumulated over many years in vibration isolating rubber for marine engines and metal spring vibration isolating system for land engines, we have developed a marine metal spring isolation system with support of Japan Railway Construction, Transport and Technology Agency. It realizes more excellent vibration proofing effect and maintenance-free than rubber. And it helps comfortable shipboard environment and low cost.

- Comply with environmental regulations
  By using both diesel and gas fuels, the engine can operate in any region, including areas subject to IMO NOx Tier III regulations and SOx Emission Control Area.

- Safe System for use in single-engine-single-shaft vessels
  YANMAR has developed a unique control system. Through multiplexing of devices, this system achieves safety and redundancy even with single-engine-single-shaft vessels, allowing you to navigate with peace of mind.

- Switch fuels even at 100% output
  Freely select which fuel to use. The system makes it possible to switch from diesel mode to gas mode during navigation, with no output restrictions. Furthermore, during emergencies the system can shift safely and instantaneously from gas mode back to diesel mode.

- Can operate with natural gas in any region
  Through real-time analysis of cylinder internal pressure together with high-speed control, this system avoids abnormal combustion (knocking) even when running on natural gases with a low methane number. Offering superior combustion stability, this engine can operate with natural gas in any region and with no output restrictions.
### MARINE PROPULSION

**DIESEL ENGINE LINE-UP**

**Power Range**

<table>
<thead>
<tr>
<th>Series</th>
<th>Models</th>
<th>Output (kW)</th>
<th>Gear</th>
<th>Dimensions (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6EY17W</td>
<td>6EY17W</td>
<td>374-837kW</td>
<td>D E F G</td>
<td>A1 A2 A3 B C D</td>
</tr>
<tr>
<td>6EY22AW</td>
<td>6EY22AW</td>
<td>500-1370kW</td>
<td>D E F G</td>
<td>A1 A2 A3 B C D</td>
</tr>
<tr>
<td>6EY26W</td>
<td>6EY26W</td>
<td>1471-1920kW</td>
<td>D E F G</td>
<td>A1 A2 A3 B C D</td>
</tr>
<tr>
<td>6EY33W</td>
<td>6EY33W</td>
<td>2060-2560kW</td>
<td>D E F G</td>
<td>A1 A2 A3 B C D</td>
</tr>
<tr>
<td>6EY38W</td>
<td>6EY38W</td>
<td>2500-3360kW</td>
<td>D E F G</td>
<td>A1 A2 A3 B C D</td>
</tr>
</tbody>
</table>

**Gear Dimensions**

- **Engine Speed [min⁻¹]**: 850 min⁻¹
- **A1**
- **A2**
- **A3**
- **B**
- **C**
- **D**
- **E**
- **F**
- **G**

**Note:**
- Minimum height for removing piston.
**6EY17W**

<table>
<thead>
<tr>
<th>Engine Model</th>
<th>4EY17W</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Cylinders</td>
<td>6</td>
</tr>
<tr>
<td>Cylinder Bore×Stroke (mm)</td>
<td>172×230</td>
</tr>
<tr>
<td>Rated Output (kW/PS)</td>
<td>374(510)</td>
</tr>
<tr>
<td>Engine Speed (min⁻¹)</td>
<td>1350</td>
</tr>
<tr>
<td>Dry Weight (kg)</td>
<td>3880</td>
</tr>
<tr>
<td>Propeller Type</td>
<td>for F.P.P.</td>
</tr>
<tr>
<td>Marine Gear Model</td>
<td>YXH-500</td>
</tr>
<tr>
<td>Reduction Gear</td>
<td>2.03, 2.36, 2.78, 3.32</td>
</tr>
<tr>
<td>Rate</td>
<td>5.97, 6.07, 6.46, 6.96</td>
</tr>
<tr>
<td>Dry Weight (kg)</td>
<td>1467</td>
</tr>
<tr>
<td>Total Dry Weight with Marine Gear (kg)</td>
<td>5547</td>
</tr>
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**6EY22AW**

