



YANMAR

PRODUCTS GUIDE

MARINE DIESEL ENGINE



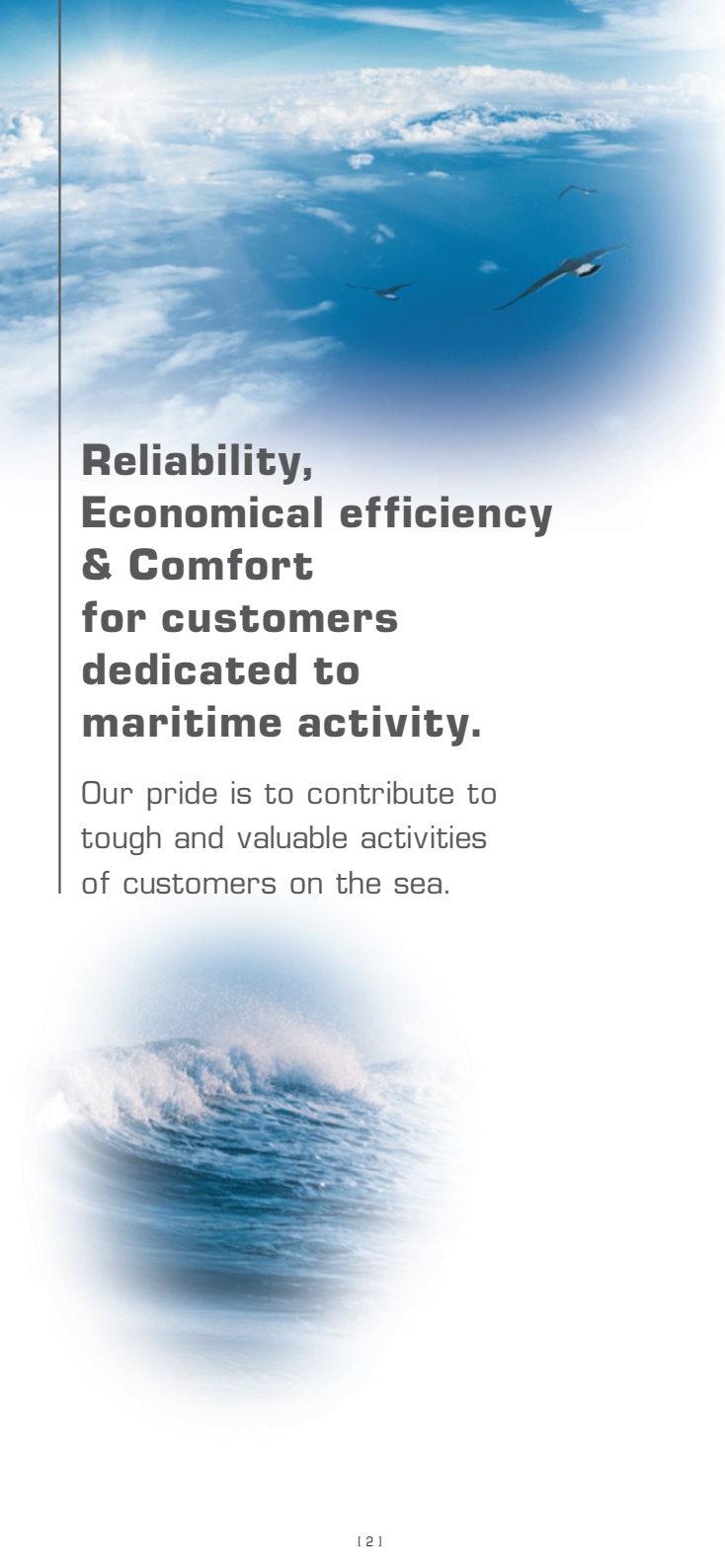
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yanmar.com



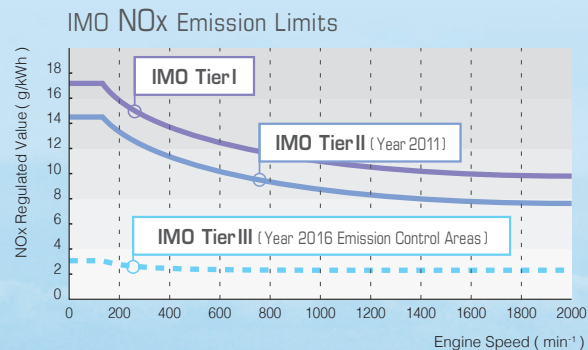
**Reliability,
Economical efficiency
& Comfort
for customers
dedicated to
maritime activity.**

Our pride is to contribute to tough and valuable activities of customers on the sea.

Harmony with the Environment

– IMO Emission Limits –

The pollution of the atmosphere by hazardous substances released from marine diesel engines has become a major global issue. The release of hazardous substances into the atmosphere by ships is regulated by the International Convention for the Prevention of Pollution from Ships (MARPOL 73/78). Annex VI: Prevention of Air Pollution from Ships was later passed in September 1997. As a result, the regulation of NO_x emission levels began for marine diesel engines with a power of above 130kW on vessels built on or after January 1,2000. A further amendment was passed in October, 2008 and engines mounted in vessels built on or after January 1,2011 face even stricter Tier II regulations. Technological solutions have been developed to overcome these regulatory challenges including engine technologies, supplementary technologies and post processing technologies. YANMAR is addressing the stricter IMO Tier II regulation NO_x limits with improvements to combustion technologies of engine.



Global Hub Factory
for Marine Diesel Engines

Marine Operations Division

The YANMAR Marine Operations Division specializes in developing and producing small and medium-sized diesel engines mainly at the Tsukaguchi Plant. From processing of components for marine propulsion engines, marine auxiliary engines, land and industrial engines to assembly, rigging, and test runs, the Tsukaguchi Plant uses a consistent quality control system to produce a wide range of diesel engines. We deliver highly reliable products that thoroughly apply the technologies and expertise that we have fine-tuned over the years to markets in Japan and all over the world.



Assembly Process [Cell]



Tsukaguchi Plant

Certified by the seven major classification societies.

The Tsukaguchi Plant has been certified by world's six most authoritative shipping classification societies, LRS(Lloyds Register of Shipping), ABS(American Bureau of Shipping), NK(Nippon Kaiji Kyokai), BV(Bureau Veritas), RINA(Registro Italiano Navale) and KR(Korea Register of Shipping). CCS(China Classification Society).



Certifications of 7 major shipping classification societies

- LRS** [Lloyds Register of Shipping]
- ABS** [American Bureau of Shipping]
- NK** [Nippon Kaiji Kyokai]
- BV** [Bureau Veritas]
- RINA** [Registro Italiano Navale]
- KR** [Korean Register of Shipping]
- CCS** [China Classification Society]

The Certifications of shipping classification societies vary with the model of engine. For more information, please contact us.

MARINE PROPULSION DIESEL ENGINE

Rating Conditions:

Ratings are based upon ISO 15550 reference conditions; air pressure of 100 kPa, air temperature 25°C [77°F], and 30% relative humidity.

S = For applications where use of rated power is less than 1.5 hours continuous out of every 5 hours and operation is less than 1000 hours per year.

When combined with a correctly matched propeller which allows the engine rated rpm to be achieved in a fully loaded vessel state, the reduced-power operation can be at or below 100-200 rpm of the rated speed.

L = For applications where use of rated power is less than 2 hours continuous out of every 5 hours and operation is less than 2500 hours per year.

When combined with a correctly matched propeller which allows the engine rated rpm to be achieved in a fully loaded vessel state, the reduced-power operation can be at or below 100-200 rpm of the rated speed.

M = For applications where use of rated power is less than 8 hours continuous out of every 12 hours and operation is less than 4000 hours per year.

When combined with a correctly matched propeller which allows the engine rated rpm to be achieved in a fully loaded vessel state, the reduced-power operation can be at or below 100-200 rpm of the rated speed.

H = For applications where use of rated power is less than 10 hours continuous out of every 12 hours and operation is less than 6000 hours per year.

When combined with a correctly matched propeller which allows the engine rated rpm to be achieved in a fully loaded vessel state, the reduced-power operation can be at or below 100-200 rpm of the rated speed.

* Please ask Yanmar or local distributor for the detail of each model.

Fuel rates: Specific gravity 840g/liter, low calorific value 42700kJ/kg (10200kcal/kg), Cetane No.45.

| Ratings | S | L | M | H |
|---|------------------|----------------|-----------------|------------------|
| Annual maximum operation hours/year | 1000h or below | 2500h or below | 4000h or below | 6000h or below |
| Allowable continuous operation hours at maximum power | 1.5h/5h or below | 2h/5h or below | 8h/12h or below | 10h/12h or below |
| Load factor | 30% or below | 40% or below | 60% or below | 80% or below |

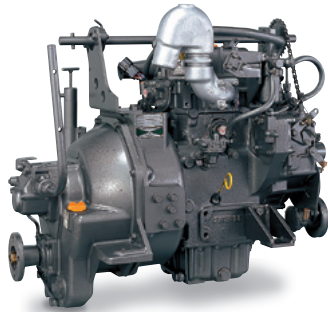
Note: This rating definition apply for new engine that installed after 1st of April 2015.

Note: All Data Subject to Change Without Notice.
Photograph may show optional equipment.

2GMY

M-rating 8.8kW (12.0mhp)

MARINE
PROPULSION
DIESEL ENGINE

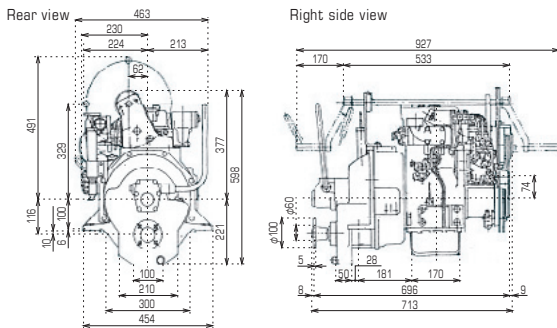


- Pre-combustion chamber. Two cylinders.
- 2GMY is equipped with mechanical marine gear.

Specifications

| Model | 2GMY |
|---------------------|-------------------------------------|
| Number of cylinders | 2 in-line |
| Bore × stroke | mm 72 × 72 |
| Displacement | lit. 0.586 |
| Rated output | kW(mhp)/rpm M : 8.8(12.0)/3200 |
| Combustion system | Special swirl precombustion chamber |
| Aspiration | Natural aspirated |
| Starting system | Electric motor (12V 1.3kW) |
| Cooling system | Direct sea water cooling |
| Marine gear | Mechanical |
| Dry mass | kg 155 with Y-5M |
| Dimensions (L×W×H) | mm 713×463×598 with Y-5M |

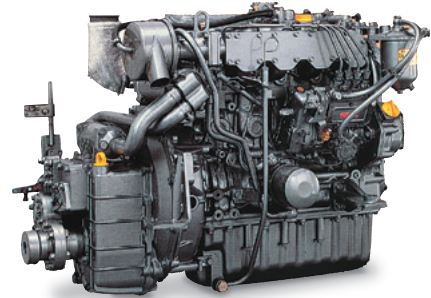
Dimensions Unit:mm



4JHYE

M · L-rating 25.7~29.4kW (35~38mhp)

MARINE
PROPULSION
DIESEL ENGINE

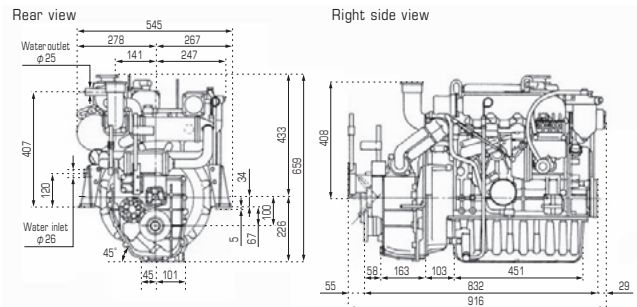


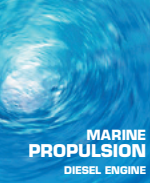
- 4-cylinder, direct injection, heat exchanger cooling.
- Natural aspiration.
- Yanmar YX marine gear is standard.

Specifications

| Model | 4JHYE |
|---------------------|--|
| Number of cylinders | 4 in-line |
| Bore × stroke | mm 78 × 86 |
| Displacement | lit. 1.644 |
| Rated output | kW(mhp)/rpm M : 25.7(35)/3400 L : 29.4(38)/3600 |
| Combustion system | Direct injection |
| Aspiration | Natural aspirated |
| Starting system | Electric motor (12V 1.8kW) |
| Cooling system | Heat exchanger |
| Marine gear | Hydraulic |
| Dry mass | kg 243 with YX-10 |
| Dimensions (L×W×H) | mm 916×545×659 with YX-10 |

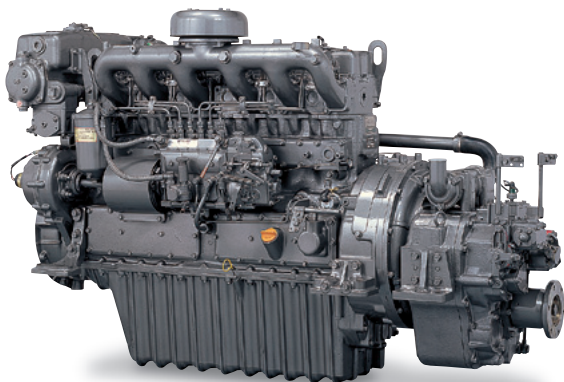
Dimensions Unit:mm





4CHE3 / 6CHE3

M · L-rating 57.4~95.6kW (78~130mph)



- Direct injection, heat exchanger cooling.
- Natural aspirated 4- and 6-cylinder.
- Durable hydraulic marine gear.

