Lucas

SMART ENERGY SOLUTIONS

OUR RANGE GOES FURTHER.

LUCAS BATTERIES. OUR HERITAGE.

Lucas is a great brand that has been growing its business for 140 years. It doesn't rely on its heritage, it grows with it. And it continues to grow.

That's why it is the longest established automotive and industrial solutions brand in the market. Joseph Lucas, born in Birmingham in 1834, began marketing paraffin oil for household lamps in the 1860s and soon saw the potential to expand into the transport market. In 1875 he opened a small workshop in Little King Street, Birmingham, UK, with 5 employees. In the early 20th century, Lucas expanded his product range and introduced his batteries to the market.

On this page you can see some of the early promotional brochures. Of course, Lucas batteries have evolved with the times. In this catalogue, you will find the latest types and applications we offer.

lucasautomotive.com

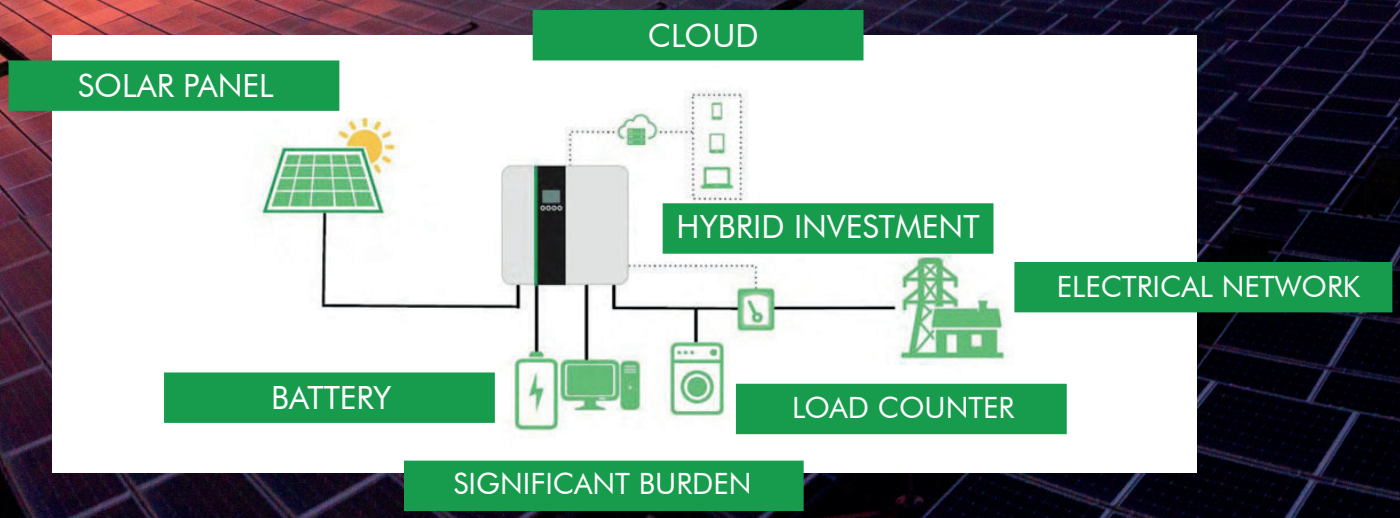
SMART ENERGY

SMART ENERGY LUCAS Solutions

DC Solar Standard Solutions
AC Solar Standard Solutions
AC Solar Premium Solutions
Premium Hybrid Solutions

Reasons for SMART ENERGY LUCAS Solutions

LUCAS provides the best storage solutions for Solar, Photovoltaic and Wind Energy.



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TYPES OF INSTALLATIONS

Off-grid installation

These are solar installation systems that are completely disconnected from the electricity grid. These systems are completely independent and are often used in isolated areas without access to the grid or in cases where complete independence is desired.

Grid-connected installation (on-grid)

The on grid concept refers to the type of installation that is connected to the distribution network, allowing customers to generate and consume solar energy, but with the back-up of the electricity grid in the event that their company or residence consumes more energy than that generated by the panels.