<table>
<thead>
<tr>
<th>Engine Model</th>
<th>4EY22AW</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Cylinders</td>
<td>6</td>
</tr>
<tr>
<td>Cylinder Bore×Stroke (mm)</td>
<td>220×320</td>
</tr>
<tr>
<td>Rated Output (kW/PS)</td>
<td>885(1203)</td>
</tr>
<tr>
<td>Engine Speed (min⁻¹)</td>
<td>850</td>
</tr>
<tr>
<td>Rated Output (kW/PS)</td>
<td>885(1203)</td>
</tr>
<tr>
<td>No. of Cylinders</td>
<td>6</td>
</tr>
<tr>
<td>Engine Model</td>
<td>6EY22AW</td>
</tr>
<tr>
<td>Dry Weight (kg)</td>
<td>18500</td>
</tr>
<tr>
<td>Propeller Type</td>
<td>for F.P.P.</td>
</tr>
<tr>
<td>Marine Gear Model</td>
<td>YX-1000</td>
</tr>
<tr>
<td>Reduction Gear</td>
<td>2.03, 2.36, 2.78, 3.32</td>
</tr>
<tr>
<td>Rate</td>
<td>2.03, 2.36, 2.78, 3.32</td>
</tr>
<tr>
<td>Dry Weight (kg)</td>
<td>24000</td>
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<tr>
<td>Total Dry Weight with Marine Gear (kg)</td>
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**6EY26W**

<table>
<thead>
<tr>
<th>Engine Model</th>
<th>4EY26W</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Cylinders</td>
<td>6</td>
</tr>
<tr>
<td>Cylinder Bore×Stroke (mm)</td>
<td>240×385</td>
</tr>
<tr>
<td>Rated Output (kW/PS)</td>
<td>1471(2000)</td>
</tr>
<tr>
<td>Engine Speed (min⁻¹)</td>
<td>750</td>
</tr>
<tr>
<td>Rated Output (kW/PS)</td>
<td>1471(2000)</td>
</tr>
<tr>
<td>No. of Cylinders</td>
<td>6</td>
</tr>
<tr>
<td>Engine Model</td>
<td>6EY26W</td>
</tr>
<tr>
<td>Dry Weight (kg)</td>
<td>18500</td>
</tr>
<tr>
<td>Propeller Type</td>
<td>for F.P.P.</td>
</tr>
<tr>
<td>Marine Gear Model</td>
<td>YXH-2000</td>
</tr>
<tr>
<td>Reduction Gear</td>
<td>2.23, 2.58, 2.79, 3.03</td>
</tr>
<tr>
<td>Rate</td>
<td>2.23, 2.58, 2.79, 3.03</td>
</tr>
<tr>
<td>Dry Weight (kg)</td>
<td>2900</td>
</tr>
<tr>
<td>Total Dry Weight with Marine Gear (kg)</td>
<td>22949</td>
</tr>
</tbody>
</table>

**8EY26W**

<table>
<thead>
<tr>
<th>Engine Model</th>
<th>8EY26W</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Cylinders</td>
<td>8</td>
</tr>
<tr>
<td>Cylinder Bore×Stroke (mm)</td>
<td>260×385</td>
</tr>
<tr>
<td>Rated Output (kW/PS)</td>
<td>2600(3850)</td>
</tr>
<tr>
<td>Engine Speed (min⁻¹)</td>
<td>750</td>
</tr>
<tr>
<td>Rated Output (kW/PS)</td>
<td>2600(3850)</td>
</tr>
<tr>
<td>No. of Cylinders</td>
<td>8</td>
</tr>
<tr>
<td>Engine Model</td>
<td>8EY26W</td>
</tr>
<tr>
<td>Dry Weight (kg)</td>
<td>24500</td>
</tr>
</tbody>
</table>

**6/8EY33W**

<table>
<thead>
<tr>
<th>Engine Model</th>
<th>6EY33W</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Cylinders</td>
<td>6</td>
</tr>
<tr>
<td>Cylinder Bore×Stroke (mm)</td>
<td>330×440</td>
</tr>
<tr>
<td>Rated Output (kW/PS)</td>
<td>3600(5090)</td>
</tr>
<tr>
<td>Engine Speed (min⁻¹)</td>
<td>750</td>
</tr>
<tr>
<td>Rated Output (kW/PS)</td>
<td>3600(5090)</td>
</tr>
<tr>
<td>No. of Cylinders</td>
<td>6</td>
</tr>
<tr>
<td>Engine Model</td>
<td>Y8E33W</td>
</tr>
<tr>
<td>Dry Weight (kg)</td>
<td>30902</td>
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</table>

