# ENERGIN® M08 GEN G333

## Datasheet, 500 mg NO<sub>x</sub>



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

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Manufacturer R Schmitt Enertec		R Schmitt Enertec	
ENERGIN® Type		M08 GEN G333	
Electrical power <sup>1</sup>	kW	333	
Gas consumption <sup>2</sup> (LHV)	kW	795	
Self consumption <sup>3</sup>	kW	6,4	

#### **DESIGN**

Fuel type		Natural Gas
Lower heating value LHV	kWh/Nm³	10,0
Gas flow pressure <sup>4</sup>	kPa	2,2 - 5,0
Inlet air temperature	°C	20
Exhaust temperature	°C	488

#### EXHAUST EMISSIONS5 WITHOUT CATALYST

NO <sub>x</sub> <sup>6</sup>	mg/Nm³	500
CO	mg/Nm³	1000
Formaldehyde	mg/Nm³	100

#### **ENGINE**

Manufacturer		R Schmitt Enertec	i
ENERGIN® Type		M08-GT2D41	
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			
	Tr. a	160	

162
170
0,10

#### **ALTERNATOR**

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

 $<sup>^{1}</sup>$  +0 % tolerance on electrical power output



#### PERFORMANCE7

Load		100 %	75 %	50 %	
Electrical power	kW	333	250	167	
Fuel consumption	kW	795	609	436	
Gas flow at LHV	Nm³/h	79	61	43	
Electrical efficiency	%	41,9	41,1	38,3	
Exhaust gas flow <sup>8</sup>	m³/h	3.396	2.458	1.646	
Air requirement	m³/h	7.376	5.879	4.699	
Exhaust air <sup>9</sup>	m³/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	50 / 16
Cooling water LT	DN / PN	40 / 16
Cooling water HT	DN / PN	65 / 16

<sup>&</sup>lt;sup>6</sup> Setup for 250 mg/Nm³ NO<sub>x</sub> possible (changed performance data)

<sup>&</sup>lt;sup>2</sup> +5 % tolerance on fuel consumption

<sup>&</sup>lt;sup>3</sup> average self consumption with emergency cooling

<sup>4</sup> maximum variation of 10 % for set value

<sup>&</sup>lt;sup>5</sup> Exhaust emissions related to 5 % oxygen in dry exhaust

 $<sup>^{7}</sup>$  at standard conditions according to ISO 3046-1; cos  $\phi$  = 1

<sup>&</sup>lt;sup>3</sup> wet exhaust gas at 488 °C

 $<sup>9 \</sup>Delta T = 15 K$ 



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