

TECHNICAL DATA SHEETS



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FOR MORE INFORMATION, CALL OR EMAIL US DIRECTLY USING THE INFORMATION BELOW:

PHONE- 772-564-7070





4LHA-DTP Series

| Configuration | 4-stroke, vertical, water-cooled diesel engine | | | |
|------------------------------------|---|---------------------|-----|--|
| Maximum output at crankshaft | * 147 kW@3300 rpm | [200 mhp@3300 rpm] | | |
| | ** 140 kW@3300 rpm | [190 mhp@3300 rpm] | | |
| Displacement | 3.455 L | [211 cu in] | | |
| Bore x stroke | 100 mm x 110 mm | [3.94 in x 4.33 in] | | |
| Cylinders | In-line | | | |
| Combustion system | Direct injection | | | |
| Aspiration | Turbocharged with intercooler | | | |
| Starting system | Electrical starting 12V | | | |
| Alternator | 12V - 80A | | | |
| Cooling system | Fresh water cooling by centrifugal fresh water pump and rubber impeller seawater pump | | | |
| Lubrication system | Enclosed, forced lubricating sys | em | | |
| Direction of rotation [crankshaft] | Counterclockwise viewed from s | tern | | |
| Dry weight without gear | 365 kg | [805 lbs] | | |
| Emission compliance | EU: RCD 1 | BSO II | EMC | |
| | SOLAS MED 96/98/EC | | | |
| Engine mounting | Rubber type flexible mounting | | | |

NOTE:

Fuel condition: Density at $15^{\circ}\text{C} = 0.842 \text{ g/cm}^3$; 1 mhp = 1 ps = 0.7355 kW = 0.9863 bhp

- $^{\star}\,$ Fuel temperature 25°C at the inlet of the fuel injection pump [ISO 3046-1]
- ** Fuel temperature 40°C at the inlet of the fuel injection pump [ISO 8665: 2006]

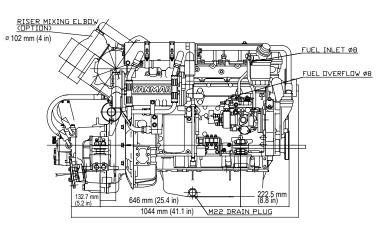
Technical data is according to ISO 8665: 2006/3046-1

DIMENSIONS

Rear view

719.1 mm (28.3 in) 368.6 mm (14.5 in) 350.5 mm (13.8 in) WATER INLET (in y) in mile (4 in) (in y) in mile (4

Right side view

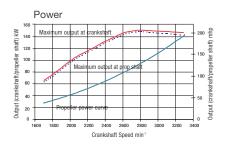


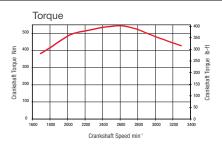
4LHA-DTP with KMH50A marine gear

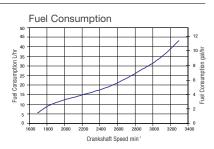




PERFORMANCE CURVES (Output is according ISO 8665 - Output includes +/- 3% tolerance)





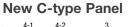


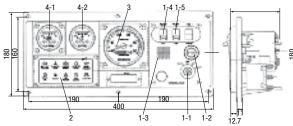
MARINE GEARS / DRIVE*

| Model | KMH50A [down angle 8°] | | | KMH50A [down angle 8°] ZF63A [down angle 8°] | | | | |
|--|--|---------------------|-----------|---|-----------|-----------|-----------|-----------|
| Туре | Hydraulically actuated multi-disc clutch | | | ated multi-disc clutch Hydraulically actuated multi-disc clutch | | | | |
| Dry weight** | 57,6 kg [127 lbs] | | | 44 kg [96,8 lbs] | | | | |
| Reduction Ratio [fwd/rev] | 1.67/1.67 | 2.13/2.13 | 2.43/2.43 | 1.22/1.22 | 1.56/1.58 | 2.04/2.02 | 2.52/2.54 | 2.68/2.71 |
| Propeller speed [fwd/rev] | 1976/1976 | 1549/1549 | 1358/1358 | 2714/2716 | 2111/2085 | 1620/1636 | 1308/1301 | 1230/1218 |
| Direction of rotation (viewed from stern) | Clockwise & Counterclockwise | | | Clockwise & Counterclockwise | | | | |
| Dry weight engine and gear/drive** | | 422,5 kg [931 lbs] | | 409 kg [902 lbs] | | | | |

^{*} Other marine gearboxes and configurations available upon request. Contact your local supplier for more information.
** Dry weight includes cooler, brackets and damper disk.