COMPONENTS

Photovoltaic Panels
Solar panels are the intermediary that makes sunlight provide us with energy. We offer panels with the highest efficiency on the market, monocrystalline technology and up to 40 years of warranty.

Investors
The function of solar inverters is to transform direct current, coming from the photovoltaic system, into alternating current for domestic use. We work with market-leading inverters.

Energy storage
We have a wide range of Lithium and Lead Acid batteries, as well as a variety of ESS (Energy Storage System) solutions.

Wiring and DC/AC protections
4 mm2 and 6 mm2 copper wiring and all kinds of accessories for its installation.

INNOVATION

LUCAS offers its customers a complete and valuable offer for energy needs, continuously striving to develop innovative products and technology, always with the objective of improving customer satisfaction and environmental protection.

We contribute to the sustainable development of the planet by providing our portfolio of innovative products in sustainable energy: storage systems, lithium batteries, latest generation inverters, solar panels, etc.

- Zero-emission batteries
- Built-in battery protection
- Efficient energy production
- Clean energy conservation

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Lucas DC Standard

Off-grid direct current (DC) storage solutions
The system consists of a solar panel, charge controller and a battery
Designed for powering individuals or small 5 and 12 V DC installations
Remote locations in areas without power supply
5 and 12 V outputs for powering small household appliances
Possibility of connection to an external inverter (optional) for powering medium-sized appliances
Includes protection measures against overload or incomplete battery charge, system overload and short circuit

Characteristics	Units	LBIS DC100	LBIS DC150	LBIS DC200
Power	W	100	150	200
Solar panel	-	Monocrystalline	Monocrystalline	Monocrystalline
Units	Ud	1	2	2
Unit power	W	20	15	20
Total power	W	20	30	40
Battery		AGM DC	AGM DC	AGM DC
Voltage	V	12	12	12
Capacity C20	Ah	8	12	18
Maximum power output	Wh	100	150	200
Recommended daily power output	Wh	60	90	120
Light source	-	LED	LED	LED
Unit	Ud	3	3	3
Voltage	V	12	12	12
Power	W	2	2	2
Luminous flux	lm/W	60 ± 5	60 ± 5	60 ± 5
Maximum usage time	h	16,5 (3 pcs)	25,0 (3 pcs)	33,0 (3 pcs)
		50,0 (1 pc)	75,0 (1 pc)	100,0 (1 pc)
Maximum recommended daily use time	h	10,0 (3 pc)	15,0 (3 pc)	20,0 (3 pc)
		30,0 (1 pc)	45,0 (1 pc)	60,0 (1 pc)
Charging time	h	7	7	7
Output voltage	V	5 / 12	5 / 12	5 / 12
Inverter (optional)		Symmetrical	Symmetrical	Symmetrical
Input voltage AC	V	120	120	120
Output voltage AC	V	120	120	120
Waveform	-	Quasisenoidal	Quasisenoidal	Quasisenoidal
Input voltage DC	V	12	12	12
Frequency	Hz	60	60	60
Physical characteristics				
Ambient temperature	°C	-10 - 45	-10 - 45	-10 - 45
Relative humidity	%	0 - 85	0 - 85	0 - 85
Operating altitude	m	0 - 2500	0 - 2500	0 - 2500
Solar panel size	mm	550 * 350 * 25	405 * 345 * 60	450 * 345 * 60
Solar panel weight	kg	2,50	4,50	5,20
Frame dimension	mm	220 * 170 * 150	220 * 170 * 150	270 * 227 * 220
Frame weight	kg	4,70	5,60	10,00