**6N21AW**

<table>
<thead>
<tr>
<th>Engine Model</th>
<th>4N21A-5W</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Cylinders</td>
<td>4</td>
</tr>
<tr>
<td>Cylinder Bore×Stroke (mm)</td>
<td>210×290</td>
</tr>
<tr>
<td>Rated Output (kW/PS)</td>
<td>662(900)</td>
</tr>
<tr>
<td>Engine Speed (min⁻¹)</td>
<td>800</td>
</tr>
<tr>
<td>Rated Output (kW/PS)</td>
<td>662(900)</td>
</tr>
<tr>
<td>No. of Cylinders</td>
<td>4</td>
</tr>
<tr>
<td>Engine Model</td>
<td>4N21A-5W</td>
</tr>
<tr>
<td>Dry Weight (kg)</td>
<td>8000</td>
</tr>
<tr>
<td>Propeller Type</td>
<td>for F.P.P.</td>
</tr>
<tr>
<td>Marine Gear Model</td>
<td>YX-800</td>
</tr>
<tr>
<td>Reduction Gear</td>
<td>2.23, 2.58, 2.79, 3.03</td>
</tr>
<tr>
<td>Rate</td>
<td>2.23, 2.58, 2.79, 3.03</td>
</tr>
<tr>
<td>Dry Weight (kg)</td>
<td>3900</td>
</tr>
<tr>
<td>Total Dry Weight with Marine Gear (kg)</td>
<td>22949</td>
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**8EY33W**

<table>
<thead>
<tr>
<th>Engine Model</th>
<th>8EY33W</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Cylinders</td>
<td>8</td>
</tr>
<tr>
<td>Cylinder Bore×Stroke (mm)</td>
<td>330×440</td>
</tr>
<tr>
<td>Rated Output (kW/PS)</td>
<td>3600(5090)</td>
</tr>
<tr>
<td>Engine Speed (min⁻¹)</td>
<td>750</td>
</tr>
<tr>
<td>Rated Output (kW/PS)</td>
<td>3600(5090)</td>
</tr>
<tr>
<td>No. of Cylinders</td>
<td>8</td>
</tr>
<tr>
<td>Engine Model</td>
<td>8EY33W</td>
</tr>
<tr>
<td>Dry Weight (kg)</td>
<td>30902</td>
</tr>
</tbody>
</table>

The engine dry weight and outline may differ depending upon the specifications and attached accessories.
### Generator Capacity

**60Hz**

- **Ant16LW**: 340~545kWe
- **Ant20LW**: 600~780kWe
- **Ant26LW**: 1100~1720kWe
- **Ant33LW**: 1800~2300kWe
- **Ant40LW**: 2550~3450kWe
- **Ant50LW**: 3800~4600kWe

**50Hz**

- **Ant16LW**: 360~545kWe
- **Ant20LW**: 600~780kWe
- **Ant26LW**: 1100~1720kWe
- **Ant33LW**: 1800~2300kWe
- **Ant40LW**: 2550~3450kWe
- **Ant50LW**: 3800~4600kWe

**400Hz**

- **Ant16LW**: 360~545kWe
- **Ant20LW**: 600~780kWe
- **Ant26LW**: 1100~1720kWe
- **Ant33LW**: 1800~2300kWe
- **Ant40LW**: 2550~3450kWe
- **Ant50LW**: 3800~4600kWe

**480Hz**

- **Ant16LW**: 360~545kWe
- **Ant20LW**: 600~780kWe
- **Ant26LW**: 1100~1720kWe
- **Ant33LW**: 1800~2300kWe
- **Ant40LW**: 2550~3450kWe
- **Ant50LW**: 3800~4600kWe

### Engine Speed (min⁻¹)

- **720**: 250, 245, 2097
- **750**: 245, 310, 2097
- **900**: 270, 355, 3172
- **1200**: 310, 600, 3172
- **1972**: 353, 441, 3772
- **2000**: 353, 441, 3772
- **2100**: 397, 465, 3770
- **2400**: 397, 465, 3770
- **2700**: 332, 2012, 1557
- **3000**: 2800, 990, 800, 2105
- **3600**: 441, 530, 1341

### Serial Models Output [kW]

<table>
<thead>
<tr>
<th>Serial Models</th>
<th>Output (kW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ant16LW</td>
<td>400~615</td>
</tr>
<tr>
<td>Ant20LW</td>
<td>660~1020</td>
</tr>
<tr>
<td>Ant26LW</td>
<td>1400~1620</td>
</tr>
<tr>
<td>Ant33LW</td>
<td>1730~1840</td>
</tr>
<tr>
<td>Ant40LW</td>
<td>1900~2130</td>
</tr>
<tr>
<td>Ant50LW</td>
<td>2245</td>
</tr>
<tr>
<td>Ant60LW</td>
<td>2450</td>
</tr>
<tr>
<td>Ant70LW</td>
<td>2750~3600</td>
</tr>
<tr>
<td>Ant80LW</td>
<td>3800~4800</td>
</tr>
</tbody>
</table>