INSTRUMENT PANELS





| | TYPE OF INSTRUMENT PANEL |
|--|--------------------------|
| Function | NEW C-TYPE PANEL |
| 1-Switch unit | |
| 1-1 Key switch for GLOW/OFF/ON/START [4-position switch] | Equipped on panel |
| 1-2 Engine stop switch | Equipped on panel |
| 1-3 Alarm buzzer [C.W. Temp., L.O. Pressure] | Equipped on panel |
| 1-4 Alarm buzzer stop switch | Equipped on panel |
| 1-5 Illumination switch for meters | Equipped on panel |
| 2-Alarm lamp unit | |
| Battery not charging | Equipped on panel |
| C.W. high temperature | Equipped on panel |
| L.O. low pressure | Equipped on panel |
| Boost pressure high [for 4LHA-STP] | Equipped on panel |
| 3-Tachometer with hour meter | Equipped on panel |
| 4-Sub meter unit | Equipped on panel |
| 4-1 L.O. pressure meter | Equipped on panel |
| 4-2 C.W. Temperature meter | Equipped on panel |
| 4-3 Boost meter [turbo] | Not equipped on panel |
| 5-Quartz clock | Not equipped on panel |
| | |

ACCESSORIES

Standard Package

- Sensor for various panels
- Exhaust/water mixing elbow [L-type]
- Alternator 12V 80A

Optional

- Flexible mounts
- High-riser/water mixing elbow [instead of L-elbow]
- New C-type instrument panel
- Dual station Y harness
- Dipstick for opposite side
- · Air venting device for cooling water tank





4LHA-HTP Series

| Configuration | 4-stroke, vertical, water-cooled diesel engine | | | | |
|------------------------------------|---|---------------------|-----|--|--|
| Maximum output at crankshaft | * 118 kW@3300 rpm | [160 mhp@3300 rpm] | | | |
| | ** 113 kW@3300 rpm | [154 mhp@3300 rpm] | | | |
| Displacement | 3.455 L | [211 cu in] | | | |
| Bore x stroke | 100 mm x 110 mm | [3.94 in x 4.33 in] | | | |
| Cylinders | In-line | | | | |
| Combustion system | Direct injection | | | | |
| Aspiration | Turbocharged with intercooler | | | | |
| Starting system | Electric starting 12V - 2 kW | | | | |
| Alternator | 12V - 80A | | | | |
| Cooling system | Fresh water cooling by centrifugal fresh water pump and rubber impeller seawater pump | | | | |
| Lubrication system | Enclosed, forced lubricating sys | tem | | | |
| Direction of rotation [crankshaft] | Counterclockwise viewed from s | tern | | | |
| Dry weight without gear | 342 kg | [754 lbs] | | | |
| Emission compliance | EU: RCD 1 | BSO II | EMC | | |
| | SOLAS MED 96/98/EC | | | | |
| Engine mounting | Rubber type flexible mounting | | | | |

NOTE:

Fuel condition: Density at $15^{\circ}\text{C} = 0.842 \text{ g/cm}^3$; 1 mhp = 1 ps = 0.7355 kW = 0.9863 bhp

- $^{\star}\,$ Fuel temperature 25°C at the inlet of the fuel injection pump [ISO 3046-1]
- ** Fuel temperature 40°C at the inlet of the fuel injection pump [ISO 8665: 2006]

Technical data is according to ISO 8665: 2006/3046-1

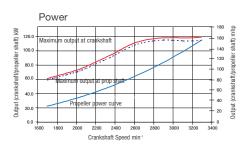
DIMENSIONS

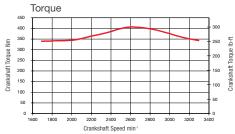
Right side view 719.1 mm (28.3 in) 368.6 mm (14.5 in) 350.5 mm (13.8 in) 102 mm (4 in) 102 mm (25.4 in) 1044 mm (41.1 in) 102 mm (41.1 in) 1044 mm (41.1

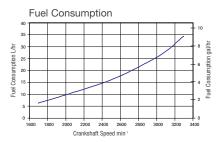




PERFORMANCE CURVES (Output is according ISO 8665 - Output includes +/- 3% tolerance





