MAN Energy Solutions

Future in the making



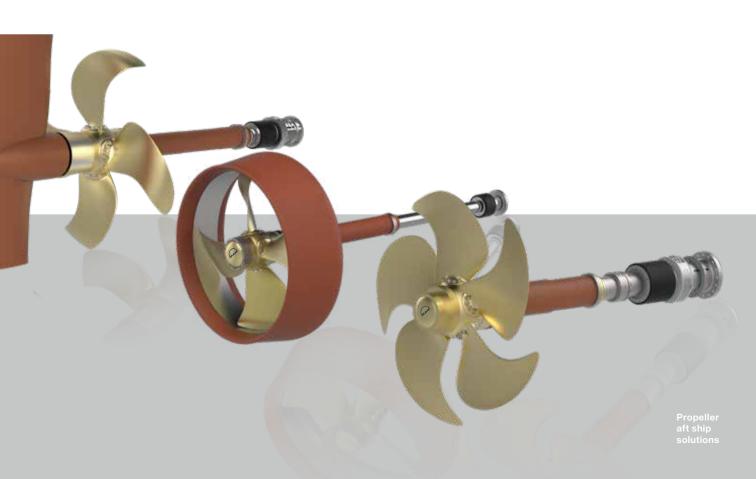
MAN Alpha CP propellers

MAN 49/60DF

Propulsion package solutions: Open and ducted MAN Alpha CP propellers tailored with stern tubes, seals, tail shafts, intermediate shafts, couplings and the Alphatronic 3000 control system – optimized and fine-tuned for the MAN 49/60DF engine range.

Benefits at a glance

- High efficiency and low noise
- Low operational costs
- Low installation costs
- Wide application range
- Tailored system solutions
- Superior package value

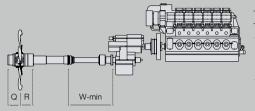


MAN Alpha CP propellers

Engine Propeller Propeller

Fngine

MAN 49/60DF



type	output 1)	hub	speed	diam. D	Q	R	W-min
	kW	mm	r/min	mm	mm	mm	mm
6L49/60DF	7,800	1,100	169	4,350	851	962	1,700
		1,180	142	4,900	914	1,014	1,700
		1,350	122	5,700	1,027	1,035	1,750
7L49/60DF	9,100	1,180	167	4,500	914	1,014	1,700
		1,260	139	5,100	972	1,223	1,700
		1,450	111	5,900	1,127	1,197	1,800
8L49/60DF	10,400	1,180	164	4,650	914	1,034	1,700
		1,350	138	5,250	1,027	1,040	1,750
		1,450	110	6,100	1,122	1,197	1,800
9L49/60DF	11,700	1,260	159	4,850	972	1,223	1,750
		1,350	135	5,450	1,027	1,100	1,750
		1,550	108	6,300	1,175	1,236	1,900
10L49/60DF	13,000	1,350	162	4,900	1,027	1,080	1,750
		1,450	136	5,500	1,122	1,197	1,800
		1,550	109	6,400	1,175	1,256	1,900
12V49/60DF	15,600	1,450	161	5,100	1,122	1,197	1,800
		1,550	133	5,750	1,175	1,236	1,900
		1,640	106	6,750	1,260	1,288	1,950
14V49/60DF	18,200	1,450	164	5,200	1,122	1,227	1,800
		1,550	131	5,950	1,175	1,256	1,900
		1.730	104	7.000	1.330	1.339	3.000

Propeller Dimension Dimension

The standard 4-bladed propeller program is dimensioned according to Lloyd's Register No Ice.

Tailored blade designs, other blade numbers (3 and 5), CPPs with full feathering, integration with EcoBulb rudder bulbs, ducted CPPs, tailor-made AHT nozzles, shaft and stern tube systems for water/bio oil lubrication are available upon request.

Alphatronic 3000 propulsion control system

Power and maneuverability

Accurate propulsion control is offered all the way – from the navigator's finger tips to the propeller tips. Any maneuvering order given is translated into electrical speed setting, pitch or clutch signals, governing the hydraulic servo circuits of engine/gearbox and propeller systems.

The Alphatronic 3000 propulsion control system offers unrivaled "Human to MAN" interface with ergonomically logic and clear layout of panels, levers, buttons, displays and touch screens ensuring safe and efficient interactions.

Quick and balanced system response ensures efficient propulsion and vessel maneuverability.

The system controls various propulsion application combinations with engines in a wide range of single- and multi-propeller dieselmechanical, diesel-electric or hybrid propulsion packages.

Reduce consumption and emission

Cut down on fuel: Economic operation due to optimized engine load and thrust control, and the deployment of the optional speed pilot feature with GPS interface for various economy-sailing modes.

Speed pilot

The speed pilot optimizes the voyage planning and operational speeds e.g. for pulling, steaming and convoy sailing – with fuel saving potentials of up to 4%. The speed pilot is ideal for maintaining constant ship speed – also in shaft generator mode with varying electrical loading.

Engine lifetime protection

Propulsion engines are protected against overload in general and further thermal protection is provided via controlled running-up and -down programs.



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