Specifications

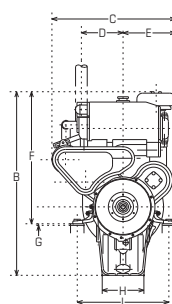
| Model | 4CHE3 | 6CHE3 |
|---------------------------------------|-------------------------------------|-------------------------|
| Number of cylinders | 4 in-line | 6 in-line |
| Bore × stroke | mm 105 × 125 | |
| Displacement | lit. 4.330 | 6.494 |
| Rated output | kW(mhp)/rpm M : 57.4(78)/2550 | M : 84.6(115)/2550 |
| | L : 62.5(85)/2600 | L : 95.6(130)/2600 |
| Combustion system | Direct injection | |
| Aspiration | Natural aspirated | |
| Starting system | Electric starting motor (24V 4.0kW) | |
| Cooling system | Heat exchanger | |
| Marine gear | Hydraulic | |
| Size of flywheel housing and flywheel | SAE #3 and 11-1/2 in. | |
| Dry mass (with marine gear) | kg 570 | 700 |
| Dimensions (L×W×H) | mm 1258×688×1022 with YX30 | 1496×690×1018 with YX30 |

Marine gear specifications

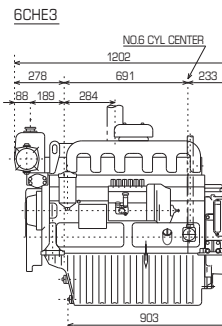
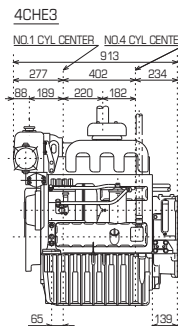
| Engine model : 4CHE3 · 6CHE3 | | | | |
|---|--|------|------|------|
| Model | YX-30 | | | |
| Type | Hydraulic multi-disc clutch, wet type | | | |
| Reduction ratio (Ahead) | 2.03 | 2.55 | 2.96 | 3.48 |
| Direction of rotation (propeller shaft) | Clockwise or counter-clockwise viewed from stern | | | |
| Dry weight | kg 70 | | | |

Dimensions Unit:mm

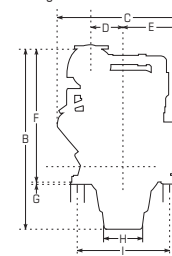
Engine only / Front view



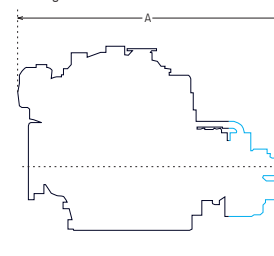
Engine only / Left side view



With gearbox / Rear view



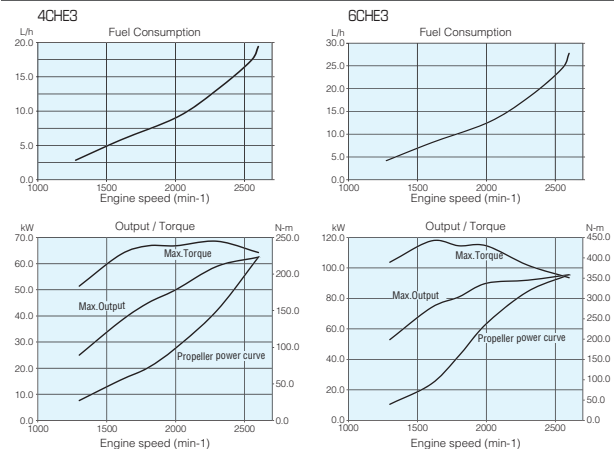
With gearbox / Left side view

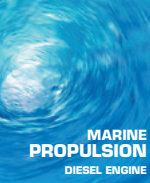


| Model | A | B | C | D | E | F | G | H | I |
|---------------|------|------|-----|-----|-----|-----|---|-----|-----|
| 4CHE3×YX-30-2 | 1258 | 1022 | 688 | 232 | 292 | 735 | 9 | 232 | 510 |
| 6CHE3×YX-30-2 | 1496 | 1018 | 690 | 233 | 300 | 737 | 9 | 233 | 550 |

— Marine gear

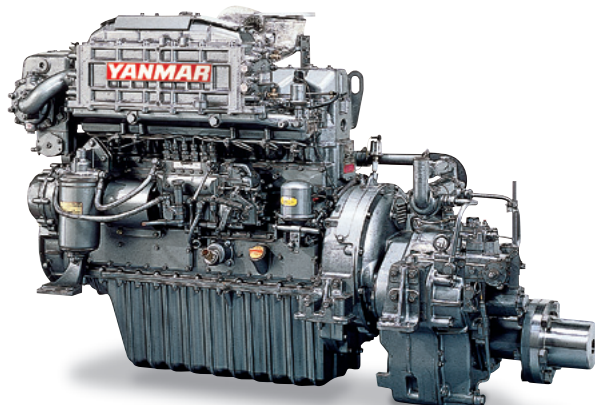
Performance curves





6CH-HTE3 / WUTE

M · L-rating 125~206kW (170~280mph)



- Direct injection, heat exchanger cooling.
- Turbocharger + intercooler.
- Durable hydraulic marine gear.
- 6CH-WUTE conform to IMO Tier II emissions regulations.

Specifications

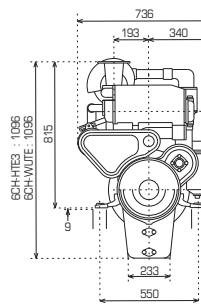
| Model | 6CH-HTE3 | 6CH-WUTE |
|---------------------------------------|-------------------------------------|-------------------|
| Number of cylinders | 6 in-line | |
| Bore × stroke | mm 105 × 125 | |
| Displacement | lit. 6.494 | |
| Rated output | M : 125(170)/2550 | M : 188(255)/2550 |
| | L : 140(190)/2600 | L : 206(280)/2600 |
| Combustion system | Direct injection | |
| Aspiration | Turbocharger + intercooler | |
| Starting system | Electric starting motor (24V 4.0kW) | |
| Cooling system | Heat exchanger | |
| Marine gear | Hydraulic | |
| Size of flywheel housing and flywheel | SAE #3 and 11-1/2 in. | |
| Dry mass (with marine gear) | kg 895 | 940 |
| Dimensions (L×W×H) | mm 1600×736×1096 | 1600×736×1096 |

Marine gear specifications

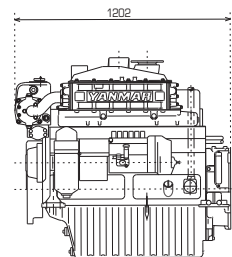
| Engine model : 6CH-HTE3, 6CH-WUTE | | | | |
|---|--|------|------|------|
| Model | YX-71 | | | |
| Type | Hydraulic multi-disc clutch, wet type | | | |
| Reduction ratio (Ahead) | 2.07 | 2.58 | 2.91 | 3.53 |
| Direction of rotation (propeller shaft) | Clockwise or counter-clockwise viewed from stern | | | |
| Dry weight | kg 220 | | | |

Dimensions Unit:mm

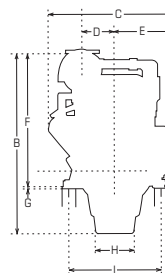
Engine only / Front view



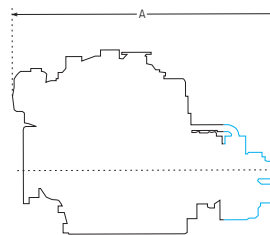
Engine only / Left side view



With gearbox / Front view



With gearbox / Left side view

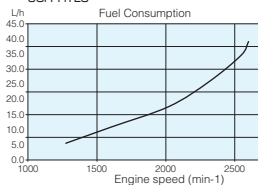


| | A | B | C | D | E | F | G | H | I |
|----------------|------|------|-----|-----|-----|-----|---|-----|-----|
| 6CH-HTE3×YX-71 | 1600 | 1096 | 736 | 193 | 340 | 815 | 9 | 233 | 550 |
| 6CH-WUTE×YX-71 | 1600 | 1096 | 736 | 193 | 340 | 815 | 9 | 233 | 550 |

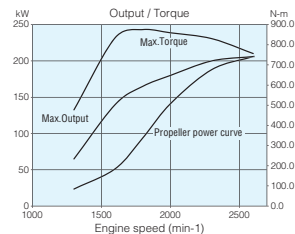
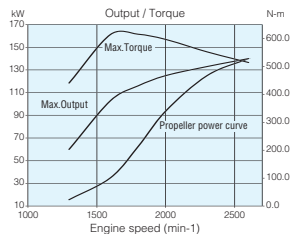
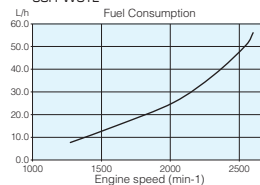
— Marine gear

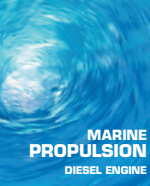
Performance curves

6CH-HTE3



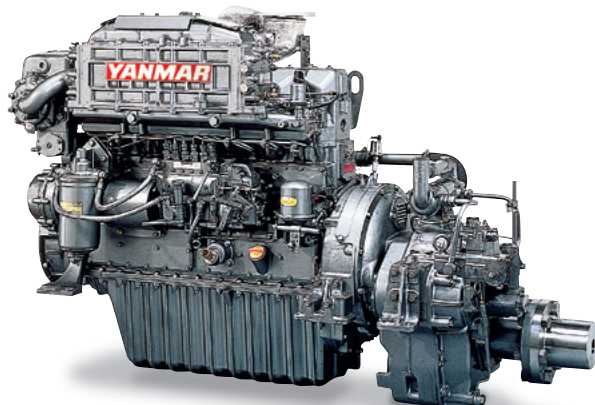
6CH-WUTE





6CH-WDTE

M · L-rating 154~169kW (209~230mph)



- Direct injection, heat exchanger cooling.
- Turbocharger + intercooler.
- Durable hydraulic marine gear.
- 6CH-WDTE conform to IMO Tier II emissions regulations.

Specifications

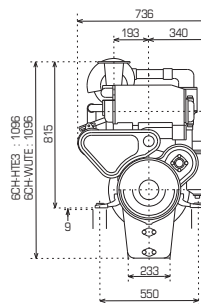
| | | |
|---------------------------------------|-------------------------------------|-------------------|
| Model | 6CH-WDTE | |
| Number of cylinders | 6 in-line | |
| Bore × stroke | mm | 105 × 125 |
| Displacement | lit. | 6.494 |
| Rated output | kW(mhp)/rpm | M : 154(209)/2550 |
| | | L : 169(230)/2600 |
| Combustion system | Direct injection | |
| Aspiration | Turbocharger + intercooler | |
| Starting system | Electric starting motor (24V 4.0kW) | |
| Cooling system | Heat exchanger | |
| Marine gear | Hydraulic | |
| Size of flywheel housing and flywheel | SAE #3 and 11-1/2 in. | |
| Dry mass (with marine gear) | kg | 900 |
| Dimensions (L×W×H) | mm | 1600×736×1096 |

Marine gear specifications

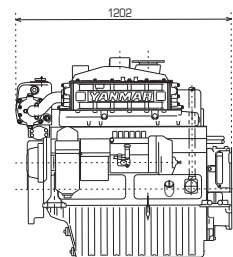
| | |
|---|--|
| Engine model : 6CH-HTE3, 6CH-WUTE | |
| Model | YX-71 |
| Type | Hydraulic multi-disc clutch, wet type |
| Reduction ratio (Ahead) | 2.07 2.58 2.91 3.53 |
| Direction of rotation (propeller shaft) | Clockwise or counter-clockwise viewed from stern |
| Dry weight | kg 220 |

Dimensions Unit:mm

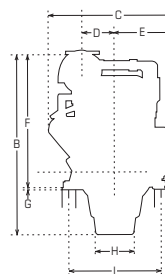
Engine only / Front view



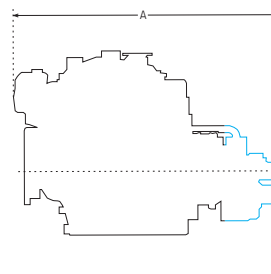
Engine only / Left side view



With gearbox / Front view



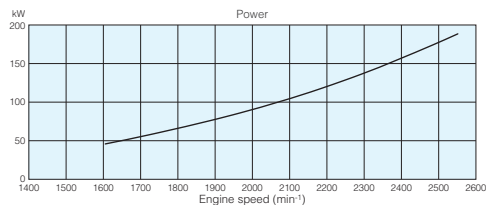
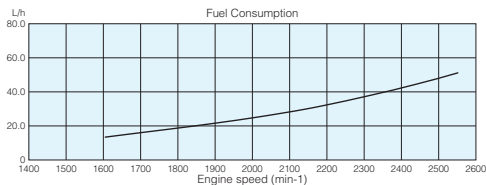
With gearbox / Left side view



| | A | B | C | D | E | F | G | H | I |
|----------------|------|------|-----|-----|-----|-----|---|-----|-----|
| 6CH-WDTE×YX-71 | 1600 | 1096 | 736 | 193 | 340 | 815 | 9 | 233 | 550 |

— Marine gear

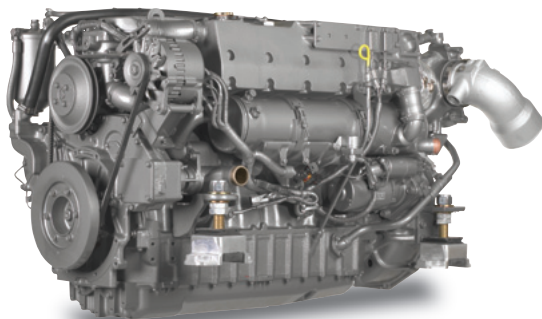
Performance curves



6LY2M-WDT/WST

L-rating 243~277kW (330~376mph)

MARINE
PROPULSION
DIESEL ENGINE



Photograph show optional equipment.

