



Good for Your Pocket, Good for Your Planet



MUST POWER ENERGY (PAKISTAN) - HEAD OFFICE

Office Address: Office No F-11 Upper Ground Floor, Harmain Center, Adjected with Jawad Center, Opp State Bank of Pakistan 36-Mall Road, Lahore.
Tel: +92 304 1113041
Web: www.mustpower.pk

MUST POWER ENERGY (PAKISTAN) - CUSTOMER CARE CENTER

Office Address: Office No F-6, 1st Floor, Mall Mension, Opp State Bank of Pakistan 31-Mall Road, Lahore.
Tel: +92 304 1113041
Web: www.mustpower.pk

MUST ENERGY (GUANGDONG TECHNOLOGY) CO, LTD (CHINA)

Office Address: 18F, Taibang Technology Building No 4 Road High-Tech South Nanshan District, Shenzhen City, China
Tel: +86 755 83658583 (Asia) | +86 755 83657661 (Africa) | +86 755 83657660 (Europe) | +86 755 83651325 (America)
Factory Address: Block 8, Huanan Power Innovation and Technology Park, No.115 Zhangcha Road 1, Chancheng District, Foshan City, Guangdong Province, China
Tel: +86 757 82629306



MUST POWER ENERGY

The technical specifications of this document are subject to change without any notice



PRODUCT CATALOGUE



HIGH FREQUENCY SOLAR INVERTER

Magnum series

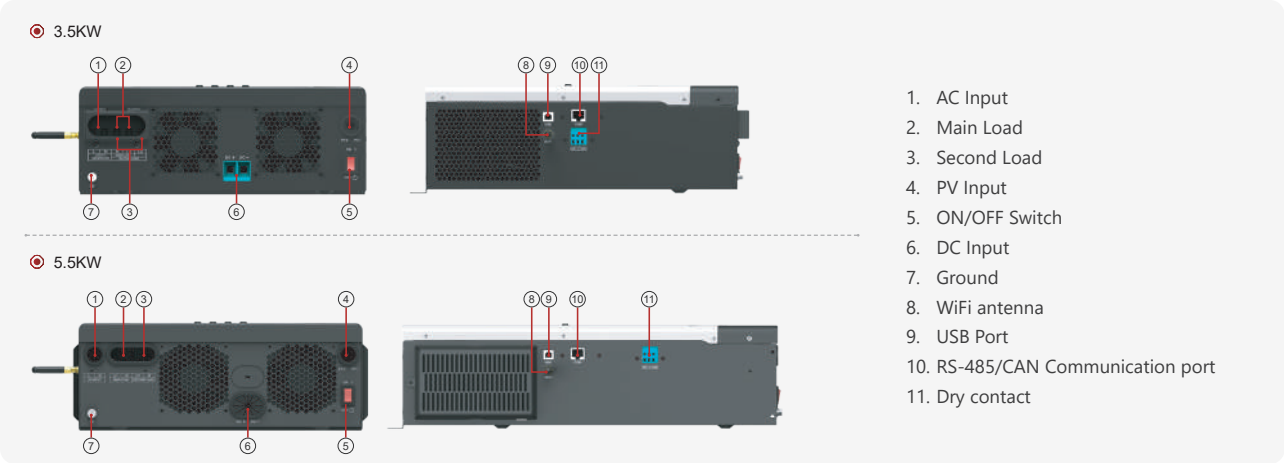
3.5-5.5KW | Dual output | WiFi

Magnum Series is a multi-function inverter/charger, combining functions of inverter, MPPT solar charger and battery charger to offer uninterruptible power support in portable size. Magnum Series can run without battery. The Maximum PV array open circuit voltage can reach 400V/450V. which Can help customers make full use of solar energy.