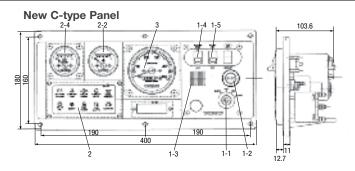


MARINE GEARS / DRIVE*

| Model | KMH50A [down angle 8°] | | ZF63A [down angle 8°] | | | | |
|------------------------------------|--|----------------------|-----------------------|--|-----------|-----------|-----------|
| Туре | Hydraulically Actuated Multi-Disc Clutch | | | Hydraulically Actuated Multi-Disc Clutch | | | า |
| Dry weight** | 57,6 kg kg [127 lbs] | | | 44 kg [96,8 lbs] | | | |
| Reduction Ratio [fwd/rev] | 1.67/1.67 | 2.13/2.13 | 2.43/2.43 | 1.26/1.26 | 1.51/1.51 | 2.03/2.03 | 2.44/2.44 |
| Propeller speed [fwd/rev] | 1976/1976 | 1549/1549 | 1358/1358 | 2627/2627 | 2180/2180 | 1622/1622 | 1355/1355 |
| Direction of rotation | Clocky | vise & Counterclocky | wise | Clockwise & Counterclockwise | | | |
| (viewed from stern) | Ciockwise & Counterciockwise | | | Olderwise & Odditercioerwise | | | |
| Dry weight engine and gear/drive** | | 400 kg [881 lbs] | | | 386 kg [| [851 lbs] | |

^{*} Other marine gearboxes and configurations available upon request. Contact your local supplier for more information.
** Dry weight includes cooler, brackets and damper disk.

INSTRUMENT PANELS



| | TYPE OF INSTRUMENT PANEL |
|--|--------------------------|
| Function | NEW C-TYPE PANEL |
| 1-Switch unit | |
| 1-1 Key switch for GLOW/OFF/ON/START [4-position switch] | Equipped on panel |
| 1-2 Push button switch for engine stop | Equipped on panel |
| 1-3 Moisture cap for key switch | Equipped on panel |
| 1-4 Alarm buzzer stop switch | Equipped on panel |
| 1-5 Illumination switch for meters | Equipped on panel |
| 2-Alarm lamp unit | |
| Battery not charging | Equipped on panel |
| C.W. high temperature | Equipped on panel |
| L.O. low pressure | Equipped on panel |
| Boost pressure high [for 4LHA-STP] | Equipped on panel |
| 3-Tachometer with hour meter | Equipped on panel |
| 4-Sub meter unit | Equipped on panel |
| 4-1 L.O. pressure meter | Equipped on panel |
| 4-2 C.W. Temperature meter | Equipped on panel |
| 4-3 Boost meter [turbo] | Not equipped on panel |
| 5-Quartz clock | Not equipped on panel |
| | |

ACCESSORIES

Standard Package

- Sensor for various panels
- Exhaust/water mixing elbow [L-type]
- · Cooling water hoses
- Alternator 12V 80A

Optional

- Flexible mounts
- High-riser/water mixing elbow [instead of L-elbow]
- New C-type instrument panels
- Dual station Y harness
- Dipstick for opposite side
- · Air venting device for cooling water tank





4LHA-STP Series

| Configuration | 4-stroke, vertical, water-cooled diesel engine | | | | |
|------------------------------------|---|-------------------------------|-----|--|--|
| Maximum output at crankshaft | * 177 kW@3300 rpm | [240 mhp@3300 rpm] | | | |
| | ** 169 kW@3300 rpm | [230 mhp@3300 rpm] | | | |
| Displacement | 3.455 L | [211 cu in] | | | |
| Bore x stroke | 100 mm x 110 mm | [3.94 in x 4.33 in] | | | |
| Cylinders | In-line | | | | |
| Combustion system | Direct injection | | | | |
| Aspiration | Turbocharged with intercooler | | | | |
| Starting system | Electrical starting 12V | | | | |
| Alternator | 12V - 80A | | | | |
| Cooling system | Fresh water cooling by centrifugal fresh water pump and rubber impeller seawater pump | | | | |
| Lubrication system | Enclosed, forced lubricating sys | tem | | | |
| Direction of rotation [crankshaft] | Counterclockwise viewed from s | tern | | | |
| Dry weight without gear | 365 kg | [805 lbs] | | | |
| Emission compliance | EU: RCD 1 | BSO II | EMC | | |
| | SOLAS MED 96/98/EC | | | | |
| Engine mounting | Rubber type flexible mounting | Rubber type flexible mounting | | | |
| | | | | | |

NOTE:

Fuel condition: Density at $15^{\circ}\text{C} = 0.842 \text{ g/cm}^3$; 1 mhp = 1 ps = 0.7355 kW = 0.9863 bhp

- $^{\star}\,$ Fuel temperature 25°C at the inlet of the fuel injection pump [ISO 3046-1]
- ** Fuel temperature 40°C at the inlet of the fuel injection pump [ISO 8665: 2006]

