MAN Energy Solutions
Future in the making

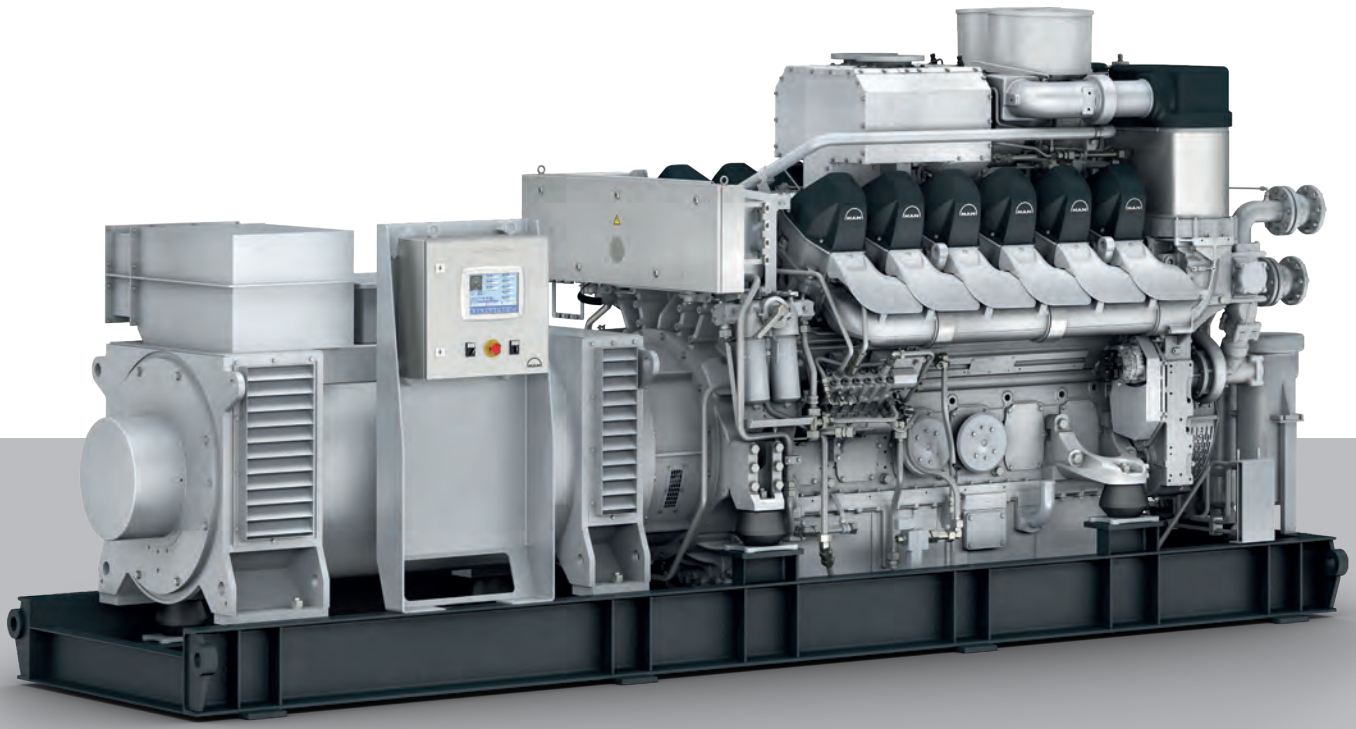
MAN 175D

GenSet

Packing the latest technology into minimal space, the MAN 175D GenSet is characterized by a clear-cut design, flexible ship integration, simple operation, and straightforward maintenance. Its modular design allows it to meet all the challenges of today's different applications.