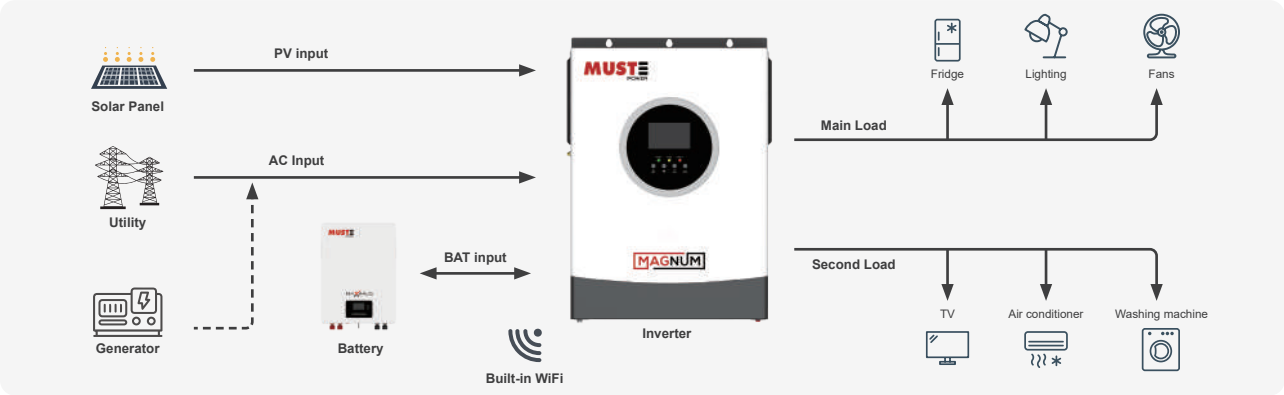


- Pure sine wave output
- Smart LCD setting (Working modes, Charge Current, Charge Voltage, etc).
- Built-in MPPT solar charge controller
- Combining solar system, AC utility, and battery power source to supply continuous power
- Overload, short circuit and Deep discharge protection
- Cold start function
- Support USB, RS485, CAN monitoring function
- WIFI remote monitoring (Built in wifi module and antenna)
- PV/ AC activation function
- BMS communication function (CAN Port)
- Dual output for smart load management

Back panel description



Solar system connection



MODEL	MP-MAGNUM-DUAL 3.5KW	MP-MAGNUM-DUAL 5.5KW
Nominal Battery System Voltage	24VDC	48VDC
INVERTER OUTPUT		
Rated Power (Main+Second Load)	3500VA/3500W	5500VA/5500W
Surge Power	7000W	11000W
Waveform	Pure sine wave	
AC Voltage Regulation (Batt.Mode)	230VAC±5%(Setting)	
Inverter Efficiency(Peak)	90~93%	
Transfer Time	10ms (UPS / VDE4105) / 20ms (APL)	
AC INPUT		
Voltage	230VAC±5%	
Selectable Voltage Range	170~280VAC(UPS) / 90~280VAC(APL) / 184~253VAC(VED4105)	
Frequency Range	50Hz / 60Hz(Auto sensing)	
BATTERY		
Normal voltage	24VDC	48VDC
Floating Charge Voltage	27.4VDC	54.8VDC
Overcharge Protection	30VDC	60VDC
SOLAR CHARGER &AC CHARGER		
Maximum PV Array Open Circuit Voltage	450VDC	450VDC
Maximum PV Input Current	18A	28A
Charging Algorithm	3-Step (Flooded Battery, AGM / GEL / LEAD Battery), 4-Step (Li)	
Maximum PV Array Power	4200W	6200W
PV Array MPPT Voltage Range(Typ.)	60~360VDC	
Maximum Solar Charge Current	100A	
Maximum AC Charge Current	60A	100A
Maximum Charge Current	100A	
MECHANICAL SPECIFICATIONS		
Machine Dimension (W*H*D)	367*318*122.5mm	454*318*122.5mm
Package Dimension (W*H*D)	459*410*200mm	544.5*410*200mm
N.W (kg)	7.2kg	9.0kg
G.W (kg)	8.2kg	10.5kg
OTHER		
Humidity	5% to 95% Relative humidity (Non-condensing)	
Operating Temperature	0°C~50°C	
Storage Temperature	-15°C~60°C	
CERTIFICATION & STANDARDS		