Technical data is according to ISO 8665: 2006/3046-1

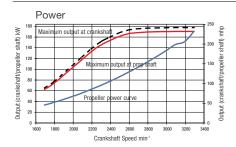
DIMENSIONS

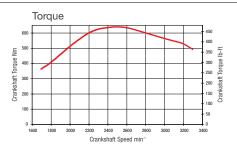
Rear view Right side view 719.1 mm (28.3 in) 368.6 mm (14.5 in) 350.5 mm (13.8 in) RISER MIXING ELBOW (OPTION) Ø 102 mm (4 in) FUEL INLET Ø8 FUEL OVERFLOW Ø8 811 mm (31.9 in) WATER INLET c. 120 mm (4.7 in) . 111 mm (4.4 in) 238 mm (9.4 in) 646 mm (25.4 in) 1044 mm (41.1 in) max. 574 mm (22.6 in) 4LHA-STP with KMH50A marine gear

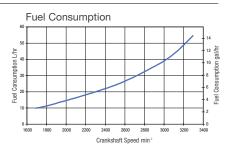




PERFORMANCE CURVES (Output is according ISO 8665 - Output includes +/- 3% tolerance)







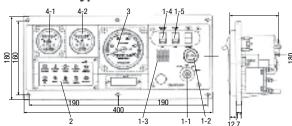
MARINE GEARS / DRIVE*

| Model | KM | IH50A [down angle 8 | B°] | ZF63A [down angle 8°] | | | | |
|---|--|------------------------------|-----------|--|------------------------------|-----------------|-----------|-----------|
| Туре | Hydraulically actuated multi-disc clutch | | | Hydraulically actuated multi-disc clutch | | | | |
| Dry weight** | | 57,6 kg [127 lbs] | | | 44 kg [96,8 lbs] | | | |
| Reduction Ratio [fwd/rev] | 1.67/1.67 | 2.13/2.13 | 2.43/2.43 | 1.22/1.22 | 1.56/1.58 | 2.04/2.02 | 2.52/2.54 | 2.68/2.71 |
| Propeller speed [fwd/rev] | 1976/1976 | 1549/1549 | 1358/1358 | 2714/2716 | 2111/2085 | 1620/1636 | 1308/1301 | 1230/1218 |
| Direction of rotation (viewed from stern) | Clock | Clockwise & Counterclockwise | | | Clockwise & Counterclockwise | | | |
| Dry weight engine and gear/drive** | | 422,5 kg [931 lbs] | | | | 409 kg [902 lbs | :] | |

^{*} Other marine gearboxes and configurations available upon request. Contact your local supplier for more information.
** Dry weight includes cooler, brackets and damper disk.

INSTRUMENT PANELS

New C-type Panel



| | TYPE OF INSTRUMENT PANEL |
|--|--------------------------|
| Function | DIGITAL C-TYPE PANEL |
| 1-Switch unit | |
| 1-1 Key switch for GLOW/OFF/ON/START [4-position switch] | Equipped on panel |
| 1-2 Engine stop switch | Equipped on panel |
| 1-3 Alarm buzzer [C.W. Temp., L.O. Pressure] | Equipped on panel |
| 1-4 Alarm buzzer stop switch | Equipped on panel |
| 1-5 Illumination switch for meters | Equipped on panel |
| 2-Alarm lamp unit | |
| Battery not charging | Equipped on panel |
| C.W. high temperature | Equipped on panel |
| L.O. low pressure | Equipped on panel |
| Boost pressure high [for 4LHA-STP] | Equipped on panel |
| 3-Tachometer with hour meter | Equipped on panel |
| 4-Sub meter unit | Equipped on panel |
| 4-1 L.O. pressure meter | Equipped on panel |
| 4-2 C.W. Temperature meter | Equipped on panel |
| 4-3 Boost meter [turbo] | Not equipped on panel |
| 5-Quartz clock | Not equipped on panel |
| | |

ACCESSORIES

Standard Package

- Sensor for various panels
- Exhaust/water mixing elbow [L-type]
- Alternator 12V 80A

Optional

- Flexible mounts
- High-riser/water mixing elbow [instead of L-elbow]
- New C-type instrument panel
- Dual station Y harness
- Dipstick for opposite side
- · Air venting device for cooling water tank