Characteristics	Units	LBIS DC400	LBIS DC450
Power W	W	400	450
Solar panel	-	Monocrystalline	Monocrystalline
Units Ud	Ud	1	1
Unit power W	W	80	100
Total power W	W	80	100
Battery		AGM DC	AGM DC
Voltage	V	12	12
Capacity C20	Ah	33	38
Maximum power output	Wh	400	450
Recommended daily power output	Wh	240	270
Light source	-	LED	LED
Unit	Ud	3	3
Voltage	V	12	12
Potencia	W	2	2
Luminous flux	lm/W	60 ± 5	60 ± 5
Maximum usage time	h	66,5 (3 pcs)	75,0 (3 pcs)
		200,0 (1 pc)	225,0 (1 pc)
Maximum recommended daily use time	h	40,0 (3 pc)	45,0 (3 pc)
		120,0 (1 pc)	135,0 (1 pc)
Charging time	h	7	6,5
Output voltage	V	5 / 12	5 / 12
Inverter (optional)		Symmetrical	Symmetrical
Input voltage AC	V	120	120
Output voltage AC	V	120	120
Waveform	-	Quasisenoidal	Quasisenoidal
Input voltage DC	V	12	12
Frequency	Hz	60	60
Physical characteristics			
Ambient temperature	°C	-10 - 45	-10 - 45
Relative humidity	%	0 - 85	0 - 85
Operating altitude	m	0 - 2500	0 - 2500
Solar panel size	mm	1210 * 540 * 35	1250 * 808 * 35
Solar panel weight	kg	8,20	11,80
Frame dimension	mm	300 * 300 * 200	300 * 300 * 200
Frame weight	kg	19,20	23,50

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Lucas AC Standard

Off-grid AC off-grid storage solutions
The system consists of a solar panel, charge controller, inverter and battery
Designed to supply private individuals or small installations with direct current (5/12 V) and alternating current (110/220 V)
Remote locations to areas without power supply
5 / 12 V outputs for powering small household appliances
110 / 220 V outlets for power supply of medium household appliances
Includes protection measures against overload or incomplete battery charging, system overload and short circuit

Characteristics	Units	LBIS AC200A	LBI AC200B	LBIS AC200I	LBIS AC200G	LBIS AC200H
Power	W	200	200	200	200	200
Solar panel	-	Monocrystalline	Monocrystalline	Monocrystalline	Monocrystalline	Monocrystalline
Units	Ud	1	2	2	1	1
Unit power	W	20	15	20	80	100
Total power	W	20	30	40	80	100
Battery		AGM DC	AGM DC	AGM DC	AGM DC	AGM DC
Units	Ud	1	1	1	1	1
Voltage	V	12	12	12	12	12
Capacity C20	Ah	8	12	18	33	38
Maximum power output	Wh	100	150	200	400	450
Recommended daily power output	Wh	60	90	120	240	270
Continuous working time	min					
Inverter	-	Quasisenoidal	Quasisenoidal	Quasisenoidal	Quasisenoidal	Quasisenoidal
Output voltage DC	V	5 / 12	5 / 12	5 / 12	5 / 12	5 / 12
Output voltage AC	V					
Output frequency	Hz					
Output voltage accuracy	%					
Physical characteristics						
Ambient temperature	°C	-10 - 45	-10 - 45	-10 - 45	-10 - 45	-10 - 45
Relative humidity	%	0 - 85	0 - 85	0 - 85	0 - 85	0 - 85
Operating altitude	m	0 - 2500	0 - 2500	0 - 2500	0 - 2500	0 - 2500
Solar panel size	mm	550 * 350 * 25	405 * 345 * 60	450 * 345 * 60	1210 * 540 * 35	1250 * 808 * 35
Solar panel weight	kg	2,50	4,50	5,20	8,20	11,80
Frame dimension	mm	220 * 170 * 150	220 * 170 * 150	470 * 430 * 190	300 * 300 * 200	300 * 300 * 200
Frame weight	kg	4,70	5,60	10,50	19,20	23,50

