Lytran

World Leading Frequency Conversion Technology

Committed to bringing people a green, low-carbon and comfortable high-quality life

Lytran

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Lytran

Leading Renewable Energy and Comfort System Solutions for Green Buildings

Company Profile

Founded in 2002, Lytran is an outstanding national hi-tech enterprise specializing in the R&D, manufacturing, and sales of Inverter Controllers and Power & Electronic Technology.

Lytran Technology Co., Ltd. focuses on cooling control related business, and Lytran Electrical Equipment Co., Ltd. concentrates on vehicle thermal management system and new energy storage inverter technology related business.

Vision

To provide world-leading renewable energy and comfort system solutions for green buildings

Mission

To create sustainable, efficient and comfortable building environment

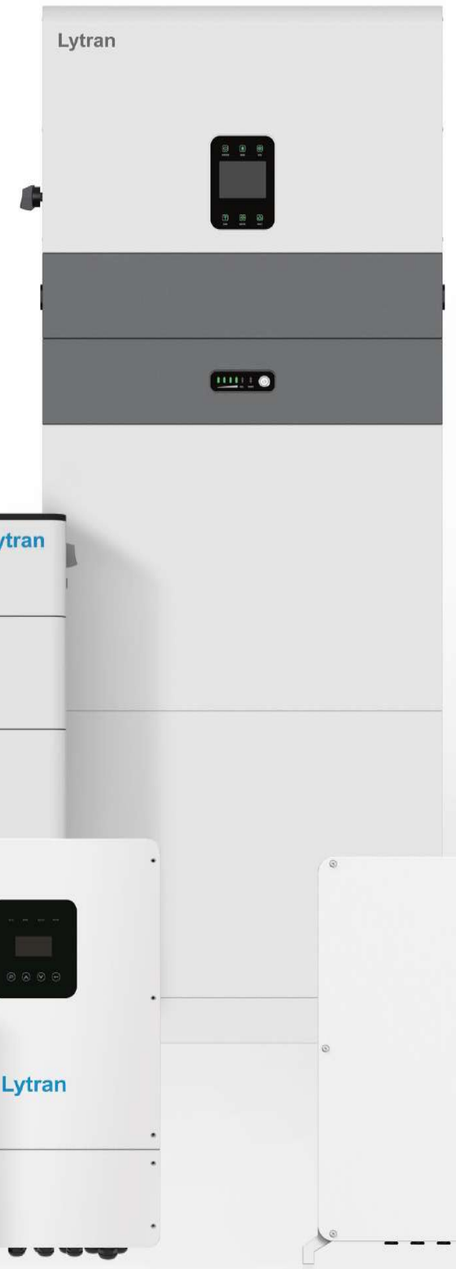
Philosophy

Customer-oriented
Quality-driven
Technology-focused

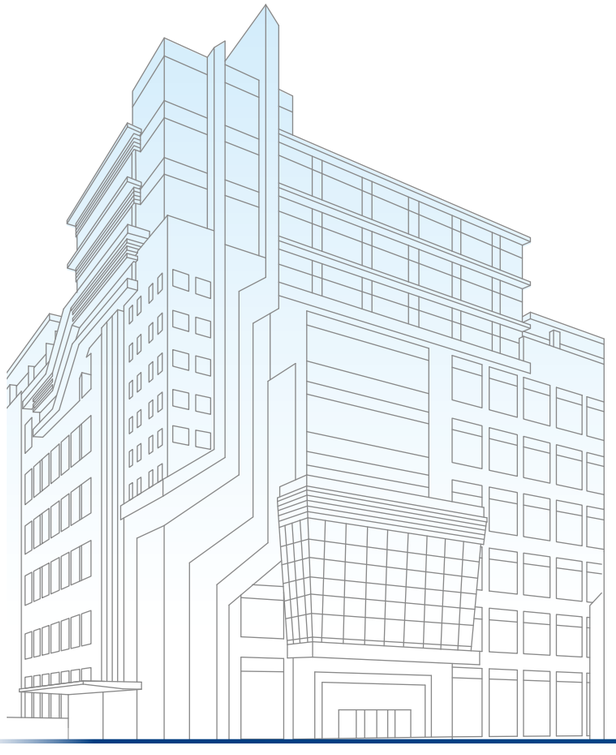
Management System Certification

- IATF16949: 2016
- ISO9001: 2015
  Idt GB/T19001: 2016
- ISO14001: 2015
  Idt GB/T24001: 2016
- GB/T29490: 2013 (IPMS)

Product Series



Lytran Milestones



2002-2012

- Lytran founded
- Entitled as National High-tech Enterprise

2013-2023

- Awarded as National Little Giant Firm
- Certified as National Smart-manufacturing Demonstration Site
- Honored as Guangdong Technology Research Center for Intelligent Inverter Control Engineering
- New Energy Technology Research Center established

2023+

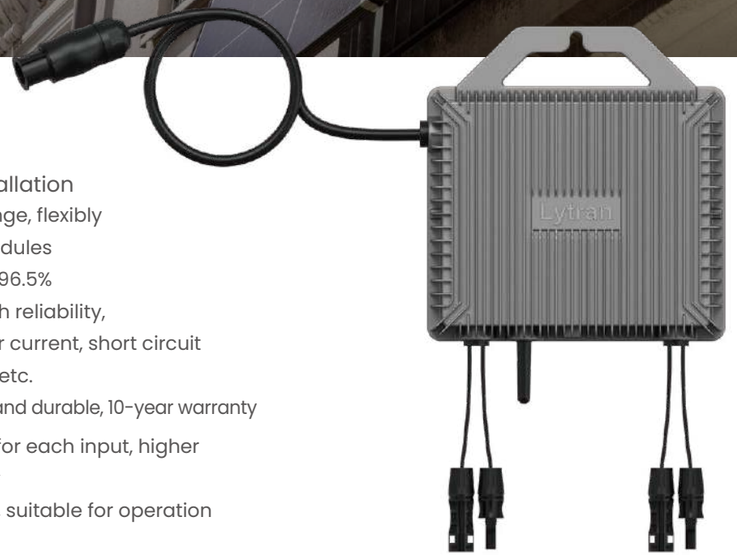
- The foundations for Foshan Lytran Electrical Equipment Industrial Park laid

Micro Inverter
1-in-1

- 1-in-1 design, flexible application
- Wide operating voltage range, flexibly adapted to different PV modules
- Multiple protection and high reliability, including over voltage, over current, short circuit current and anti-islanding etc.
- IP67 protection level, reliable and durable, 10-year warranty
- Independent MPPT control for each input, higher power generation capacity
- High peak efficiency, up to 96.5%
- Real-time data monitoring, suitable for operation status and maintenance
- Easy to install, plug and play set-up
- With Reactive Power Compensation function, flexible to switch on/off and to set multiple compensation modes