- Direct injection, heat exchanger cooling
- Turbocharger + intercooler
- Light weight
- Confirm to IMO Tier II emissions regulations.

Specifications

| Model | 6LY2M-WDT | 6LY2M-WST |
|--------------------------------|---|---------------|
| Number of cylinders | 6 in-line | |
| Bore × Stroke | mm 106 × 110 | |
| Displacement | lit. 5.813 | |
| Max output | kW(mhp)/rpm * 259(352)/3200 | 294(400)/3200 |
| | ** 243(330)/3200 | 277(376)/3200 |
| Rated output | kW(mhp)/rpm ** 221(300)/3101 | 252(343)/3101 |
| Combustion system | Direct injection | |
| Aspiration | Turbocharged with watercooled turbine housing | |
| Starting system | Electric starting motor 24V-4kW | |
| Cooling system | Heat exchanger | |
| Marine gear | Hydraulic | |
| Size of flywheel housing | SAE #3 | |
| Dry mass (without marine gear) | kg 535 | |
| Dimensions (L×W×H) | mm 1212 × 708 × 766 | |

Marine gear specifications

| Engine model : 6LY2M-WDT / WST | |
|---|---|
| Model | YX50S(-1) |
| Type | Hydraulic multi-disc clutch , wet type |
| Reduction ratio (Ahead) | 1.51 2.03 2.48 2.88 |
| Direction of rotation (propeller shaft) | Clockwise or counter-clock wise viewed from stern |
| Dry weight | kg 108 |

NOTE : 1kW=1.3596mhp

* Fuel temperature 25°C Fuel gravity 860g/liter (ISO 3046-1).

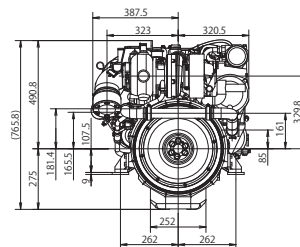
** Fuel temperature 40°C Fuel gravity 840g/liter (ISO 8665: 2006).

Technical data is according ISO 8665: 2006

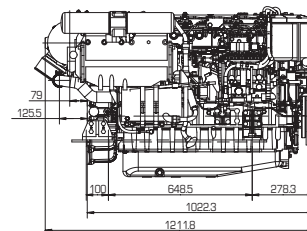
IMO tier II is based on rated output.

Dimensions Unit:mm

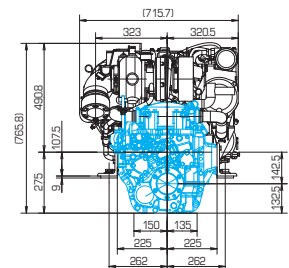
Engine only / Front view



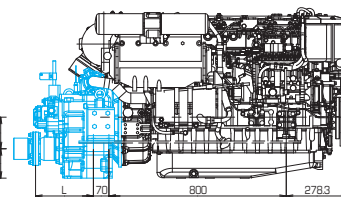
Engine only / Right side view



With gearbox / Rear view

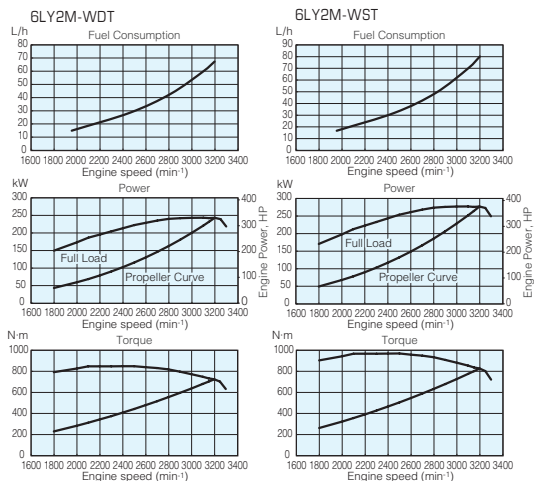


With gearbox / Right side view



| L | WDT | 247.5 |
|---|-----|-------|
| | WST | 264 |

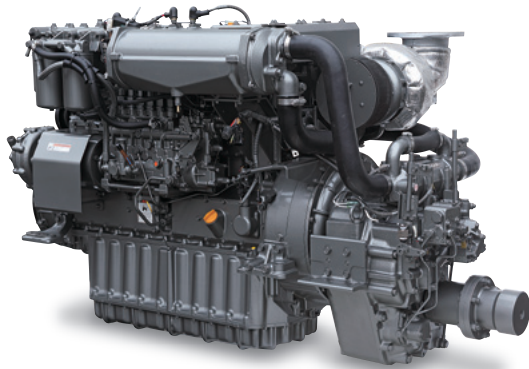
Performance curves



6CXBM-GT

MARINE
PROPULSION
DIESEL ENGINE

H-rating 265kW (360mhp)
M-rating 294kW (400mhp)



- 6-cylinder, direct injection, heat exchanger cooling.
- Turbocharger + intercooler.
- Available either with marine gear or without marine gear.
- 4-valves per cylinder for higher combustion efficiency.
- Conform to IMO Tier II emissions regulations.

Specifications

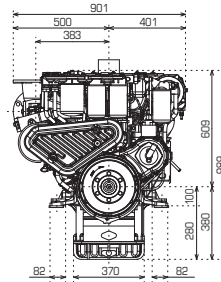
| | | |
|---------------------------------------|-------------------------------------|-------------------|
| Model | 6CXBM-GT | |
| Number of cylinders | 6 in-line | |
| Bore × stroke | mm | 110 × 130 |
| Displacement | lit. | 7.413 |
| Rated output | kW(mhp)/rpm | H : 265(360)/2400 |
| | | M : 294(400)/2500 |
| Combustion system | Direct injection | |
| Aspiration | Turbocharger + intercooler | |
| Starting system | Electric starting motor (24V 5.0kW) | |
| Cooling system | Heat exchanger | |
| Size of flywheel housing and flywheel | SAE #3 and 11-1/2 in. | |
| Dry mass (without marine gear) | kg | 856 |
| Dimensions (L×W×H) | mm | 1390×901×989 |

Marine gear specifications

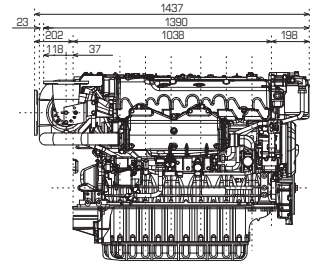
| | | |
|---|--|-------------------------------------|
| Engine model : 6CXBM-GT | | |
| Model | YX-80 | YXH2-130(2 speed type) |
| Type | Hydraulic multi-disc clutch, wet type | |
| Reduction ratio (Ahead) | 2.07 2.58 2.91 | 2.03/2.62 2.57/3.35 3.04/4.00 |
| Direction of rotation (propeller shaft) | Clockwise or counter-clockwise viewed from stern | Counter-clockwise viewed from stern |
| Dry weight | kg | 204 320 |

Dimensions Unit:mm

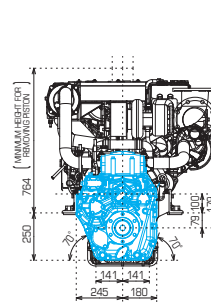
Engine only / Front view



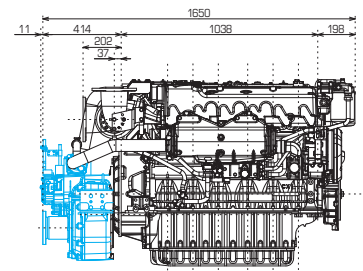
Engine only / Right side view



With YX80 gearbox / Rear view



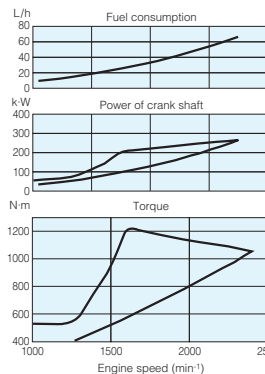
With YX80 gearbox / Right side view



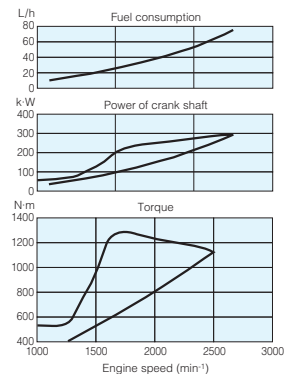
— Marine gear

Performance curves

H-rating



M-rating



6CXBM-GT

L-rating 341kW (464mhp)
S-rating 374kW (509mhp) (For planing hull)

MARINE
 PROPULSION
 DIESEL ENGINE



- 6-cylinder, direct injection, heat exchanger cooling.
- Turbocharger + intercooler.
- Available either with marine gear or without marine gear.
- 4-valves per cylinder for higher combustion efficiency.
- Conform to IMO Tier II emissions regulations.

Specifications

| | |
|---------------------------------------|---|
| Model | 6CXBM-GT |
| Number of cylinders | 6 in-line |
| Bore × stroke | mm 110 × 130 |
| Displacement | lit. 7.413 |
| Rated output | kW(mhp)/rpm L : 341(464)/2700 S : 374(509)/2700 |
| Combustion system | Direct injection |
| Aspiration | Turbocharger + intercooler |
| Starting system | Electric starting motor (24V 5.0kW) |
| Cooling system | Heat exchanger |
| Size of flywheel housing and flywheel | SAE #3 and 11-1/2 in. |
| Dry mass (without marine gear) | kg 856 |
| Dimensions (L×W×H) | mm 1390×901×989 |

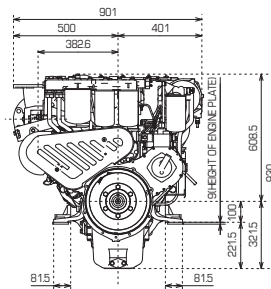
Marine gear specifications

| | |
|---|--|
| Engine model : 6CXBM-GT | |
| Model | YX-80 |
| Type | Hydraulic multi-disc clutch, wet type |
| Reduction ratio (Ahead) | 2.07 2.58 2.91 |
| Direction of rotation (propeller shaft) | Clockwise or counter-clockwise viewed from stern |
| Dry weight | kg 204 |

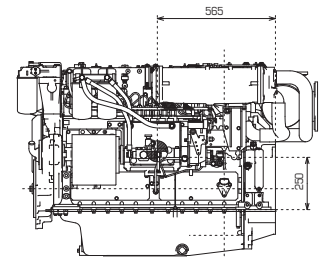
Dimensions Unit:mm

with optional shallow oil sump

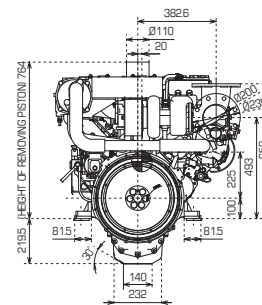
Engine only / Front view



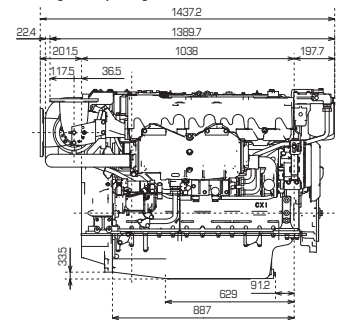
Engine only / Left side view



Engine only / Rear view

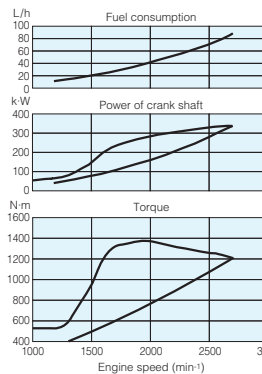


Engine only / Right side view

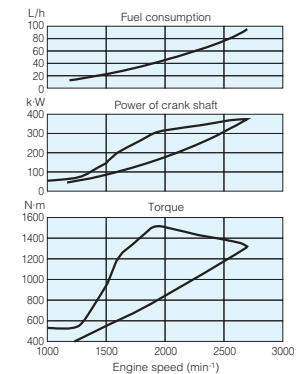


Performance curves

L-rating



S-rating



6HA2M-WHT

MARINE
PROPULSION
DIESEL ENGINE

H-rating 204kW (278mhp)
M-rating 257kW (350mhp)



- 6-cylinder, direct injection, heat exchanger cooling.
- Turbocharger + intercooler models.
- Available either with marine gear or without marine gear.
- Conform to IMO Tier II emissions regulations.

