



## 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:

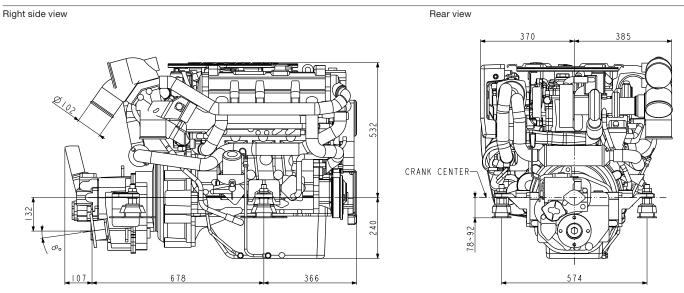
Fuel condition: Density at  $15^{\circ}$ C = 0.84 g/cm<sup>3</sup>: 1 kW = 1.3596 mhp = 1.3410 HP

\* 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



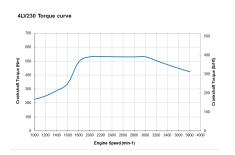
4LV230 with KMH50A marine gear

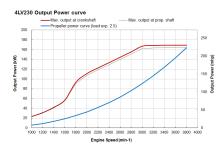
## www.yanmarmarine.com





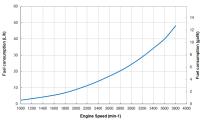
## PERFORMANCE CURVES

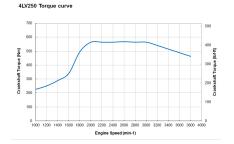


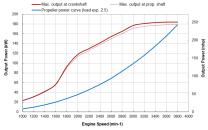


# 4LV250 Output Power curve Max, output at prop, shaft 180 160 140 120 100 80 100

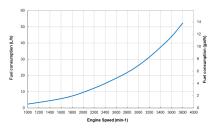
## 4LV230 Fuel consumption (load exp. 2.5)







#### 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