Benefits at a glance

- Low fuel oil consumption
- Low operating costs
- Low life cycle costs
- Long service life



Four-stroke marine systems

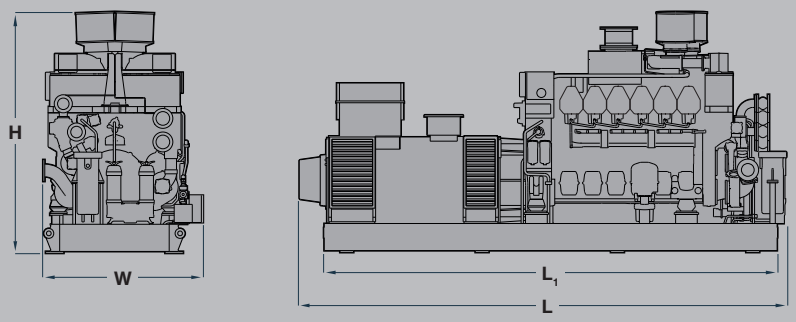
MAN 175D

GenSet

Dimensions

Cyl. No.		12
L	mm	5,385
L_1	mm	5,000
H	mm	2,670
W	mm	1,770
Dry mass	t	15.80

Weight and dimensions are preliminary. Please request installation drawing for planning purposes.



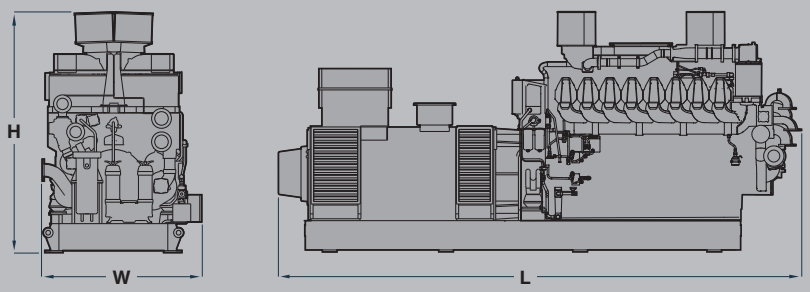
Output

Engine model	MAN 12V175D-MEM		MAN 12V175D-MEL		MAN 12V175D-MEV		MAN 12V175D-MA	
Rating definitions	Electric propulsion medium duty		Electric propulsion light duty		Electric propulsion variable speed medium duty	Electric propulsion variable speed light duty	Auxiliary power	
MCR (kW) @max rpm	1,440	1,800	1,620	1,920	1,860	2,040	1,620	1,920
Rated electrical output (kWe)*	1,382	1,728	1,555	1,843	1,786	1,958	1,555	1,843
Speed (rpm)	1,500	1,800	1,500	1,800	1,080-1,800	1,080-1,800	1,500	1,800
Average load (%)	75.0	75.0	50.0	50.0	75.0	50.0	50.0	50.0
Frequency (Hz)	50	60	50	60	36-60	36-60	50	60
SFOC at 100 % MCR, Tier II (g/kWh)	184.0	190.0	183.0	189.0	191.0	190.0	183.0	189.0
SFOC at 100 % MCR, Tier III (g/kWh)	185.0	191.0	184.0	190.0	192.0	191.0	184.0	190.0

Dimensions

Cyl. No.		16
L	mm	6,000
H	mm	2,850
W	mm	1,800
Dry mass	t	23

Weight and dimensions are preliminary. Please request installation drawing for planning purposes.



