



Data Sheet

MSK GEN1

Revision V1.1

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Date 04/30/2026

Grazian Eller



Parameter	Value
Product designation	MSK GEN1
System type	Prototype for a hybrid backup power system with methanol fuel cell
Manufacturer	Gumpert Automobile GmbH
Year of manufacture	2026
Prototype number	01
Intended use	Stationary emergency backup power supply
Fuel cell technology	Reformed methanol HT-PEM fuel cell
Maximum fuel cell output	5 kW
Fuel	Methanol, IMPCA standard
Process water	Demineralized water
Fuel cell startup time	approx. 20 minutes
Operating modes	Automatic (grid detection), manual start/stop
AC output voltage	230 V / 400 V AC
AC output frequency	50 Hz



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Continuous AC output power	5,5 kW
Maximum available AC power (end user)	13 kW
DC system voltage (internal)	up to 60 V DC
Battery system voltage	48 V DC
Battery capacity	15 kWh
Battery function	Startup supply, buffering, load support
Photovoltaic function	Continuous battery charging
Methanol tank capacity	150 l
Water tank capacity	120 l
Typical runtime at nominal load	approx. 64 hours
System zones	Zone 1 (fuel cell and tanks), Zone 2 (batteries and power electronics)
Cooling concept	Active, temperature-controlled ventilation
Standby requirement	System must remain energized for frost protection
Operation Temperature	- 10 °C to + 40 °C
Dimensions Zone 1 (W × H × D) (without solar panel)	1,480 × 1,490 × 930 mm
Dimensions Zone 2 (W × H × D) (without solar panel)	1,310 × 1,030 × 900 mm
Total system weight	approx. 900 kg