Model	LN-MS300C1-S1	LN-MS400C1-S1	LN-MS500C1-S1
Input Data (DC)			
Maximum Input Voltage (V)	60		
Commonly Used Module Power (W)	210~400	210~500	210~600
MPPT Voltage Range (V)	25~55		
Number of MPPTs	1		
Number of Inputs per MPPT	1		
Maximum Input Current (A)	13		
Maximum Input Short Circuit Current (A)	19.5		
Output Data (AC)			
Rated Output Power (VA)	300	400	500
Rated Output Current (A)	1.3	1.8	2.2
Nominal Output Voltage Range (V)	230 (0.85Un~1.1Un)		
Nominal Frequency/Range (Hz)	50 (47~52) or 60 (57~62)		
Power Factor	>0.99 (default)		
Power Factor (Adjustable)	0.95 leading...0.95 lagging		
Total Harmonic Distortion	<3%		
Maximum Output Overcurrent Protection (A)	1.5	2.5	2.5
Efficiency			
CEC Peak Efficiency	96.5%		
CEC Weighted Efficiency	95%		
Nominal MPPT Efficiency	99%		
Night Power Consumption (mW)	<50		
Mechanical Data			
Ambient Temperature (°C)	-40~+65		
Dimensions W*H*D (mm)	173 × 187 × 41.5		
Weight (kg)	2.6		
Ingress Protection	IP67		
Protective Class	Class I		
Cooling	Natural convection-No fans		
Features			
Communication	WiFi		
Compatibility	Compatible with 60, 72 cell PV modules		
Compliance	EN50549-1:2019, VDE 0124:2020, VDE4105:2018, EN 62109-1:2010, EN62109-2:2011, IEC61000-6-3:2021, IEC61000-6-1:2019		

Micro Inverter
2-in-1



- 2-in-1 design, faster installation
- Wide operating voltage range, flexibly adapted to different PV modules
- High peak efficiency, up to 96.5%
- Multiple protection and high reliability, including over voltage, over current, short circuit current and anti-islanding etc.
- IP67 protection level, reliable and durable, 10-year warranty
- Independent MPPT control for each input, higher power generation capacity
- Real-time data monitoring, suitable for operation status and maintenance
- Easy to install, plug and play set-up
- With Reactive Power Compensation function, flexible to switch on/off and to set multiple compensation modes

Model	LN-MS600C2-S1	LN-MS800C2-S1	LN-MS1000C2-S1
Input Data (DC)			
Maximum Input Voltage (V)	60		
Commonly Used Module Power (W)	210~400	210~500	210~600
MPPT Voltage Range (V)	25~55		
Number of MPPTs	2		
Number of Inputs per MPPT	1		
Maximum Input Current (A)	13*2		
Maximum Input Short Circuit Current (A)	19.5*2		
Output Data (AC)			
Rated Output Power (VA)	600	800	1000
Rated Output Current (A)	2.6	3.5	4.35
Nominal Output Voltage Range (V)	230 (0.85Un~1.1Un)		
Nominal Frequency/Range (Hz)	50 (47~52) or 60 (57~62)		
Power Factor	>0.99 (default)		
Power Factor (Adjustable)	0.95 leading...0.95 lagging		
Total Harmonic Distortion	<3%		
Maximum Output Overcurrent Protection (A)	2.9	3.8	4.8
Efficiency			
CEC Peak Efficiency	96.5%		
CEC Weighted Efficiency	95%		
Nominal MPPT Efficiency	99%		
Nighttime Power Consumption (mW)	<50		
Mechanical Data			
Ambient Temperature (°C)	-40~+65		
Dimensions W*H*D (mm)	223.5 × 191 × 41.5		
Weight (kg)	3.7		
Ingress Protection	IP67		
Protective Class	Class I		
Cooling	Natural convection-No fans		
Features			
Communication	WiFi		
Compatibility	Compatible with 60, 72 cell PV modules		
Compliance	EN50549-1:2019, VDE 0124:2020, VDE4105:2018, EN 62109-1:2010, EN62109-2:2011, IEC61000-6-3:2021, IEC61000-6-1:2019		

- 4-in-1 design, lower cost
- Wide operating voltage range, flexibly adapted to different PV modules
- High peak efficiency, up to 96.5%
- Multiple protection and high reliability, including over voltage, over current, short circuit current and anti-islanding etc.
- IP67 protection level, reliable and durable, 10-year warranty
- Independent MPPT control for each input, higher power generation capacity
- Real-time data monitoring, suitable for operation status and maintenance
- Easy to install, plug and play set-up
- With Reactive Power Compensation function, flexible to switch on/off and to set multiple compensation modes

