

Yanmar type 4JH4AE

The Powerful Gem

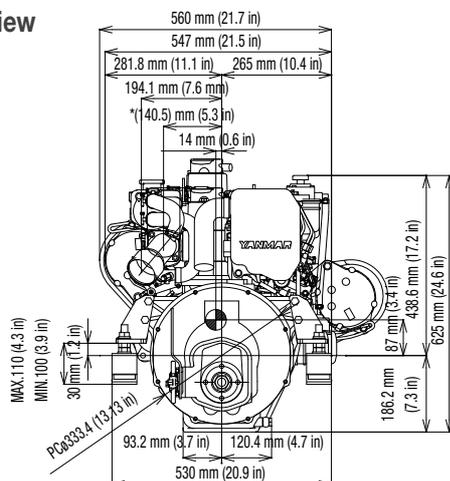


Configuration	4-stroke, vertical, water cooled diesel engine
Maximum output at crankshaft	* 39.6 kW (53 mhp) / 3000 rpm
Continuous rating output at crankshaft	36.0 kW (48 mhp) / 2907 rpm
Displacement	2.19 L (134 cu in)
Bore x stroke	88 mm x 90 mm (3.46 in x 3.54 in)
Cylinders	4 cylinders, 4-valves per cylinder
Combustion system	Direct injection
Aspiration	Natural aspiration
Starting system	Electric starting 12 V - 1.4 kW
Alternator	12 V - 80 A
Cooling system	Fresh water cooling by centrifugal water pump and rubber impeller sea water pump
Lubrication system	Enclosed, forced lubricating system
Direction of rotation (crankshaft)	Counter clockwise viewed from stern
Dry weight without gear	201 kg (443 lbs)
Environmental	Meets EPA Tier2, BSO Tier2 and RCD comprehensive emissions regulations introduced in EU and US in 2006
Engine mounting	Rubber type flexible mounts

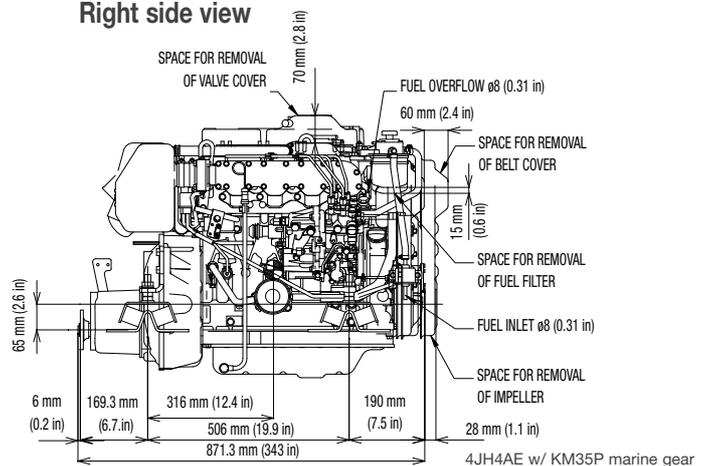
NOTE: Fuel condition: Density at 15°C = 0.84 g/cm³; 1kW = 1.3596 mhp = 1.3410 HP
 * Fuel temperature 40°C at the inlet of the fuel injection pump (ISO 8665)
 Technical data is according to ISO 8665 / 3046

Dimensions (For detailed line-drawings, please refer to our web-site: www.yanmarmarine.com or contact your supplier)

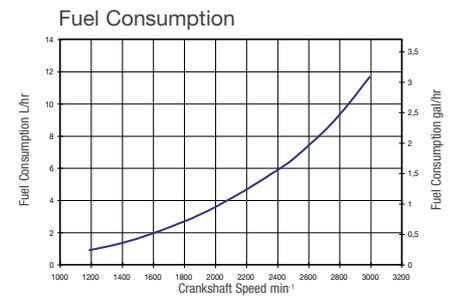
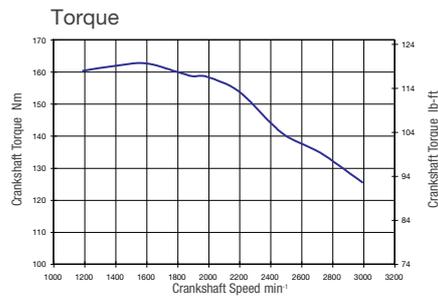
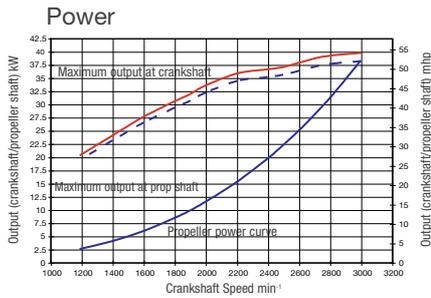
Rear view