Specifications

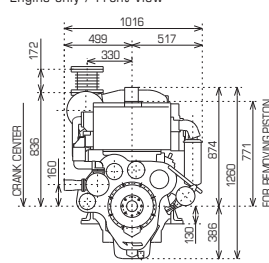
| | | |
|---------------------------------------|---|----------------|
| Model | 6HA2M-WHT | |
| Number of cylinders | 6 in-line | |
| Bore × stroke | mm | 130 × 165 |
| Displacement | lit. | 13.140 |
| Rated output | kW(mhp)/rpm H : 204(278)/1880 M : 257(350)/1950 | |
| Combustion system | Direct injection | |
| Aspiration | Turbocharger + intercooler | |
| Starting system | Electric starting motor (24V 6.0kW) | |
| Cooling system | Heat exchanger | |
| Size of flywheel housing and flywheel | SAE #1 and 14 in. | |
| Dry mass (without marine gear) | kg | 1455 |
| Dimensions (L×W×H) | mm | 1585×1016×1260 |

Marine gear specifications

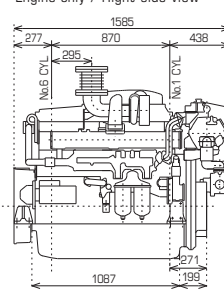
| | | | | | |
|---|-------------------------------|------|--------|------|-----------|
| Engine model : 6HA2M-WHT | | | | | |
| Model | YX120 | | YX120L | | |
| Type | Hydraulic multi-disc clutch | | | | |
| Reduction ratio (Ahead) | 2.03 | 2.57 | 3.04 | 3.55 | 4.00 4.59 |
| Direction of rotation (propeller shaft) | Clockwise or counterclockwise | | | | |
| Dry weight | kg | 315 | | 411 | |

Dimensions Unit:mm

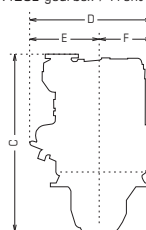
Engine only / Front view



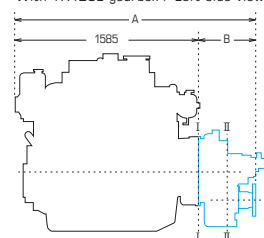
Engine only / Right side view



With YX120L gearbox / Front view



With YX120L gearbox / Left side view

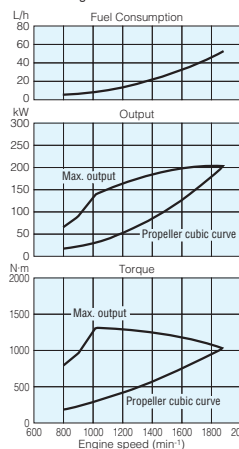


| Model | A | B | C | D | E | F |
|-------------------|------|-----|------|------|-----|-----|
| 6HA2M-WHT×YX-120 | 2005 | 420 | 1272 | 1016 | 499 | 517 |
| 6HA2M-WHT×YX-120L | 2039 | 454 | 1384 | 1016 | 499 | 517 |

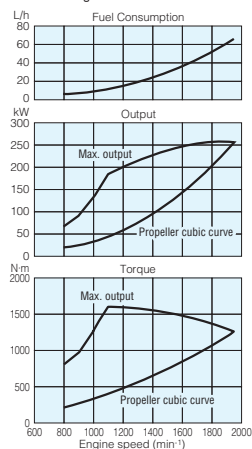
— Marine gear

Performance curves

H-rating



M-rating



6HA2M-WDT

M-rating 298kW (405mph)

MARINE
PROPULSION
DIESEL ENGINE



- 4 valves per cylinder for higher combustion efficiency.
- Turbocharger + intercooler models.
- Available either with marine gear or without marine gear.
- Conform to IMO Tier II emissions regulations.

Specifications

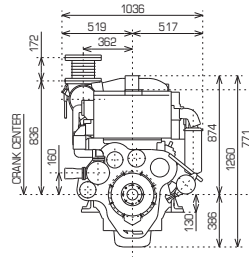
| | | |
|---------------------------------------|-------------------------------------|------------------|
| Model | 6HA2M-WDT | |
| Number of cylinders | 6 in-line | |
| Bore × stroke | mm | 130 × 165 |
| Displacement | lit. | 13.140 |
| Rated output | kW(mhp)/rpm | M: 298(405)/1950 |
| Combustion system | Direct injection | |
| Aspiration | Turbocharger + intercooler | |
| Starting system | Electric starting motor (24V 6.0kW) | |
| Cooling system | Heat exchanger | |
| Size of flywheel housing and flywheel | SAE #1 and 14 in. | |
| Dry mass (without marine gear) | kg | 1465 |
| Dimensions (L×W×H) | mm | 1585×1036×1260 |

Marine gear specifications

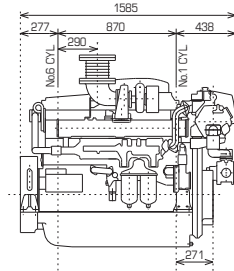
| | | | | | | |
|---|-------------------------------|--------|------|-----|------|------|
| Engine model : 6HA2M-WDT | | | | | | |
| Model | YX120 | YX120L | | | | |
| Type | Hydraulic multi-disc clutch | | | | | |
| Reduction ratio (Ahead) | 2.03 | 2.57 | 3.04 | 346 | 4.00 | 4.59 |
| Direction of rotation (propeller shaft) | Clockwise or counterclockwise | | | | | |
| Dry weight | kg | 315 | 411 | | | |

Dimensions Unit:mm

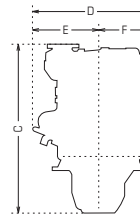
Engine only / Front view



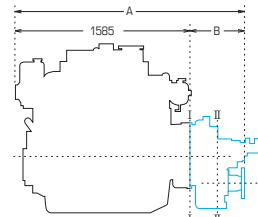
Engine only / Left side view



With YX120 gearbox / Front view



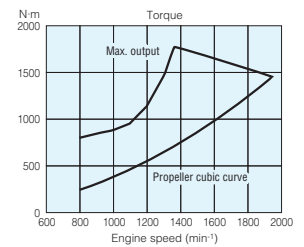
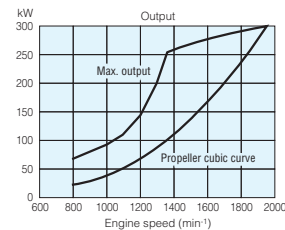
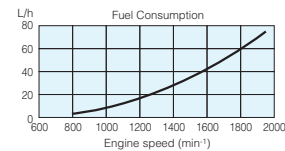
With YX120 gearbox / Left side view



| | A | B | C | D | E | F |
|---------------------|------|-----|------|------|-----|-----|
| 6HA2M-WDT × YX-120 | 2005 | 420 | 1272 | 1036 | 519 | 517 |
| 6HA2M-WDT × YX-120L | 2039 | 454 | 1384 | 1036 | 519 | 517 |

— Marine gear

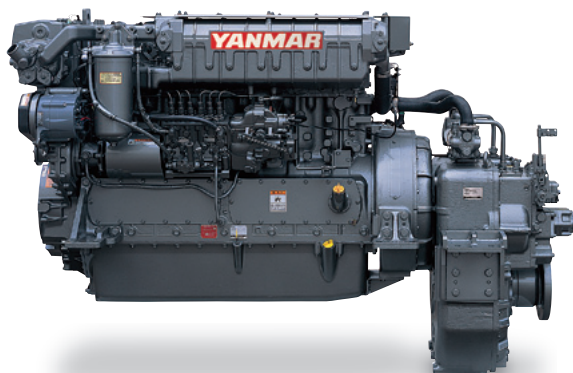
Performance curves



6HYM-WET

H-rating 368kW (500mhp)

MARINE
PROPULSION
DIESEL ENGINE



- 6-cylinder, direct injection, heat exchanger cooling.
- Twin-turbocharger + intercooler.
- Available either with marine gear or without marine gear.
- 4-valves per cylinder for higher combustion efficiency.
- Conform to IMO Tier II emissions regulations.

Specifications

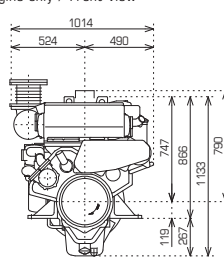
| | | |
|---------------------------------------|-------------------------------------|---------------------------|
| Model | 6HYM-WET H-rating | |
| Number of cylinders | 6 in-line | |
| Bore × stroke | mm | 132.9 × 165 |
| Displacement | lit. | 13.733 |
| Rated output | kW(mhp)/rpm | 368(500)/1950 |
| Combustion system | Direct injection | |
| Aspiration | Turbocharger + intercooler | |
| Starting system | Electric starting motor (24V 6.0kW) | |
| Cooling system | Heat exchanger | |
| Size of flywheel housing and flywheel | SAE #1 and 14 in. | |
| Dry mass | kg | 1385(without marine gear) |
| Dimensions (L×W×H) | mm | 1556×1014×1133 |

Marine gear specifications

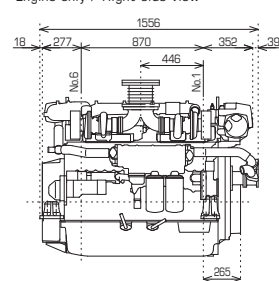
| | | | | | | |
|---|-------------------------------|---------|------|------|------|------|
| Engine model : 6HYM-WET H-rating | | | | | | |
| Model | YXH-160 | YX-161L | | | | |
| Type | Hydraulic multi-disc clutch | | | | | |
| Reduction ratio (Ahead) | 1.97 | 2.46 | 3.05 | 3.65 | 4.08 | 4.55 |
| Direction of rotation (propeller shaft) | Clockwise or counterclockwise | | | | | |
| Dry weight | kg | 396 | | 620 | | |

Dimensions Unit:mm

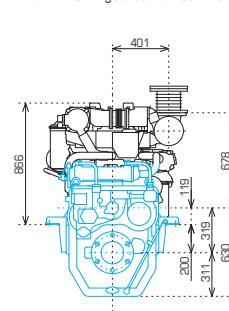
Engine only / Front view



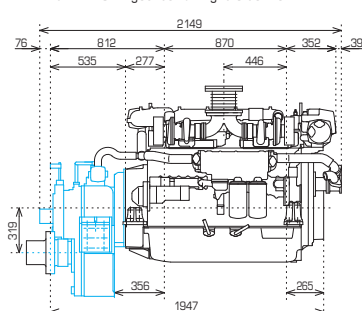
Engine only / Right side view



With YX161L gearbox / Rear view

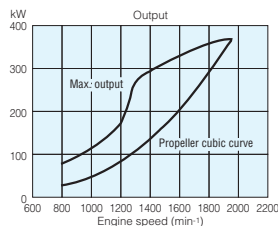
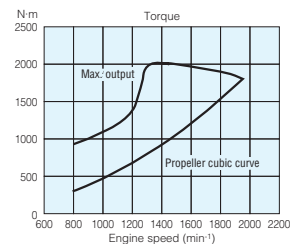
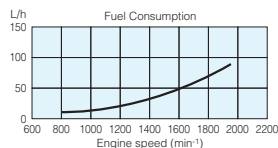


With YX161L gearbox / Right side view



— Marine gear

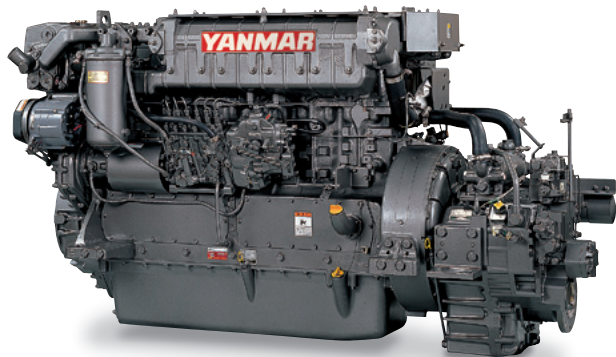
Performance curves



6HYM-WET

M-rating 441kW (600mhp)
L-rating 478kW (650mhp)

MARINE
 PROPULSION
 DIESEL ENGINE



- 6-cylinder, direct injection, heat exchanger cooling.
- Twin-turbocharger + intercooler.
- Available either with marine gear or without marine gear.
- 4-valves per cylinder for higher combustion efficiency.
- Conform to IMO Tier II emissions regulations.

Specifications

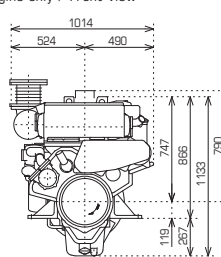
| | | | |
|---------------------------------------|-------------------------------------|--|--|
| Model | 6HYM-WET M-rating / L-rating | | |
| Number of cylinders | 6 in-line | | |
| Bore × stroke | mm | 132.9 × 165 | |
| Displacement | lit. | 13.733 | |
| Rated output | kW(mhp)/rpm | M : 441(600)/2100 L : 478(650)/2150 | |
| Combustion system | Direct injection | | |
| Aspiration | Turbocharger + intercooler | | |
| Starting system | Electric starting motor (24V 6.0kW) | | |
| Cooling system | Heat exchanger | | |
| Size of flywheel housing and flywheel | SAE #1 and 14 in. | | |
| Dry mass | kg | 1385(without marine gear) | |
| Dimensions (L×W×H) | mm | 1556×1014×1133 | |

Marine gear specifications

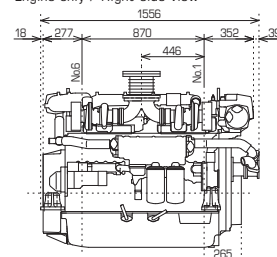
| | | | | | | |
|---|-------------------------------|---------|------|------|------|------|
| Engine model : 6HYM-WET M-rating / L-rating | | | | | | |
| Model | YXH-160 | YX-161L | | | | |
| Type | Hydraulic multi-disc clutch | | | | | |
| Reduction ratio (Ahead) | 1.97 | 2.46 | 3.05 | 3.65 | 4.08 | 4.55 |
| Direction of rotation (propeller shaft) | Clockwise or counterclockwise | | | | | |
| Dry weight | kg | 396 | | 620 | | |

Dimensions Unit:mm

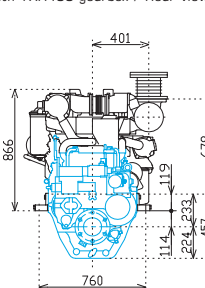
Engine only / Front view



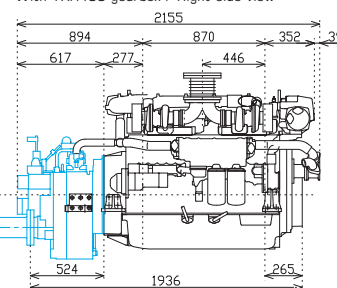
Engine only / Right side view



With YXH160 gearbox / Rear view

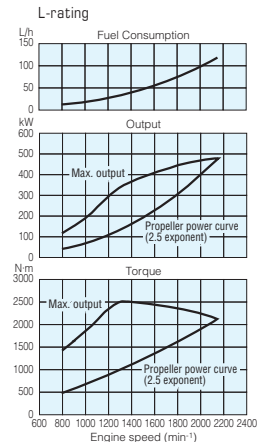
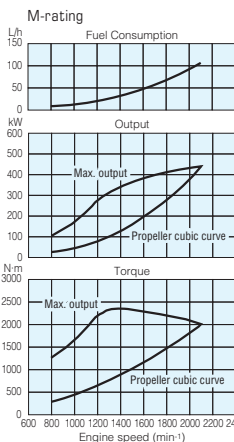


With YXH160 gearbox / Right side view



— Marine gear

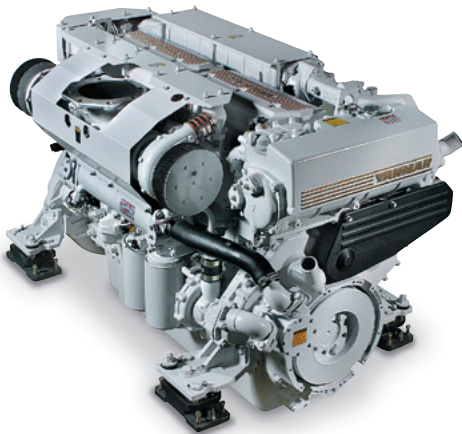
Performance curves



6HYM-WET

S-rating 515kW (700mhp)
(For planing hull)

MARINE
PROPULSION
DIESEL ENGINE



- 6-cylinder, direct injection, heat exchanger cooling.
- Twin-turbocharger + intercooler.
- Available either with marine gear or without marine gear.
- 4-valves per cylinder for higher combustion efficiency.
- Conform to IMO Tier II emissions regulations.

