

MARINE

Auxiliary gensets



MAN Engines



MAN ENGINES AS AUXILIARY GENSETS

Renowned manufacturers of auxiliary gensets and emergency gensets often use MAN engines. Reliable, durable and economical, MAN engines serve their purpose well in the power range from 190 kW to 800 kW.





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A RELIABLE DRIVING FORCE

Customer Benefits

- Low fuel consumption in a wide range of engine loads
- Maximum power output with a quick load pick-up
- Class-leading compactness for a space-saving design
- Best fuel consumption values and long service intervals minimizing the TCO
- Low acoustics and low vibrations
- Worldwide service network – spare parts available within 24 hours



Worldwide service network

most certainly represented in your area



Spare parts availability

worldwide available within 24 hours



Extended warranty

up to 3 years with Work PLUS|2



MAN Customer Service

as back-up from the headquarters



Servicing and maintenance plans

individually for you

MAN SERVICE FOR NON-STOP OPERATION



MAN Genuine Oil

customised for MAN engines



MAN Engine Academy

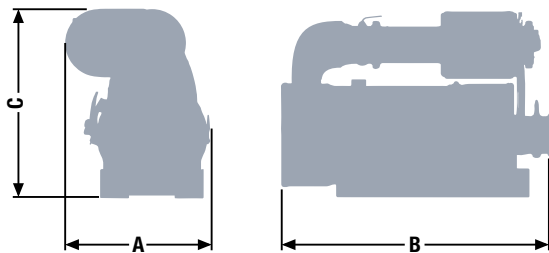
for a deeper understandig of engines

EXHAUST AFTERTREATMENT LOWER EMISSIONS IN ANY VESSEL

Flexibility makes use of free space – also when it comes to exhaust gas aftertreatment: Individual components of the modular EGA kit from MAN Engines, which can be positioned variably, enable a wide range of installation variants as well as maximum design freedom when installed in machinery and vehicles.

Alternatively, pre-defined complete systems offer practical, space-saving solutions.

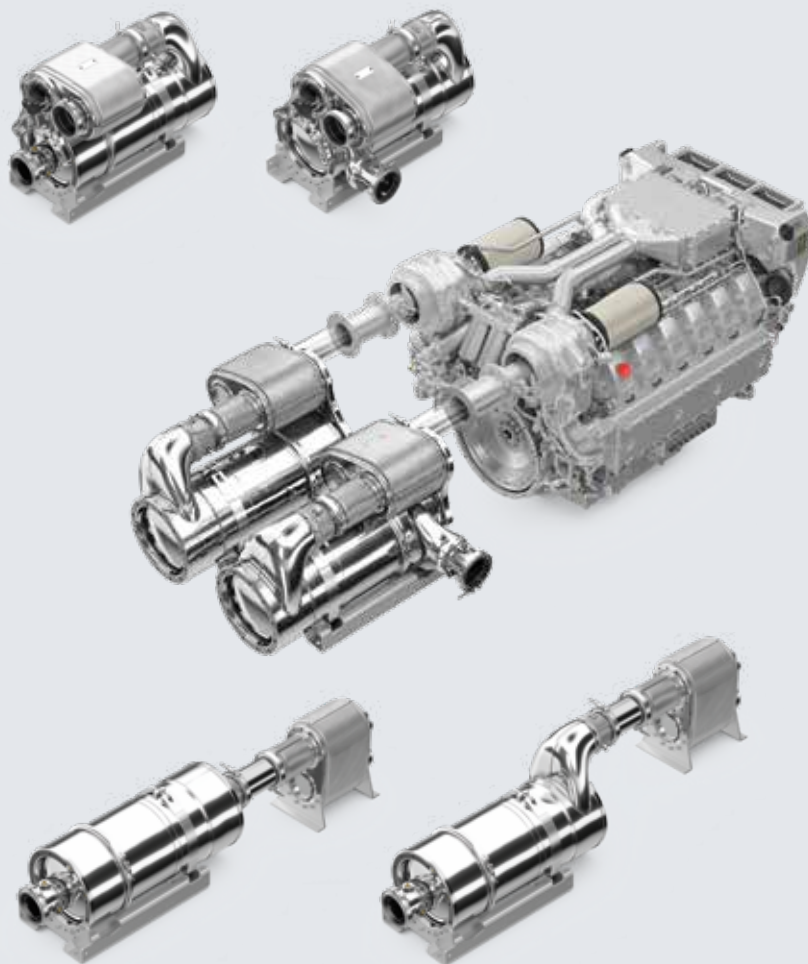




Dimensions

Type designation	SCR system	
A-Overall width	mm	500
B-Overall length	mm	950
C-Overall height	mm	655
Average weight of SCR system with exhaust silencer	kg	115

For detailed examinations of installation dimensions, please order drawings from our factory.




