



Biogas Generator Set

ENERGIN® M08 GEN B333

Datasheet, 250 mg NO_x

The ENERGIN® GEN generator set produces electricity either parallel with the public network or with an isolated load. As an option, automatic emergency operation and/or island-parallel operation with other generators is possible.

The unit is supplied as a compact, fully functional unit, with or without a sound attenuating enclosure. The engine, generator, and the control and power panel are mounted, ready for operation on the vibration-decoupled base frame. A lubrication oil system, which allows operation of up to 2000 hours without manual lube oil refilling, is integrated on the unit.

The electrical control system provides protection and control functions for automatic or manual operation. A 12" touch panel informs about operating conditions and allows the operation and parameterization of the system. Various interfaces are available for communication with other power generators and an overhead control system. An Ethernet interface allows connection to the Internet for remote monitoring and remote maintenance.

The entire system is certified according to the BDEW medium voltage directive (Grid code).

TECHNICAL DATA

Manufacturer	R Schmitt Enertec	
ENERGIN® Type	M08 GEN B333	
Electrical power ¹	kW	333
Gas consumption ² (LHV)	kW	802
Self consumption ³	kW	6,4

DESIGN

Fuel type	Biogas	
Lower heating value LHV	kWh/Nm ³	5,0
Gas flow pressure ⁴	kPa	2,2 - 5,0
Inlet air temperature	°C	20
Exhaust temperature	°C	488

EXHAUST EMISSIONS⁵ WITHOUT CATALYST

NO _x	mg/Nm ³	250
CO	mg/Nm ³	1500
Formaldehyde	mg/Nm ³	100

ENGINE

Manufacturer	R Schmitt Enertec	
ENERGIN® Type	M08-BT2D41	
Working principle	4-stroke	
Cylinder configuration	8 in V / 90°	
Valves per cylinder	4	
Aspiration	turbocharged	
Mixture cooling	2-staged	
Displacement	ltr	15,1

LUBE OIL

Lube oil volume	ltr	162
Make up tank volume	ltr	170
Consumption	ltr/OH	0,10

ALTERNATOR

Manufacturer	Leroy Somer	
Type	LSA 47.2 M8	
Voltage	V / Hz	400 / 50
Speed	1/min	1.500
Efficiency	%	96,3



PERFORMANCE⁶

Load		100 %	75 %	50 %
Electrical power	kW	333	250	167
Fuel consumption	kW	802	615	440
Gas flow at LHV	Nm ³ /h	161	123	88
Electrical efficiency	%	41,5	40,7	38,0
Exhaust gas flow ⁷	m ³ /h	3.517	2.661	1.875
Air requirement	m ³ /h	7.340	5.891	4.735
Exhaust air ⁸	m ³ /h	5.987	4.903	4.062

DIMENSIONS AND WEIGHTS WITH SOUND ENCLOSURE

Length	mm	4.040
Height	mm	2.030
Height with 90° elbow	mm	2.990
Width	mm	1.440
Dry weight	kg	4.160
Operational weight	kg	4.490

CONNECTIONS

Exhaust	DN / PN	150 / 10
Fuel gas	DN / PN	65 / 16
Cooling water LT	DN / PN	40 / 16
Cooling water HT	DN / PN	65 / 16

¹ +0 % tolerance on electrical power output

² +5 % tolerance on fuel consumption

³ average self consumption with emergency cooling

⁴ maximum variation of 10 % for set value

⁵ Exhaust emissions related to 5 % oxygen in dry exhaust

⁶ at standard conditions according to ISO 3046-1; cos φ = 1

⁷ wet exhaust gas at 488 °C

⁸ ΔT = 15 K



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