



LiFePO4 Battery



Marsriva Technology Co., Ltd.

www.marsriva.com



CONTENTS

Low Voltage (12.8V)

MR-LFP12-100-WMD	01
MR-LFP12-200-WMD	02
MR-LFP12-300-WMD	03

Low Voltage (25.6V)

MR-LFP24-100-WMD	04
MR-LFP24-200-WMD	05
MR-LBP24-314-WMT	06
MR-LBP24-560-FSD	07

Low Voltage (51.2V)

MR-LFP48-100-WMD	08
MR-LFP48-200-WMD	09
MR-LFP48-280-WMD	10
MR-LBP48-280-FSD	11
MR-LBP48-314-WMT	12
MR-LBP48-314-FSD	13
MR-LFP48-350-WMD	14
MR-LFP48-350-FSD	15
MR-LFP48-560-FSD	16

Rack Mounted Battery

Low Voltage (51.2V)	17
High Voltage (204.8V - 614.4V)	18

1.30kWh LiFePO4 Battery

12.8V / 102Ah



SPECIFICATIONS

Model	MR-LFP12-100-WMD
Battery Type	LiFePO4 Battery (Grade A)
Nominal Voltage	12.8V
Nominal Capacity	102Ah
Storage Energy	1.30kWh
Charging Voltage	14.4V DC
Discharging Cut-off Voltage	10.8V DC
Max. Charging Current	100A
Max. Discharging Current	100A
Battery Internal Resistance	≤13.9mΩ
Cycle Life	≥6000 @25°C, to 70% EOL
Design Life	≥10 years
Communication	Bluetooth, RS485
Number of Parallel Connections	Up to 15 units
Terminal Size	M6
Charging Temperature	0°C to 55°C
Discharge Temperature	-20°C to 55°C
Storage Temperature	-30°C to 35°C
Humidity	5% – 95%
Dimension (L*W*H)	347.5 × 170.5 × 190mm
Weight	11.3kg

All above information shall be changed without prior notice, MARSRIVA reserves the right to explain and update the latest information.

2.61kWh LiFePO4 Battery

12.8V / 204Ah



SPECIFICATIONS

Model	MR-LFP12-200-WMD
Battery Type	LiFePO4 Battery (Grade A)
Nominal Voltage	12.8V
Nominal Capacity	204Ah
Storage Energy	2.61kWh
Charging Voltage	14.4V DC
Discharging Cut-off Voltage	10.8V DC
Max. Charging Current	105A
Max. Discharging Current	105A
Battery Internal Resistance	$\leq 13.9\text{m}\Omega$
Cycle Life	≥ 6000 @25°C, to 70% EOL
Design Life	≥ 10 years
Communication	Bluetooth, RS485
Number of Parallel Connections	Up to 15 units
Terminal Size	M6
Charging Temperature	0°C to 55°C
Discharge Temperature	-20°C to 55°C
Storage Temperature	-30°C to 35°C
Humidity	5% – 95%
Dimension (L*W*H)	348 × 170.5 × 350mm
Weight	21.65kg

All above information shall be changed without prior notice, MARSRIVA reserves the right to explain and update the latest information.

3.91kWh LiFePO4 Battery

12.8V / 306Ah



SPECIFICATIONS

Model	MR-LFP12-300-WMD
Battery Type	LiFePO4 Battery (Grade A)
Nominal Voltage	12.8V
Nominal Capacity	306Ah
Storage Energy	3.91kWh
Charging Voltage	14.4V DC
Discharging Cut-off Voltage	10.8V DC
Max. Charging Current	105A
Max. Discharging Current	105A
Battery Internal Resistance	$\leq 13.9\text{m}\Omega$
Cycle Life	≥ 6000 @25°C, to 70% EOL
Design Life	≥ 10 years
Communication	Bluetooth, RS485
Number of Parallel Connections	Up to 15 units
Terminal Size	M6
Charging Temperature	0°C to 55°C
Discharge Temperature	-20°C to 55°C
Storage Temperature	-30°C to 35°C
Humidity	5% – 95%
Dimension (L*W*H)	452.5 × 175 × 350mm
Weight	31.25kg

All above information shall be changed without prior notice, MARSRIVA reserves the right to explain and update the latest information.