EXTENDED WARRANTY MORE COMFORT FOR YOUR BUSINESS

All MAN engines for working boats are delivered ex works with a one-year warranty. This warranty is valid for the entire scope of supply from MAN, and is therefore also valid for all engine parts. Wearing parts and components that have to be replaced at regular maintenance intervals are excluded from the warranty.

You have the option of taking out additional coverage for yourself and your investment beyond the one-year warranty: Work PLUS|1 and Work PLUS|2 offer you an extension of the warranty by up to two additional years, meaning that the total warranty would be up to 3 years. The operating hours of your engine will depend on the application.

Customer Benefits

- The Work PLUS|1 and Work PLUS|2 extensions cover all the MAN components in your engine room, including cost-intensive components such as the electronics and turbo charger
- The transferability of the extension increases the resale value of your vessel
- All maintenance work and repairs are carried out by an authorised MAN service partner
- You can be sure that all servicing and repairs will be performed exclusively using MAN Genuine Parts

 For more information, please contact your local dealer.





MAN GENUINE PARTS AVAILABLE 24/7 AROUND THE WORLD

Of course, the premium quality of your MAN engine is also reflected in high-quality MAN Genuine Parts. And because 'first class' doesn't only apply to our products here at MAN Engines, we ensure that our MAN Genuine Parts are available to you within 24 hours on working days.

Customer Benefits

- High utilization of your ship and flexibility when organising your journeys
- Quick alternative in original manufacturer quality
- Standard two-year warranty on all MAN Genuine Parts and MAN Genuines Parts ecoline
- Delivery to 2,000 shipping addresses in 95 countries

This is made possible by our global service network, external warehouses across all the continents, and the logistics network of our MAN utility vehicles. This round-the-clock availability for MAN Genuine Parts applies to working days, and is for all spare parts for maintenance work on MAN engines for commercial shipping, such as filters, turbochargers, seawater pumps, seals and many more. Our genuine engines deserve MAN Genuine Parts with two-year warranty and worldwide around-the-clock availability.

AUXILIARY GENSETS

Characteristics

- Annual operating hours: $\leq 5,500$ h
- Average load application: $\leq 75\%$

EMERGENCY GENSETS

Characteristics

- Annual operating hours: $\leq 1,000$ h
- Average load application: unlimited





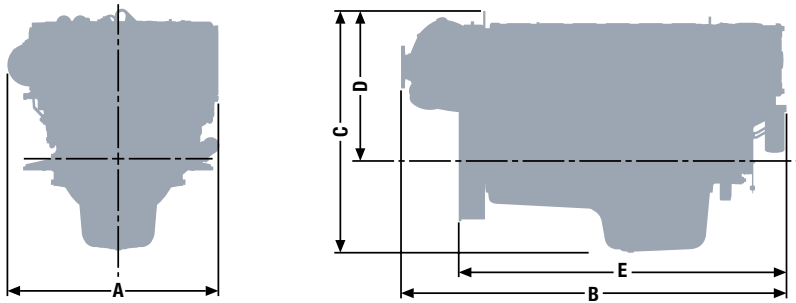
D2676



Characteristics

- Cylinders and arrangement: 6 cylinders in-line
- Operation mode: 4-stroke diesel engine, watercooled
- Turbocharging: Turbocharger with charge air intercooler and wastegate
- Number of valves: 4 valves per cylinder
- Fuel system: Common Rail direct fuel injection with electronic control
- Engine block: High-strength casting with integrated oil and water ducts and replaceable cylinder liners
- Engine lubrication: Force-feed lubrication, lubrication oil cooler in the cooling water circuit of the engine
- Type of cooling: Heat exchanger with engine and seawater circuit or for keel cooling
- Engine control: Electronic engine monitoring including diagnostic unit
- Fuel: DIN EN 590

D2676



Dimensions

Type designation	LE 321/322/323/327/328/332	
A-Overall width	mm	983
B-Overall length	mm	1,763
C-Overall height – standard oil pan	mm	1,103
D-Top of engine to crankshaft centre	mm	686
E-Length of engine from front end to edge of flywheel housing	mm	1,494
Average weight of engine ready for installation (dry)	kg	1,251

For detailed examinations of installation dimensions, please order drawings from our factory.