Specifications

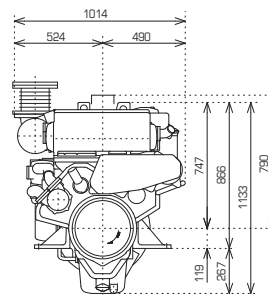
| | | |
|---------------------------------------|-------------------------------------|---------------------------|
| Model | 6HYM-WET S-rating | |
| Number of cylinders | 6 in-line | |
| Bore × stroke | mm | 132.9 × 165 |
| Displacement | lit. | 13.733 |
| Rated output | kW(mhp)/rpm | 515(700)/2200 |
| Combustion system | Direct injection | |
| Aspiration | Turbocharger + intercooler | |
| Starting system | Electric starting motor (24V 6.0kW) | |
| Cooling system | Heat exchanger | |
| Size of flywheel housing and flywheel | SAE # 1 and 14 in. | |
| Dry mass | kg | 1385(without marine gear) |
| Dimensions (L×W×H) | mm | 1556×1014×1133 |

Marine gear specifications

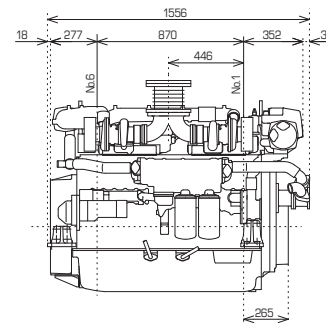
| | | |
|---|-------------------------------|-----------|
| Engine model : 6HYM-WET S-rating | | |
| Model | YXH-160 | |
| Type | Hydraulic multi-disc clutch | |
| Reduction ratio (Ahead) | 1.97 | 2.46 3.05 |
| Direction of rotation (propeller shaft) | Clockwise or counterclockwise | |
| Dry weight | kg | 396 |

Dimensions Unit:mm

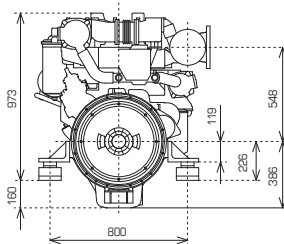
Engine only / Front view



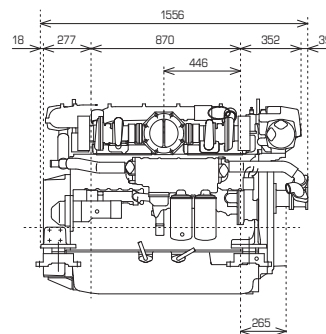
Engine only / Right side view



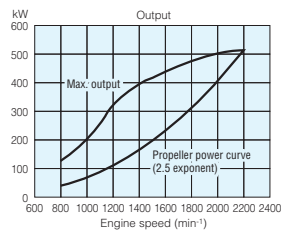
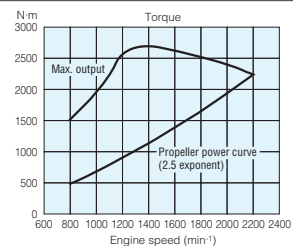
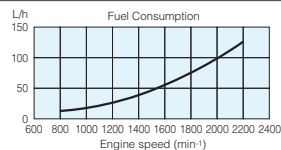
Engine only / Rear view



Engine only / Right side view



Performance curves



6AYM-WST

H-rating 485kW (659mhp)

MARINE
PROPULSION
DIESEL ENGINE



- 6-cylinder, direct injection, heat exchanger cooling.
- Turbocharger + intercooler.
- 4-valves per cylinder for higher combustion efficiency.
- Available either with marine gear or without marine gear.
- Conform to IMO Tier II emissions regulations.

Specifications

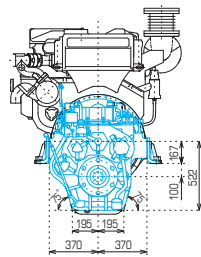
| | | | |
|---------------------------------------|-------------------------------------|----------------------------|--|
| Model | 6AYM-WST H-rating | | |
| Number of cylinders | 6 in-line | | |
| Bore × stroke | mm | 155 × 180 | |
| Displacement | lit. | 20.379 | |
| Rated output | kW(mhp)/rpm | H : 485(659)/1900 | |
| Combustion system | Direct injection | | |
| Aspiration | Turbocharger + intercooler | | |
| Starting system | Electric starting motor (24V 7.0kW) | | |
| Cooling system | Heat exchanger | | |
| Size of flywheel housing and flywheel | SAE #D and 18 in. | | |
| Dry mass | kg | 2365 (without marine gear) | |
| Dimensions (L×W×H) | mm | 2000×1305×1431 | |

Marine gear specifications

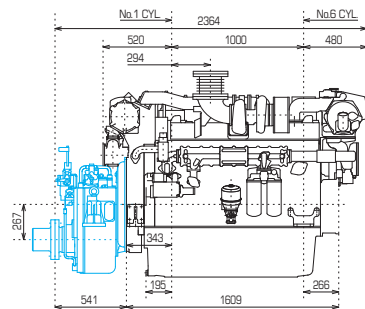
| | | | |
|---|-------------------------------|----------------|------------------------------------|
| Engine model : 6AYM-WST H-rating | | | |
| Model | YX181 | YX180L | YXH-240L |
| Type | Hydraulic multi-disc clutch | | |
| Reduction ratio (Ahead) | 2.08 2.55 3.03 | 3.50 4.00 4.54 | 4.13 4.48 4.89 5.36 5.91 6.57 6.95 |
| Direction of rotation (propeller shaft) | Clockwise or counterclockwise | | |
| Dry weight | kg | 560 | 680 1240 |

Dimensions Unit:mm

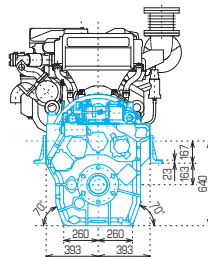
With YX181 gearbox / Rear view



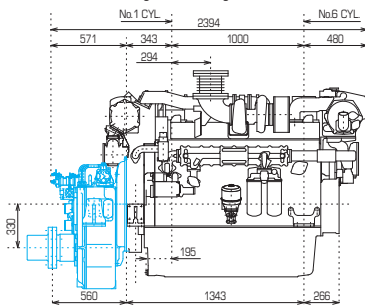
With YX181 gearbox / Right side view



With YX180L gearbox / Rear view

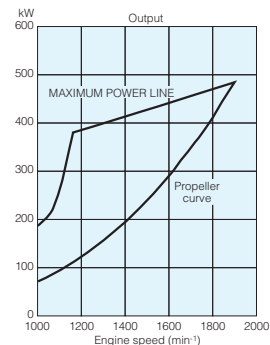
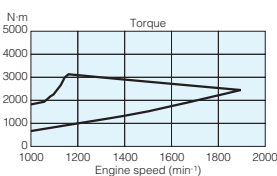
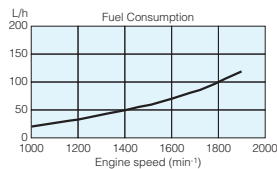


With YX180L gearbox / Right side view



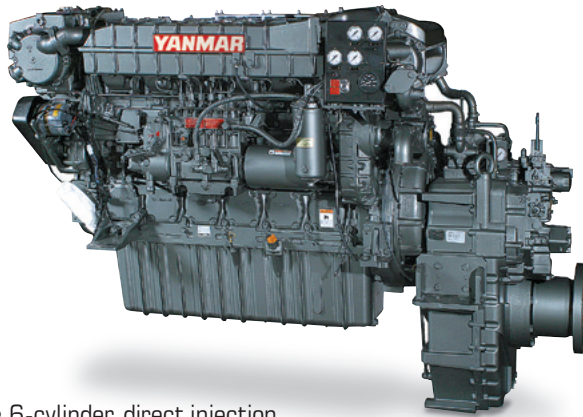
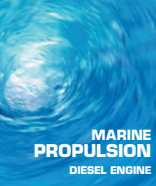
— Marine gear

Performance curves



6AYM-WET

H-rating 555kW (755mhp)



- 6-cylinder, direct injection, heat exchanger cooling.
- Turbocharger + intercooler.
- 4-valves per cylinder for higher combustion efficiency.
- Available either with marine gear or without marine gear.
- Conform to IMO Tier II emissions regulations.

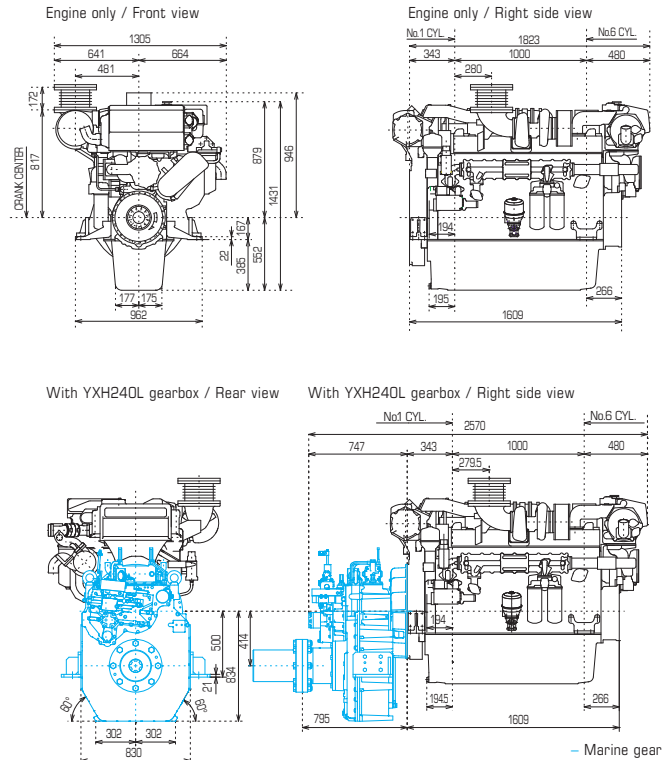
Specifications

| | | |
|---------------------------------------|-------------------------------------|----------------------------|
| Model | 6AYM-WET H-rating | |
| Number of cylinders | 6 in-line | |
| Bore × stroke | mm | 155 × 180 |
| Displacement | lit. | 20.379 |
| Rated output | kW(mhp)/rpm | H : 555(755)/1840 |
| Combustion system | Direct injection | |
| Aspiration | Turbocharger + intercooler | |
| Starting system | Electric starting motor (24V 7.0kW) | |
| Cooling system | Heat exchanger | |
| Size of flywheel housing and flywheel | SAE #0 and 18 in. | |
| Dry mass | kg | 2365 (without marine gear) |
| Dimensions (L×W×H) | mm | 2000×1305×1431 |

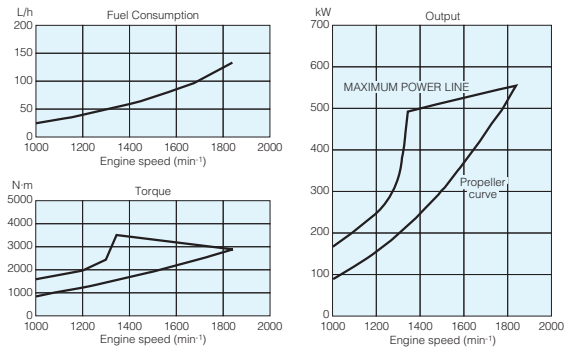
Marine gear specifications

| | | |
|---|-------------------------------|------------------------------------|
| Engine model : 6AYM-WET H-rating | | |
| Model | YXH-240 | YXH-240L |
| Type | Hydraulic multi-disc clutch | |
| Reduction ratio (Ahead) | 1.95 2.27 2.56 3.03 3.48 | 4.13 4.48 4.89 5.36 5.91 6.57 6.95 |
| Direction of rotation (propeller shaft) | Clockwise or counterclockwise | |
| Dry weight | kg | 632 1240 |

Dimensions Unit:mm



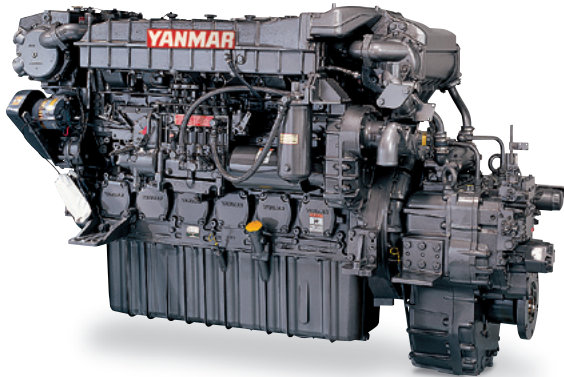
Performance curves



6AYM-WET

M-rating 610kW (829mhp)

MARINE
PROPULSION
DIESEL ENGINE



- 6-cylinder, direct injection, heat exchanger cooling.
- Turbocharger + intercooler.
- 4-valves per cylinder for higher combustion efficiency.
- Available either with marine gear or without marine gear.
- Conform to IMO Tier II emissions regulations.

