

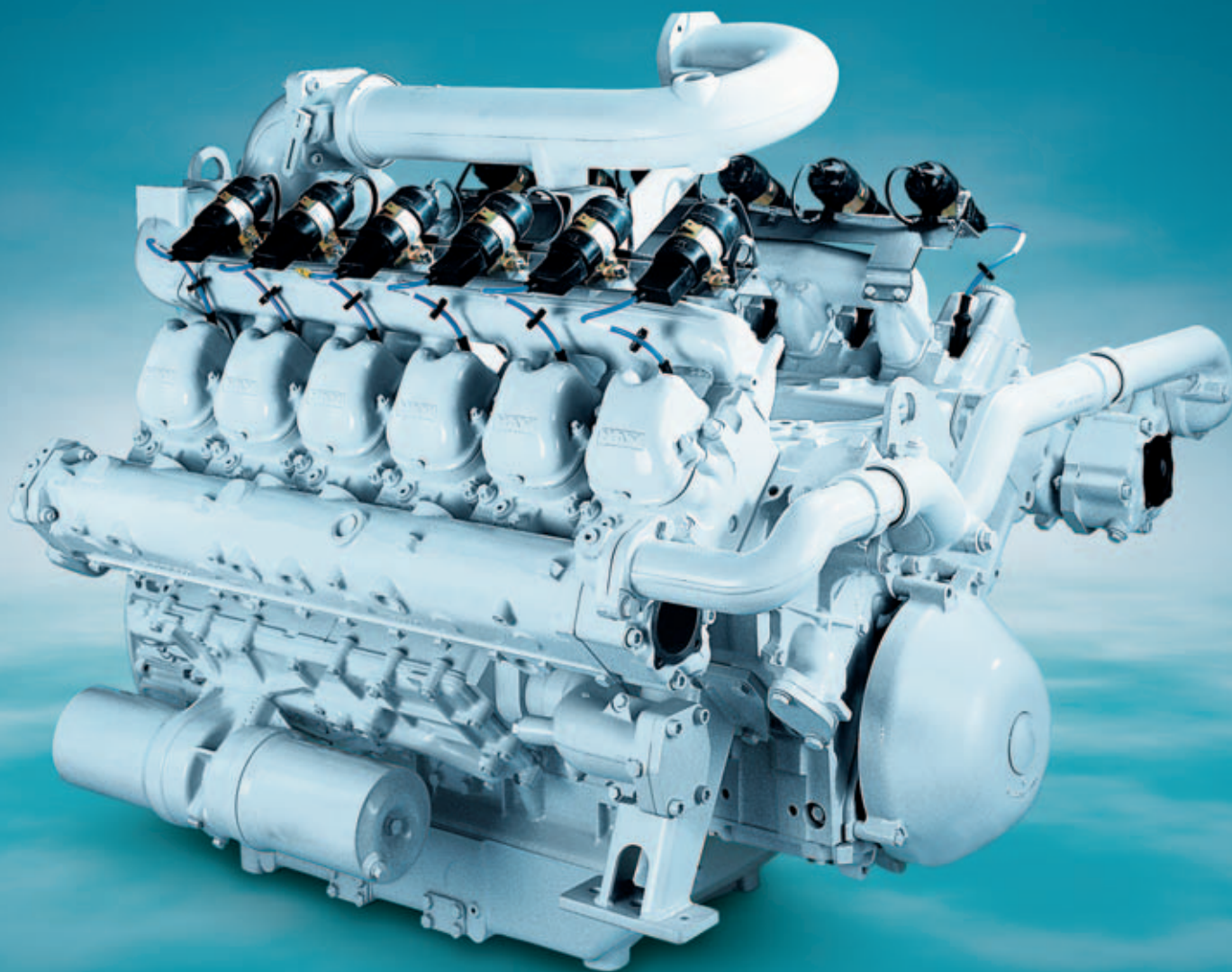
MAN Nutzfahrzeuge AG
Business Unit Engines
Department MVL
Postfach 44 02 58
90207 Nuremberg, Germany

engines.components@de.man-mn.com
www.man-engines.com

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E2842 E

V12 gas engine for cogeneration plants



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 E2842 E

Characteristics

Cylinder	12-cylinder
Arrangement	V-design
Operation mode	4-stroke otto gas engine
Type of cooling	Watercooled

Dimensions E2842

Type of engine		E 312
A-Overall length	mm	1 490
B-Overall width	mm	1 265
C-Overall height	mm	1 240
Weight (dry)	kg	1 300

Customer Benefits

- High efficiency due to optimal combustion
- Reduced operating costs due to low fuel and oil consumption 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 E2842

Operation mode		COP with natural gas	
at speed	rpm	1 500 (50 Hz)	1 800 (60 Hz)
Type of engine		E 312	E 312
Bore	mm	128	128
Stroke	mm	142	142
Displacement	l	21.9	21.9
ISO standard rating	kW	250	280
Air ratio	λ	1.0	1.0
Coolant heat ¹	kW	236	260
Exhaust heat up to 120°C ¹	kW	129	156
Efficiency ¹			
mechanical	%	37.5	37.2
thermal	%	54.5	55.1
total	%	92.0	92.4
Emissions ² NO _x	mg/Nm ³	< 6 500	< 6 500
Combustion ³		st	st

¹ At 100% load. ² Correlation 5% oxygen. ³ st=stoichiometric.

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.