2.61kWh LiFePO4 Battery

25.6V / 102Ah



SPECIFICATIONS

Model	MR-LFP24-100-WMD
Battery Type	LiFePO4 Battery (Grade A)
Nominal Voltage	25.6V
Nominal Capacity	102Ah
Storage Energy	2.61kWh
Battery Internal Resistance	$\leq 13.9\text{m}\Omega$
Cycle Life	≥ 6000 @25°C, to 70% EOL
Design Life	≥ 10 years
Max. Charging Current	105A
Max. Discharging Current	120A
Peak Charging Current	110A / 2s
Peak Discharging Current	125A / 2s
Communication	RS485, CAN
Number of Parallel Connections	Up to 15 units
Charging Temperature	0°C to 55°C
Discharge Temperature	-20°C to 55°C
Storage Temperature	-30°C to 35°C
Humidity	5% – 95%
LCD	4.3-inch touch screen
Dimension (L*W*H)	368 × 198 × 530mm
Weight	26.4kg

All above information shall be changed without prior notice, MARSRIVA reserves the right to explain and update the latest information.

5.22kWh LiFePO4 Battery

25.6V / 204Ah



SPECIFICATIONS

Model	MR-LFP24-200-WMD
Battery Type	LiFePO4 Battery (Grade A)
Nominal Voltage	25.6V
Nominal Capacity	204Ah
Storage Energy	5.22kWh
Battery Internal Resistance	≤13.9mΩ
Cycle Life	≥6000 @25°C, to 70% EOL
Design Life	≥10 years
Max. Charging Current	120A
Max. Discharging Current	120A
Peak Charging Current	125A / 2s
Peak Discharging Current	125A / 2s
Communication	RS485, CAN
Number of Parallel Connections	Up to 15 units
Charging Temperature	0°C to 55°C
Discharge Temperature	-20°C to 55°C
Storage Temperature	-30°C to 35°C
Humidity	5% – 95%
LCD	4.3-inch touch screen
Dimension (L*W*H)	398× 198.5 × 600mm
Weight	44.5kg

All above information shall be changed without prior notice, MARSRIVA reserves the right to explain and update the latest information.

8.03kWh LiFePO4 Battery

25.6V / 314Ah



SPECIFICATIONS

Model	MR-LBP24-314-WMT
Battery Type	LiFePO4 Battery (Grade A)
Nominal Voltage	25.6V
Nominal Capacity	314Ah
Storage Energy	8.03kWh
Battery Internal Resistance	$\leq 13.9\text{m}\Omega$
Cycle Life	≥ 8000 @25°C, to 70% EOL
Design Life	≥ 10 years
Max. Charging Current	155A
Max. Discharging Current	210A
Peak Charging Current	160A / 2s
Peak Discharging Current	215A / 2s
Communication	RS485, CAN
Number of Parallel Connections	Up to 15 units
Charging Temperature	0°C to 55°C
Discharge Temperature	-20°C to 55°C
Storage Temperature	-30°C to 35°C
Humidity	5% – 95%
LCD	4.3-inch touch screen
Dimension (L*W*H)	398 × 238 × 599.1mm
Weight	65kg

All above information shall be changed without prior notice, MARSRIVA reserves the right to explain and update the latest information.