ON/OFF GRID HYBRID SOLAR INVERTER

Optimum Series

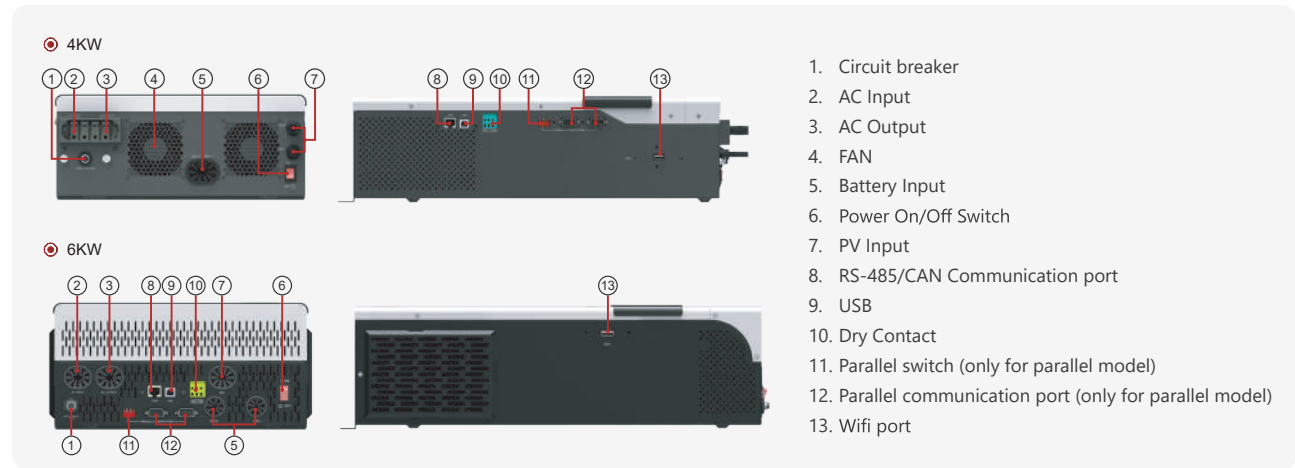
4~6KW | 500V | WiFi

Optimum Series is a multi-function inverter/charger, combining functions of inverter, MPPT solar charger and battery charger to offer uninterruptible power support in portable size. Optimum Series can run without battery. The Maximum PV array open circuit voltage can reach 500V and MPPT voltage is 90~430V, which can help customers make full use of solar energy.

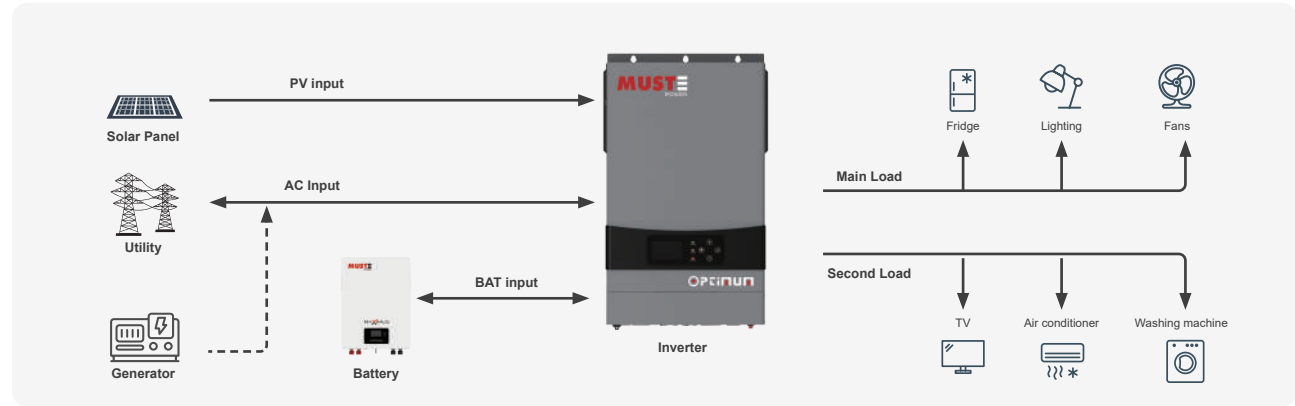


- Pure sine wave output
- Smart LCD setting (Working modes, Charge Current, Charge Voltage, etc).
- Built-in MPPT solar charge controller
- MAX PV Array Open Circuit Voltage: 500V
- Combining solar system, AC utility, and battery power source to supply continuous power
- Overload, short circuit and Deep discharge protection
- Cold start function
- Support USB, RS485 monitoring function
- Parallel operation with up to 3 units
- WIFI remote monitoring (optional)
- With BMS lithium battery communication function
- With AC/PV lithium battery activation function
- Dual outputs for smart load management

Back panel description



Solar system connection



MODEL	MP-OPTIMUM-DUAL PV 5500	MP-OPTIMUM-DUAL PV 8500
Nominal Battery System Voltage	24VDC	48VDC
INVERTER OUTPUT		
Rated Power	4000VA/4000W	6000VA/6000W
Surge Power	8000W	12000W
Waveform	Pure sine wave	
AC Voltage Regulation (Batt.Mode)	230VAC±5%(Setting)	
Inverter Efficiency(Peak)	90%	
Transfer Time	10ms (UPS / VDE4105) / 20ms (APL)	
AC INPUT		
Voltage	230VAC±5%	
Selectable Voltage Range	170~280VAC(UPS) / 90~280VAC(APL) / 184~253VAC(VED4105)	
Frequency Range	50Hz / 60Hz(Auto sensing)	
BATTERY		
Normal voltage	24VDC	48VDC
Floating Charge Voltage	27.4VDC	54.8VDC
Overcharge Protection	30VDC	60VDC
SOLAR CHARGER & AC CHARGER		
Maximum PV Array Open Circuit Voltage	500VDC	
Maximum PV input voltage	18A	27A
Charging Algorithm	3-Step (Flooded Battery, AGM / GEL / LEAD Battery), 4-Step (Li)	
Maximum PV Array Power	5500W	8500W
PV Array MPPT Voltage Range	90~430 VDC	120~430 VDC
Maximum Solar Charge Current	100A	120A
Maximum AC Charge Current	80A	100A
Maximum Charge Current	100A	120A
MECHANICAL SPECIFICATIONS		
Machine Dimension (W*H*D)(mm)	322*486*134	309*505*147
Package Dimension (W*H*D)(mm)	575*229*425	603*260*400
N.W(kg)	10.6	12.9
G.W(kg)	12	13.8
OTHER		
Humidity	5% to 95% Relative humidity (Non-condensing)	
Operating Temperature	0°C~50°C	
Storage Temperature	-15°C ~60°C	
CERTIFICATION & STANDARDS		
CE-EMC+LVD (EN6100-6-3:2007, EN6100-6-1:2017+EN IEC62109-1:2010, EN IEC62109-2:2011) EN IEC62368-1:2020+A11:2020 EN IEC62368-1:2018 Rohs-(2011/65/EUand2015/863/EU)		