Characteristics	Units	LBIS AC300	LBIS AC300B	LBIS AC500B	LBIS AC500E	LBIS AC1000
Power W	W	300	300	500	500	1000
Solar panel	-	Monocrystalline	Monocrystalline	Monocrystalline	Monocrystalline	Monocrystalline
Units	Ud	2	2	2	2	2
Unit power	W	20	100	150	150	300
Total power	W	40	200	300	300	600
Battery		AGM DC	AGM DC	AGM DC	AGM DC	AGM DC
Units	Ud	1	1	1	1	2
Voltage	V	12	12	12	12	12
Capacity C20	Ah	18	65	100	100	100
Maximum power output	Wh	200	800	1200	1200	2400
Recommended daily power output	Wh	120	480	720	720	1500
Continuous working time	min		2,5 @ 300 W	2,5 @ 500 W	2,5 @ 500 W	2,5 @ 1000 W
Inverter	-	Quasisenoidal	Senoidal	Senoidal	Senoidal	Senoidal
Output voltage DC	V	5 / 12	12	12		
Output voltage AC	V		110 / 220	110 / 220	110 / 220	110 / 220
Output frequency	Hz		50 - 60	50 - 60	50 - 60	50 - 60
Output voltage accuracy	%		3	3	3	3
Physical characteristics						
Ambient temperature	°C	-10 - 45	-10 - 45	-10 - 45	-10 - 45	-10 - 45
Relative humidity	%	0 - 85	0 - 85	0 - 85	0 - 85	0 - 85
Operating altitude	m	0 - 2500	0 - 2500	0 - 2500	0 - 2500	0 - 2500
Solar panel size	mm	450 * 345 * 60	1250 * 808 * 35	1580 * 808 * 35	1580 * 808 * 35	1650 * 992 * 46
Solar panel weight	kg	5,20	11,80	15,50	15,50	20,00
Frame dimension	mm	270 * 227 * 220	450 * 280 * 570	450 * 280 * 570	550 * 450 * 960	550 * 450 * 960
Frame weight	kg	10,00	31,20	41,00	49,50	77,00

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Lucas AC Standard

Characteristics	Units	LBIS AC1500	LBIS AC2000	LBIS AC3000	LBIS AC5000
Power W	W	1500	2000	3000	5000
Solar panel	-	Monocrystalline	Monocrystalline	Monocrystalline	Monocrystalline
Units Ud	Ud	8	10	14	24
Unit power W	W	35	36	35	35
Total power W	W	280	360	200	200
Battery		AGM DC	AGM DC	AGM DC	AGM DC
Units	Ud	4	4	4	8
Voltage	V	12	12	12	12
Capacity C20	Ah	120	150	200	200
Maximum power output	Wh	5700	7200	9600	19200
Recommended daily power output	Wh	3500	4320	5700	11520
Continuous working time	min	3,5 @ 1500 W	3,5 @ 2000 W	3,5 @ 3000 W	3,5 @ 5000 W
Inverter	-	Senoidal	Senoidal	Senoidal	Senoidal
Output voltage DC	V				
Output voltage AC	V	110 / 220	110 / 220	110 / 220	110 / 220
Output frequency	Hz	50 - 60	50 - 60	50 - 60	50 - 60
Output voltage accuracy	%	3	3	3	3
Physical characteristics					
Ambient temperature	°C	-10 - 45	-10 - 45	-10 - 45	-10 - 45
Relative humidity	%	0 - 85	0 - 85	0 - 85	0 - 85
Operating altitude	m	0 - 2500	0 - 2500	0 - 2500	0 - 2500
Solar panel size	mm	1650 * 992 * 46	1650 * 992 * 46	1650 * 992 * 46	1650 * 992 * 46
Solar panel weight	kg	20,00	20,00	20,00	20,00
Frame dimension	mm	630 * 280 * 330	630 * 280 * 330	630 * 280 * 330	630 * 280 * 330
Frame weight	kg				


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Lucas AC Premium

Alternating current (AC) storage solutions in hybrid systems (on grid / off grid)
Off grid solutions totally isolated from the electrical grid or on grid connected to a distribution network
In the off grid case, solar energy can be generated or consumed with the backup of the electrical grid
Designed for power supply to high consumption private individuals and industrial installations
Includes state-of-the-art solar panels, high cycling lithium-ferrophosphate storage batteries and high-end inverters
These solutions are adapted for high requirements and robustness of the installations