14.33kWh LiFePO4 Battery

25.6V / 560Ah



SPECIFICATIONS

Model	MR-LBP24-560-FSD
Battery Type	LiFePO4 Battery (Grade A)
Nominal Voltage	25.6V
Nominal Capacity	560Ah
Storage Energy	14.33kWh
Battery Internal Resistance	$\leq 10\text{m}\Omega$
Cycle Life	≥ 8000 @25°C, to 70% EOL
Design Life	≥ 10 years
Max. Charging Current	200A
Max. Discharging Current	200A
Peak Charging Current	210A / 2s
Peak Discharging Current	210A / 2s
Communication	RS485, RS232, CAN, Dryport
Number of Parallel Connections	Up to 16 units
Charging Temperature	-5°C to 55°C
Discharge Temperature	-20°C to 60°C
Storage Temperature	-5°C to 30°C
Humidity	5% – 95%
LCD	3.5-inch touch screen
Dimension (L*W*H)	428 × 238 × 825mm
Weight	≈120kg

All above information shall be changed without prior notice, MARSRIVA reserves the right to explain and update the latest information.

5.22kWh LiFePO4 Battery

51.2V / 102Ah



SPECIFICATIONS

Model	MR-LFP48-100-WMD
Battery Type	LiFePO4 Battery (Grade A)
Nominal Voltage	51.2V
Nominal Capacity	102Ah
Storage Energy	5.22kWh
Battery Internal Resistance	≤13.9mΩ
Cycle Life	≥6000 @25°C, to 70% EOL
Design Life	≥10 years
Max. Charging Current	105A
Max. Discharging Current	120A
Peak Charging Current	110A / 2s
Peak Discharging Current	125A / 2s
Communication	RS485, CAN
Number of Parallel Connections	Up to 15 units
Charging Temperature	0°C to 55°C
Discharge Temperature	-20°C to 55°C
Storage Temperature	-30°C to 35°C
Humidity	5% – 95%
LCD	4.3-inch touch screen
Dimension (L*W*H)	398 × 198.5 × 598.5mm
Weight	44.5kg

All above information shall be changed without prior notice, MARSRIVA reserves the right to explain and update the latest information.

10.44kWh LiFePO4 Battery

51.2V / 204Ah



SPECIFICATIONS

Model	MR-LFP48-200-WMD
Battery Type	LiFePO4 Battery (Grade A)
Nominal Voltage	51.2V
Nominal Capacity	204Ah
Storage Energy	10.44kWh
Battery Internal Resistance	$\leq 13.9\text{m}\Omega$
Cycle Life	≥ 6000 @25°C, to 70% EOL
Design Life	≥ 10 years
Max. Charging Current	210A
Max. Discharging Current	210A
Peak Charging Current	215A / 2s
Peak Discharging Current	215A / 2s
Communication	RS485, CAN
Number of Parallel Connections	Up to 15 units
Charging Temperature	0°C to 55°C
Discharge Temperature	-20°C to 55°C
Storage Temperature	-30°C to 35°C
Humidity	5% – 95%
LCD	4.3-inch touch screen
Dimension (L*W*H)	485 × 200 × 850mm
Weight	86kg

All above information shall be changed without prior notice, MARSRIVA reserves the right to explain and update the latest information.

14.33kWh LiFePO4 Battery

51.2V / 280Ah



SPECIFICATIONS

Model	MR-LFP48-280-WMD
Battery Type	LiFePO4 Battery (Grade A)
Nominal Voltage	51.2V
Nominal Capacity	280Ah
Storage Energy	14.33kWh
Battery Internal Resistance	≤13.9mΩ
Cycle Life	≥8000 @25°C, to 70% EOL
Design Life	≥10 years
Max. Charging Current	210A
Max. Discharging Current	210A
Peak Charging Current	215A / 2s
Peak Discharging Current	215A / 2s
Communication	RS485, CAN
Number of Parallel Connections	Up to 15 units
Charging Temperature	0°C to 55°C
Discharge Temperature	-20°C to 55°C
Storage Temperature	-30°C to 35°C
Humidity	5% – 95%
LCD	4.3-inch touch screen
Dimension (L*W*H)	428 × 236.5 × 825mm
Weight	110kg

All above information shall be changed without prior notice, MARSRIVA reserves the right to explain and update the latest information.