**NOTES**

- **M.D.O**: Marine Diesel Oil
- **H.F.O**: Heavy Fuel Oil
- **0~900**: Fuel Oil: M.D.O / H.F.O (up to 380mm²/s / 50°C)
- **900~1100**: Fuel Oil: H.F.O (up to 380mm²/s / 50°C)

The dimensions for the diesel engine generator sets are simply reference values. The values may differ for different generator manufacturers.
The engine dry weight may differ depending upon the specifications and attached accessories. Above generator capacity will vary according to actual generator efficiency.

### 6NY16LW
**Generator Capacity**: 180~400kWe

<table>
<thead>
<tr>
<th>Engine Model</th>
<th>6NY16L-5W</th>
<th>6NY16L-5W</th>
<th>6NY16L-5W</th>
<th>6NY16L-5W</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Cylinders</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cylinder Bore/Stroke (mm)</td>
<td>160×220</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rated Output (kW(kWe))</td>
<td>200 (271)</td>
<td>265 (338)</td>
<td>246 (331)</td>
<td>210 (371)</td>
</tr>
<tr>
<td>Generator Capacity (kWe)</td>
<td>180 (271)</td>
<td>240 (338)</td>
<td>225 (331)</td>
<td>200 (371)</td>
</tr>
<tr>
<td>Engine Speed (min⁻¹)</td>
<td>1000</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
</tr>
<tr>
<td>Dry Weight (kg)</td>
<td>2180</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Weight (Gen. Set) (kg)</td>
<td>5870</td>
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### 6N165LW
**Generator Capacity**: 320~480kWe

<table>
<thead>
<tr>
<th>Engine Model</th>
<th>6N165L-5W</th>
<th>6N165L-5W</th>
<th>6N165L-5W</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Cylinders</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cylinder Bore/Stroke (mm)</td>
<td>145×232</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rated Output (kW(kWe))</td>
<td>253 (480)</td>
<td>353 (660)</td>
<td>397 (750)</td>
</tr>
<tr>
<td>Generator Capacity (kWe)</td>
<td>320 (480)</td>
<td>400 (660)</td>
<td>360 (750)</td>
</tr>
<tr>
<td>Engine Speed (min⁻¹)</td>
<td>1200</td>
<td>1500</td>
<td>1200</td>
</tr>
<tr>
<td>Dry Weight (kg)</td>
<td>A100</td>
<td></td>
<td>7760</td>
</tr>
<tr>
<td>Total Weight (Gen. Set) (kg)</td>
<td>6410</td>
<td></td>
<td>7760</td>
</tr>
</tbody>
</table>

### 6EY21ALW
**Generator Capacity**: 800~940kWe

<table>
<thead>
<tr>
<th>Engine Model</th>
<th>6EY21ALW</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Cylinders</td>
<td>6</td>
</tr>
<tr>
<td>Cylinder Bore/Stroke (mm)</td>
<td>210×290</td>
</tr>
<tr>
<td>Rated Output (kW(kWe))</td>
<td>800 (1190)</td>
</tr>
<tr>
<td>Generator Capacity (kWe)</td>
<td>1000</td>
</tr>
<tr>
<td>Engine Speed (min⁻¹)</td>
<td>1100</td>
</tr>
<tr>
<td>Dry Weight (kg)</td>
<td>8000</td>
</tr>
<tr>
<td>Total Weight (Gen. Set) (kg)</td>
<td>14200</td>
</tr>
</tbody>
</table>

### 6EY22ALW
**Generator Capacity**: 600~1425kWe

<table>
<thead>
<tr>
<th>Engine Model</th>
<th>6EY22ALW</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Cylinders</td>
<td>6</td>
</tr>
<tr>
<td>Cylinder Bore/Stroke (mm)</td>
<td>230×320</td>
</tr>
<tr>
<td>Rated Output (kW(kWe))</td>
<td>600 (997)</td>
</tr>
<tr>
<td>Generator Capacity (kWe)</td>
<td>900</td>
</tr>
<tr>
<td>Engine Speed (min⁻¹)</td>
<td>720 / 750</td>
</tr>
<tr>
<td>Dry Weight (kg)</td>
<td>11000</td>
</tr>
<tr>
<td>Total Weight (Gen. Set) (kg)</td>
<td>11010</td>
</tr>
</tbody>
</table>