ON/OFF GRID HYBRID SOLAR INVERTER

Lionex Series

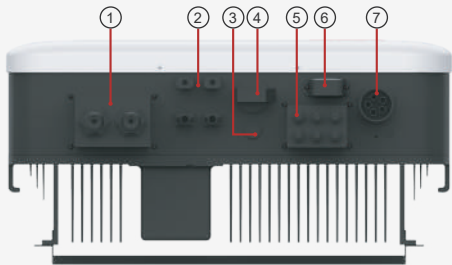
6KW | Single Phase | 230VAC

This is a flexible and intelligent energy storage solar inverter with a wide range of MPPT Voltage. Combining functions of off grid and on grid. This hybrid solar inverter can power all kinds of appliances in home or office, and can also be used in power stations.



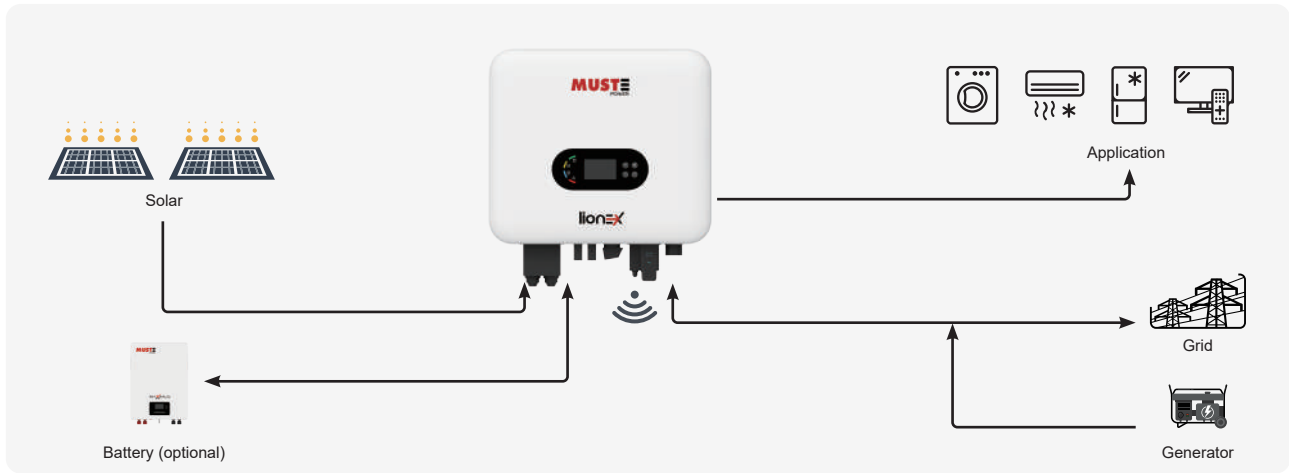
- Multiple operation modes: Grid-tie,off grid with storage backup
- IP65 water-proof and dust-proof
- MPPT voltage range 120-500V
- Support LCD display&Smart LCD setting
- Available Export control CT sensor function
- Multiple communications:USB,RS485,GPRS and wifi etc
- Full protection function:Over-voltage,over-frequency, over-current, over-temperature,and AC short-circuit automatic protection
- Intelligent BMS battery management function
- Fanless low-noise design
- Wifi monitoring

Back panel description



1. Battery input terminals and cover
2. PV input terminals
3. Breather valve
4. PV input switch
5. BTS terminals, BMS terminals, load monitor terminals, dry contact terminals, CAN communication terminals, USB terminal and cover
6. Wi-Fi com module
7. AC input & output terminals and cover