Right side view



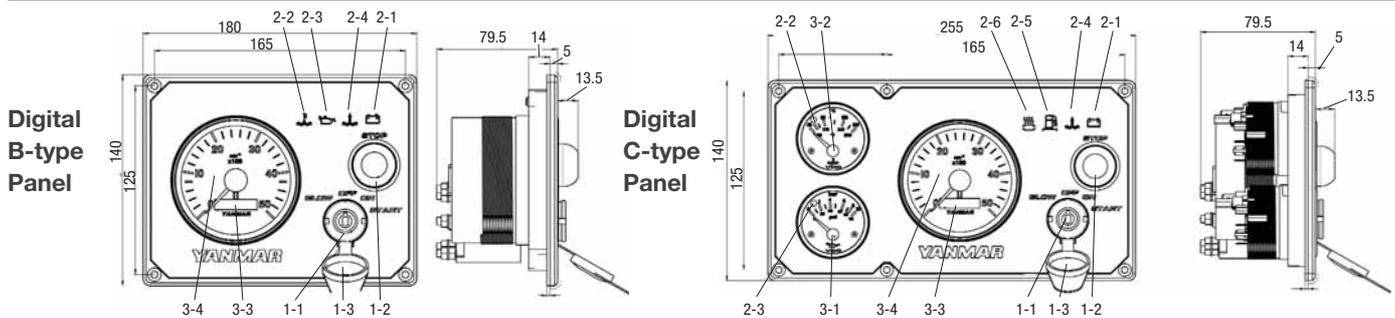
Performance Curves (Output is according ISO 8665)



Marine Gears/Drive

Model	KM35P		KM35A2 down angle: 7°		KM4A1 down angle: 7°		ZF30M		Saildrive SD50
Type	Mechanical cone clutch		Mechanical cone clutch		Mechanical cone clutch		Mechanical multy disc		Mechanical cone clutch
Dry weight	12 kg (27 lbs)		13 kg (29 lbs)		29 kg (64 lbs)		28 kg (61 lbs)		40 kg (88 lbs)
Reduction ratio (fwd/asn)	2.36/3.16	2.61/3.16	2.33/3.06	2.64/3.06	1.47/1.47	2.14/2.14	2.63/2.63	2.15/2.64	2.70/2.64
Propeller speed(fwd/asn)	1271/949	1149/949	1287/980	1136/980	2041/2041	1402/1402	1141/1141	1395/1136	1111/1136
Direction of rotation (propeller shaft - fwd)	Clockwise viewed from stern		Clockwise & counter clockwise viewed from stern						
Dry weight engine and gear/drive	213 kg (469.5 lbs)		214 kg (471.7 lbs)		214 kg (471.7 lbs)		229 kg (505 lbs)		241 kg (531 lbs)
Length engine and gear/drive	871 mm (34.3 in)		864 mm (34.0 in)		922 mm (36.3 in)		950 mm (37.4 in)		1067 mm (42.0 in)

Instrument Panels



Function	Type of instrument panel	
	Digital B-type Panel	Digital C-type Panel
① Switch unit		
1-1 Key switch for GLOW/OFF/ON/START (4-position switch)	O	O
1-2 Push button switch for engine stop	O	O
1-3 Moisture cap for key switch	O	O
② Alarm lamp unit		
2-1 Battery low charge alarm	O	O
2-2 Coolant high temperature alarm	O	O
2-3 Lubricating oil low pressure	O	O
2-4 Water in sail drive seal alarm	O	O
2-5 Water in fuel filter alarm	X	O
2-6 Sea water insufficient flow alarm	X	O
③ Meters		
3-1 Lubricating oil pressure meter	X	O
3-2 Coolant temperature meter	X	O
3-3 Hour meter	O	O
3-4 Tachometer	O	O
④ Audible alarm buzzer	O	O

Note: O = Equipped on panel X = Not equipped on panel

Accessories

Standard Package

- Set of flexible mounts
- Exhaust mixing elbow (L-type)
- V-belt safety cover
- Expansion tank and bracket for fresh water cooling system
- Alternator 12 V - 80 A

Optional

- Digital B-type instrument panel
- Digital C-type instrument panel + sensor assembly for digital C-panel
- Second 80 A alternator
- Alternator bracket and cover for secondary alternator
- Exhaust mixing elbow, U-type (high riser)
- Various extension wire harnesses (4M, 6M, 10M)

Texts and illustrations are not binding. Yanmar Marine reserves the right to introduce adaptations without prior notification.

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