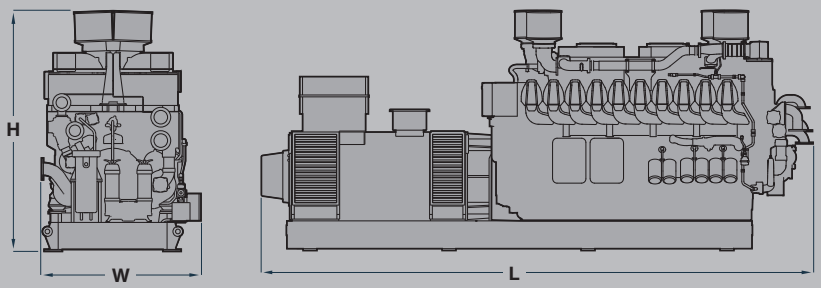
Output

Engine model	MAN 16V175D-MEM		MAN 16V175D-MEL		MAN 16V175D-MEV		MAN 16V175D-MA
Rating definitions	Electric propulsion medium duty		Electric propulsion light duty		Electric propulsion variable speed medium duty	Electric propulsion variable speed light duty	Auxiliary power
MCR (kW) @max rpm	1,920	2,400	2,160	2,560	2,480	2,720	2,400
Rated electrical output (kWe)*	1,843	2,304	2,074	2,458	2,381	2,611	2,304
Speed (rpm)	1,500	1,800	1,500	1,800	1,080-1,800	1,080-1,800	1,800
Average load (%)	75.0	75.0	50.0	50.0	75.0	50.0	75.0
Frequency (Hz)	50	60	50	60	36-60	36-60	60
SFOC at 100 % MCR, Tier II (g/kWh)	184.0	190.0	183.0	189.0	191.0	191.0	190.0
SFOC at 100 % MCR, Tier III (g/kWh)	185.0	191.0	184.0	190.0	192.0	192.0	191.0

Dimensions

Cyl. No.		20
L	mm	6,500
H	mm	2,900
W	mm	1,800
Dry mass	t	27

Weight and dimensions are preliminary. Please request installation drawing for planning purposes.



Output

Engine model	MAN 20V175D-MEM		MAN 20V175D-MEL		MAN 20V175D-MEV	
Rating definitions	Electric propulsion medium duty		Electric propulsion light duty		Electric propulsion variable speed medium duty	Electric propulsion variable speed light duty
MCR (kW) @max rpm	2,400	3,000	2,700	3,200	3,100	3,400
Rated electrical output (kWe)*	2,304	2,880	2,592	3,072	2,976	3,264
Speed (rpm)	1,500	1,800	1,500	1,800	1,080-1,800	1,080-1,800
Average load (%)	75.0	75.0	50.0	50.0	75.0	50.0
Frequency (Hz)	50	60	50	60	36-60	36-60
SFOC at 100 % MCR, Tier II (g/kWh)	184.5	190.0	183.0	189.0	191.0	190.0
SFOC at 100 % MCR, Tier III (g/kWh)	185.5	191.0	184.5	190.0	192.0	191.0

Rated power output according to ISO 3046-1, ICXN for diesel-electric drives or onboard power generation. The power produced at the flywheel will be within the tolerance of 3% - according to ISO 15550:2002 (E) – up to 45°C (113°F) combustion air temperature measured at the engine air inlet and up to 38°C (100°F) sea or raw water temperature measured at the seawater pump suction inlet, unless other values mentioned explicitly.
Specific fuel oil consumption related to mechanical output acc. to ISO 3046-1:2002 based on a lower calorific value of fuel 42,700 kJ/kg with attached lube oil, HT and LT-cooling water pumps limitations with 5 % tolerance. MAN ES diesel engines are specified according to vibration class 5 of DIN ISO 10816-6 (vibration limit evaluation zone A/B: 28.2 mm/s, rms, 2-1,000 Hz, stationary conditions at nominal operating point)
* 3-phase, 0.8 p.f., assumes alternator efficiency of 96.0 %, class F temperature rise, class H insulation. Depending on chosen classification society, a de-rating might be required.

Release September 2021.

General

- Standard layout with engine and alternator connected via bellhousing and resiliently seated on the base frame
- Modular common rail fuel injection system
- Integrated lubrication system with electrical prelubrication and extraction pump
- High-efficiency MAN turbochargers
- HT and LT split cooling circuits with integrated pumps and thermostats
- Integrated preheating module
- MAN SaCoS$_{one}$ safety and control system with genset-mounted local operating panel
- Compliant to SOLAS requirements for admissible surface temperature without additional insulation
- Classed by all major Classification societies

Starting method

- Electric/pneumatic

Optional equipment

- Air- or freshwater-cooled alternator
- Integrated seawater cooler, engine-driven seawater pump and expansion tank
- Lube oil centrifuge
- Horizontal exhaust gas outlet (12V engine only)
- Double resilient seating
- Redundant starter
- Redundant lube oil supply
- PTO for FiFi pump

Compliance with emission regulations

- IMO Tier II
- IMO Tier III (with MAN SCR)

MCR = Maximum continuous rating
SCR = Selective catalytic reduction
SFOC = Specific fuel oil consumption

MAN Energy Solutions
86224 Augsburg, Germany
P + 49 821 322-0
F + 49 821 322-3382
info@man-es.com
www.man-es.com

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