



Biogas Generator Set

ENERGIN® M06 GEN B140

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 2500 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	M06 GEN B140	
Electrical power ¹	kW	140
Gas consumption ² (LHV)	kW	366
Self consumption ³	kW	3,6

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	492

EXHAUST EMISSIONS⁵ WITHOUT CATALYST

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

ENGINE

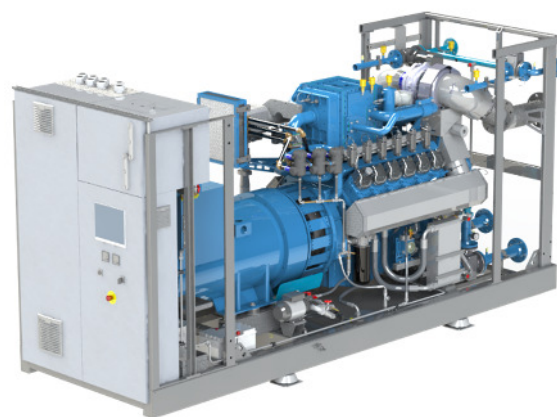
Manufacturer	R Schmitt Enertec	
ENERGIN® Type	M06-BT0D41	
Working principle	4-stroke	
Cylinder configuration	6 in V / 90°	
Valves per cylinder	4	
Aspiration	turbocharged	
Mixture cooling	without	
Displacement	ltr	11,3

LUBE OIL

Lube oil volume	ltr	255
Consumption	ltr/OH	0,05

ALTERNATOR

Manufacturer	Leroy Somer	
Type	LSA 46.3 S4	
Voltage	V / Hz	400 / 50
Speed	1/min	1.500
Efficiency	%	95,2



PERFORMANCE⁶

Load		100 %	75 %	50 %
Electrical power	kW	140	105	70
Fuel consumption	kW	366	280	201
Gas flow at LHV	Nm ³ /h	73	56	40
Electrical efficiency	%	38,3	37,5	34,8
Exhaust gas flow ⁷	m ³ /h	1.471	1.135	817
Air requirement	m ³ /h	4.513	3.760	3.139
Exhaust air ⁸	m ³ /h	3.951	3.341	2.847

DIMENSIONS AND WEIGHTS WITH SOUND ENCLOSURE

Length	mm	3.200
Height	mm	2.250
Height with 90° elbow	mm	3.250
Width	mm	1.340
Dry weight	kg	2.920
Operational weight	kg	3.180

CONNECTIONS

Exhaust	DN / PN	150 / 10
Fuel gas	DN / PN	50 / 16
Cooling water HT	DN / PN	50 / 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 492 °C

⁸ ΔT = 15 K



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