6LPA-STP2 Series

| Configuration | 4-stroke, vertical, water-cooled diesel engine | | | |
|------------------------------------|---|--------------------|-----|--|
| Maximum output at crankshaft | * 232 kW@3800 rpm | [315 mhp@3800 rpm] | | |
| | ** 220 kW@3800 rpm | [299 mhp@3800 rpm] | | |
| Displacement | 4.164 L | [254 cu in] | | |
| Bore x stroke | 94 mm x 100 mm | [3.7 in x 3.94 in] | | |
| Cylinders | In-line, 4 valves per cylinder | | | |
| Combustion system | Direct injection | | | |
| Aspiration | Turbocharged with intercooler | | | |
| Starting system | Electric starting 12V - 2.5 kW | | | |
| Alternator | 12V - 80A | | | |
| Cooling system | Fresh water cooling by centrifugal fresh water pump and rubber impeller seawater pump | | | |
| Lubrication system | Enclosed, forced lubricating sys | em | | |
| Direction of rotation [crankshaft] | Counterclockwise viewed from stern | | | |
| Dry weight without gear | 408 kg | [899 lbs] | | |
| Emission compliance | EU: RCD 1 | BSO II | EMC | |
| Engine mounting | Rubber type flexible mounting | | | |

NOTE:

Fuel condition: Density at $15^{\circ}C = 0.84 \text{ g/cm}^3$; 1 kW = 1.3596 mhp = 1.3410 HP

- * Fuel temperature 25°C at the inlet of the fuel injection pump [ISO 3046-1]
- ** Fuel temperature 40°C at the inlet of the fuel injection pump [ISO 8665: 2006]

Technical data is according to ISO 8665: 2006/3046-1

DIMENSIONS

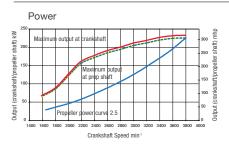
Rear view Right side view mixing elbow o 102 666 mm (26.2 in) ², mm (2.2in) 345 mm (13.6 in) 321 mm (12.6 in) riser mixing elbow (option) 260 mm (10.2 in) 497.1 mm (19.6 in) 389 mm (15.3 in) 502 mm (19.8 in) 739 mm (29.1 in) MIN.138 mm (5.4 in) 47 mm MAX.148 mm (5.8 in) (1.9 in) 237 mm (9.3 in) 98.8 mm (3.9 in) 8° mm (0.3 in) 748.4 mm (29.5 in) 248.1 mm (9.8 in) 287 mm (11,3 in) 287 mm 1220 mm (48 in)

6LPA-STP2 with KMH50A marine gear

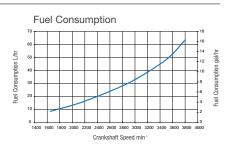




PERFORMANCE CURVES





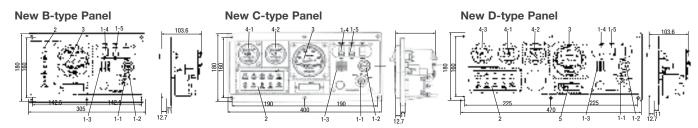


MARINE GEARS / DRIVE*

| Model | KN | KMH50A [down angle 8°] | | | ZF63A [dov | wn angle 8°] | |
|---|--|-------------------------------|-----------|-------------------|----------------------|----------------------|-----------|
| Туре | Hydraulically Actuated Multi-Disc Clutch | | | | Hydraulically Actuat | ted Multi-Disc Cluto | :h |
| Dry weight** | | 51 kg [112 lbs] | | | 44 kg [97 lbs] | | |
| Reduction Ratio [fwd/rev] | 1.67/1.67 | 2.13/2.13 | 2.43/2.43 | 1.22/1.21 | 1.56/1.58 | 2.04/2.10 | 2.52/2.53 |
| Propeller speed [fwd/rev] | 2275 | 1784 | 1564 | 3115/3140 | 2436/2405 | 1863/1810 | 1429/1423 |
| Direction of rotation (viewed from stern) | Clock | Clockwise or Counterclockwise | | | Counterclockwise | | |
| Dry weight - engine & gear** | 459 kg [1012 lbs] | | | 452 kg [996 lbs] | | | |
| Length engine and gear/drive | | 1190 mm [46.9 in] | | 1205 mm [47.4 in] | | | |

^{*} Other marine gearboxes and configurations available upon request. Contact your local supplier for more information. ** Dry weight includes cooler, brackets and damper disk.

