



MARINE COMMON RAIL ENGINES

4LV Series - 230 / 250

Configuration	4-stroke, vertical, water-cooled diesel engine	
Maximum output at crankshaft*	169kW @3800	[230 mhp@3800 rpm]
	184kW @3800	[250 mhp@3800 rpm]
Displacement	2.755 L	[168 cu in]
Bore x stroke	92 mm x 103.6 mm	[3.6 in x 4 in]
Cylinders	4 in-line	
Combustion system	Direct injection with Denso common rail system	
Low idle rpm	750 rpm	
Aspiration	Turbocharger with charge-air cooler	
Starting sytem	Electric starting 12V – 2 kW	
Alternator	Denso 12V - 130A	
Cooling system	Fresh water cooling by centrifugal fresh water pump Sea water cooling by rubber impeller seawater pump	
Lubrication system	Enclosed, forced lubricating system	
Direction of rotation [crankshaft]	Counterclockwise viewed from stern	
Dry weight without gear**	332 kg	[732 lbs]
Emission compliance	EU: RCD 2, BSO II, EMC	US: EPA Tier 3
Engine mounting	Rubber type flexible mounting	

NOTE:

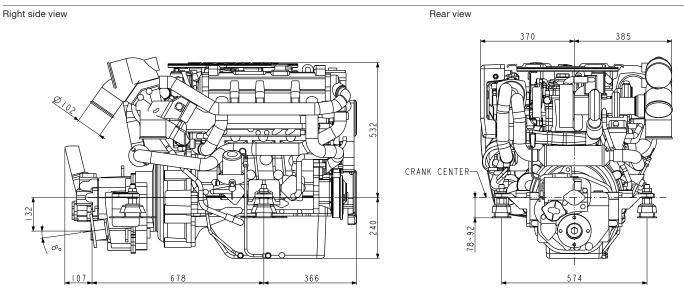
Fuel condition: Density at 15° C = 0.84 g/cm³: 1 kW = 1.3596 mhp = 1.3410 HP

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

** Including damper disk

Technical data is according to ISO 8665: 2006

DIMENSIONS



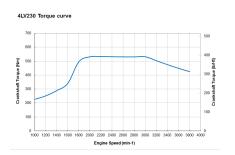
4LV230 with KMH50A marine gear

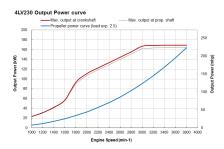
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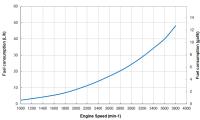
PERFORMANCE CURVES

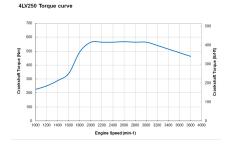


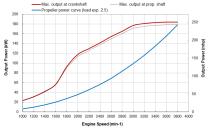


4LV250 Output Power curve Max, output at prop, shaft 180 160 140 120 100 80 100

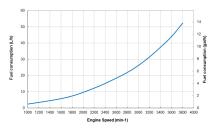
4LV230 Fuel consumption (load exp. 2.5)







4LV250 Fuel consumption (load exp. 2.5)



MARINE GEARS*

Model	KMH50A [down angle: 8°]	KMH50V [V-drive, angle: 12°]
Туре	Hydraulic, multi disk clutch	Hydraulic, multi disk clutch
Dry Weight**	52 kg [115 lbs]	75 kg [165 lbs]
Reduction Ratio [fwd/asn]	1.67/1.67 2.13/2.13 2.43/2.43	1.22/1.22 1.58/1.58 2.08/2.08 2.47/2.47
Propeller speed [fwd/asn]	2275/2275 1784/1784 1564/1564	3115/3115 2405/2405 1827/1827 1538/1538
Direction of rotation [viewed from stern]	Clockwise & counterclockwise	Clockwise & counterclockwise
Dry weight - engine & gear	384 kg [846 lbs]	407 kg [897 lbs]
Length engine and gear/drive	1151 mm [45.3 in]	1151 mm [45.3 in]

*For other configurations, consult your local Yanmar distributor. **Dry weight includes cooler and brackets

ACCESSORIES

Standard Package

- Exhaust mixing elbow [L-type]
- Alternator 12V 130A
- B25 panel
- Oil sensor for instrument panel
- Mechanical throttle sensor
- Set of flexible engine mounts
- Fresh water expansion tank
- Belt safety cover
- Engine topcover for protection
- Operation manual

Optional

- High-riser mixing elbow [instead of L-elbow]
- Secondary alternator 12V 150A or 24V 85A • Multistage secondary alternator 12V - 130A or 24V - 110A
- Semi 2-Pole Electrical Installation
- Hot water connection
- Opposite dipstick
- Fuel pre-filter with water separator
- C-Type Trolling Valve KMH50
- Extension harness [3m, 5m, 10m, 20m]

Mechanical sidemount control head

C35 panel

- VC10 Vessel Control System
- Second station
- NMEA2000 Engine monitoring system
- Electronic Side Mount CH instead of Top Mount
- SOLAS including Certificate (Factory fit only)
- Man Over Board Switch (single)
- On Board Spare Parts Kit 4LV
- Second station
- NMEA2000 Engine monitoring system
- JC20 Inboard Joystick