### 6EY18ALW
**Generator Capacity**: 360~750kWe

<table>
<thead>
<tr>
<th>Engine Model</th>
<th>6EY18ALW</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Cylinders</td>
<td>6</td>
</tr>
<tr>
<td>Cylinder Bore/Stroke (mm)</td>
<td>180×280</td>
</tr>
<tr>
<td>Rated Output (kW(kWe))</td>
<td>680 (1020)</td>
</tr>
<tr>
<td>Generator Capacity (kWe)</td>
<td>900</td>
</tr>
<tr>
<td>Engine Speed (min⁻¹)</td>
<td>720 / 750</td>
</tr>
<tr>
<td>Dry Weight (kg)</td>
<td>6400</td>
</tr>
<tr>
<td>Total Weight (Gen. Set) (kg)</td>
<td>11100</td>
</tr>
</tbody>
</table>

### 6EY26ALW
**Generator Capacity**: 1300~1720kWe

<table>
<thead>
<tr>
<th>Engine Model</th>
<th>6EY26ALW</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Cylinders</td>
<td>6</td>
</tr>
<tr>
<td>Cylinder Bore/Stroke (mm)</td>
<td>240×385</td>
</tr>
<tr>
<td>Rated Output (kW(kWe))</td>
<td>1600 (1900)</td>
</tr>
<tr>
<td>Generator Capacity (kWe)</td>
<td>1500</td>
</tr>
<tr>
<td>Engine Speed (min⁻¹)</td>
<td>720 / 750</td>
</tr>
<tr>
<td>Dry Weight (kg)</td>
<td>18500</td>
</tr>
<tr>
<td>Total Weight (Gen. Set) (kg)</td>
<td>29800</td>
</tr>
</tbody>
</table>

### 6EY26ALW
**Generator Capacity**: 1300~1720kWe

<table>
<thead>
<tr>
<th>Engine Model</th>
<th>6EY26ALW</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Cylinders</td>
<td>6</td>
</tr>
<tr>
<td>Cylinder Bore/Stroke (mm)</td>
<td>240×385</td>
</tr>
<tr>
<td>Rated Output (kW(kWe))</td>
<td>1600 (1900)</td>
</tr>
<tr>
<td>Generator Capacity (kWe)</td>
<td>1500</td>
</tr>
<tr>
<td>Engine Speed (min⁻¹)</td>
<td>720 / 750</td>
</tr>
<tr>
<td>Dry Weight (kg)</td>
<td>18500</td>
</tr>
<tr>
<td>Total Weight (Gen. Set) (kg)</td>
<td>29800</td>
</tr>
</tbody>
</table>

*Note: 1900 min⁻¹ for MDO Application Only. 1950 min⁻¹ for HFO Application Only.*
The engine dry weight may differ depending upon the specifications and attached accessories. Above generator capacity will vary according to actual generator efficiency.

<table>
<thead>
<tr>
<th>Engine Model</th>
<th>No. of Cylinders</th>
<th>Cylinder Bore×Stroke (mm)</th>
<th>Rated Output (kW(kWe))</th>
<th>Generator Capacity (kWe)</th>
<th>Engine Speed (min⁻¹)</th>
<th>Dry Weight (kg)</th>
<th>Total Weight (Gen. Set) (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>8EY26LW</td>
<td>8</td>
<td>260×385</td>
<td>1900 (2983) 2300 (3700) 2130 (2896) 2245 (3052) 2450 (3331)</td>
<td>1800 1900 2000 2100 2300</td>
<td>720 / 750</td>
<td>24500</td>
<td>40200 40200 45000</td>
</tr>
<tr>
<td>6EY33LW</td>
<td>6</td>
<td>330×440</td>
<td>2750 (3729) 3000 (4079) 3360 (4568) 3600 (4895)</td>
<td>2550 2800 3200 3450</td>
<td>720 / 750</td>
<td>38500</td>
<td>43000</td>
</tr>
<tr>
<td>8EY33LW</td>
<td>8</td>
<td>330×440</td>
<td>4000 (5438) 4500 (6118) 4800 (6524)</td>
<td>3800 4300 4400</td>
<td>720 / 750</td>
<td>50900</td>
<td>95000</td>
</tr>
</tbody>
</table>

**POWER SOLUTION BUSINESS AMAGASAKI FACTORY**

Amagasaki factory started in 1936 as world’s first factory to produce small sized diesel engines. Today, the factory mass produces large-sized diesel engines for marine and generator use, and also produces diesel and gas engines for land use and general power source. From 1983, the factory also produces gas turbines, and continues to produce high quality products ever since.

