Power

Industrial engines

E2876

6-cylinder gas engine for CHP.

Engineering the Future – since 1758.

MAN Nutzfahrzeuge

Efficient and Clean.

Producers and operators of cogeneration plants have stringent demands. Robust and compact engines have to work reliably round-the-clock. Economic operation is important for the lifetime of the complete plant. Economic means highly efficient use of resources and low running costs of the plant. Due to continuous development MAN engines always work highly efficiently, reliably and environmentally-friendly.

Engine Description E2876.

Characteristics

Cylinder and arrangement	6-cylinder in line
Operation mode	4-stroke otto gas engine
Charging	Exhaust turbocharger with watercooled turbine housing for the LE 302 und TE 302
Type of cooling	Watercooled
Mixture cooling	Two-stage for the LE 302

Dimensions E2876					
Type of engine		E 312	TE 302	LE 302	LE 202
A-Overall length	mm	1,330	1,545	1,520	1 520
B-Overall width	mm	830	835	830	830
C-Overall height	mm	1,035	1,210	1,210	1 226
Weight (dry)	kg	830	920	990	985

Customer Benefits

- High efficiency due to optimal combustion
- Reduced operating costs due to low fuel and oil consumpton as well as long service life
- Low emissions to save the environment
- Compact design
- Sophisticated and well-tested technology ensures reliable operation and long lifetime

Technical Data E2876

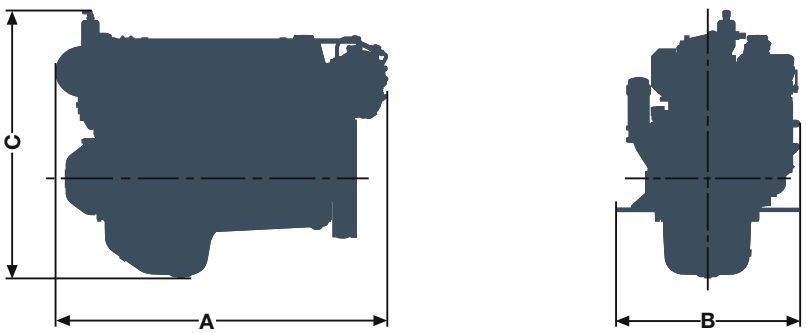
Operation mode		**COP with natural gas**				**COP with biogas**			
at speed	rpm	1,500 (50 Hz)		1,800 (60 Hz)		1,500 (50 Hz)			1,800 (60 Hz)
Type of engine		**E 312**	**LE 302**	**E 312**	**LE 302**	**TE 302**	**LE 302**	**LE 202**[4]	**LE 302**
Bore	mm	128	128	128	128	128	128	128	128
Stroke	mm	166	166	166	166	166	166	166	166
Displacement	l	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8
ISO standard rating	kW	150	210	170	210	130	200	220	200
Air ratio	λ	1.0	1.6	1.0	1.6	1.4	1.4	1.4	1.4
Coolant heat[1]	kW	128	99	145	106	124	98	103	106
Exhaust heat up to 120°C[1]	kW	79	143	98	157	57	129	127	137
Efficiency[1]									
mechanical	%	38.4	39.0	38.0	37.0	38.0	40.4	40.4	38.5
thermal	%	52.8	48.9	54.1	50.7	52.8	49.5	44.7	50.8
total	%	91.2	87.9	92.1	87.7	90.8	89.9	85.1	89.3
Emissions[2] NO_x	mg/ Nm^3	< 4,500	< 500	< 4,250	< 500	< 500	< 500	< 500	< 500
Combustion[3]		st	m	st	m	m	m	m	m

[1] At 100% load. [2] Correlation 5% oxygen. [3] m=lean burn, st=stoichiometric; [4] Data are with reservation and on request.

Technical data are based on natural gas with calorific value 10 kWh/Nm^3 and bio gas with calorific value 6 kWh/Nm^3 (E2876 LE 202: HU=5kWh/ Nm^3).
The values given in this data sheet are for information purposes only and not binding.

Definition of Application

Engines for COP (continuous power) are designed for 8,000 annual operation hours at a load factor of 100%. Usually, these engines are used in cogeneration plants.



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