14.33kWh LiFePO4 Battery

51.2V / 280Ah



SPECIFICATIONS

Model	MR-LBP48-280-FSD
Battery Type	LiFePO4 Battery (Grade A)
Nominal Voltage	51.2V
Nominal Capacity	280Ah
Storage Energy	14.33kWh
Battery Internal Resistance	$\leq 10\text{m}\Omega$
Cycle Life	≥ 8000 @25°C, to 70% EOL
Design Life	≥ 10 years
Max. Charging Current	140A
Max. Discharging Current	200A
Peak Charging Current	150A / 2s
Peak Discharging Current	210A / 2s
Communication	RS485, RS232, CAN, Dryport
Number of Parallel Connections	Up to 16 units
Charging Temperature	-5°C to 55°C
Discharge Temperature	-20°C to 60°C
Storage Temperature	-5°C to 30°C
Humidity	5% – 95%
LCD	3.5-inch touch screen
Dimension (L*W*H)	428 × 238 × 825mm
Weight	≈120kg

All above information shall be changed without prior notice, MARSRIVA reserves the right to explain and update the latest information.

16.07kWh LiFePO4 Battery

51.2V / 314Ah



SPECIFICATIONS

Model	MR-LBP48-314-WMT
Battery Type	LiFePO4 Battery (Grade A)
Nominal Voltage	51.2V
Nominal Capacity	314Ah
Storage Energy	16.07kWh
Battery Internal Resistance	$\leq 13.9\text{m}\Omega$
Cycle Life	≥ 8000 @25°C, to 70% EOL
Design Life	≥ 10 years
Max. Charging Current	210A
Max. Discharging Current	210A
Peak Charging Current	215A / 2s
Peak Discharging Current	215A / 2s
Communication	RS485, CAN
Number of Parallel Connections	Up to 15 units
Charging Temperature	0°C to 55°C
Discharge Temperature	-20°C to 55°C
Storage Temperature	-30°C to 35°C
Humidity	5% – 95%
LCD	4.3-inch touch screen
Dimension (L*W*H)	428 × 238 × 825mm
Weight	114kg

All above information shall be changed without prior notice, MARSRIVA reserves the right to explain and update the latest information.

16.07kWh LiFePO4 Battery

51.2V / 314Ah



SPECIFICATIONS

Model	MR-LBP48-314-FSD
Battery Type	LiFePO4 Battery (Grade A)
Nominal Voltage	51.2V
Nominal Capacity	314Ah
Storage Energy	16.07kWh
Battery Internal Resistance	$\leq 10\text{m}\Omega$
Cycle Life	≥ 8000 @25°C, to 70% EOL
Design Life	≥ 10 years
Max. Charging Current	157A
Max. Discharging Current	200A
Peak Charging Current	167A / 2s
Peak Discharging Current	210A / 2s
Communication	RS485, RS232, CAN, Dryport
Number of Parallel Connections	Up to 16 units
Charging Temperature	-5°C to 55°C
Discharge Temperature	-20°C to 60°C
Storage Temperature	-5°C to 30°C
Humidity	5% – 95%
LCD	3.5-inch touch screen
Dimension (L*W*H)	428 × 238 × 825mm
Weight	≈125kg

All above information shall be changed without prior notice, MARSRIVA reserves the right to explain and update the latest information.

17.92kWh LiFePO4 Battery

51.2V / 350Ah



SPECIFICATIONS

Model	MR-LFP48-350-WMD
Battery Type	LiFePO4 Battery (Grade A)
Nominal Voltage	51.2V
Nominal Capacity	350Ah
Storage Energy	17.92kWh
Battery Internal Resistance	$\leq 13.9\text{m}\Omega$
Cycle Life	≥ 8000 @25°C, to 70% EOL
Design Life	≥ 10 years
Max. Charging Current	210A
Max. Discharging Current	210A
Peak Charging Current	215A / 2s
Peak Discharging Current	215A / 2s
Communication	RS485, CAN
Number of Parallel Connections	Up to 15 units
Charging Temperature	0°C to 55°C
Discharge Temperature	-20°C to 55°C
Storage Temperature	-30°C to 35°C
Humidity	5% – 95%
LCD	4.3-inch touch screen
Dimension (L*W*H)	1152× 198.5 × 538mm
Weight	136kg

All above information shall be changed without prior notice, MARSRIVA reserves the right to explain and update the latest information.