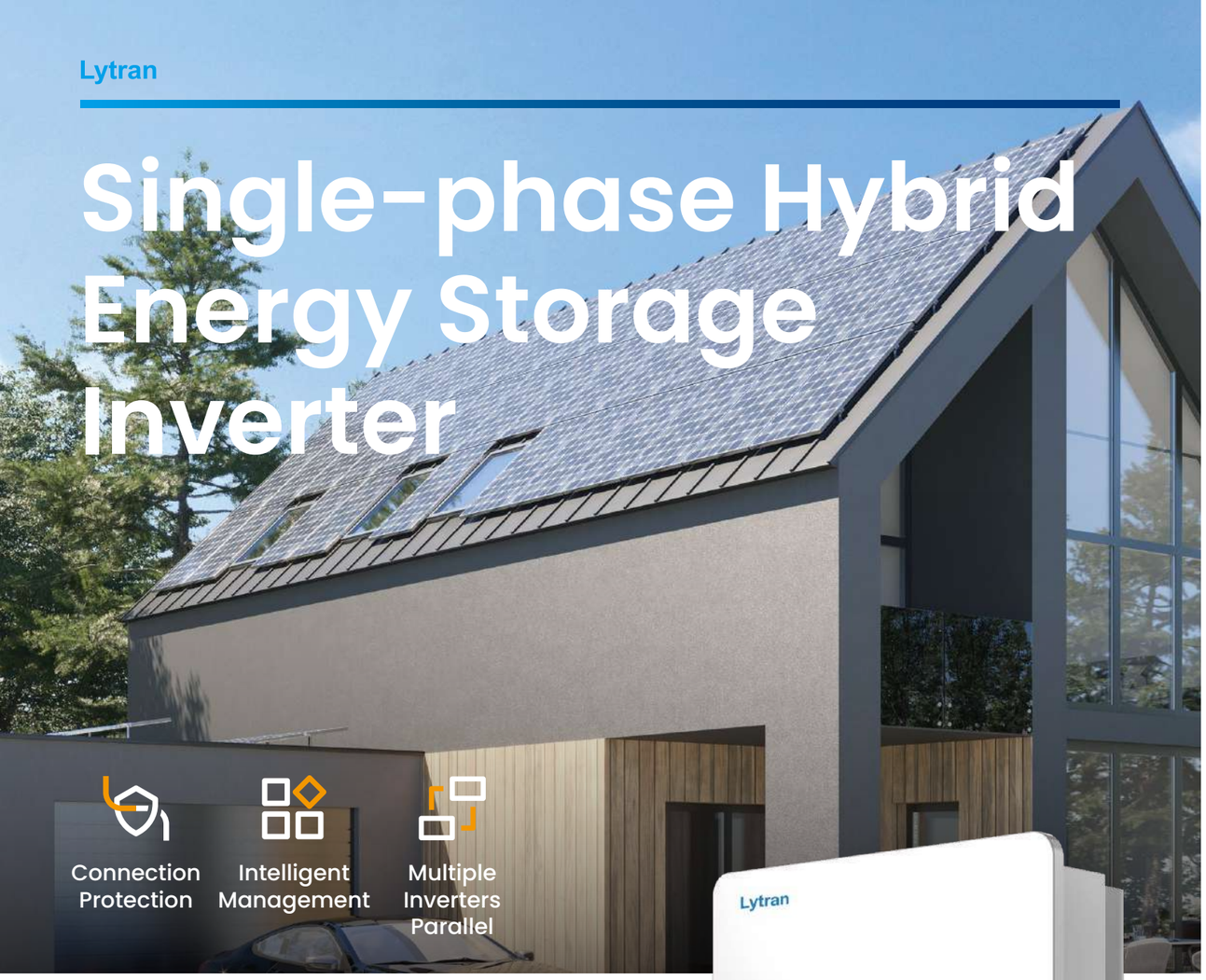
Model	LN-MS1200C4-S1	LN-MS1600C4-S1	LN-MS2000C4-S1
Input Data (DC)			
Maximum Input Voltage (V)	60		
Commonly Used Module Power (W)	210~400	210~500	210~600
MPPT Voltage Range (V)	25~55		
Number of MPPTs	4		
Number of Inputs per MPPT	1		
Maximum Input Current (A)	13*4		
Maximum Input Short Circuit Current (A)	19.5*4		
Output Data (AC)			
Rated Output Power (VA)	1200	1600	2000
Rated Output Current (A)	5.2	7	8.7
Nominal Output Voltage Range (V)	230 (0.85Un~1.1Un)		
Nominal Frequency/Range (Hz)	50 (47~52) or 60 (57~62)		
Power Factor	>0.99 (default)		
Power Factor (Adjustable)	0.95 leading...0.95 lagging		
Total Harmonic Distortion	<3%		
Maximum Output Overcurrent Protection (A)	5.8	7.7	9.6
Efficiency			
CEC Peak Efficiency	96.5%		
CEC Weighted Efficiency	95%		
Nominal MPPT Efficiency	99%		
Nighttime Power Consumption (mW)	<50		
Mechanical Data			
Ambient Temperature (°C)	-40~+65		
Dimensions W*H*D (mm)	344 × 234 × 41.5		
Weight (kg)	6.4		
Ingress Protection	IP67		
Protective Class	Class I		
Cooling	Natural convection-No fans		
Features			
Communication	WiFi		
Compatibility	Compatible with 60, 72 cell PV modules		
Compliance	EN50549-1:2019, VDE 0124:2020, VDE4105:2018, EN 62109-1:2010, EN62109-2:2011, IEC61000-6-3:2021, IEC61000-6-1:2019		

Micro Solar Energy Storage Battery

- Wall-mounted or floor-mounted optional
- Space-saving ultra-thin design
- Modular design, IP65 waterproof grade
- Photovoltaic and energy storage integration, high energy utilization
- Multiple protection, high safety and reliability
- Quick installation, intelligent operation
- Off-grid function, for emergency or outdoor activities

Model	LB-S2560L-B1
DC Input Parameters	
PV Input Voltage Range (V)	20~60
MPPT Voltage Range (V)	25~55
MPPT Number	2
Max. Input Current Of Single MPPT (A)	13
Max. Input Power Of Single MPPT (W)	800
DC Output Parameters	
Voltage Output Range (V)	48~56.8
Max. Output Power (W)	800
Max. Output Current (A)	20
Off-grid Output Parameters (Reserved)	
AC Voltage (V)	220
Output Frequency (Hz)	50
Output Power (W)	800
Max. Output Current (A)	5
Battery Parameters	
Battery Type	$LiFePO_4$
Nominal Capacity (kWh)	2.56
Battery Energy (Ah)	50
Nominal Voltage (V)	51.2
Max. Charge Current (A)	25
Cycle Life	>6000 cycles (25°C)
General Parameters	
Dimensions W*H*D (mm)	485 × 330 × 180
Weight (kg)	30 (66.13 lbs)
Operating Temperature (°C)	-10~50
Ingress Protection	IP65
Cooling	Natural Convection
Altitude (m)	≤4000
Certification	UN38.8, IEC62619, IEC62109-1

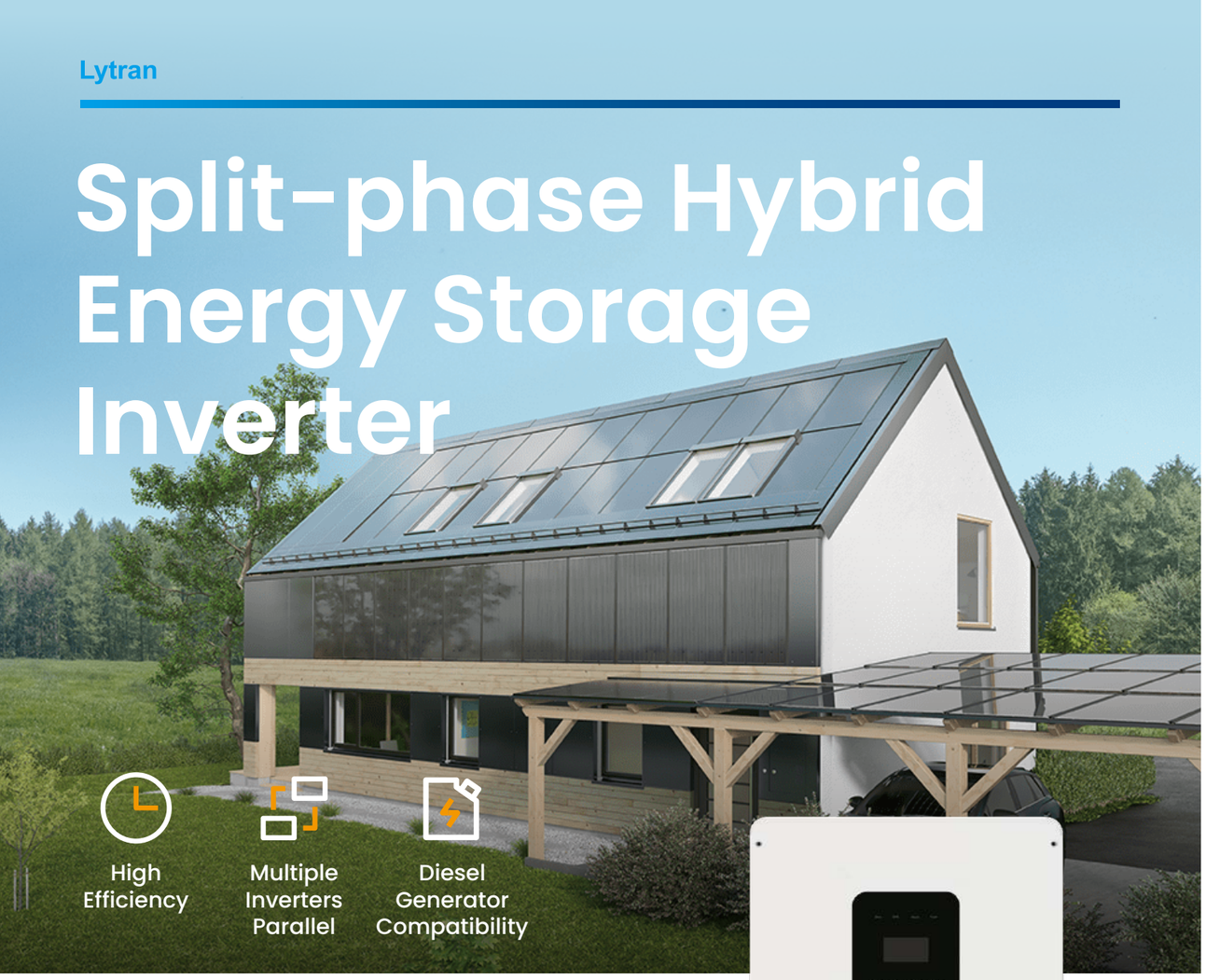
Single-phase Hybrid Energy Storage Inverter



