

GEIG 100 kW Fuel Cell System Specifications

Electrical System efficiency (%)	96%
Overall System efficiency (%)	44%
Combined Heat and Power efficiency (%)	91%
Availability (%)	98%
Fuel	
Fuel supply	Natural Gas/Methane
Inlet gas pressure (bar)	2.5 Bar
Gas consumptions (Nm ³ /h)	7.39 ft ³ /kW-hr 20.9 m ³ /hr
Fuel content restrictions	98% Methane
Electrical & Thermal	
Electrical Power Output (kW)	100 kW (46%)
External Thermal Output (kW)	97 kW (44.7%)
Combined Heat and Power (kW)	197 kW (91%)
Thermal & Electrical Loss (kW)	20 kW (9.2%)
Output voltage range (V)	48VDC, 400 VAC/50/60 3P
Output current range(A)	200-300 amps
Grid Tied / Grid Independent	YES/YES
Emissions	
CO ₂ (kg/MWh)	120 kg/MWH
NO _x (kg/MWh)	0.003 kg/MWH
CO (kg/MWh)	0.001 kg/MWH
System life time / Degradation	
Warranty period	15 Years
Stack life time	40,000 Hours
Electrical power output over lifetime	4,000,000 kW-hr
Gas consumption over lifetime	836,000 m ³
Operation and maintenance	
O&M agreement / schedule	3/6/12 months
Size	
Dimensions (m)	4x3x3 1.6x1x1 (DC/AC)
Weight (ton)	8.2
Other	
Codes and Standards	NFPA 70/853 ANSI/CSA FC-1-2004

Remote monitoring	YES
Ambient operating temperature (°C)	-10C to 49C
Water consumptions (l/h)	Nominal
Water discharge	Nominal