INSTRUMENT PANELS



| | TYPE OF INSTRUMENT PANEL | | | | |
|--|--------------------------|-----------------------|-------------------|--|--|
| Function | DIGITAL B-TYPE PANEL | NEW C-TYPE PANEL | NEW D-TYPE PANEL | | |
| 1-Switch unit | | | | | |
| 1-1 Key switch for GLOW/OFF/ON/START [4-position switch] | Equipped on panel | Equipped on panel | Equipped on panel | | |
| 1-2 Engine stop switch | Equipped on panel | Equipped on panel | Equipped on panel | | |
| 1-3 Alarm buzzer [C.W. Temp., L.O. Pressure] | Equipped on panel | Equipped on panel | Equipped on panel | | |
| 1-4 Alarm buzzer stop switch | Equipped on panel | Equipped on panel | Equipped on panel | | |
| 1-5 Illumination switch for meters | Equipped on panel | Equipped on panel | Equipped on panel | | |
| 2-Alarm lamp unit | | | | | |
| 2-1 Battery not charging | Equipped on panel | Equipped on panel | Equipped on panel | | |
| 2-2 C.W. high temperature | Equipped on panel | Equipped on panel | Equipped on panel | | |
| 2-3 L.O. low pressure | Equipped on panel | Equipped on panel | Equipped on panel | | |
| 2-4 F.O. drain seperator | Equipped on panel | Equipped on panel | Equipped on panel | | |
| 2-5 Sea water flow | Equipped on panel | Equipped on panel | Equipped on panel | | |
| 2-6 C.W. level for fresh water tank | Not equipped on panel | Equipped on panel | Equipped on panel | | |
| 2-7 Boost pressure high | Equipped on panel | Equipped on panel | Equipped on panel | | |
| 3-Tachometer with hour meter | Equipped on panel | Equipped on panel | Equipped on panel | | |
| 4-Sub meter unit | | | | | |
| 4-1 L.O. pressure meter | Not equipped on panel | Equipped on panel | Equipped on panel | | |
| 4-2 C.W. Temperature meter | Not equipped on panel | Equipped on panel | Equipped on panel | | |
| 4-3 Boost meter [turbo] | Not equipped on panel | Not equipped on panel | Equipped on panel | | |
| 5 Quartz clock | Not equipped on panel | Not equipped on panel | Equipped on panel | | |
| | | | | | |

ACCESSORIES

Standard engine package

- Sensor for instrument panel [New B, C and D-type]
- Exhaust/water mixing elbow [L-type]
- Cooling water hoses
- Fuel water separator [integrated with fuel filter]
- Alternator 12V 80A

Optional accessories

- Flexible mounts [2 pcs] High-riser mixing elbow [instead of L-elbow]
- Analog instrument panels [New B, C and D-type]
- Dual station Y-harness Sensor for VDO instrument panels
- Control heads Extension wire harness [4m, 6m, 10m]
- Lub oil evacuation pump
- Air venting device for cooling water tank
- VDO instrumentation for main panel and fly bridge Dipstick for opposite side





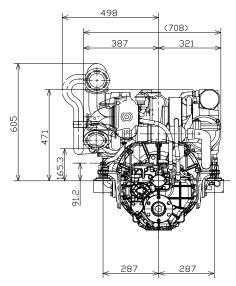
6LY2A-UTP / STP Series

| | 6LY2A-UTP | 6LY2A-STP | | |
|------------------------------------|---|--------------------------------|--|--|
| Configuration | 4-stroke, vertical, water-cooled diesel engine | | | |
| Maximum output at crankshaft | | * 324 kW (440mhp) @3300 rpm | | |
| | ** 272 kW (370mhp) @3300 rp | m ** 315 kW (427mhp) @3300 rpm | | |
| Displacement | 5.813 L | [354 cu in] | | |
| Bore x stroke | 106 mm x 110 mm [4.17 in x 4.33 in] | | | |
| Cylinders | In-line | | | |
| Combustion system | Direct injection | | | |
| Aspiration | Turbocharged with watercooled turbine housing | | | |
| Starting system | Electric starting 12V - 3 kW | | | |
| Alternator | 12V - 80A | | | |
| Cooling system | Fresh water cooling by centrifugal fresh water pump and rubber impeller seawater pump | | | |
| Lubrication system | Enclosed, forced lubricating system | | | |
| Direction of rotation [crankshaft] | Counterclockwise viewed from stern | | | |
| Dry weight without gear | 535 kg | [1179 lbs] | | |
| Emission compliance | EU: RCD 1 | IMO Tier 2 EMC | | |
| Engine mounting | Rubber type flexible mounting | | | |

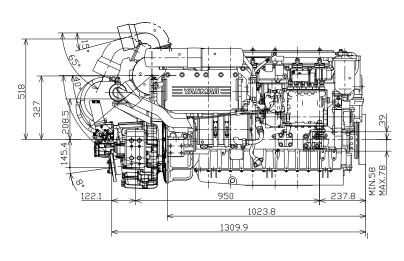
NOTE:

DIMENSIONS

Rear view



Right side view



6LY2A-UTP / STP (with KMH61A Marine Gearbox)

 $^{1 \}text{ kW} = 1.3596 \text{ mhp}$

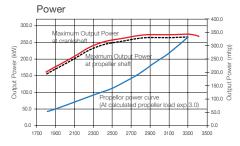
^{*} Fuel temperature 25°C Fuel gravity 860g/litter [ISO 3046-1], fuel density at 15°C: 860g/litter ** Fuel temperature 40°C Fuel gravity 840g/litter [ISO 8665: 2006], fuel density at 15°C: 840g/litter Technical data is according to ISO 8665: 2006/3046-1

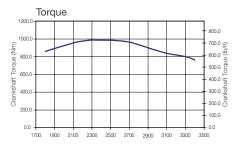


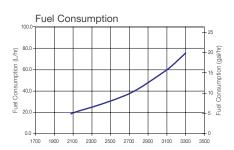


PERFORMANCE CURVES

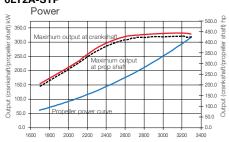
6LY2A-UTP

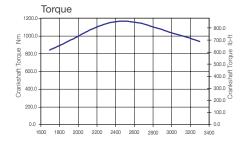


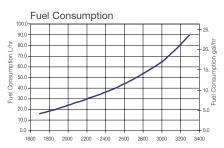




6LY2A-STP





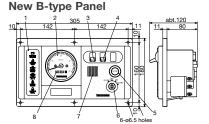


MARINE GEARS / DRIVE*

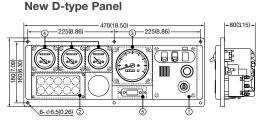
| Model | KMH61A [down angle 8°] | | | | | |
|---|--|-----------|-----------|--|--|--|
| Туре | Hydraulically actuated multi-disc clucth | | | | | |
| Dry weight** | 77 kg [170 lbs] | | | | | |
| Reduction Ratio [fwd/rev] | 1.55/1.55 | 2.43/2.43 | | | | |
| Propeller speed [fwd/rev] | 2000/2000 | 1520/1520 | 1276/1276 | | | |
| Direction of rotation (viewed from stern) | Clockwise or Counterclockwise | | | | | |
| Dry weight engine and gear/drive** | 612 kg [1349 lbs] | | | | | |
| Length engine and gear/drive | 1310 mm [51 in] | | | | | |

^{*} Other marine gearboxes and configurations available upon request. Contact your local supplier for more information.

INSTRUMENT PANELS



New C-type Panel



Function

1-Switch unit

- 1-1 Key switch [starter switch]
- 1-2 Engine stop switch
- 1-3 Alarm buzzer [C.W. Temp., L.O. Pressure]
- 1-4 Alarm buzzer stop switch
- 1-5 Illumination switch for meters

2-Alarm lamp unit

- 2-1 Battery not charging
- 2-2 C.W. high temperature
- 2-3 L.O. low pressure
- 2-4 Sea water flow
- 2-5 C.W. level for fresh water tank
- 2-6 Boost pressure high

3-Tachometer with hour meter

4-Sub meter unit

- 4-1 L.O. pressure meter
- 4-2 C.W. Temperature meter
- 4-3 Boost meter [turbo]
- 5-Quartz clock

ACCESSORIES

Standard engine package

- · Sensor for various panels
- Exhaust/water mixing elbow [L-type]
- Alternator 12V 80A

Optional accessories

- Flexible mounts
- Fuel water separator
- High-riser/water mixing elbow [instead of L-elbow]
- Sensor for VDO instrument panels
- Analog [new B-type, new C-type and new D-type] instrument panels
- Control heads
- Lub oil evacuation pump
- Dipstick for opposite side
- SOLAS Kit

^{**} Dry weight including cooler, brackets & damper disk.