- Multi-inverter parallel connection
- Compatible with lead-acid, lithium-ion batteries and other batteries
- Economical and efficient, maximum efficiency ≥97.5%
- Safe and reliable, compatible with anti-reverse function and battery reverse connection protection
- Intelligent management

Model	LN-M3KL-S1	LN-M6KL-S1	LN-M8KL-S1
Input Data (PV)			
Max. PV Input Power (kW)	4.5	9	12
Start-up Voltage (V)	100		
Max. PV Voltage (V)	500		
MPPT Voltage Range/Nominal (V)	125~500/360		
Max. Input Current per MPPT (A)	16/16	16/16	16/32
MPPT Number/Max. parallel Strings Number per MPPT	2/1	2/1	3/2+1
Output Data (AC)			
Rated Output Power (kW)	3	6	8
Max. Output Current (A)	14.3	28.7	38.3
Grid Voltage Range/Nominal (V)	230/176~270		
Rated Frequency (Hz)	50/60		
Power Factor	1 (0.99 leading...0.99 lagging)		
Total Harmonic Distortion	<3%		
Type of Grid Connection	L+N+PE		
Battery Data (DC)			
Battery Voltage Range (V)	40~58		
Max. Charging Voltage (V)	58		
Max. Charge/Discharge Current (A)	60	120	160
Communication Interface	CAN		
EPS Output			
Rated Power (kW)	3	6	8
Rated Output Voltage (V)	230		
Rated Output Current (A)	13	26	35
Rated Frequency (Hz)	50/60		
Automatic Switching Time (ms)	<10		
Total Harmonic Voltage Distortion	<2%		
Overload Capacity	110%, 60S/120%, 30S/150%, 10S		
General Data			
Battery Charging/Discharging Efficiency	96.5%		
Max. DC Efficiency	98.2%		
Euro Efficiency	97.5%		
MPPT Efficiency	99.9%		
Ingress Protection	IP65		
Noise Emission (dB)	<35		
Operating Temperature Range (°C)	-25~60		
Cooling	Natural Convection		
Relative Humidity	0~95% (No Condensation)		
Altitude (m)	≤2000		
Dimensions W*H*D (mm)	451 × 474 × 212	451 × 474 × 212	467 × 484 × 200
Weight (kg)	18	18	20
Isolation Transformer	No		
Self-Consumption (W)	<3		
Display And Communication			
Display	LCD touch screen		
Interface: RS485/Wifi/4G/CAN/DRM	Yes/Selectable/Selectable/Yes/Yes		

Split-phase Hybrid Energy Storage Inverter



- Safe and reliable
- Multi-inverter parallel connection
- Multi inverters parallel mode sharing same battery pack
- Parallel SOC equalization control and parallel current sharing control
- Split-phase topology without transformers, higher system efficiency
- Connected to diesel generator and the grid at the same time

Model	LN-M5KL-SP1	LN-M6KL-SP1	LN-M8KL-SP1
Input Data (PV)			
Max. Power (kW)	7.5	9	12
Max. DC Voltage (V)	500		
MPPT Voltage Range (V)	120~500		
Max. Input Current of Single MPPT (A)	12		
MPPT Number/Max. parallel Strings Number per MPPT	4/1		
Output Data (AC)			
Rated Output Power (kVA)	5	6	8
Max. Output Current (A)	24	28.8	38.3
Ac Output Voltage (V)	120/240 (split phase), 208 (2/3 phase), 230 (single phase)		
Frequency (Hz)	50/60		
Power Factor	0.8 leading...0.8 lagging		
Total Harmonic Distortion	<3%		
AC Output Topology	split phase, 2/3 phase, single phase		
Battery Data (DC)			
Battery Voltage Range (V)	40~58		
Max. Charging Voltage (V)	58		
Max. Charge/Discharge Current (A)	120/120	135/135	190/190
Battery Type	Lithium/Lead-acid Battery		
Communication Interface	CAN/RS485		
EPS Output			
Rated Power (kVA)	5	6	8
Rated Output Voltage (V)	120/240 (split phase), 208 (2/3 phase), 230 (single phase)		
Rated Output Current (A)	24	28.8	38.3
Rated Frequency (Hz)	50/60		
Automatic Switching Time (ms)	<20		
Total Harmonic Voltage Distortion	<2%		
Overload Capacity	125%, 60S/150%, 1S		
General Data			
Max. Efficiency	≥98.2%		
North American Efficiency	≥97.2%		
Ingress Protection	IP65/NEMA 3R		
Noise Emission (dB)	<25	<29	<29
Operation Temperature (°C)	-25~60 (-13°F~140°F)		
Cooling	Natural Convection		
Relative Humidity	0~95% (No Condensation)		
Altitude (m)	≤2000 (≤6561.67 ft)		
Dimensions W*H*D (mm)	430 × 710 × 220 (16.93 × 27.95 × 8.66 in)		
Weight (kg)	41 (90 lbs)		
Isolation Transformer	No		
Self-Consumption (W)	<3		
Display And Communication			
Display	LCD touch screen		
Interface: RS485/Wifi/4G/CAN/DRM	Yes		
Safety Standard	UL1741SA all options, UL1699B, CSA 22.2		
EMC	FCC Part 15, Class B		
On-Grid	IEEE 1547, IEEE 2030.5, Hawaii Rule 14H, Rule 21 Phase I, II, III, NRS		

Three-phase Hybrid Energy Storage Inverter

- Safe and reliable, with island protection, PV reverse polarity protection, battery reverse polarity protection, insulation monitoring, AC over current protection, short circuit protection
- No external cooling fans, less noise
- Diesel generator connection compatible
- Support full power discharge, automatic management of battery charge and discharge
- Multiple operating modes, more economical
- Can be used as a UPS for the important loads in case of power off
- Intelligent management

