



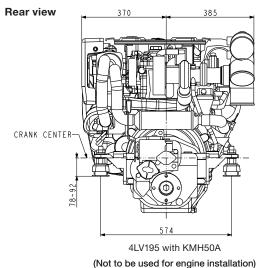
MARINE COMMON RAIL ENGINES

4LV Series - 150 / 170 / 195

Configuration	In-line, 4-stroke, vertical, water	In-line, 4-stroke, vertical, water-cooled diesel engine				
Max. output at crankshaft*	110 kW@3500 rpm 125 kW@3500 rpm 143 kW@3500 rpm	[150 mhp@3500 rpm] [170 mhp@3500 rpm] [195 mhp@3500 rpm]				
No. of cylinders	4 cylinder	4 cylinder				
Displacement	2.755 L	[168 cu in]				
Bore x stroke	92 mm x 103.6 mm	[3.6 in x 4 in]				
Aspiration	Turbocharged & intercooled	Turbocharged & intercooled				
Combustion system	Direct injection, Denso commo	Direct injection, Denso common rail system				
Starting system	Electric starting 12V – 2 kW	Electric starting 12V – 2 kW				
Engine management	Electronic	Electronic				
Cooling system	.	Fresh water cooling by centrifugal fresh water pump Seawater cooling by rubber impeller seawater pump				
Alternator	Denso 12V - 130A	Denso 12V - 130A				
Lubrication system	Enclosed, forced lubricating sy	Enclosed, forced lubricating system				
Engine lube oil specifications	API class: CD or higher, SAE g	rade: 15W-40				
Engine lube oil specifications Direction of rotation at crankshaft	API class: CD or higher, SAE g Counterclockwise (CCW) view					
	5 . 5					
Direction of rotation at crankshaft	Counterclockwise (CCW) view	ed from stern				
Direction of rotation at crankshaft Dry weight without gear	Counterclockwise (CCW) view	ed from stern				
Direction of rotation at crankshaft Dry weight without gear Engine dimensions† L x W x H	Counterclockwise (CCW) view 334 kg 1151 x 755 x 772 mm	ed from stern [736 lbs]				
Direction of rotation at crankshaft Dry weight without gear Engine dimensions† L x W x H Emission compliance	Counterclockwise (CCW) view 334 kg 1151 x 755 x 772 mm EU: RCD 2, BSO II, ^ EMC	ed from stern [736 lbs] US: EPA Tier 3, EPA-C				

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

DIMENSIONS



(Not to be used for engine installation)

DIESEL BEC

Right side view

366 678

Technical data is according to ISO 8665: 2006

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

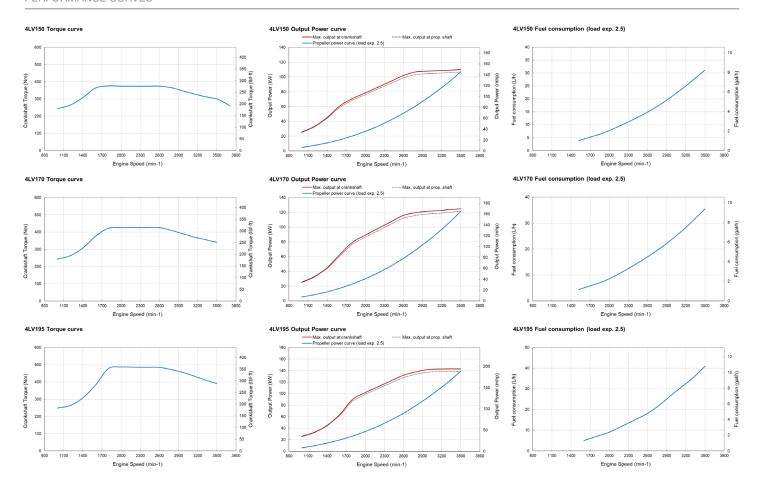
[†]Length includes KMH50A marine gear (Dimensions may vary with other gears/elbow)

^{^4}LV195 only





PERFORMANCE CURVES



MARINE GEAR*

Model	KMH50A [down angle: 8°]			KMH50V [V-drive, angle: 12°]					
Clutch type	Hydraulic multi-disc				Hydraulic multi-disc				
Dry weight	54 kg [119 lbs]				77 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	
Direction of rotation [viewed from stern]	Clockwise & counterclockwise				Clockwise & counterclockwise				
Lubrication system	Forced lubrication			Forced lubrication					
Lube oil specifications	API class: CF or higher, SAE grade: #30			API class: CF or higher, SAE grade: #30					
Max. lube oil capacity	1.8 L			5.4 L					
Dry weight - engine & gear	388 kg [855 lbs]			411 kg [906 lbs]					

 $^{^{\}star}\,\text{Other marine gearboxes and configurations available upon request.}\,\text{Contact your local supplier for more information}$

ACCESSORIES

Standard engine package

- Exhaust mixing elbow [L-type]
- Alternator 12V 130A
- B25 panel
- Flexible mounts
- Mechanical throttle sensor
- Fresh water expansion tank

Optional accessories

- High-riser mixing elbow [instead of L-elbow]
- •Secondary alternator 12V 130A or 24V 110A including smart regulator
- C35 panel
- Extension harness [3m, 5m, 10m, 20m]
- Second station
- Sidemount control head
- VC20 Vessel Control System

- JC20A Inboard Joystic
- NMEA2000 Engine monitoring system
- Semi 2-pole
- SOLAS including certificate [factory fit only]
- Hot water connection
- Water separator
- Man Over Board Switch [single]
- C-Type trolling [KMH50 only]
- On-board spare parts kit