Solar system connection



MODEL	MP-LIONEX-DUAL 6KW
Rated power	6000W
Nominal Battery System Voltage	48V
PV INPUT(DC)	
Maximum recommended DC power	9000W
Nominal DC operating voltage	360V
Maximum DC voltage	500V
MPPT voltage range	120V~500V
Maximum input current	15A / 15A
No.of MPP tracker	2
Strings per MPP tracker	1
INVERTER OUTPUT(AC)	
Nominal AC output power	6000W
Nominal output voltage; range	220/230/240V;180-280V
AC grid frequency; range	50/60Hz; 45~55/55-65Hz
Nominal output current	26A
Maximum output current	27.2A
Inrush current (spike/duration)	57.5A/5.2us
Total harmonic distortion i(THDi)	<3%
Power factor at rated power	1
Displacement power factor	0.8leading~0.8lagging
Grid type	Single phase
BATTERY MODE OUTPUT(AC)	
Output Rated Power	6000W
Nominal output voltage; accuracy range	230±1%
Output ferequency; accuracy range	50/60Hz (optional)±0.2%
Output rated current	26A
Output waveform	Pure sine wave
Peak power	9000W,10s
Total harmonic distortion v (linear load)	<3%
BATTERY & CHARGER	
Battery type	Lead-acid battery / Lithium battery
Battery voltage	48V
Battery voltage range	40~60V
Charging curve	3-stage adaptive with maintenance
Protection	Over-current protection / Over-temperature protection
Maximum charging power	6000W
Maximum charging curremnt	125A
EFFICIENCY	
Maximum efficiency	97.1%
Euro-efficiency	96.5%
MPPT efficiency	99.8%
PROTECTION DEVICES	
DC switch rating for each MPPT; Grid monitoring; Output over current protection; Output overvoltage protection-varistor; Ground fault monitoring; Integrated all-pole sensitive leakage current	
GENERAL	
Machine Dimension (W*H*D)(mm)	480*420*215
Package Dimension (W*H*D)(mm)	610*327*595
N.W(kg)	30
G.W(kg)	32
DC connection	H4 / MC4
AC connection	Terminal Block
Display	LED+LCD
Communication interfaces	Wi-Fi / USB / GPRS / RS485
Ingress protection rating	IP65
Humidity	0~95% RH(No condensing)
Operating temperature range	-20°C+60°C With derating above 45°C
Cooling concept	Natural
Altitude	<3000m
CERTIFICATION & STANDARDS	
CE-EMC+LVD (EN6100-6-3: 2007, EN6100-6-1:2017+EN IEC62109-1:2010, EN IEC62109-2:2011); CE-LVD(EN62477-1:2022); IEC60529; EN50549-1:2019 Poland Type A, (NC RfG:2016, PSE:2018, PTPIREE:2021); C10/C11; UNE217001-2020; UNE217002-2020, NTS-631:2021 (Type A); G98+G99	

ON GRID SOLAR INVERTER
Export Series

10~15KW | Three-phase | 380VAC

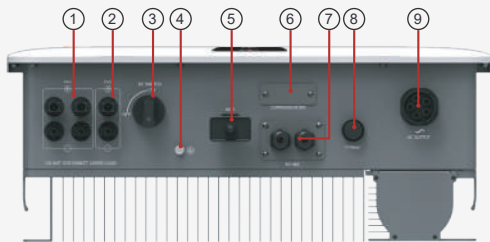
Export series PV inverters take full account of the needs of end customers, It is used to convert the DC generated by photovoltaic panels into AC and send it to the grid in a three-phase manner.with excellent performance at the same time, use LED as inverter status display, effectively improve product life. Using DSP digital control,could afford wide grid voltage range, have a full range of protection features; to maximize the benefits at the same time, greatly enhance the reliability of the product.



- Wide MPPT voltage range from 200V-1000V
- IP66 protection degree
- Integrated DC switch
- DSP controller
- The maximum efficiency is 98.4%
- Multi MPPT controller
- WIFI monitoring standard
- Easy installation