Characteristics	Units	LBIP AC2500	LBIP AC5000	LBIP AC10000	LBIP AC20000	LBIP AC30000
Power	W	2500	5000	10000	20000	30000
Solar panel	-	Monocrystalline	Monocrystalline	Monocrystalline	Monocrystalline	Monocrystalline
Units	Ud	6	10	20	40	60
Unit power	W	455	455	455	455	455
Total power	W	2730	4550	9100	18200	27300
Battery		LiFePO4	LiFePO4	LiFePO4	LiFePO4	LiFePO4
Unidades	Ud	1	2	4	8	12
Voltage	V	48	48	48	48	48
Capacity C20	Ah	100	100	100	100	100
Maximum power output	Wh	4800	9600	19200	38400	57600
Intensity	Wh	50	50	50	50	50
Battery dimensions	min	442 * 410 * 89	442 * 480 * 222	442 * 480 * 222	442 * 480 * 222	442 * 480 * 222
Inverter	-					
Units	Ud	1	2	1	2	2
Output voltage DC	V	48	48	48	48	48
Output voltage AC	V	230	230	230	230	230
Output frequency	Hz	50 - 60	50 - 60	50 - 60	50 - 60	50 - 60
Power	VA	2500	5000	10000	20000	30000
Physical characteristics						
Ambient temperature	°C	-10 - 45	-10 - 45	-10 - 45	-10 - 45	-10 - 45
Relative humidity	%	0 - 85	0 - 85	0 - 85	0 - 85	0 - 85
Operating altitude	m	0 - 2500	0 - 2500	0 - 2500	0 - 2500	0 - 2500
Solar panel size	mm	2108 * 1048 * 40	2108 * 1048 * 40	2108 * 1048 * 40	2108 * 1048 * 40	2108 * 1048 * 40
Solar panel weight	kg	24,90	24,90	24,90	24,90	24,90

Lucas Premium Hybrid

Hybrid solutions for coupling to gensets
Specially indicated in the case of requiring an alternative and highly reliable supply
These solutions integrate with most generator solutions working in the 240 - 600 V range
Designed for supplying power to high power demanding individuals and industrial installations
These solutions are adapted for high requirements and robustness of the installations

Characteristics	Units	LBHP AC10000	LBHP AC15000	LBHP AC20000	LBHP AC25000	LBHP AC40000
Power W	W	10000	15000	20000	25000	40000
Diesel Generator	-					
Units Ud	Ud	1	1	1	1	1
Voltage AC	V	240 - 600	240 - 600	240 - 600	240 - 600	240 -600
Power	kW	8,2 - 8,6	13,2 - 14,0	19,1 - 19,4	22,4 - 23,2	34,6 -36,0
Potencia aparente	kVA	8,2 - 10,8	13,2 - 17,5	19,1 - 23,0	22,4 - 29,0	34,6 - 45,0
Intensity	A	8,0 - 34,0	18,9 - 55,0	22,1 - 75,4	27,9 -93,3	43,3 - 144,0
Battery		LiFePO4	LiFePO4	LiFePO4	LiFePO4	LiFePO4
Units	Ud	4	6	8	10	15
Voltage	V	48	48	48	48	48
Capacity C20	Ah	100	100	100	100	100
Potencia salida máxima	Wh	19200	28800	38400	48000	72000
Intensity	A	50	50	50	50	50
Dimensiones de batería	min	442 * 480 * 222	442 * 480 * 222	442 * 480 * 222	442 * 480 * 222	442 * 480 * 222
Inverter	-					
Units	Ud	2	1	2	2	4
Input voltage DC	V	48	48	48	48	48
Input voltage AC	V	230	230	230	230	230
Output frequency	Hz	50 - 60	50 - 60	50 - 60	50 - 60	50 - 60
Power	VA	5000	15000	20000	25000	40000
Physical characteristics						
Ambient temperature	°C	-10 - 45	-10 - 45	-10 - 45	-10 - 46	-10 - 47
Relative humidity	%	0 - 85	0 - 85	0 - 85	1 - 85	2 - 85
Operating altitude	m	0 - 2500	0 - 2500	0 - 2500	1 - 2500	2 - 2500

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APPLICATIONS

SOLAR ENERGY

WIND ENERGY

RESIDENTIAL FACILITIES

COMMERCIAL FACILITIES

IINDUSTRIAL FACILITIES

HOME APPLIANCES

ELECTROMOBILITY

PORTABLE POWER

AGRICULTURE

INDUSTRY

SERVICES (RESTAURANT)

SERVICES (HOSTELS)

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