Highly quality and efficient production system

Amagasaki factory uses its unique, high performance devices and advanced machines for automatic and laborsaving operation. Furthermore, a suitable order-entry system matching each product is applied and controlled with an accurate quality management system. Therefore, we are able to produce highly reliable products to customers. YANMAR is the only company that produces the entire engine integrally within one factory.

Research and development with advanced technology

YANMAR continues to research and develop environmental-friendly technology in a higher degree, such as developing cleaner emission gas, low fuel consumption, and less vibration and noise, based on our unique engine technology.

Certified by various ship classification societies

The Amagasaki factory has been certified by the world’s 10 major ship classification societies. Its voluntary inspection program was certified by the 10 ship classification societies for the first time in the world.

![Certifications of 10 major ship classification societies](image)

Internationally certified quality control and environmental response

In July 1992, Power Solution Business was certified under ISO 9001*1 by a certification authority in England, Lloyd’s Register Quality Assurance Limited (LRQA). Responding swiftly to environmental issues, in June 1994 Amagasaki factory became one of the first land-use and marine diesel engine manufacturing facilities to be ISO 14001*2 certified. Furthermore, YANMAR instantaneously attained the International Maritime Organization (IMO) Tier II and III certification for the regulation of NOx emission levels. YANMAR maintains an internationally acclaimed reputation for leading edge technology that has environmental conservation at its forefront.

*1) ISO 9001: International Quality Control System Standard of the International Standardization Organization (Certification No. 912208)

*2) ISO 14001: International Environmental Management System Standard of the International Standardization Organization (Certification No. 770250)
2011  Founded as Yamaoka Nainenki (International Maritime Organization)

2012  Awarded Deming Prize for pursuing distinguished quality control.

2013  Certified by LRQA (Registro Italiano Navale).

2014  Certified by ISO9001 Quality Assurance System.


2016  Received supervision for approved factories by IRIS (Russian Maritime Register of Shipping).

2017  Released Model EY26(DF)

2018  Released Marine spring vibration isolating system

2019  Received supervision for approved factories by CCS (China Classification Society).

2020  The EY61 engine model received a certificate from IMC (International Maritime Organization) for NOx Tier II standards that will be applicable from 2021, making Yanmar the first domestic ship engine manufacturer to receive the certificate.

2021  Received a designation for approved factories by GL (Germanischer Lloyd).

2012  YANMAR celebrated the 100th anniversary of its founding.

2013  Received a designation for approved factories by IRS (Indian Register of Shipping).

2016  Released Model EY72.

2014  Received Model EY73.

2010  Released Model EY67.

2009  Received supervision for approved factories by CCS (China Classification Society).

1999  Our new products of diesel engine “SAVETEN” series which advance of low NOx and low fuel oil consumption are on the commercial.

1998  Three series of Yanmar marine certified marine engine in Japan by IMO (International Maritime Organization) for complying with its NOx emissions in regulations.

1997  Received supervision for approved factories by IRS (Russian Maritime Register of Shipping).

1996  Released Model EY26DL.

1993  Founded as Yamaoka Nainenki (International Maritime Organization)

1992  Certified by LRQA (Lloyd’s Register Quality Assurance) for ISO9001 Quality Assurance System.

1991  Production level of large-sized engines reached 100,000 units.

1984  Plant certified by NVL (Del Norte Veritas).

1978  Plant certified by ABS (American Bureau of Shipping) and Lloyd’s Register of Shipping), becoming the first plant in Japan to be so honored by the major ship classification organizations of Japan, U.K. and U.S.A., the major marine transportation countries of the world.


1965  Received supervision for approved factories by CCS (China Classification Society).

1960  Established the Department of Diesels and launched the “SMTEN” series.

1956  Received supervision for approved factories by MLIT (Ministry of Land, Infrastructure, Transport and Tourism).

1950  Founded as Yanmar Diesel Engine Co., Ltd.

1948  Yanmar celebrates the 100th anniversary of its founding.

1993  Founded as Yamaoka Heavy Industries Co., Ltd.

1991  Plant certified by RINA (Registro Italiano Navale).

1984  Plant certified by ABS (American Bureau of Shipping) and LR (Lloyd’s Register of Shipping), becoming the first plant in Japan to be so honored by the major ship classification organizations of Japan, U.K. and U.S.A., the major marine transportation countries of the world.

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