Specifications

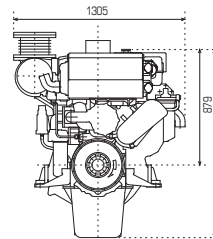
| | | |
|---------------------------------------|-------------------------------------|----------------------------|
| Model | 6AYM-WET M-rating | |
| Number of cylinders | 6 in-line | |
| Bore × stroke | mm | 155 × 180 |
| Displacement | lit. | 20.379 |
| Rated output | kW(mhp)/rpm | M : 610(829)/1900 |
| Combustion system | Direct injection | |
| Aspiration | Turbocharger + intercooler | |
| Starting system | Electric starting motor (24V 7.0kW) | |
| Cooling system | Heat exchanger | |
| Size of flywheel housing and flywheel | SAE #0 and 18 in. | |
| Dry mass | kg | 2365 (without marine gear) |
| Dimensions (L×W×H) | mm | 2000×1305×1431 |

Marine gear specifications

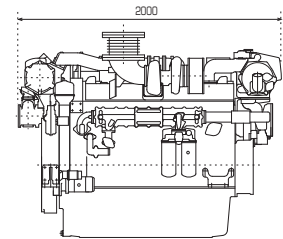
| | | |
|---|-------------------------------|------------------------------------|
| Engine model : 6AYM-WET M-rating | | |
| Model | YXH-240 | YXH-240L |
| Type | Hydraulic multi-disc clutch | |
| Reduction ratio (Ahead) | 1.95 2.27 2.56 3.03 3.48 | 4.13 4.48 4.89 5.36 5.91 6.57 6.95 |
| Direction of rotation (propeller shaft) | Clockwise or counterclockwise | |
| Dry weight | kg | 632 1240 |

Dimensions Unit:mm

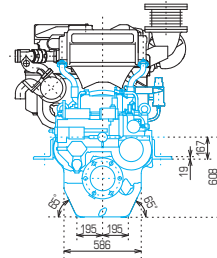
Engine only / Front view



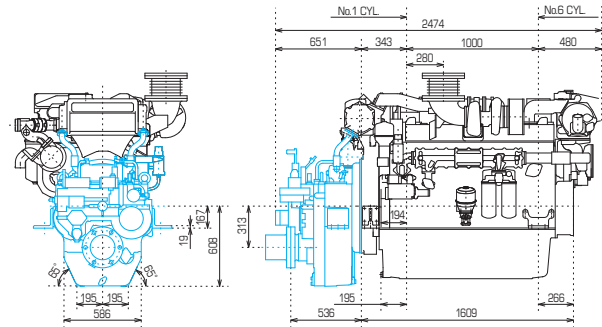
Engine only / Right side view



With YXH240 gearbox / Rear view

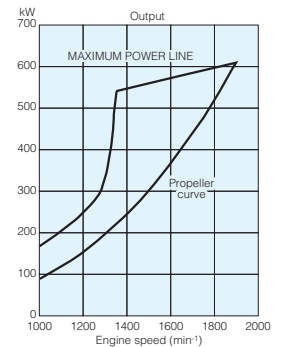
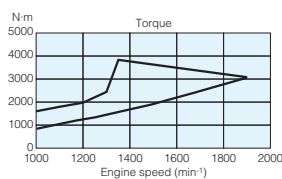
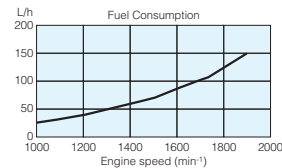


With YXH240 gearbox / Right side view



— Marine gear

Performance curves



6AYM-WGT

L-rating 670kW (911mhp)

MARINE
PROPULSION
DIESEL ENGINE



- 6-cylinder, direct injection, heat exchanger cooling.
- Turbocharger + intercooler.
- 4-valves per cylinder for higher combustion efficiency.
- Available either with marine gear or without marine gear.
- Conform to IMO Tier II emissions regulations.

Specifications

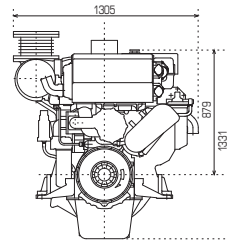
| | | |
|---------------------------------------|-------------------------------------|----------------------------|
| Model | 6AYM-WGT L-rating | |
| Number of cylinders | 6 in-line | |
| Bore × stroke | mm | 155 × 180 |
| Displacement | lit. | 20.379 |
| Rated output | kW(mhp)/rpm | L : 670(911)/1938 |
| Combustion system | Direct injection | |
| Aspiration | Turbocharger + intercooler | |
| Starting system | Electric starting motor (24V 7.0kW) | |
| Cooling system | Heat exchanger | |
| Size of flywheel housing and flywheel | SAE #0 and 18 in. | |
| Dry mass | kg | 2365 (without marine gear) |
| Dimensions (L×W×H) | mm | 2000×1305×1431 |

Marine gear specifications

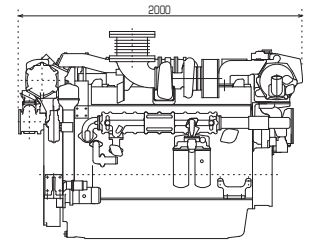
| | |
|---|-------------------------------|
| Engine model : 6AYM-WGT L-rating | |
| Model | YXH-240 |
| Type | Hydraulic multi-disc clutch |
| Reduction ratio (Ahead) | 1.95 2.27 2.56 3.03 348 |
| Direction of rotation (propeller shaft) | Clockwise or counterclockwise |
| Dry weight | kg 632 |

Dimensions Unit:mm

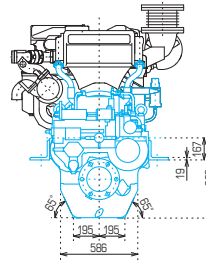
Engine only / Front view



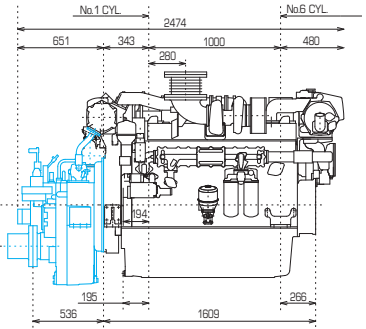
Engine only / Right side view (Shallow sump)



With YXH240 gearbox / Rear view

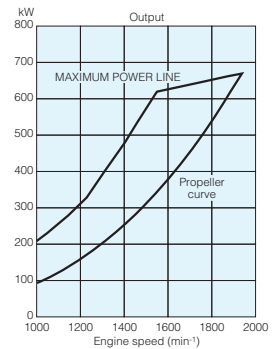
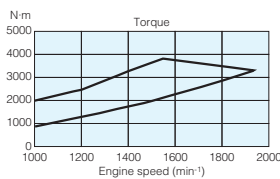
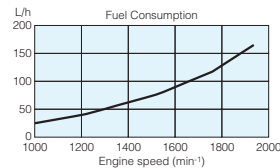


With YXH240 gearbox / Right side view



— Marine gear

Performance curves



6AYEM-ET

Continuous-rating 555kW (755mph)
M-rating 610kW (829mph)



- Common Rail system
- 6-cylinder, direct injection, heat exchanger cooling.
- Turbocharger + intercooler.
- 4-valves per cylinder for higher combustion efficiency.
- Available either with marine gear or without marine gear.
- Conform to IMO Tier II emissions regulations.

Specifications

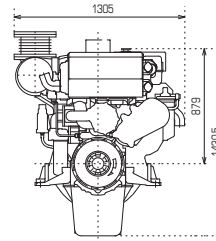
| | |
|---------------------------------------|---|
| Model | 6AYEM-WET |
| Number of cylinders | 6 in-line |
| Bore × stroke | mm 155 × 180 |
| Displacement | lit. 20.379 |
| Rated output | kW(mhp)/rpm M : 610(829)/1900 C : 555(755)/1840 |
| Combustion system | Direct injection |
| Aspiration | Turbocharger + intercooler |
| Starting system | Electric starting motor (24V 8.0kW) |
| Cooling system | Heat exchanger |
| Size of flywheel housing and flywheel | SAE #0 and 18 in. |
| Dry mass | kg 2418 (without marine gear) |
| Dimensions (L×W×H) | mm 2000×1305×1531 |

Marine gear specifications

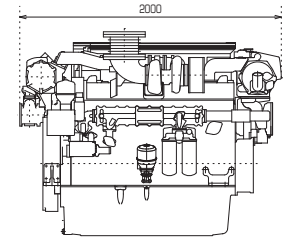
| | |
|---|-------------------------------|
| Engine model : 6AYM-WET M-rating | |
| Model | YXH-240-7 |
| Type | Hydraulic multi-disc clutch |
| Reduction ratio (Ahead) | 1.95 2.27 2.56 3.03 3.48 |
| Direction of rotation (propeller shaft) | Clockwise or counterclockwise |
| Dry weight | kg 632 |

Dimensions Unit:mm

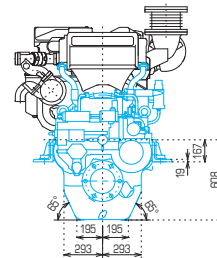
Engine only / Front view



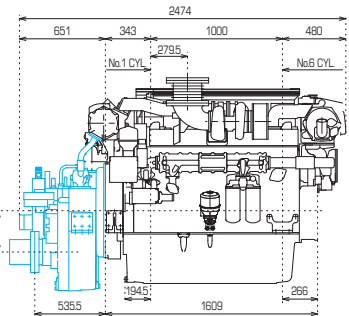
Engine only / Right side view



With YXH240 gearbox / Rear view

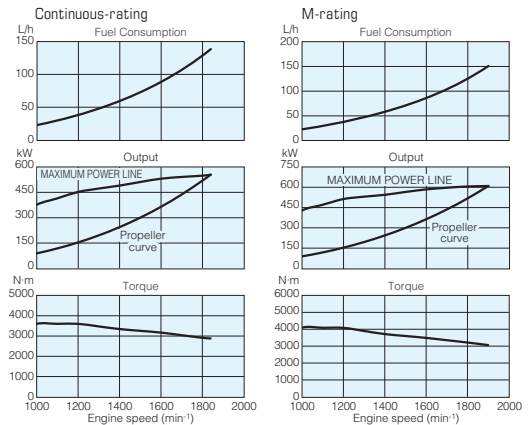


With YXH240 gearbox / Right side view



— Marine gear

Performance curves



6AYEM-GT

L-rating 670kW (911mhp)
S-rating 737kW (1002mhp), 749kW (1018mhp)



- Common Rail system
- 6-cylinder, direct injection, heat exchanger cooling.
- Turbocharger + intercooler.
- 4-valves per cylinder for higher combustion efficiency.
- Available either with marine gear or without marine gear.
- Conform to IMO Tier II emissions regulations.

Specifications

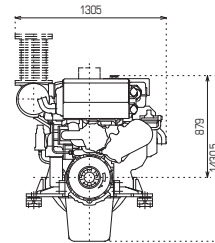
| | | |
|---------------------------------------|-------------------------------------|---|
| Model | 6AYEM-WGT | |
| Number of cylinders | 6 in-line | |
| Bore × stroke | mm | 155 × 180 |
| Displacement | lit. | 20.379 |
| Rated output | kW(mhp)/rpm | L : 670(911)/1938, S : 737(1002)/2000, S : 749(1018)/2000 |
| Combustion system | Direct injection | |
| Aspiration | Turbocharger + intercooler | |
| Starting system | Electric starting motor (24V 8.0kW) | |
| Cooling system | Heat exchanger | |
| Size of flywheel housing and flywheel | SAE #0 and 18 in. | |
| Dry mass | kg | 2418 (without marine gear) |
| Dimensions (L×W×H) | mm | 2000×1305×1531 |

Marine gear specifications

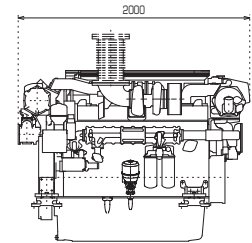
| | |
|---|-------------------------------|
| Engine model : 6AYM-WGT | |
| Model | YXH-240-7 |
| Type | Hydraulic multi-disc clutch |
| Reduction ratio (Ahead) | 1.95 2.27 2.56 3.03 348 |
| Direction of rotation (propeller shaft) | Clockwise or counterclockwise |
| Dry weight | kg 632 |

Dimensions Unit:mm

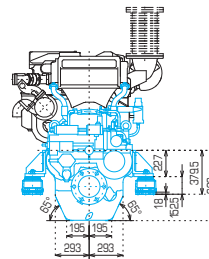
Engine only / Front view



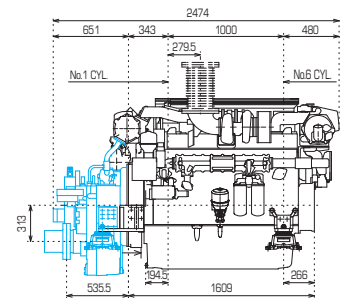
Engine only / Right side view (Shallow sump)