Model	LN-M8KH-T1	LN-M10KH-T1	LN-M12KH-T1
Input Data (PV)			
Max. PV Input Power (kW)	12	15	18
Max. PV Voltage (V)		1000	
MPPT Voltage Range (V)		180~850	
Full Power MPPT Voltage Range (V)	330~850	430~850	510~850
Start-up Voltage (V)		125	
Max. Input Current per MPPT (A)		13/13	
Max. Short-circuit Current (A)		16/16	
Number of MPP Trackers		2	
MPPT Number/Max. parallel Strings Number per MPPT		2/1	
Rated Input Voltage (V)		600	
AC Output Data (On-Grid)			
Nominal Output Power (kVA)	8	10	12
Max. Apparent Power (kVA)	8.8	11	13.2
Max. Apparent Power (kVA)	17.6	22	26.4
Max. Apparent Current (A)	25	31.8	38.1
Nominal Output Current (A)	11.5	14.4	17.3
Max. Output Current (A)	12.7	15.9	19.1
Nominal Grid Voltage (V)		380/400, 3W+N+PE	
Nominal Grid Frequency (Hz)		50/60	
Total Harmonic Distortion		<2%	
Battery Data (DC)			
Max. Charging/Discharging Power (kW)	8.8	11	13.2
Battery Input Voltage Range (V)		125~600	
Battery Working Voltage Range (V)		150~550	
Max. Charging/Discharging Current (A)		50	
Rated Charging/Discharging Current (A)		40	
Battery Type		Lithium/Lead-acid Battery	
AC Output Data (Back Up)			
Nominal Output Power (kVA)	8	10	12
Max. Apparent Power (kVA)	8.8	11	13.2
Nominal Output Current (A)	11.5	14.4	17.3
Max. Output Current (A)	12.7	15.9	19.1
Nominal Output Voltage (V)		400, 3W+N+PE	
Nominal Output Frequency (Hz)		50/60	
Total Harmonic Voltage Distortion		<2%	
Max. Efficiency	97.9%	98.2%	98.2%
Euro Efficiency	97.2%	97.5%	97.5%
MPPT Efficiency		99.9%	
Max. Battery Charge/Discharge Efficiency	97.5%	97.5%	97.6%
General Data			
Ingress Protection		IP65	
Operating Temperature Range (°C)		-35~60	
Relative Humidity		0~100%	
Altitude (m)		≤4000 (Derating above 2000m)	
Cooling		Natural Convection	
Noise Emission (dB)		≤25	
Installation		Wall Mounted	
EMC		IEC/EN 61000-6-1:2019, IEC/EN 61000-6-2:2019, IEC/EN 61000-6-3:2021, IEN/EN 61000-6-4:2019, IEC/EN 61000-3-2:2019/A1:2021, EN 61000-3-3:2013/A2:2021, IEC/EN 61000-3-11:2019, EN 61000-3-12:2011	
Grid Regulation		Europe:EN 50549-1:2019/AC:2019, Poland:EN50549-1:2019/Rfg:2016/NC Rfg:2018/PTPiREE:2021, Germany:VDE-AR-N 4105:2018/DIN VDE V 0124-100(VDE V 0124-100):2020, South Africa:NRS 097-2-1:2017 Edition 2.1, UK:G99/1-6:2020, Spain:UNE217001:2020/UNE217002:2020/NTS V2.1:2021-07, IEC61727:2004/IEC62116:2014/IEC61683:1999, Hungary:EN50549-1:2019/RFG:2016/Hungary	
Safety Regulation		IEC/EN62109-1:2010, IEC/EN62109-2:2011	
Communication Interface			
HMI		LCD; APP	
BMS		RS485, CAN	
EMS		RS485	
Meter		RS485	
Supported Communication Interface		WIFI/GPRS/4G	
Mechanical Parameters			
Dimensions W*H*D (mm)		530 × 560 × 220	
Weight (kg)	30	31	32

Low-voltage Energy Storage Battery

- Multiple protection design, safe and guaranteed
- Long design life, ultra-low degradation
- Modular design, up to 8 in parallel
- Intelligent management, remote upgrade by one click
- Leading ultra-thin body design
- Easy installation and maintenance

Model	LB-M5120L-B1
Battery Type	$LiFePO_4$ 1P16S
Total Energy (kWh)	5.32
Rated Energy (kWh)	5.05
Nominal Voltage (V)	51.2
Working Voltage (V)	43.2~57.6
Charging Voltage (V)	57.6
Max. Charge Current (A)	50
Max. Discharge Current (A)	100
Communication	RS485, CAN, WIFI
Storage Temperature (°C)	0~45 (Recommended)
Storage Humidity	≤85%
Working Temperature (°C)	Charging: -10~50 Discharging: -20~50
Working Humidity	≤95% (No Condensation)
Working Altitude (m)	≤2000
Ingress Protection	IP65
Protective Class	I
Weight (kg)	45
Dimensions W*H*D (mm)	420 × 650 × 140
Design Life	15 Years (25°C)
Cycle Life	>6000 cycles (25°C)
Scalability	Recommended ≤3, (Max. 8 in parallel)
Certification	CE, IEC62619, IEC/EN 61000-6-1/3, UN38.3, IEC62368

High-voltage Energy Storage Battery

- Intelligent protection strategy, safe running
- Professional cells, long cycle life
- Flexible expansion, multiple choices of power
- Cloud OTA, remote upgrade, operation and maintenance
- Modular design, stacking installation

Model	LB-M10.2H-S1	LB-M15.3H-S1	LB-M20.4H-S1	LB-M25.6H-S1	LB-M30.7H-S1	LB-M35.8H-S1	LB-M40.9H-S1
System Parameters							
Nominal Capacity (kWh)	10.24	15.36	20.48	25.6	30.72	35.84	40.96
Usable Capacity (kWh)	9.72	14.58	19.44	24.3	29.16	34.02	38.88
Nominal Voltage (V)	204.8	307.2	409.6	512	614.4	716.8	819.2
Working Voltage (V)	182.4~230.4	273.6~345.6	364.8~460.8	456~576	547.2~691.2	638.4~806.4	729.6~921.6
Charging Voltage (V)	224	336	448	560	672	784	896
Max. Charge Current (A)	25						
Max. Discharge Current (A)	40						
Weight (kg)	117	165	213	261	309	357	405
Dimension W*D*H (mm)	636 × 330 × 628	636 × 330 × 816	636 × 330 × 1004	636 × 330 × 1192	636 × 330 × 1380	636 × 330 × 1568	636 × 330 × 1756
Design Life	15 Years (25°C)						