6LY400 / 6LY440

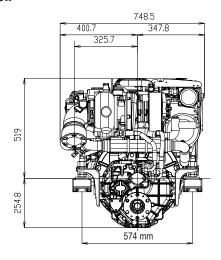
| Configuration | In-line 6-cylinder, 4-stroke, vertical, water-cooled diesel engine | | | |
|------------------------------------|---|---------------------|-----|--|
| Maximum output at crankshaft | *294 kW@3300 rpm | [400 mhp]@3300 rpm | | |
| | *324 kW@3300 rpm | [440 mhp]@3300 rpm | | |
| Displacement | 5.813 L | [354 cu in] | | |
| Bore x stroke | 106 mm x 110 mm | [4.17 in x 4.33 in] | | |
| Combustion system | Direct Injection with Denso Common-Rail system | | | |
| Aspiration | Turbocharged with watercooled turbine housing | | | |
| Starting system | Electric starting 12V - 2.5 kW | | | |
| Alternator | 12V - 125A | | | |
| Cooling system | Fresh water cooling by centrifugal fresh water pump and rubber impeller seawater pump | | | |
| Lubrication system | Enclosed, forced lubricating system | | | |
| Direction of rotation [crankshaft] | Counterclockwise viewed from stern | | | |
| Dry weight without gear | 585 kg | [1290 lbs] | | |
| Emission compliance | EU: RCD 2 | IMO/GL | EMC | |
| | US: EPA Tier 3 | | | |
| Engine mounting | Rubber type flexible mounting | | | |

NOTE:

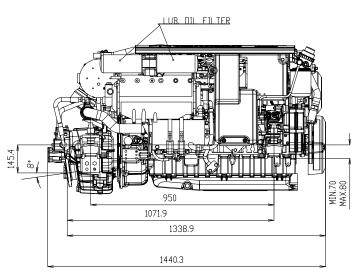
Fuel condition: Density at $15^{\circ}C = 0.842 \text{ g/cm}^3$; 1HP = 0.7355 kW

DIMENSIONS

Rearview



Right side view



EN_DS6LY400/440_0717

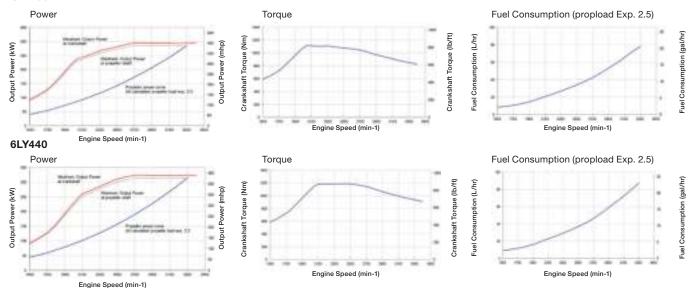
^{*}Fuel temperature 40°C at the inlet of the fuel injection pump [ISO 8665]





PERFORMANCE CURVES

6LY400



MARINE GEARS / DRIVE*

| Model | KMH61A2 [down angle: 8°] | | KMH61V2 [V-drive] | | | | ZF280-1 [parallel] | |
|---|--|-----------------|--|------------------|-----------|-----------|--|-----------------------------------|
| Туре | Hydraulically actuated multi-disc clutch | | Hydraulically actuated multi-disc clutch | | | c clutch | Hydraulically actuated multi-disc clutch | |
| Dry weight** | | 81 kg [187 lbs] | | 113 kg [249 lbs] | | | 113 kg [249 lbs] | |
| Reduction Ratio [fwd/rev] | 1.55/1.55 | 2.04/2.04 | 2.43/2.43 | 1.24/1.24 | 1.49/1.49 | 1.98/1.98 | 2.43/2.43 | Gear ratio's as available from ZF |
| Propeller speed [fwd/rev] | 2129 | 1618 | 1358 | 2661 | 2215 | 1667 | 1358 | |
| Direction of rotation (viewed from stern) | Counterclockwise & Clockwise | | Counterclockwise & Clockwise | | | vise | Counterclockwise & Clockwise | |
| Dry weight engine and gear/drive** | 666 kg [1468 lbs] | | 698 kg [1538 lbs] | | | | 698 kg [1538 lbs] | |

^{*} Other marine gearboxes and configurations available upon request. Contact your local supplier for more information.

ACCESSORIES

Standard engine package

- 2-pole 12V Electric system
- Exhaust/water mixing elbow [L-type]
- Alternator 12V 125A
- Mounting brackets
- Dipstick on both sides

Optional accessories

- Flexible mounts
- Fuel water separator
- High-riser mixing elbow
- SOLAS kit including certificates
- 24V Secondary Alternator

CONTROL SYSTEM

Standard engine package

- YANMAR CAN-bus control system
- Multi-function color display
- NMEA2000 or J1939 gauge output
- Switch panel
- Back up panel

Optional accessories

- Electronic CAN-bus control-head
- Extension wire harness
- NMEA2000 gauges
- Second or third station

^{**} Dry weight including cooler, brackets & damper disk.