



Green to grid

HYBRID POWER

MOBILE & COMPACT UNINTERRUPTIBLE POWER SYSTEM (UPS)

ERMA ENERGY develops and proposes multi energy solutions in electrical supply thanks to its exclusive management system *emie*.

Green to Grid (G2G) is a silent hybrid portable generator on a trailer ready to use, incorporating batteries and photovoltaic panels.

Green to Grid (G2G) also integrates a flexfuel genset (diesel, biodiesel and NATO fuels) starting automatically to generate electricity in case of high power requirement or battery recharge.

These three sources of energy are driven by our EMS *emie* in a rational way with the aim of optimising electricity production, adapting it to needs and saving costs.

ERMA ENERGY proposes two versions : Civil Premium and NATO, resistant for harsh conditions and effortless deployment.

Our system, with strengthened frame, allows implementation within 5 minutes.



NEW TECHNOLOGY *emie*
ENERGY MANAGEMENT SYSTEM BY ERMA
Ensures the automated management of energy sources among themselves.



SIMPLICITY
Plug and play system.
Simple to use and connect.
Plugs supplied.



CONTINUITY
Uninterruptible Power Systems.
Maintains and stabilizes the power supply.
Fast switchover : lower than 20ms.



QUIET
No noise in Hybrid Mode.
Reduced noise with genset fairing.



SAVING COSTS
OPEX Reduced (maintenance delayed).
Reduction of fuel consumption.
Reduction of supply risks.



CERTIFICATION
CE certifications according to directives :
EMC 2014/30/UE and
LOW VOLTAGE 2014/35/UE.



GREEN ENERGY
Priority given to solar energy.
Excess of electricity stored in batteries.
Reduction of CO₂ emissions : up to 100%.



GREEN TO GRID
CIVIL NATO



POWER
Up to 10,9kVA



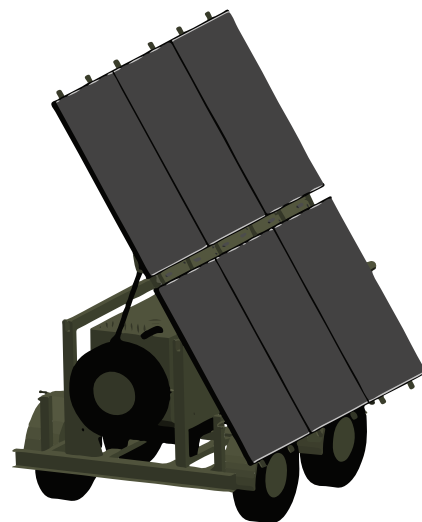
SOLAR PANELS
1080Wp (STC)



STORAGE
10kWh



GENSET
6,5kVA



POWER
Up to 16,2kVA



SOLAR PANELS
2010Wp (STC)



STORAGE
17kWh



GENSET
9kVA

APPLICATIONS

ISOLATED LIVING AREAS - HOUSES, SHEEPFOLDS, SMALL BUSINESSES
ISOLATED SITES - TELECOM RELAY
BUILDING AND CIVIL ENGINEERING ACTIVITIES - CUSTOMS - CROSSING POINTS
EMERGENCY SERVICES - NGO, CIVIL SECURITY
AGRICULTURAL IRRIGATION - EVENTS AND LIGHTING

ISOLATING LIVING & WORKING AREA - OFFICE CONTAINER, CAMP, POWERING TOOLS
SECURITY - LIGHTNING, WATCHING, GUARDBOUSE, FORWARD POST, CROSSING POINT
COMMUNICATION - ESTABLISHMENT & SUPERVISION, TELECOM RELAYS & ANTENNAS
(AND ALL CIVIL APPLICATIONS)

