



# **MARINE DIESEL ENGINES**

# 3YM30AE Series

| Maximum output at crankshaft  * 21.3 kW@3200 rpm  [29.1 mhp@3200 rpm]  Displacement  1.266 L  [77 cu in]  Bore x stroke  80 mm x 84 mm  [3.1 in x 3.3 in]  Cylinders  In-line  Combustion system  Indirect injection  Aspiration  Starting system  Electric starting 12V - 1.4 kW  Alternator  12V - 125A  Cooling system  Enclosed, forced lubricating system  Direction of rotation [crankshaft]  Counterclockwise viewed from stern  Dry weight without gear  Emission compliance  EU: RCD 2  BSO II  EMC | Configuration                      | 4-stroke, vertical, water-cooled diesel engine |                     |     |
|--|------------------------------------|--|---------------------|-----|
| Bore x stroke 80 mm x 84 mm [3.1 in x 3.3 in]  Cylinders In-line  Combustion system Indirect injection  Aspiration Natural aspiration  Starting system Electric starting 12V - 1.4 kW  Alternator 12V - 125A  Cooling system Fresh water cooling with heat exchanger  Lubrication system Enclosed, forced lubricating system  Direction of rotation [crankshaft] Counterclockwise viewed from stern  Dry weight without gear 127 kg [280 lbs]  | Maximum output at crankshaft       | * 21.3 kW@3200 rpm                             | [29.1 mhp@3200 rpm] |     |
| Cylinders  In-line  Combustion system  Indirect injection  Aspiration  Natural aspiration  Starting system  Electric starting 12V - 1.4 kW  Alternator  12V - 125A  Cooling system  Fresh water cooling with heat exchanger  Lubrication system  Enclosed, forced lubricating system  Direction of rotation [crankshaft]  Counterclockwise viewed from stern  Dry weight without gear  127 kg  [280 lbs]   | Displacement                       | 1.266 L  | 66 L [77 cu in]     |     |
| Combustion system  Aspiration  Natural aspiration  Starting system  Electric starting 12V - 1.4 kW  Alternator  Cooling system  Fresh water cooling with heat exchanger  Lubrication system  Enclosed, forced lubricating system  Direction of rotation [crankshaft]  Counterclockwise viewed from stern  Dry weight without gear  127 kg  [280 lbs]   | Bore x stroke                      | 80 mm x 84 mm                                  | [3.1 in x 3.3 in]   |     |
| Aspiration  Starting system  Electric starting 12V - 1.4 kW  Alternator  Cooling system  Fresh water cooling with heat exchanger  Lubrication system  Enclosed, forced lubricating system  Direction of rotation [crankshaft]  Counterclockwise viewed from stern  Dry weight without gear  127 kg  [280 lbs]  | Cylinders                          | In-line  |                     |     |
| Starting system  Electric starting 12V - 1.4 kW  Alternator  12V - 125A  Cooling system  Fresh water cooling with heat exchanger  Lubrication system  Enclosed, forced lubricating system  Direction of rotation [crankshaft]  Counterclockwise viewed from stern  Dry weight without gear  127 kg  [280 lbs]  | Combustion system                  | Indirect injection                             |                     |     |
| Alternator 12V - 125A  Cooling system Fresh water cooling with heat exchanger  Lubrication system Enclosed, forced lubricating system  Direction of rotation [crankshaft] Counterclockwise viewed from stern  Dry weight without gear 127 kg [280 lbs]   | Aspiration                         | Natural aspiration                             |                     |     |
| Cooling system  Fresh water cooling with heat exchanger  Lubrication system  Enclosed, forced lubricating system  Direction of rotation [crankshaft]  Counterclockwise viewed from stern  Dry weight without gear  127 kg  [280 lbs]   | Starting system                    | Electric starting 12V - 1.4 kW                 |                     |     |
| Lubrication system       Enclosed, forced lubricating system         Direction of rotation [crankshaft]       Counterclockwise viewed from stern         Dry weight without gear       127 kg       [280 lbs]  | Alternator                         | 12V - 125A                                     |                     |     |
| Direction of rotation [crankshaft]  Counterclockwise viewed from stern  Dry weight without gear  127 kg [280 lbs]  | Cooling system                     | Fresh water cooling with heat exchanger        |                     |     |
| Dry weight without gear 127 kg [280 lbs]   | Lubrication system                 | Enclosed, forced lubricating system            |                     |     |
|  | Direction of rotation [crankshaft] | Counterclockwise viewed from stern             |                     |     |
| Emission compliance EU: RCD 2 BSO II EMC   | Dry weight without gear            | 127 kg   | [280 lbs]           |     |
|  | Emission compliance                | EU: RCD 2                                      | BSO II              | EMC |
| US: EPA Tier 3   |                                    | US: EPA Tier 3                                 |                     |     |
| Engine mounting Rubber type flexible mounting  | Engine mounting                    | Rubber type flexible mounting                  |                     |     |

