



MARINE DIESEL ENGINES

4JH5E Series

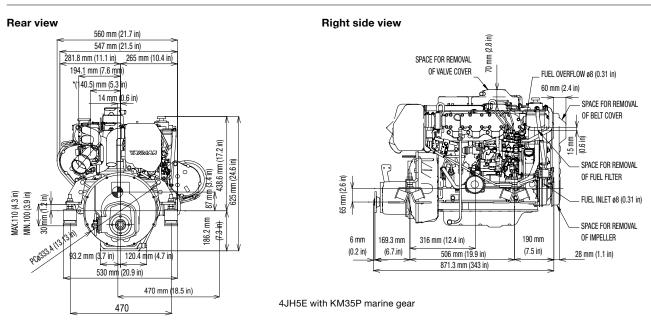
Configuration	4-stroke, vertical, water-cooled diesel engine					
Maximum output at crankshaft	* 39.6 kW@3000 rpm	[53.8 mhp@3000 rpm]				
Displacement	2.190 L	[134 cu in]				
Bore x stroke	88 mm x 90 mm	[3.46 in x 3.54 in]				
Cylinders	In-line					
Combustion system	Direct injection					
Aspiration	Natural aspiration					
Starting system	Electric starting 12V - 1.4 kW					
Alternator	12V - 125A					
Cooling system	Fresh water cooling by centrifugal fresh water pump and rubber impeller sea water pump					
Lubrication system	Enclosed, forced lubricating system					
Direction of rotation [crankshaft]	Counterclockwise viewed from stern					
Dry weight without gear	201 kg	[443 lbs]				
Emission compliance	EU: RCD 1	BSO II	EMC			
	US: EPA Tier 2					
Engine mounting	Rubber type flexible mounts					

NOTE:

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

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

DIMENSIONS

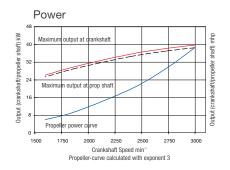


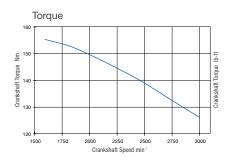
^{*} Fuel temperature 40°C at the inlet of the fuel injection pump [ISO 8665: 2006]

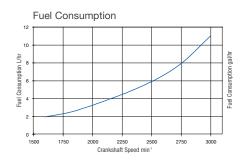




PERFORMANCE CURVES





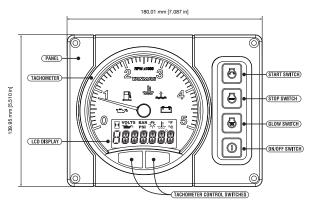


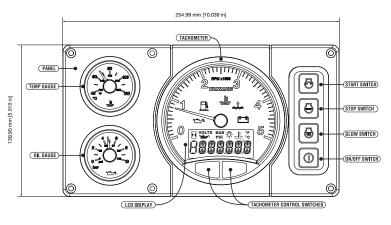
MARINE GEARS/DRIVE*

Model	KM35P		KM35A2 [down angle: 7°]		KM4A1-5 [down angle: 7°]		ZF30M		Saildrive SD60		
Туре	Mechanical cone clutch		Mechanical cone clutch		Mechanical cone clutch		Mechanical multi-disc		Mechanical wet type multi-disc		
Dry weight**	12 kg [27 lbs]		13 kg [29 lbs]		30 kg [66 lbs]		28 kg [61 lbs]		43.6 kg [88 lbs]		
Reduction Ratio [fwd/rev]	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	2.23/2.23	2.49/2.49
Propeller speed [fwd/rev]	1271/949	1149/949	1288/980	1136/980	2041/2041	1402/1402	1141/1141	1395/1136	1111/1136	1345/1345	1205/1205
Direction of rotation (viewed from stern)	Clockwise		Clockwise		Clockwise & counterclockwise		Clockwise		Clockwise & counterclockwise		
Dry weight - engine & gear**	213 kg [469.5 lbs]		214 kg [471.7 lbs]		230 kg [443 lbs]		229 kg [505 lbs]		241 kg [531 lbs]		
Length engine and gear/drive	871 mm [34 in]		864 mm [34 in]		922 mm [36 in]		950 mm [37 in]		1113 mm [44 in]		

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

INSTRUMENT PANELS





B20-panel C30-panel

ACCESSORIES

Standard engine package

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

Optional accessories

- Second alternator 12V 130A or 24V 75A, including smart regulator
- High-riser mixing elbow [instead of L-elbow]
- Extension wire harness [4m, 6m, 10m]
- Hot water kit with cocks
- Dual Harness (For 2nd Station)
- C30-panel
- Sensor for C30-panel
- Extension saildrive leg [75 mm]
- Propeller cone nut kit SD60

^{**} Dry weight includes cooler, brackets and damper disk.