Technical features

Type designation		Auxiliary gensets			
		LE 332		LE 322	
Rated speed	rpm (Hz)	1,500 (50)	1,800 (60)	1,500 (50)	1,800 (60)
Displacement	l	12.42	12.42	12.42	12.42
Nominal rating ¹⁾	kW (hp)	190 (258)	220 (299)	280 (381)	330 (449)
Specific fuel consumption at rated power	g/kWh	210	208	203	199
Specific fuel consumption at 75 % load ¹⁾	g/kWh	213	213	205	201
Classifiable		✓	✓	✓	✓
Exhaust gas aftertreatment		–	–	–	–
Exhaust gas status		IMO Tier II	IMO Tier II	IMO Tier II	IMO Tier II

1) Tolerance +5 % according to DIN ISO 3046-1

D2676

Technical features

Type designation		Auxiliary gensets			
		LE 328		LE 327	
Rated speed	rpm (Hz)	1,500 (50)	1,800 (60)	1,500 (50)	1,800 (60)
Displacement	l	12.42	12.42	12.42	12.42
Nominal rating ¹⁾	kW (hp)	290 (394)	290 (394)	360 (490)	410 (558)
Specific fuel consumption at rated power	g/kWh	197	201	195	202
Specific fuel consumption at 75 % load ¹⁾	g/kWh	199	205	195	199
Classifiable		✓	✓	✓	✓
Exhaust gas aftertreatment		✓	✓	✓	✓
Exhaust gas status		IMO Tier III, EU Stage V	IMO Tier III, EU Stage V	IMO Tier III	IMO Tier III

1) Tolerance +5 % according to DIN ISO 3046-1

Auxiliary gensets		Emergency gensets	
LE 321		LE 323	
1,500 (50)	1,800 (60)	1,500 (50)	1,800 (60)
12.42	12.42	12.42	12.42
375 (510)	445 (605)	375 (510)	445 (605)
200	198	200	198
200	197	200	197
✓	✓	✓	✓
-	-	-	-
IMO Tier II	IMO Tier II	IMO Tier II	IMO Tier II

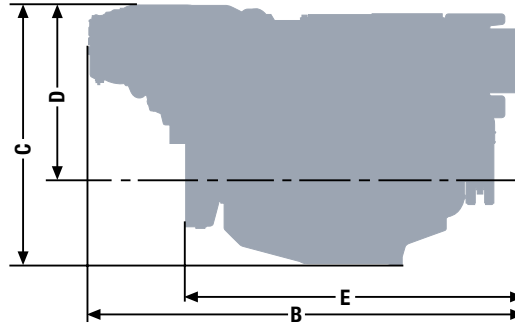
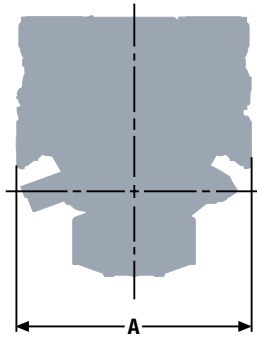
D2862



Characteristics

- Cylinders and arrangement: 12 cylinders in 90° V arrangement
- Operation mode: 4-stroke diesel engine, watercooled
- Turbocharging: Turbocharger with charge air intercooler and wastegate
- Number of valves: 4 valves per cylinder
- Fuel system: Common Rail direct fuel injection with electronic control
- Engine block: High-strength casting with integrated oil and water ducts and replaceable cylinder liners
- Engine lubrication: Closed system with forced feeding, oil cooling and filtering
- Type of cooling: Plate heat exchanger, seawater circuit or for keel cooling
- Engine control: Electronic engine monitoring including diagnostic unit
- Fuel: DIN EN 590

D2862



Dimensions

Type designation		LE 321/323	LE 327	LE 322	LE 328
A-Overall width	mm	1,273	1,151	1,273	1,151
B-Overall length	mm	2,129	2,003	2,119	2,023
C-Overall height – standard oil pan	mm	1,282	1,268	1,305	1,281
D-Top of engine to crankshaft centre	mm	815	803	838	816
E-Length of engine from front end to edge of flywheel housing	mm	1,629	1,608	1,629	1,608
Average weight of engine ready for installation (dry)	kg	2,280	2,280	2,280	2,280

For detailed examinations of installation dimensions, please order drawings from our factory.