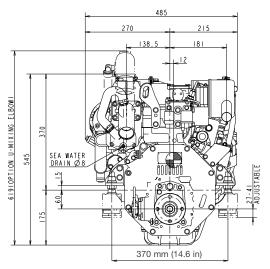
# NOTE:

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

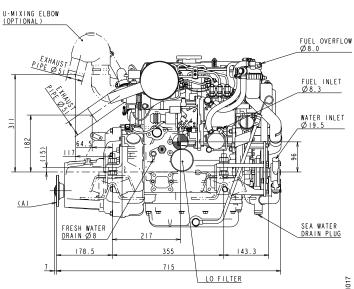
Technical data is according to ISO 8665: 2006

# **DIMENSIONS**

#### Rear view



#### Right side view



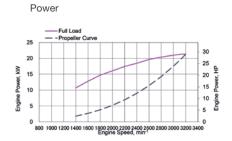
3YM30AE with KM2P-1 marine gear

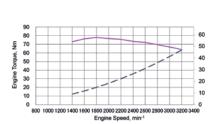
 $<sup>^{\</sup>star}$  Fuel temperature 40°C at the inlet of the fuel injection pump [ISO 8665:2006]



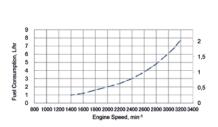


#### PERFORMANCE CURVES





Torque



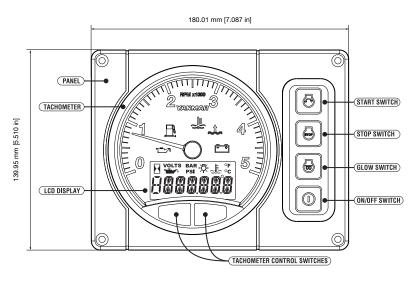
**Fuel Consumption** 

#### MARINE GEARS / DRIVE\*

| Model                        | KM2P-1 (parallel)      |           | Saildrive [SD25]                   |  |
|------------------------------|------------------------|-----------|------------------------------------|--|
| Туре                         | Mechanical cone clutch |           | Constant mesh gear with dog clutch |  |
| Dry weight                   | 9.8 kg [22 lbs]        |           | 30 kg [66 lbs]                     |  |
| Reduction Ratio [fwd/rev]    | 2.21/3.06              | 2.62/3.06 | 2.64/2.64                          |  |
| Propeller speed [fwd/rev]    | 1629/1176              | 1374/1176 | 1212/1212                          |  |
| Direction of rotation        | Clockwise              |           | Occupational collection            |  |
| (viewed from stern)          |                        |           | Counterclockwise                   |  |
| Dry weight - engine & gear   | 137 kg [302 lbs]       |           | 157 kg [346 lbs]                   |  |
| Length engine and gear/drive | 715 mm [28 in]         |           | 899 mm [35 in]                     |  |
|                              |                        |           |                                    |  |

<sup>\*</sup> Other marine gearboxes and configurations available upon request. Contact your local supplier for more information

#### **INSTRUMENT PANELS**



B20-panel

### **ACCESSORIES**

# Standard engine package

- Set of flexible mounts
- Exhaust mixing elbow [L-type]
- Belt safety cover
- Expansion tank for fresh water cooling system
- Alternator 12V 125A
- Electric stop solenoid
- Operation manual
- Sensor for instrument panel
- B20-panel

NOTE: All data subject to change without notice. Text and illustrations are not binding.

#### **Optional accessories**

- Extension wire harness [4m, 6m, 10m]
- High riser mixing elbow [instead of L-elbow]
- Hot water kit with cocks
- Dual Harness (For 2nd Station)
- Propeller cone nut kit SD25