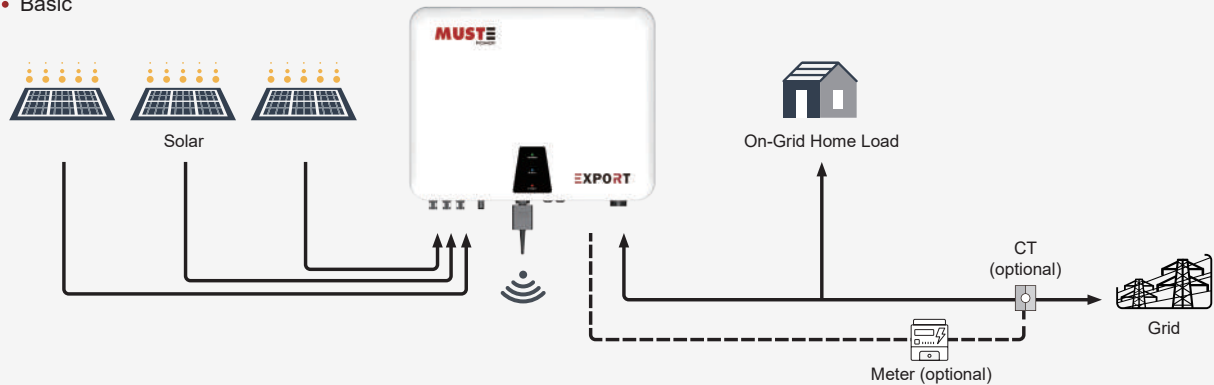
Back panel description



1. PV1 input
2. PV2 input
3. DC switch
4. Ground
5. WIFI connector
6. USB port
7. RS-485 connector
8. Meter port
9. AC output

Solar system connection

• Basic



MODEL	MP-EXPORT-10KWL3	MP-EXPORT-15KWL3
Rated AC output power	10000W	15000W
OUTPUT (AC)		
Max.AC apparent power	11000VA	16500VA
Max.output current	15.9A	23.8A
Nominal AC Voltage	230V / 400V	
AC Voltage range	320-478V	
AC grid frequency range	50/60Hz ±5Hz	
Power factor at Rated power	1	
Adjustable displacement power factor	0.8leading...0.8lagging	
Total harmonic distortion (THDi)	< 3%	
AC grid connection type	3W+N+PE	
INPUT DATA		
Max.recommended PV power	12000W	18000W
Max.DC voltage	1000V	
Start voltage	160V	
Nominal voltage	600V	
MPPT voltage range	200V-1000V	
Max.input current	12.5A/12.5A	21A/11A
Number of independent MPP trackers / strings per MPP tracker	2/1	2/2+1
DC connection	H4 / MC4	
EFFICIENCY		
Max.efficiency	98.4%	
Euro weighted efficiency	98%	98%
MPPT efficiency	99.5%	
Protection devices	Island protection, DC reverse polarity protection , Output over current protection, Output overvoltage protection-varistor, Integrated DC switch, Ground fault monitoring, Integrated all-pole sensitive leakage current monitoring unit	
GENERAL DATA FEATURES		
Machine Dimension (W*H*D)(mm)	539.7*426.2*216.9	
Package Dimension (W*H*D)(mm)	/	
N.W(kg)	23.2	24.8
G.W(kg)	/	/
Operation temperature range	-25°C- +60°C with derating above 45°C	
Noise emission(typical)	≤35dB(A)	
Altitude	3000m	
Self-consumption (night)	< 1W	
Topology	Transformerless	
Cooling concept	Natural	
Environmental protection Rating	IP66	
Relative humidity	0~100%	
FEATURES		
AC connection	Connector	
Display	LED	
Communication interfaces	USB/WIFI/RS485/GPRS(opt)	
Warranty	Standard 5 years / 10 years (opt.)	
CERTIFICATION & STANDARDS		

ON/OFF GRID HYBRID SOLAR INVERTER

Lionex Series

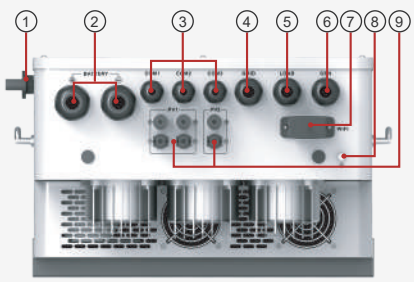
5~12KW | Three Phase | 380VAC

Lionex is brand new three phase hybrid inverter with low battery voltage 48V, ensuring system safe and reliable. With compact design and high-power density, this series supports 1.3 DC/AC ratio, saving device investment. It supports three phase unbalanced output, extending the application scenarios. Equipped with CAN port (x2) BMS and parallel, x1 RS485 port for BMS, x1 RS232 port for remotely control, x1 DRM port, which makes the system smart and flexible.