Technical features

Type designation		Auxiliary gensets			
		LE 322		LE 328	
Rated speed	rpm (Hz)	1,500 (50)	1,800 (60)	1,500 (50)	1,800 (60)
Displacement	l	24.24	24.24	24.24	24.24
Nominal rating ¹⁾	kW (hp)	600 (816)	700 (952)	600 (816)	700 (952)
Specific fuel consumption at rated power	g/kWh	196	200	195	199
Specific fuel consumption at 75 % load ¹⁾	g/kWh	198	202	196	199
Classifiable		✓	✓	✓	✓
Exhaust gas aftertreatment		–	–	✓	✓
Exhaust gas status		IMO Tier II	IMO Tier II	IMO Tier III	IMO Tier III

1) Tolerance +5 % according to DIN ISO 3046-1

D2862

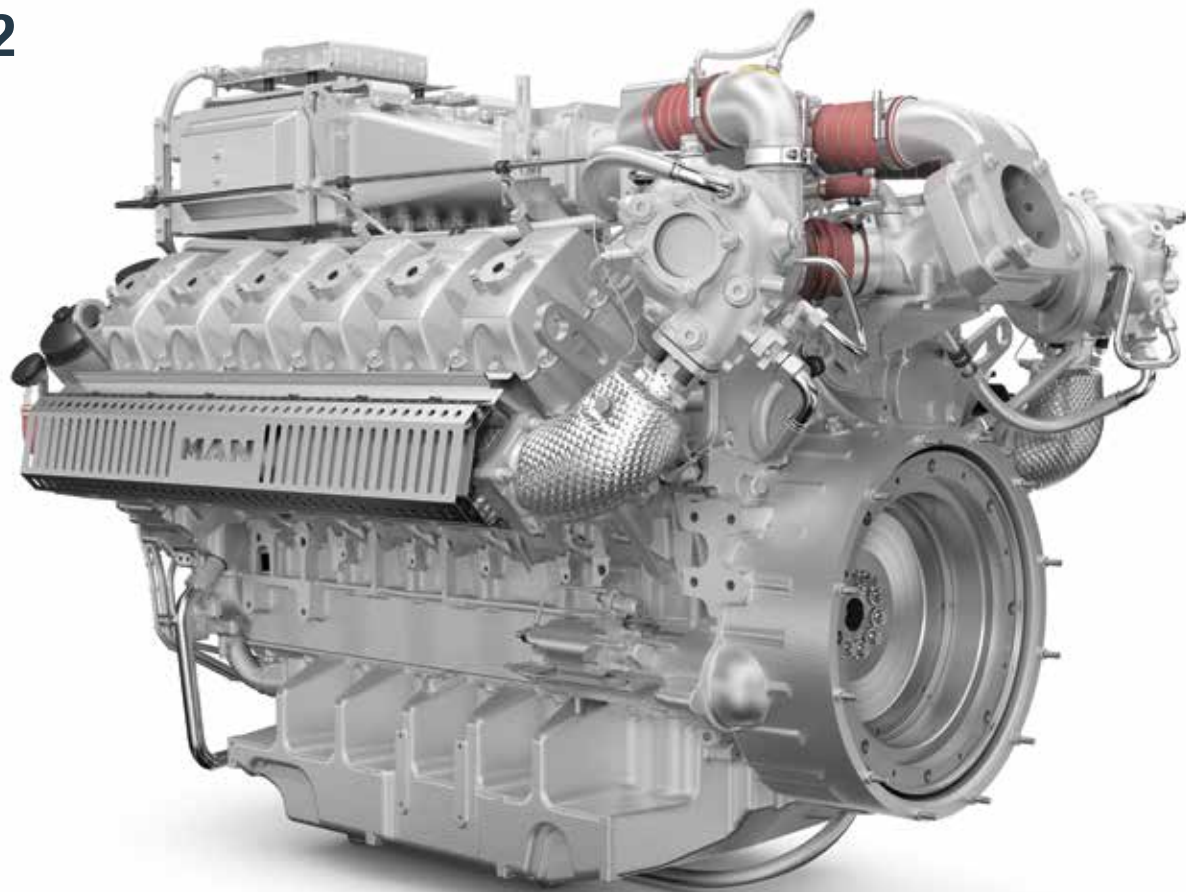
Technical features

Type designation		Auxiliary gensets			
		LE 321		LE 327	
Rated speed	rpm (Hz)	1,500 (50)	1,800 (60)	1,500 (50)	1,800 (60)
Displacement	l	24.24	24.24	24.24	24.24
Nominal rating ¹⁾	kW (hp)	700 (952)	800 (1088)	700 (952)	800 (1088)
Specific fuel consumption at rated power	g/kWh	197	198	199	202
Specific fuel consumption at 75 % load ¹⁾	g/kWh	198	201	197	201
Classifiable		✓	✓	✓	✓
Exhaust gas aftertreatment		-	-	✓	✓
Exhaust gas status		IMO Tier II	IMO Tier II	IMO Tier III	IMO Tier III

1) Tolerance +5 % according to DIN ISO 3046-1

Emergency gensets	
LE 323	
1,500 (50)	1,800 (60)
24.24	24.24
700 (952)	800 (1088)
197	198
198	201
✓	✓
-	-
IMO Tier II	IMO Tier II

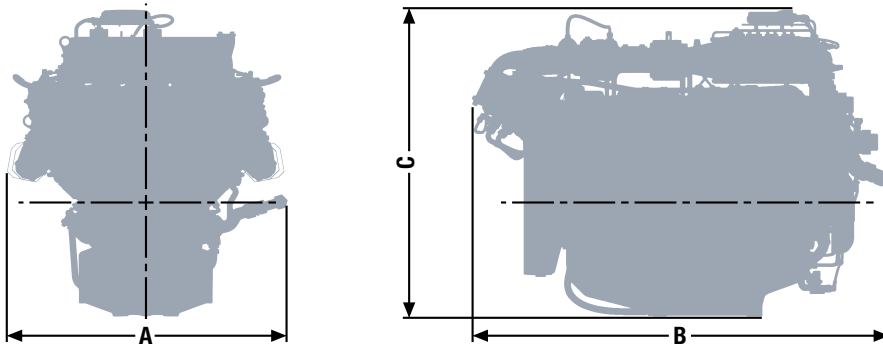
E3262



Characteristics