With YXH240 gearbox / Rear view

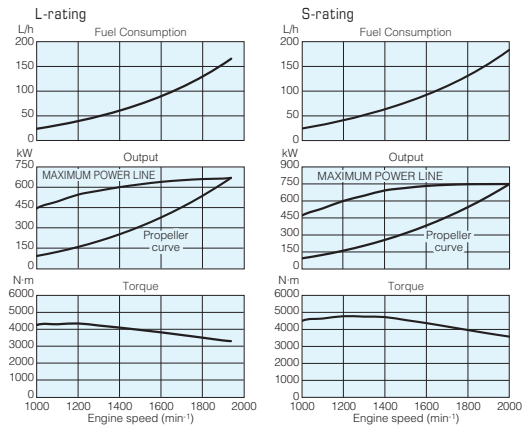


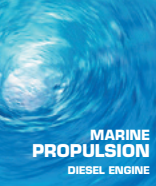
With YXH240 gearbox / Right side view



— Marine gear

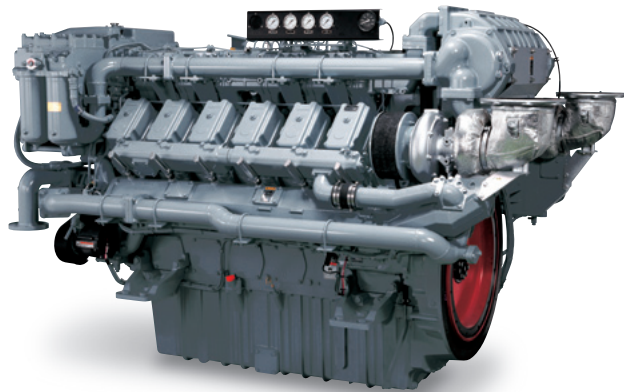
Performance curves





12AYM-WST

H-rating 882kW (1199mhp)
H-rating 1030kW (1400mhp)



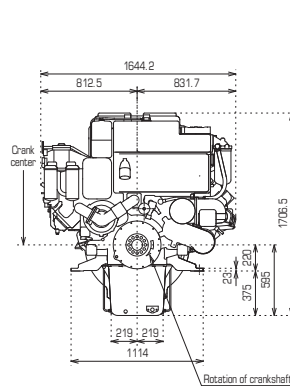
- V-type, 12-cylinder, direct injection, heat exchanger cooling.
- Turbocharger + intercooler.
- 4-valves per cylinder for higher combustion efficiency.
- Conform to IMO Tier II emissions regulations.

Specifications

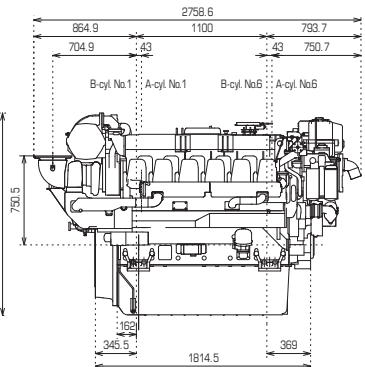
| | | |
|---------------------------------------|--|----------------------------|
| Model | 12AYM-WST H-rating | |
| Number of cylinders | 12 V-type | |
| Bore × stroke | mm | 155 × 180 |
| Displacement | lit. | 40.76 |
| Rated output | kW(mhp)/rpm | H : 882(1199)/1850 |
| | | H : 1030(1400)/1900 |
| Combustion system | Direct injection | |
| Aspiration | Turbocharger + intercooler | |
| Starting system | Electric starting motor (24V-8.0kW)×2 or air motor×2 | |
| Cooling system | Constant high temperature cooling system | |
| Size of flywheel housing and flywheel | SAE #00 and 21 in. | |
| Dry mass | kg | 4950 (without marine gear) |
| Dimensions (L×W×H) | mm | 2759 × 1644 × 1707 |

Dimensions Unit:mm

Engine only / Front view

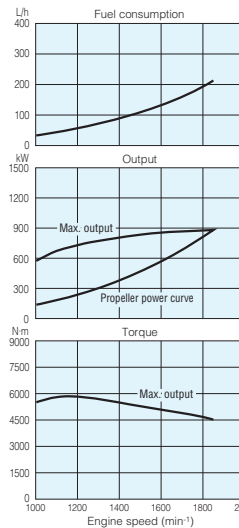


Engine only / Right side view

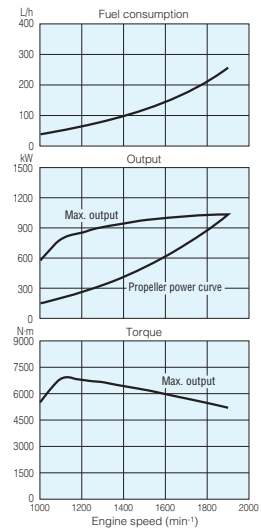


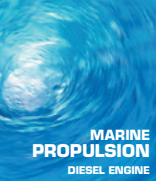
Performance curves

H rating 882kW [1199mhp]



H rating 1030kW [1400mhp]





12AYM-WET

H-rating 1140kW (1550mhp)
M-rating 1220kW (1659mhp)



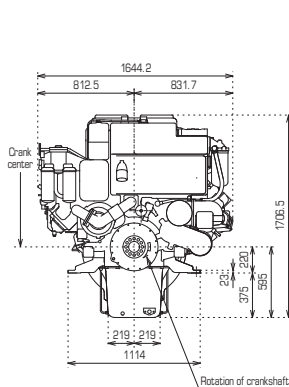
- V-type, 12-cylinder, direct injection, heat exchanger cooling.
- Turbocharger + intercooler.
- 4-valves per cylinder for higher combustion efficiency.
- Conform to IMO Tier II emissions regulations.

Specifications

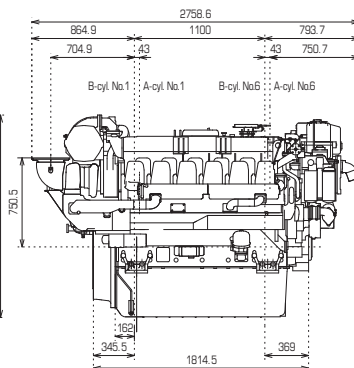
| | | |
|---------------------------------------|--|----------------------------|
| Model | 12AYM-WET H-rating / M-rating | |
| Number of cylinders | 12 V-type | |
| Bore × stroke | mm | 155 × 180 |
| Displacement | lit. | 40.76 |
| Rated output | kW(mhp)/rpm | H : 1140(1550)/1840 |
| | | M : 1220(1659)/1900 |
| Combustion system | Direct injection | |
| Aspiration | Turbocharger + intercooler | |
| Starting system | Electric starting motor (24V-8.0kW)×2 or air motor×2 | |
| Cooling system | Constant high temperature cooling system | |
| Size of flywheel housing and flywheel | SAE #00 and 21 in. | |
| Dry mass | kg | 4950 (without marine gear) |
| Dimensions (L×W×H) | mm | 2759 × 1644 × 1707 |

Dimensions Unit:mm

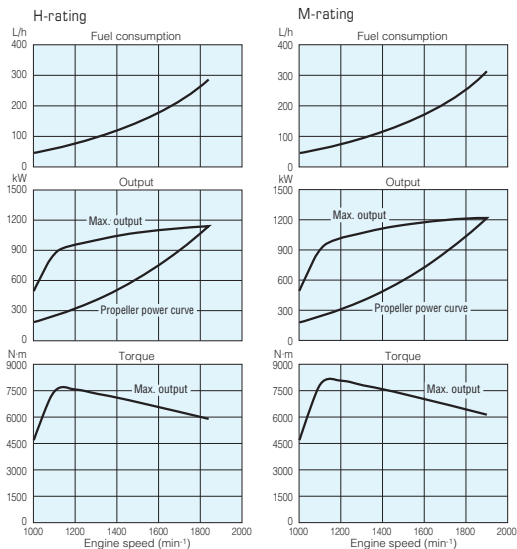
Engine only / Front view

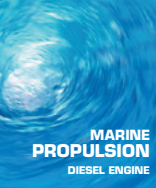


Engine only / Right side view



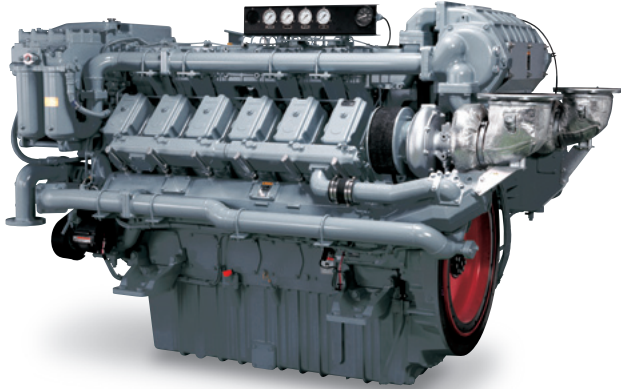
Performance curves





12AYM-WGT

L-rating 1340kW (1822mhp)



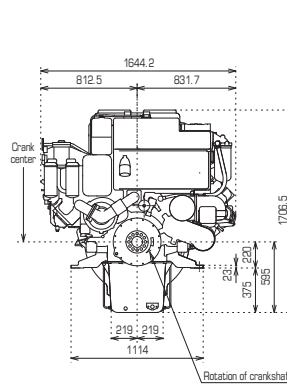
- V-type, 12-cylinder, direct injection, heat exchanger cooling.
- Turbocharger + intercooler.
- 4-valves per cylinder for higher combustion efficiency.
- Conform to IMO Tier II emissions regulations.

Specifications

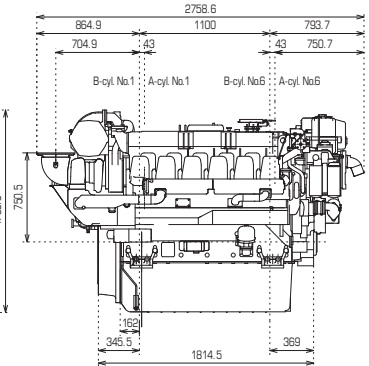
| | | |
|---------------------------------------|--|----------------------------|
| Model | 12AYM-WGT L-rating | |
| Number of cylinders | 12 V-type | |
| Bore × stroke | mm | 155 × 180 |
| Displacement | lit. | 40.76 |
| Rated output | kW(mhp)/rpm | L : 1340(1822)/1940 |
| Combustion system | Direct injection | |
| Aspiration | Turbocharger + intercooler | |
| Starting system | Electric starting motor (24V-8.0kW)×2 or air motor×2 | |
| Cooling system | Constant high temperature cooling system | |
| Size of flywheel housing and flywheel | SAE #00 and 21 in. | |
| Dry mass | kg | 4950 (without marine gear) |
| Dimensions (L×W×H) | mm | 2759×1644×1707 |

Dimensions Unit:mm

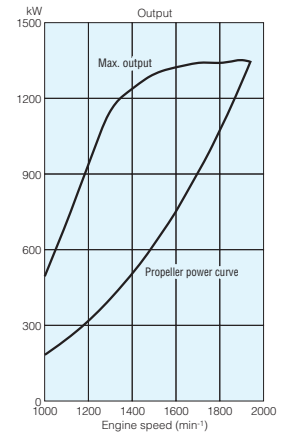
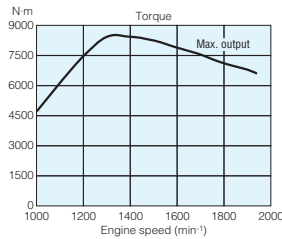
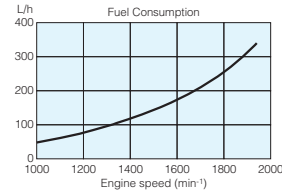
Engine only / Front view



Engine only / Right side view



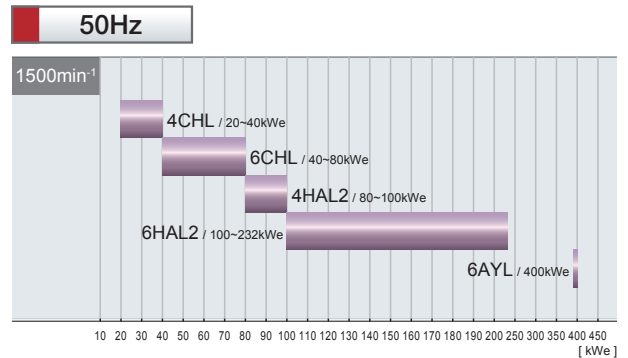
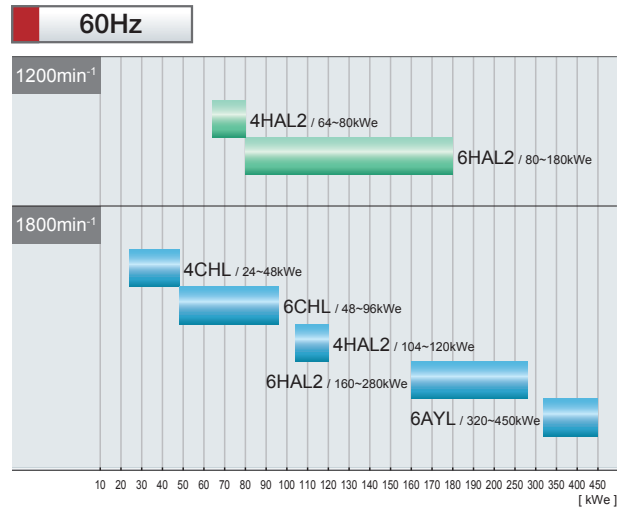
Performance curves



