JAVAC

Data sheet CHP 55 kW

Biogas CHP MNW 55 BG with CHP petrol Engine

Technical data	unit		Values
Power electric	kW		55
Speed	1/min		1500
max. cooling water temperature	°C		88
Length approx.	Mm		3150
Width approx.	Mm		1000
Height approx.	Mm		1850
Weight approx. history	medical		2500
Fuel connection	DN	according to DIN	40
Exhaust gas connection	DN	according to DIN	100
all information without add-on parts			
Energy balance	**unit**		**Values**
Rated thermal input	kW		169
Cooling water heat can be used	kW		51
Mixture heat can be used	kW		2
Exhaust heat can be used up to 220°C	kW		21
electrical efficiency (fed in)	%		32,6
Thermal efficiency	%		44,1
Total – Efficiency	%		76,7
Current index	P_{el} / Q_{useful}		0,74
cos phi			1
Performance data	100% load		
Mass flows			
Combustion air	kg/h	415	
Fuel	kg/h	44	
Exhaust gas mass flow, damp	kg/h	459	
Exhaust gas flow rate, dry Nm³/h		416	
(0°C, 1013 mbar)			
Temperatures			
Exhaust gas temperature n. Turbine	°C	532	
Emissions			
NOx	mg/Nm³	< 500	at 5 % residual oxygen
CO	mg/Nm³	< 600	at 5 % residual oxygen
HCHO (formaldehyde)	mg/Nm³	< 60	at 5 % residual oxygen
With catalyst (formaldehyde)	mg/Nm³	< 20	at 5 % residual oxygen
NMHC	mg/Nm³	< 150	at 5 % residual oxygen

Lubrication oil ADDINOL MG40 Extra Plus and coolant ADDINOL Antifreeze Extra 4060 Gas quality according to data sheet "Minimum gas quality requirement for gas engines"

Air ratio measured with lambdameter ETAS LA 4_E. The technical data are based on a gas mixture of 60% methane and 40% carbon dioxide with a calorific value of 6.0 kWh/Nm³ and a methane number greater than 100. The technical data are based on standard reference conditions in accordance with DIN ISO 3046-1. Standard reference conditions: air pressure absolute: 100 kPa, airtemperature: 25 °C, relative humidity: 30 %, performance adjustment under ambient conditions according to DIN ISO 3046-1 The tolerance for specific fuel consumption is + 5 % at nominal power

The tolerance for the usable heat outputs is 7 % at nominal output

The cooling water figures are based on a proportion of 40% antifreeze

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Mixture cooling to:		
Engine data		50 Hz
λ = 1.40		
Rated speed	min-1	1500
ISO standard performance	Kw	80
Air ratio	λ	1.40
Design		In-line engine
Number of cylinders		4
Drilling	Mm	112
Hub	Mm	132
Cubic capacity	l	5,2
Direction of rotation seen on flywheel		left
Flywheel housing		SAE 2
Flywheel connection		11.5 "
Compression ratio	ε	11,5:1
Mittl. Piston speed	M/s	6,6
Lubricating oil consumption up to	kg/h	0,125
Capacity engine oil min./max.	l	16/20
Capacity of cooling water	l	16
max. operating pressure	bar	2
Cooling water flow rate min.	l/min	185
Cooling water temperature min.	°C	80
Cooling water temperature max.	°C	88
Difference (entry-exit max.)	K	8
Mixture temperature inlet after throttle valve max.	°C	80
Mixture cooling water inlet temperature max.	°C	77
Mixture cooling water circulating flow rate NT min.	l/min	11
max. intake vacuum	mbar	15
max. exhaust back pressure	mbar	40
Engine width	Mm	700
Engine length	Mm	980
Engine height	Mm	1010
Engine unladen weight	medical history	530