- Cylinders and arrangement: 12 cylinders in 90° V arrangement
- Operation mode: 4-stroke spark-ignition gas engine
- Turbocharging: Oil lubricated turbochargers with wet bearing block and wet turbine housing
- Number of valves: 4 valves per cylinder
- Exhaust pipes: Dry exhaust pipes with heat insulation cover and cover against direct contact
- Fuel: Natural gas

E3262



Dimensions

Type designation		LE 201
A-Overall width	mm	1,260
B-Overall length	mm	1,870
C-Overall height – standard oil pan	mm	1,365
Average weight of engine ready for installation (dry)	kg	1,849

For detailed examinations of installation dimensions, please order drawings from our factory.

Technical features

Type designation		Auxiliary genset	
		LE 201	
Rated speed	rpm (Hz)	1,500 (50)	1,800 (60)
Bore	mm	132	132
Stroke	mm	157	157
Displacement	l	25.78	25.78
ISO standard power ¹⁾	kW (hp)	500 (680)	580 (789)
Air-fuel ratio	λ	1.64	1.64
Coolant heat ²⁾	kW	255	292
Exhaust heat based on 120 °C ²⁾	kW	233	256
Efficiency ²⁾ : mechanical – thermal – total	%	41.8 – 45.3 – 87.1	39.5 – 46.5 – 86.0
Classifiable		✓	✓
Emission status NO _x ³⁾	mg/Nm ³	500	500
Exhaust gas status		IMO Tier III ready	IMO Tier III ready

1) Tolerance +5 % according to DIN ISO 3046-1

2) at 100 % load

3) with 5 % exhaust-gas oxygen

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