MARINE AUXILIARY DIESEL ENGINE

Marine Auxiliary Diesel Engine Line-up

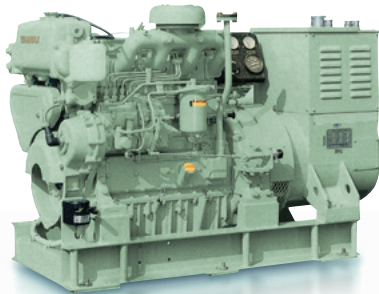
Generator Capacity



4CHL

MARINE
AUXILIARY
DIESEL ENGINE

Generator Capacity
20~48kW_e

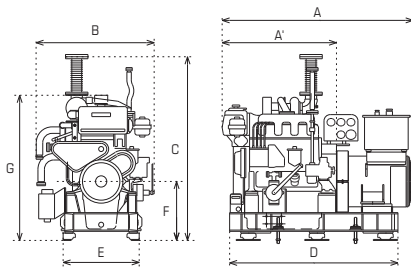


Specifications

| Engine Model | 4CHL-N | | 4CHL-TN | | 4CHL-TNA | |
|---|---|--------------|--------------|--------------|--------------|--------------|
| Type | Vertical, Water-cooled, 4-stroke Diesel | | | | | |
| No. of Cylinders | In-line 4 | | | | | |
| Cylinder Bore × Stroke mm | 105 × 125 | | | | | |
| Continuous Rated Output kW(PS) | 27.9 (38) | 36.8 (50) | 36.8 (50) | 45.6 (62) | 45.6 (62) | 54.4 (74) |
| Generator Capacity kW _e (kVA) | 20 (25) | 24 (30) | 32 (40) | 32 (40) | 40 (50) | 48 (60) |
| Engine Speed min ⁻¹ | 1500 | 1800 | 1500 | 1800 | 1500 | 1800 |
| Combustion system | Direct injection | | | | | |
| Starting system | Electric Starting or Air-motor starting | | | | | |
| Dry Weight kg | 500 | | | 520 | | |
| Total Weight (Gen.Set) kg | 940 | 990 | 1040 | 1090 | | |

The engine dry weight may differ depending upon the specifications and attached accessories.
Above generator capacity will vary according to actual generator efficiency.

- In case of 4CHL-TNA, continuous load operation shall be 80% or below of rated power, and 100% load operation shall be within 2 hours per 12 hours.



G : Minimum Height for Removing Piston (Not included the dimension for bolt fitting to piston remove.)

Dimensions (mm)

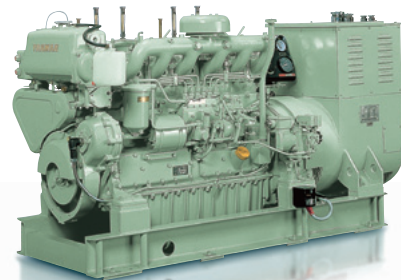
| Models | 4CHL-N | 4CHL-TN | 4CHL-TNA |
|--------|--------|---------|----------|
| A | 1552 | 1532 | 1572 |
| A' | 917 | 917 | 917 |
| B | 947 | 947 | 947 |
| C | 1351 | 1173 | 1173 |
| D | 1350 | 1350 | 1420 |
| E | 810 | 810 | 810 |
| F | 473 | 473 | 473 |
| G | 1164 | 1164 | 1164 |

Depending on the specifications or options that have been chosen, your model may differ slightly from the one in the photograph and outline.

6CHL

MARINE
AUXILIARY
DIESEL ENGINE

Generator Capacity
40~96kW_e

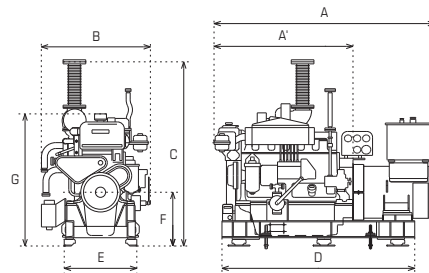


Specifications

| Engine Model | 6CHL-N | 6CHL-TN | 6CHL-TNA | 6CHL-HTN | 6CHL-HTNA |
|---|---|--------------|--------------|---------------|--------------|
| Type | Vertical, Water-cooled, 4-stroke Diesel | | | | |
| No. of Cylinders | In-line 6 | | | | |
| Cylinder Bore × Stroke mm | 105 × 125 | | | | |
| Continuous Rated Output kW(PS) | 45.6 (62) | 54.4 (74) | 54.4 (74) | 73.6 (100) | 67.7 (92) |
| Generator Capacity kW _e (kVA) | 40 (50) | 48 (60) | 48 (60) | 64 (80) | 80 (100) |
| Engine Speed min ⁻¹ | 1500 | 1800 | 1500 | 1800 | 1500 |
| Combustion system | Direct injection | | | | |
| Starting system | Electric Starting or Air-motor starting | | | | |
| Dry Weight kg | 625 | 645 | 645 | 675 | 675 |
| Total Weight (Gen.Set) kg | 1220 | 1350 | 1350 | 1380 | 1540 |

The engine dry weight may differ depending upon the specifications and attached accessories.
Above generator capacity will vary according to actual generator efficiency.

- In case of 6CHL-TNA / 6CHL-HTNA, continuous load operation shall be 80% or below of rated power, and 100% load operation shall be within 2 hours per 12 hours.



G : Minimum Height for Removing Piston (Not included the dimension for bolt fitting to piston remove.)

Dimensions (mm)

| Models | 6CHL-N | 6CHL-TN | 6CHL-TNA | 6CHL-HTN | 6CHL-HTNA |
|--------|--------|---------|----------|----------|-----------|
| A | 1861 | 1926 | 1926 | 1946 | 2051 |
| A' | 1206 | 1206 | 1206 | 1256 | 1256 |
| B | 962 | 962 | 962 | 962 | 962 |
| C | 1382 | 1624 | 1624 | 1624 | 1634 |
| D | 1650 | 1700 | 1700 | 1700 | 1900 |
| E | 640 | 640 | 640 | 640 | 640 |
| F | 474 | 474 | 474 | 474 | 484 |
| G | 1165 | 1165 | 1165 | 1165 | 1175 |

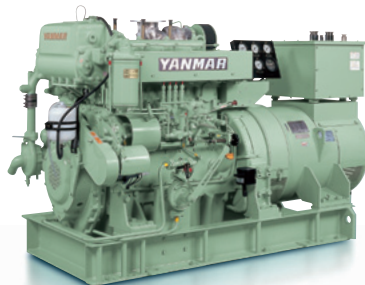
Depending on the specifications or options that have been chosen, your model may differ slightly from the one in the photograph and outline.

4HAL2

MARINE
AUXILIARY
DIESEL ENGINE

Generator Capacity

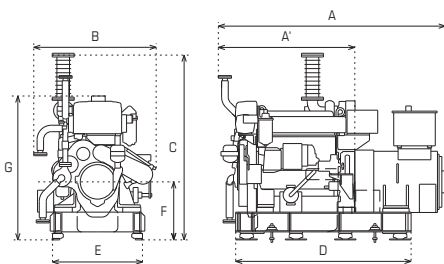
64~120kWe



Specifications

| Engine Model | 4HAL2-TN1 | 4HAL2-TN | 4HAL2-WT |
|--------------------------------|---|----------|-----------|
| Type | Vertical, Water-cooled, 4-stroke Diesel | | |
| No. of Cylinders | In-line 4 | | |
| Cylinder Bore × Stroke mm | 130 × 165 | | |
| Continuous Rated Output kW(PS) | 72 (98) | 89 (121) | 116 (157) |
| Generator Capacity kWe(kVA) | 64 (80) | 80 (100) | 104 (130) |
| Engine Speed min ⁻¹ | 1200 | 1500 | 1800 |
| Combustion system | Direct injection | | |
| Starting system | Electric Starting or Air-motor starting | | |
| Dry Weight kg | 1030 | | |
| Total Weight (Gen.Set) kg | 1855 | | |

The engine dry weight may differ depending upon the specifications and attached accessories.
Above generator capacity will vary according to actual generator efficiency.



G : Minimum Height for Removing Piston (Not included the dimension for bolt fitting to piston remove.)

Dimensions (mm)

| Models | 4HAL2-TN1 | 4HAL2-TN | 4HAL2-WT |
|--------|-----------|----------|----------|
| A | 2070 | 2070 | 2070 |
| A' | 1245 | 1245 | 1245 |
| B | 1117 | 1117 | 1117 |
| C | 1685 | 1685 | 1685 |
| D | 1600 | 1600 | 1600 |
| E | 820 | 820 | 820 |
| F | 529 | 529 | 529 |
| G | 1312 | 1312 | 1312 |

Depending on the specifications or options that have been chosen, your model may differ slightly from the one in the photograph and outline.

6HAL2

MARINE
AUXILIARY
DIESEL ENGINE

Generator Capacity

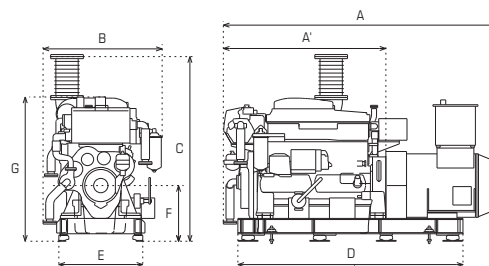
80~280kWe



Specifications

| Engine Model | 6HAL2-N | 6HAL2-TN | 6HAL2-WT | 6HAL2-WHT | 6HAL2-WDT |
|--------------------------------|---|-----------|-----------|-----------|-----------|
| Type | Vertical, Water-cooled, 4-stroke Diesel | | | | |
| No. of Cylinders | In-line 6 | | | | |
| Cylinder Bore × Stroke mm | 130 × 165 | | | | |
| Continuous Rated Output kW(PS) | 90 (122) | 115 (156) | 120 (163) | 150 (204) | 180 (244) |
| Generator Capacity kWe(kVA) | 80 (100) | 100 (125) | 104 (130) | 136 (170) | 160 (200) |
| Engine Speed min ⁻¹ | 1200 | 1500 | 1800 | 1200 | 1500 |
| Combustion system | Direct injection | | | | |
| Starting system | Electric Starting or Air-motor starting | | | | |
| Dry Weight kg | 1380 | 1422 | 1437 | 1437 | 1447 |
| Total Weight (Gen.Set) kg | 2360 | 2410 | 2750 | 2750 | 2850 |

The engine dry weight may differ depending upon the specifications and attached accessories.
Above generator capacity will vary according to actual generator efficiency.

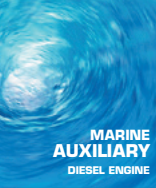


G : Minimum Height for Removing Piston (Not included the dimension for bolt fitting to piston remove.)

Dimensions (mm)

| Models | 6HAL2-N | 6HAL2-TN | 6HAL2-WT | 6HAL2-WHT | 6HAL2-WDT |
|--------|---------|----------|----------|-----------|-----------|
| A | 2499 | 2499 | 2499 | 2574 | 2684 |
| A' | 1589 | 1589 | 1589 | 1589 | 1589 |
| B | 1164 | 1164 | 1164 | 1164 | 1164 |
| C | 1654 | 1774 | 1774 | 1804 | 1804 |
| D | 2100 | 2100 | 2100 | 2200 | 2200 |
| E | 820 | 820 | 820 | 820 | 820 |
| F | 544 | 544 | 544 | 544 | 544 |
| G | 1327 | 1327 | 1327 | 1327 | 1327 |

Depending on the specifications or options that have been chosen, your model may differ slightly from the one in the photograph and outline.
• The various usage conditions, usage purposes, functions, terminology and expressions given in this catalogue are based on YANMAR CO., LTD. standards.



6AYL

MARINE
AUXILIARY
DIESEL ENGINE

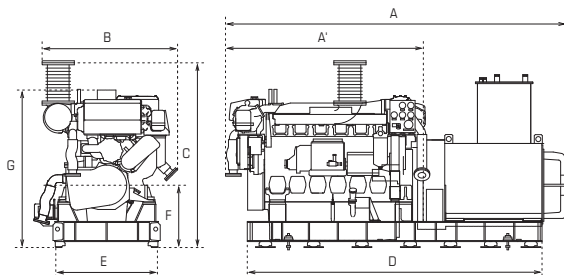
Generator Capacity
320~450kWe



Specifications

| Engine Model | 6AYL-WST | | 6AYL-WET | |
|-------------------------|---|--------------|----------------|--|
| Type | Vertical, Water-cooled, 4-stroke Diesel | | | |
| No. of Cylinders | In-line 6 | | | |
| Cylinder Bore × Stroke | mm 155 × 180 | | | |
| Continuous Rated Output | 353 (480) | 438 (596) | 491 (668) | |
| | kW(PS) | | | |
| Generator Capacity | 320 (400) | 400 (500) | 450 (582.5) | |
| | kW(kVA) | | | |
| Engine Speed | min ⁻¹ 1800 | 1500 | 1800 | |
| Combustion system | Direct injection | | | |
| Starting system | Electric Starting or Air-motor starting | | | |
| Dry Weight | kg 2475 | 2475 | | |
| Total Weight (Gen.Set) | kg 4600 | 4750 | | |

The engine dry weight may differ depending upon the specifications and attached accessories.
Above generator capacity will vary according to actual generator efficiency.



G : Minimum Height for Removing Piston (Not included the dimension for bolt fitting to piston remove.)

Dimensions (mm)

| Models | 6AYL-WST | 6AYL-WET |
|--------|----------|----------|
| A | 2970 | 3040 |
| A' | 1860 | 1860 |
| B | 1445 | 1445 |
| C | 1836 | 1836 |
| D | 2540 | 2600 |
| E | 1030 | 1030 |
| F | 619 | 619 |
| G | 1565 | 1565 |

Depending on the specifications or options that have been chosen, your model may differ slightly from the one in the photograph and outline.

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