Model	LB-M5120H-B1
Battery Parameters	
Battery Type	$LiFePO_4$ 1P32S
Nominal Capacity (kWh)	5.12
Usable Capacity (kWh)	4.86 (95% DOD)
Nominal Voltage (V)	102.4
Working Voltage (V)	91.2~115.2
End-of-charge Voltage (V)	112
Max. Charge Current (A)	25
Max. Discharge Current (A)	40
Communication	RS485, CAN, WIFI
Storage Temperature (°C)	-20~50
Storage Humidity	≤85%
Working Temperature (°C)	Charging: -10~50 Discharging: -20~50
Working Humidity	≤95% No Condensation
Working Altitude (m)	≤2000
Ingress Protection	IP65
Protective Class	I
Weight (kg)	45
Dimensions W*D*H (mm)	636 × 330 × 188
Design Life	15 Years (25°C)
Cycle Life	>6000 cycles (25°C)
Max. Scalability	8S
Certification	CE, IEC62619, IEC63056, IEC/EN61000-6-2/3, UN38.3

All-in-One Three-phase Energy Storage

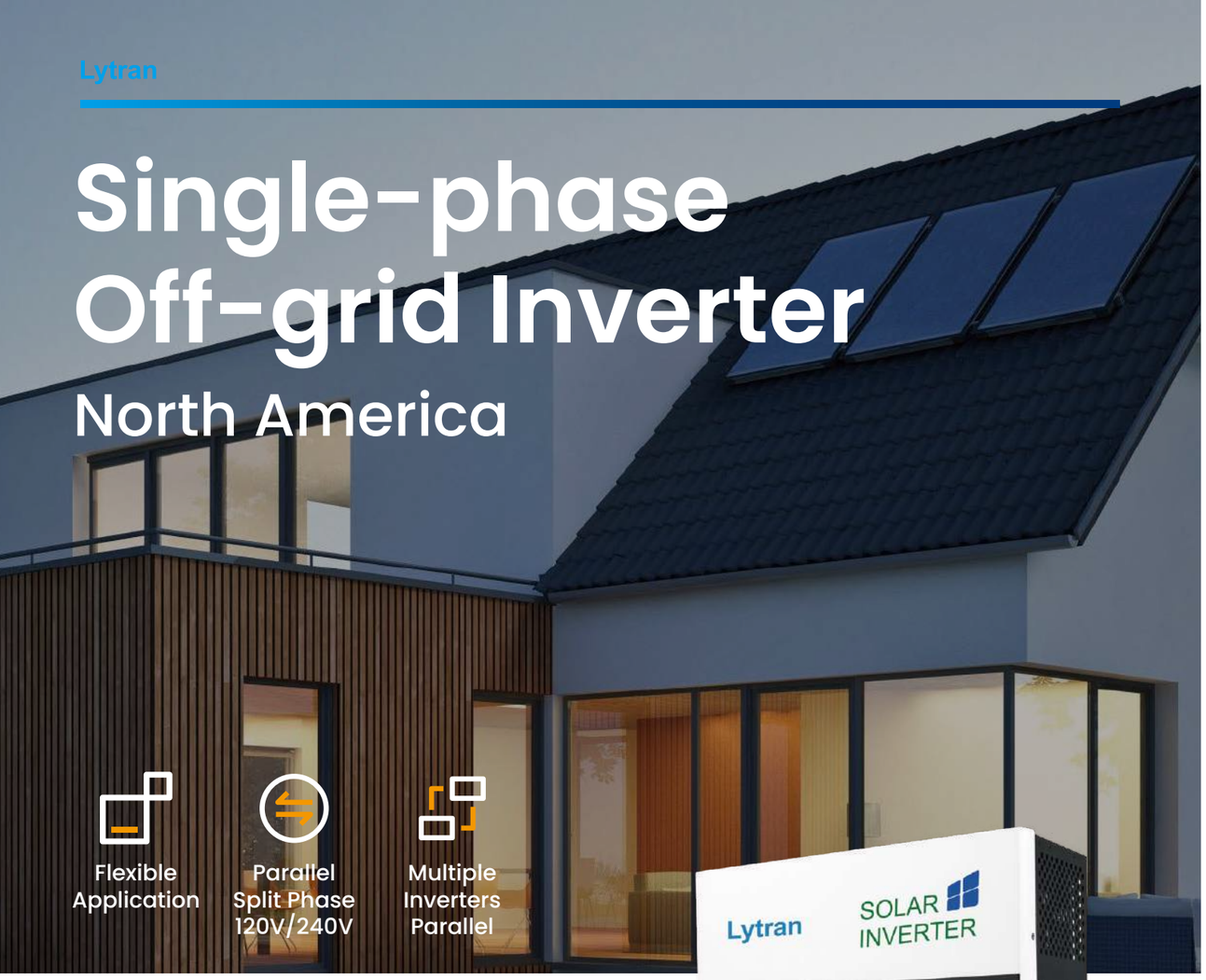
- All-in-one design, home style, neat and elegant
- Ultra-thin body design, space saving
- Modular design, flexible expansion, IP65 waterproof grade
- Automatic management of battery charge and discharge, multiple intelligent protection, safe and reliable
- Natural heat dissipation, no external cooling fans, less noise

Model	LN-MA6KH-T1	LN-MA8KH-T1	LN-MA10KH-T1	LN-MA12KH-T1
System Parameters				
Number of Power Module	1			
Number of Battery Control Module	1			
Number of Battery Module	2	3	4	5
Battery Capacity	10.24kWh	15.36kWh	20.48kWh	25.6kWh
Battery Usable Capacity	9.21kWh	13.82kWh	18.43kWh	23.04kWh
PV Input Parameters				
Max. Power of PV Array	9kW	12kW	15kW	15kW
Max. PV Voltage	1000Vd.c.			
MPPT Voltage Range	200~850Vd.c.			
No. of MPPT Trackers	2			
No. of Strings per MPP Tracker	1			
Max. Input Current per MPP Tracker	13A			
Max. Short-circuit Current per MPP Tracker	18A			
AC Output Parameters				
Nominal AC Output	3W+N+PE, 50/60Hz，400/380Vac			
AC Voltage Range	280~490Vac			
AC Grid Frequency Range	50±5Hz/60±5Hz			
Rated Active Power	6kW	8kW	10kW	12kW
Max. Apparent Power	7kVA	8.8kVA	11kVA	13.2kVA
Max. grid Output Current	12A	15A	17A	20A
Harmonics Factor	<3%			
Power Factor Adjustable Displacement	0.8 leading to 0.8 lagging			
AC Output Parameters (Back-up)				
Nominal Output Voltage	400/380Vac			
Rated Output Frequency	50Hz/60Hz			
Max. Apparent Output Power	6kVA	8kVA	10kVA	10kVA
Output THDu (@ Linear load)	<3%			
Safety Protection				
PV String Reverse Polarity Protection	Yes			
Leakage Current Protection	Yes			
Anti-islanding Protection	Yes			
AC Output Short Circuit Current Protection	Yes			
Insulation Impedance Detection	Yes			
Battery Reverse Connection Protection	Yes			
General Parameters				
Power Module Dimensions W*H*D (mm)	700 × 430 × 188			
Battery Control Module Dimensions W*H*D (mm)	700 × 150 × 188			
Power Module Weight	26 kg			
Battery Control Module Weight	10 kg			
Installation	Stacked Installation			
Operating Temperature Range	-25°C~+60°C*			
Cooling Method	Natural Convection			
Ingress Protection Rating	IP65			
Relative Humidity	0~95%			
Display	LCD			
Communication with Meter	RS485			
Monitor Communication	Standard WiFi; GPRS/LAN (optional)			
Battery Module Parameters				
Battery Type	Lithium Iron Phosphate (LFP)			
Nominal Energy	5.12kWh			
Usable Energy	4.60kWh			
Nominal Voltage	102.4V			
Max. Output Current	25A			
Peak Output Current	50A, 3s			
Expansion Ability	Max. 5 in Series			
Battery Module Dimensions W*H*D (mm)	700 × 500 × 188			
Battery Module Weight	45kg			
Certification				
Certifications	EN 62109-1, EN 62109-2, IEC 61000-6-1/-2/-3/-4, IEC 61000-3-11, IEC61000-3-12，VDE-AR-N 4105, EN 50549-1, IEC62619, UN38.3			

*Charging function is limited below 0°C, and discharging function is limited below -10°C.