TECHNICAL SPECIFICATIONS

		CIVIL	NATO	
GENERAL	TYPE	HYBRID UNINTERRUPTIBLE POWER SYSTEMS		
	INCLUDED POWER SOURCES	GENSET - SOLAR PANELS - BATTERIES		
	ADDITIONAL POWER SOURCES	GRID - BACK-UP GENSET		
	MODE	HYBRID POWER	GENSET OR BATTERIES & SOLAR PANELS	
		FULL POWER	GENSET AND BATTERIES & SOLAR PANELS	
	CONTINUOUS FULL POWER - 25°C / 40°C	10,9kVA / 9,3kVA	16,2kVA / 14,2kVA	
	OPERATING TEMPERATURE RANGE	-20°C to +50°C		
	ENERGY MANAGEMENT SYSTEM	INTEGRATED	INTEGRATED - USER DEFINED MODE	
HUMAN-MACHINE INTERFACE	OPTIONAL EQUIPMENT	DISPLAY - LAN ACCESS		
INVERTER	TYPE	PURE SINUS - 230VAC SINGLE PHASE - 50Hz		
	CONTINUED HYBRID POWER - 25°C	5,0kVA	8,0kVA	
	CONTINUED HYBRID POWER - 40°C	4,3kVA	6,8kVA	
	PEAK POWER 130%/150%/200%	30min / 5s / 0,5s		
CHARGER	TYPE - MODE	BATTERY LIFE - BULK/ABSORPTION/FLOAT		
	SYSTEM VOLTAGE	24VDC	48VDC	
	CHARGE CURRENT	70A	110A	
	BATTERY TEMPERATURE & VOLTAGE SENSOR	YES		
BATTERY	TYPE	SEALED LEAD ACID	SEALED PURE LEAD ACID	
	DISPOSITION	2 BRANCHES OF 2 BLOCS	2 BRANCHES OF 4 BLOCS	
		TOTAL CAPACITY C10	400Ah	340Ah
	ENERGY	TOTAL	10kWh	17kWh
		AVAILABLE (CYCLING)	5kWh	10kWh
SOLAR	CHARGE CONTROLLER	MPPT		
	SOLAR PANEL	TYPE	60 CELLS - MONO - GLAS (COATED) / TEDLAR	60 CELLS - MONO - GLAS (COATED) / GLAS
		QUANTITY	4	6
		TOTAL POWER (STC)	1080Wp	2010Wp
	STRUCTURE	DEPLOYMENT	MANUAL	MANUAL & PNEUMATIC
		POSITION	2	SEVERAL
MINI / MAXI		20° / 30°	0° to 60°	
GENSET	TYPE - VOLTAGE - FREQUENCY	3000rpm - 230VAC SINGLE PHASE - 50Hz	1500rpm - 230VAC SINGLE PHASE - 50Hz	
	SOUND PRESSURE LEVEL	60dB (7m)	54dB (7m)	
	POWER (<1000m)	ESP / PRP (20°C)	6,5kVA / 5,9kVA	9kVA / 8,2kVA
		ESP / PRP (40°C)	5,8kVA / 5,3kVA	8,1kVA / 7,4kVA
	FUEL	GAZOLE - BIODIESEL	(OPTIONS : F-34, F-35, F-44, F-54, F-63)	
CONSUMPTION / TANK	1,8L (75%) / 27L	2,5L (75%) / 50L		
TRAILER	LIGHTING	TYPE - TENSION	HALOGEN BULB - 12V	LED - 12V/24V
		CONNECTING	13P/12V (ISO 11446)	15P/24V (ISO 12098) - 13P/12V (ISO 11446) 12P/24V (NATO) - STANDARD 7N 7S 24V
	MATERIALS	GALVANIZED STEEL AND ALUMINIUM		
	COLORS	BLACK - GREEN - GREY	IR/NATO 24x5 - BLACK	
	GROSS WEIGHT	850kg	2500kg	
	OVERRUN DEVICE	STRAIGHT (350mm)	ADJUSTABLE (390mm to 1040mm)	
	DRAWBAR	COUPLING HEAD	NATO EYE	
	AXLE WITH BRAKES	1 (TORSION BAR)	2 (WITH SPRING AND SHOCK)	
	WHEEL	TYRE TYPE - USE - Qty	175/70R13 - ROAD ONLY - 2	7,50R16C - ALL-TERRAIN (LEVEL 7) - 4
		OTHER	REPAIR KIT	SPARE WHEEL
	HxWxL - DRIVE MODE (m)	1,8 x 2,2 x 2,8	1,8 x 2,6 x 5	
	H x W x L - PRODUCTION MODE (m)	2,0 x 2,2 x 3,0	1,8 x 3,8 x 5,0 (0°) - 3,8 x 2,6 x 5,0 (60°)	
	FLOOR HEIGHT (m)	0,25	0,41	
CERTIFICATION	DREAL APPROVAL FOR ROAD USE & CE CERTIFICATION			
	EU DIRECTIVE	2014/35/EU (Low Voltage) - 2014/30/EU (EMC) - 2006/42/EC (MACHINERY)		
	STANDARDS	IEC 62040-1 & IEC62040-2 : UNINTERRUPTIBLE POWER SYSTEMS		
		IEC 60950-1 : INFORMATION TECHNOLOGY EQUIPMENT		
		IEC 60204-1 : SAFETY OF MACHINERY		
NF C15-100 : LOW VOLTAGE ELECTRICAL INSTALLATIONS				
		UTE C15-712 : PHOTOVOLTAIC INSTALLATIONS		
GUARANTEE	TRAILER AND STRUCTURE	12 MONTHS	24 MONTHS	
	GENSET	12 MONTHS (or 500h)	24 MONTHS (or 1000h)	
	BATTERIES	12 MONTHS	24 MONTHS	
	CHARGE CONTROLLER - INVERTER - CHARGER	12 MONTHS	60 MONTHS	
	SOLAR PANELS	12 MONTHS	60 MONTHS	