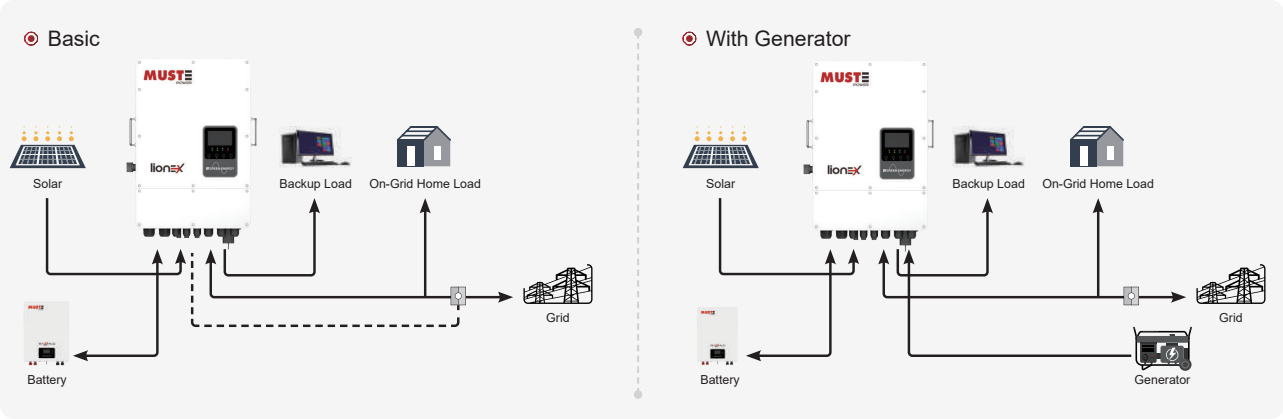
- 100% unbalanced output, each phase max. output up to 50% rated power
- Max. 6 pcs parallel for on-grid and off-grid operation
- AC couple to retrofit existing solar system
- Support multiple batteries parallel
- Max. charging/discharging current of 240A
- Support storing energy from diesel generator
- 48V low voltage battery, transformer isolation design
- IP65 water-proof and dust-proof
- "Time of use" function: a maximum of 6 time segments can be set
- Wifi monitoring

Back panel description



1. DC switch
2. Battery input connectors
3. BTS terminals, BMS terminals, load monitor terminals, dry contact terminals, CAN communication terminals, USB terminal and cover
4. Circuit breaker of Grid
5. Load
6. Generator input
7. WiFi Interface
8. Ground
9. PV input with two MPPT

Solar system connection



MODEL	MP-LIONEX-DUAL 8KWNL3	MP-LIONEX- DUAL 10KWL3	MP-LIONEX-DUAL 12KWL3
Rated power	8000W	10000W	12000W
BATTERY INPUT DATA			
Battery type	Lead-acid battery / Lithium battery		
Battery voltage	48V		
Battery voltage range	40~60V		
Charging curve	3-stage adaptive with maintenance/Equalization		
Charging Strategy for Li-Ion Battery	Self-adaption to BMS		
Over-current protection/ Over-temperature protection	Yes / Yes		
Maximum charging/discharging power	8000W	10000W	1000W
Maximum charging/discharging current	190A	210A	240A
PV STRING INPUT DATA			
Max. DC Input Power	12000W	15000W	18000W
Rated PV Input Voltage	550V		
Maximum DC voltage	800V		
Start-up Voltage	160V		
Minimum voltage for grid connection	310V		
Full Load DC Voltage Range	350-650V		
Enter high voltage error recovery point	800V		
MPPT voltage range	200~650V		
Maximum input current	15A/15A	26A/13A	
No.of MPP Trackers	2		
No.of Strings per MPP Tracker	1+1	2+1	
AC OUTPUT DATA			
Rated AC Output Power	8000W	10000W	12000W
Max AC Output Power	8800W	11000W	13200W
AC Output Rated Current	12.1/11.6A	15.2/14.5A	18.2/17.4A
Max AC Output Current	13.4/12.8A	16.7/15.9A	20/19.1A
Max. Three-phase Unbalanced Output Current	18.2/17.4A	22.7/21.7A	27.3/26.1A
Power Factor Adjustment Range	0.8 leading to 0.8 lagging		
Rated Input/Output Voltage	220/380,230/400Vac		
Rated Input/Output Grid Frequency/Range	50/60;45~55/55-65		
Grid Type	Three Phase		
Total Harmonics Current Distortion (THDi)	<3% (of nominal power)		
DC Current Injection	<0.5% In		
EFFICIENCY			
Max. Efficiency	≥97.5%		
Euro Efficiency	97.0%		
PROTECTION			
Integrated	PV Arc Fault Detection, Anti-islanding Protection, PV String Input Reverse Polarity Protection, Insulation Resistor Detection, Residual Current Monitoring Unit, Output Over Current Protection, Output Shorted Protection		
Surge Protection	DC Type III/AC Type III		
Overvoltage Category	DC Type II/AC Type III		
GENERAL DATA			
Operating Temperature Range (°C)	-20°C to +60°C, >45°C Derating		
Cooling	Smart cooling		
Noise (dB)	≤55dB		
Communication with BMS	Wi-Fi/USB/GPRS/RS485/CAN		
Machine Dimension (W*H*D)(mm)	444*654.2*259.2		
Package Dimension (W*H*D)(mm)	816*404*567		
N.W(kg)	35		
G.W(kg)	37		
Protection Degree	IP65		
Installation Style	Wall-mounted		
Warranty	5 Years the Warranty Period Depends the Final Installation Site of Inverter, More Info Please Refer to Warranty Policy		
CERTIFICATION & STANDARDS			
CE-EMC+LVD (EN6100-6-3, EN6100-6-1+EN IEC 62109-1, EN IEC 62109-2); CE-LVD(EN 62477-1) ; IEC 60529; EN50549-1; Poland Type A, (NC RfG:2016, PSE:2018, PTPIREE:2021)C10/C11; UNE217001-2020; UNE217002-2020, NTS-631 (Type A); G98+G99			