Single-phase Off-grid Inverter

North America



- Pure sine wave AC output
- Solar and the grid can provide power to the load at the same time
- 2 parallel machines can be divided into phase 120V/240V
- Can work with or without batteries
- Max. 6 parallel machines

Model	LN-MF3KL-SL1
Rated Power (kW)	3
System DC Voltage (V)	48
Parallel Option	Yes, up to 6 units
Monitoring Option	WiFi or GPRS
AC Voltage (V)	110~110~120
Surge Power (kVA)	6
Peak Efficiency	90%
Transfer Time	10ms (For Personal Computers) 20ms (For Home Appliances)
Waveform	Pure Sine Wave
Max. PV Array Open Circuit Voltage (V)	250
Max. PV Array Power (kW)	4
Operating Voltage MPPT Range (V)	120~250
Battery Overcharge Protection (V)	60
Max. Solar Charge Current (A)	80
Max. AC Charge Current (A)	40
Max. Charge Current (A)	80
Max. PV Input Current (A)	22
Dimensions W*H*D (mm)	320 × 470 × 135 (12.6 × 18.5 × 5.32 in)
Net Weight (kg)	11.5 (25 lbs)
Communication Interface	USB/CAN/RS485
Relative Humidity	5%~95% (No Condensation)
Operating Temperature (°C)	0~50 (0~122°F)
Storage Temperature (°C)	-15~60 (5°F~140°F)

Single-phase Off-grid Inverter

- 2 PV Array Input
- 500V high PV input voltage
- Maximum PV array power 8kW
- Built-in ATS, can automatically switch between the power grid and the generator
- Built-in dustproof kit, suitable for harsh environment
- Can work with or without batteries

Model	LN-MF6KL-S1
Rated Power (kW)	6
System DC Voltage (V)	48
Parallel Option	Yes, up to 6 units
Monitoring Option	WiFi or GPRS
AC Voltage (V)	220~230~240
Surge Power (kVA)	12
Peak Efficiency	94%
Transfer Time	10ms (For Personal Computers) 20ms (For Home Appliances)
Waveform	Pure Sine Wave
Self Consumption at 0 Load (W)	<70
Type of PV Array Input Terminal	MC4
Max. PV Array Open Circuit Voltage (V)	500
Max. PV Input Current/Per String (A)	16
Number of PV Array Input	2 Strings
Max. PV Array Power (kW)	Each String: 4; Total 8
Operating Voltage MPPT Range (V)	120~450
Battery Overcharge Protection (V)	60
Max. Solar Charge Current (A)	100
Max. AC Charge Current (A)	80
Max. Charge Current (A)	100
Dimensions W*H*D (mm)	460 × 395 × 132
Net Weight (kg)	13.5
Communication Interface	USB/CAN/RS485
Relative Humidity	5% to 95% (No Condensation)
Altitude (m)	<2000
Operating Temperature (°C)	0~50
Storage Temperature (°C)	-15~60
Noise (dB)	<60
Certification	CE, IEC62109-1, IEC62109-2

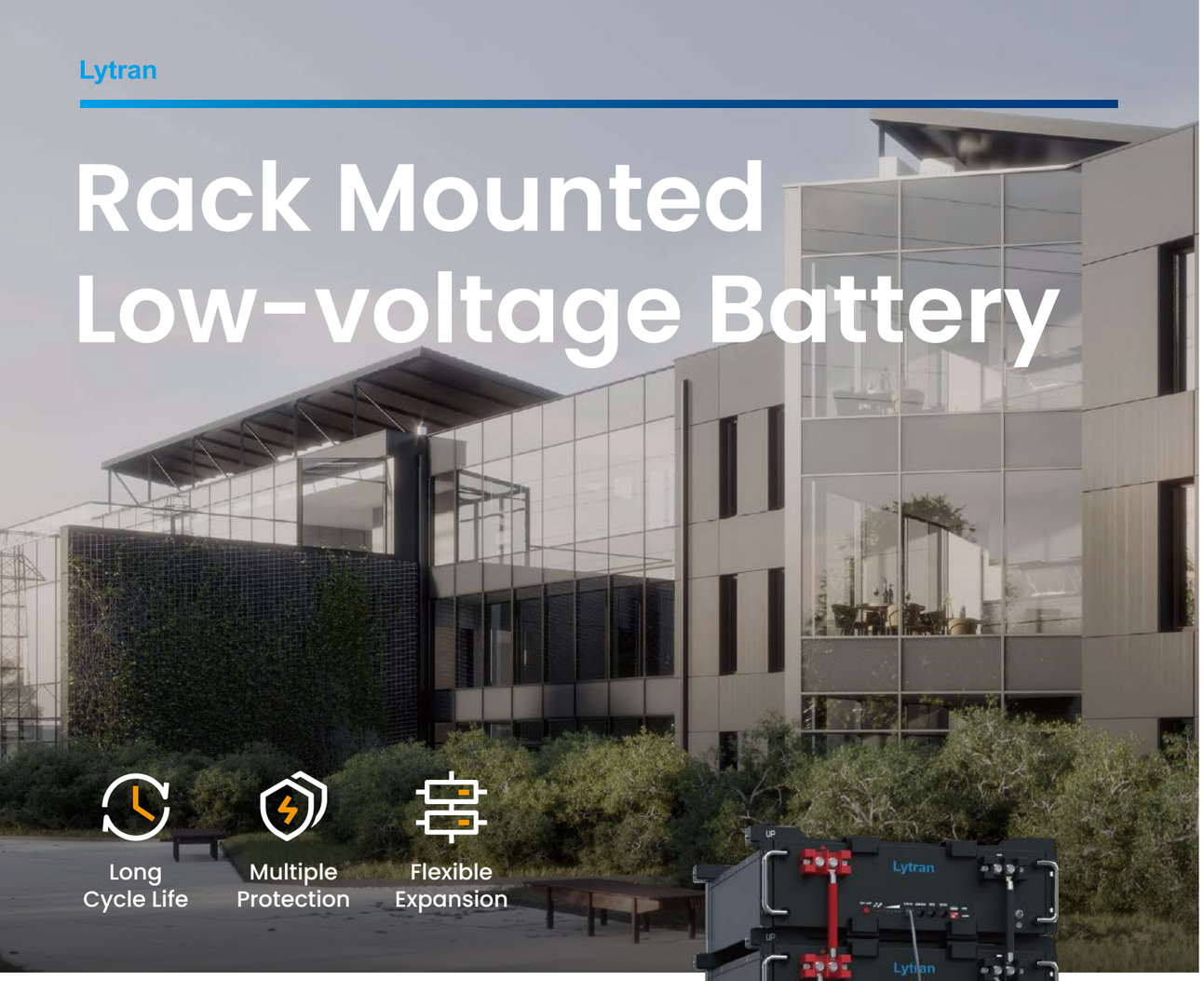
Split-phase Off-grid Inverter

North America

- Rated power 6kW/12kW, with DSP control
- Pure sine wave AC output
- Built-in MPPT solar charge controller
- Low frequency with transformer
- Configurable AC/solar input priority via LCD setting
- Compatible to grid voltage or generator power
- WiFi/GPRS remote monitoring
- RS485/CAN communication for BMS

Model	LN-MF6KL-SP1
Battery Voltage (V)	48
Rated Power (kW)	6
Monitoring Option	WiFi/GPRS
Output Voltage (V)	104~110~115~120/220~230~240
Surge Power (20ms) (kW)	18
Capable Of Starting Electric Motor	3HP
Waveform	Pure Sine Wave
Output Frequency (Hz)	50/60 ± 0.1
Max. PV Charge Current (A)	80
Max. PV Array Power (kW)	5
Operating Voltage MPPT Range (V)	60~245
AC Input Voltage (V)	250
Frequency Range (Hz)	50/60 (Auto sensing)
Overcharger Protection	AGM: 60V; FLD: 62V; USE: CE+4.0V
Max. Charge Current (A)	60
Max. Charge Current (PV+AC) (A)	140
Dimensions W*H*D (mm)	360 × 540 × 218 (14.17 × 21.26 × 8.58 in)
Net Weight (kg)	45 (99.21 lbs)
Typical Transfer Time (ms)	10
Communication Interface	USB/CAN/RS485
Operating Temperature (°C)	0~55 (0~131°F)
Storage Temperture (°C)	-20~60 (-4°F~140°F)

Rack Mounted Low-voltage Battery



- Modular design, easy installation
- Hight-quality LFP cells, long cycle life
- Multiple protection, high security
- Multi-module parallel, flexible expansion
- Max. 12 parallel machines

Model	LB-MF5420L-B1
Nominal Voltage (V)	51.2
Rated Capacity (Ah)	106
Rated Energy (kWh)	5.5
Working Voltage Range (V)	40~58.4
Discharge Cut-off Voltage (V)	40
Parallel Max. Units	12
Max. Charge Current (A)	100
Max. Discharge Current (A)	100
Cycle Life	25±2°C, 0.2C/0.2C, 6000 cycles
Ingress Protection	IP20
Dimensions W*H*D (mm)	440 × 130.5 × 540
Communication BMS	RS485/CAN
Warranty	5 Years
Weight (kg)	48
Operation Temperature Discharge (°C)	-20~55
Operation Temperature Charge (°C)	0~55
Storage Temperature (°C)	-20~+55 (10~90% RH)
Certification	CE (EMC)/UN38.3/MSDS/ROHS/IEC62619
Upgrade Method	U-disk upgrade+Remote upgrade+PC upgrade

Commercial Hybrid Energy Storage Inverter

- Support photovoltaic access and battery hybrid energy storage
- Can switch between on-grid and off-grid output
- Can be connected with high-voltage energy storage battery between 200V~865V
- Each function unit adopting streamlined and intelligent modular design
- With EMS function
- Support system expansion, allowing the maximum number of parallel operation modules of 4 off-grid parallel operation
- High DC voltage utilization via three-phase three-level four-bridge topology
- Support 1.1 times continuous AC overload output and three-phase 100% unbalanced load access, allowing the rated output load phase out operation
- Support single-phase single-load access
- Based on capacity available, intelligently adjust the load operating conditions
- Modbus TCP/RS485/CAN communication
- All kinds of protection functions required by CQC and TUV certification
- IP65 protection level
- Cooling mode: Intelligent air cooling or Water cooling optional
- Installation mode: wall mounted or drawer type

Model	LN-G30KF-AN1	LN-G60KF-AN1	LN-G90KF-AN1	LN-G120KF-AN1
Photovoltaic Input Parameter				
Max. DC Voltage (V)	1100			
Starting Voltage (V)	250			
MPPT Voltage Range (V)	250~1000			
Full load MPPT Voltage Range (V)	375~850		450~850	
MPPT Max. Input Current (A)	45	45	65	65
MPPT Input Group Strings	3+3	3+3+3+3	5+5+5+5	5+5+5+5
Number of MPPT	2	4	4	4
Battery Input Parameter				
Max. DC Bus Voltage (V)	900			
Max. DC Current (A)	55	110	165	220
DC Voltage Working Range (V)	600~900			
DC Voltage Ripple Coefficient	2%			
Rated Power (kW)	30	60	90	120
AC Side Parameter				
Max. Power Output (kW)	33	66	99	132
AC Access Mode	Quick plug terminal/M8 Waterproof joint			
Mode of Isolation	No isolation			
Range of Reactive Power (kVA)	0~30	0~60	0~90	0~120
Rated Grid Voltage (V)	400			
Operation Parameters of Grid Connection				
Allowable Grid Voltage (V)	304~440			
Rated Grid Frequency (Hz)	50/60			
Allowable Grid Frequency (Hz)	47~53/57~63			
Total Harmonic Distortion of Current	3%			
Power Factor	-1~1			
Charge and Discharge Conversion Time (ms)	20			
Rated Output Voltage (V)	400			
Off-grid Operation Parameters				
Voltage Deviation	±2%			
Voltage Imbalance Degree	22%, less than 4%			
Access Load Allowed Imbalance Degree	100%			
Voltage Total Harmonic Distortion Rate	3% (No load or rated resistive load)			
Rated Output Frequency (Hz)	50			
Dynamic Voltage Transient Range	10% (Under resistive/balanced load condition, the load increases from 20% to 100% or decreases from 100% to 20%)			
Output Overvoltage Protection Value	Can be set			
Output Undervoltage Protection Value	Can be set			
Max. Efficiency	97%			
Common Parameters				
Allowable Ambient Temperature (°C)	-40~+6			
Allowable Relative Humidity	0~100%			
Noice (dB)	59			
Dimensions W*H*D (mm)	800 × 680 × 330			
Weight (kg)	≤95			
Ingress Protection	IP65			
Cooling	Intelligent air cooling			
Insulation Resistance	1MΩ			
Communication Interface	Ethernet, 485			
Dispaly and Communication				
Human-computer Interface	LCD Color display: charge/discharge, shutdown, standby, fault			
Communication Protocol	Modbus, TCP/RTU			