LITHIUM IRON PHOSPHATE (LIFEPO4) BATTERY
Maximus Series

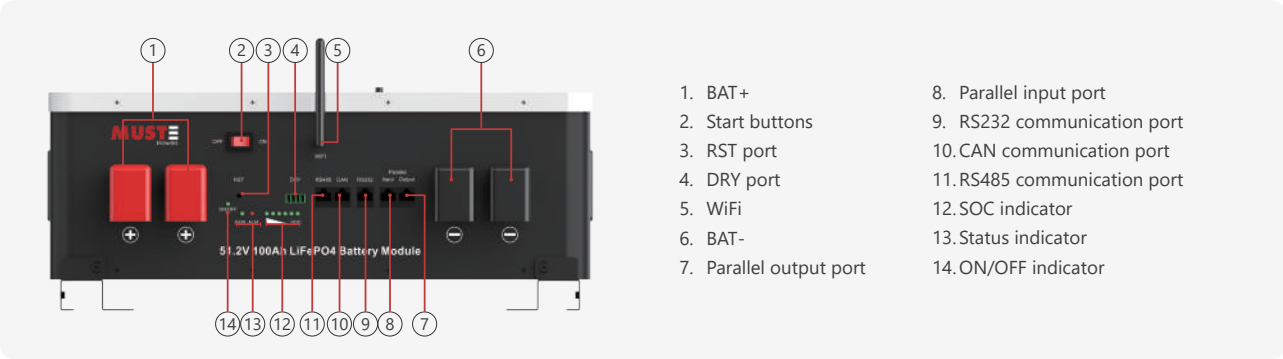
10.24KWH | WIFI

Maximus Series offers a versatile and reliable power solution. Combine up to 15 units for energy capacities ranging from 2560Wh to 10240Wh. With WiFi Remote Monitoring, stay connected and in control. Whether it's wall-mounted convenience, stacked-mounting (up to 5 units) for space efficiency, or rack-mounted for industrial power management, this series offers seamless adaptability.



- 3-in-1: Wall-mounted, Stacked-mounted, Rack-mounted(optional)
- Large capacity, high power output
- Safest lithium iron phosphate battery cell with high energy density
- Modular design: supports up to 15 units in parallel
- IP21 protection for both indoor use
- Support CAN & RS485 communication with mainstream inverters
- Local monitoring via LCD monitor
- Built-in WiFi Smart BMS Module

Back panel description



Installation method



TECHNICAL DATA		MP-MAXIMUS-48100
Nominal Voltage		51.2V
Nominal Capacity		100Ah
Nominal energy		5120Wh
Life Cycles		6000 cycles @ 80% DOD, 25°C
Recommended Charge Voltage		58.4V
Recommended Charge Current		20A
End Of Discharge Voltage		44V
Standard Method	Charge	20A
	Discharge	50A
Maximum Continuous Current	Charge	100A
	Discharge	100A
BMS Cut-Off Voltage	Charge	58.4 V (3.65V/Cell)
	Discharge	44.0V (2.75V/Cell)
Temperature	Charge	0 ~ 45°C
	Discharge	-10 ~ 55°C
Storage Temperature		-5~35°C
Shipment voltage		≥51.2V
Module Parallel		Up to 15 units
Communication		CAN2.0/RS232/RS485
Case Material		SPPC
Machine Dimension (H*W*D) (mm)		625.5*442*177
Package Dimension (W*H*D) (mm)	carton box	688*557*227
	wooden box	696*565*335
N.W (kg)		45
G.W (kg)	carton box	48
	wooden box	58
* Variations in dimensions and weights may occur due to production batches.		
Charge Retention And Capacity Recovery Capability	Standard charge the battery, and then put aside at room temperature for 28d or 55°C for 7d, Charge retention rate≥90%, Recovery rate of charge≥90	
Certification & Standards	CE-EMC (EN 61000-6-3: 2007+A1: 2011+AC: 2012 EN IEC 61000-6-1: 2019) IEC62619-1:2018; IEC62619:2022; IEC62619:2017; UN38.3/ MSDS	