17.92kWh LiFePO4 Battery

51.2V / 350Ah



SPECIFICATIONS

Model	MR-LFP48-350-FSD
Battery Type	LiFePO4 Battery (Grade A)
Nominal Voltage	51.2V
Nominal Capacity	350Ah
Storage Energy	17.92kWh
Battery Internal Resistance	$\leq 13.9\text{m}\Omega$
Cycle Life	≥ 8000 @25°C, to 70% EOL
Design Life	≥ 10 years
Max. Charging Current	210A
Max. Discharging Current	210A
Peak Charging Current	215A / 2s
Peak Discharging Current	215A / 2s
Communication	RS485, CAN
Number of Parallel Connections	Up to 15 units
Charging Temperature	0°C to 55°C
Discharge Temperature	-20°C to 55°C
Storage Temperature	-30°C to 35°C
Humidity	5% – 95%
LCD	4.3-inch touch screen
Dimension (L*W*H)	520 × 470 × 855mm
Weight	142kg

All above information shall be changed without prior notice, MARSRIVA reserves the right to explain and update the latest information.

28.67kWh LiFePO4 Battery

51.2V / 560Ah



SPECIFICATIONS

Model	MR-LFP48-560-FSD
Battery Type	LiFePO4 Battery (Grade A)
Nominal Voltage	51.2V
Nominal Capacity	560Ah
Storage Energy	28.67kWh
Battery Internal Resistance	$\leq 13.9\text{m}\Omega$
Cycle Life	≥ 8000 @25°C, to 70% EOL
Design Life	≥ 10 years
Max. Charging Current	210A
Max. Discharging Current	210A
Peak Charging Current	215A / 2s
Peak Discharging Current	215A / 2s
Communication	RS485, CAN
Number of Parallel Connections	Up to 15 units
Charging Temperature	0°C to 55°C
Discharge Temperature	-20°C to 55°C
Storage Temperature	-30°C to 35°C
Humidity	5% – 95%
LCD	4.3-inch touch screen
Dimension (L*W*H)	520 × 480 × 1004.4mm
Weight	224.5kg

All above information shall be changed without prior notice, MARSRIVA reserves the right to explain and update the latest information.

Rack Mounted LifePO4 Battery

Low Voltage (51.2V)



Battery Module
MR-LFP5.12-LRT
51.2V / 100Ah (5.12kWh)



BP20LRT
(20kWh)

SPECIFICATIONS

Model	MR-LFP5.12-LRT
Battery Type	LiFePO4 Battery (Grade A)
Nominal Voltage	51.2V
Nominal Capacity	100Ah
Nominal Storage Energy	5.12kWh
Cycle Life	≥6000 @25°C, to 70% EOL
Design Life	≥10 years
Output Voltage Range	43.2V ~ 58.4V
Charging Voltage	57.6V ~ 58.4V
Max. Charging Current	100A
Rcmd. Charging Current	50A
Max. Discharging Current	100A
Efficiency	≥98%
Communication Interface	BMS(RS485, CAN), RS232, Parallel, Dry-contact
Parallel Capacity	Up to 15 units
Charging Temperature	0°C to 55°C
Discharge Temperature	-20°C to 60°C
Storage Temperature	-10°C to 30°C
Humidity	5% – 95%
Weight	480 × 442 × 155mm
Dimension (L*W*H)	≈47kg

Rack Mounted LifePO4 Battery

High Voltage (204.8V - 614.4V)



HV Battery Control Box
MR-CB6100H5.12RT



Battery Module
MR-LFP5.12-HRT
51.2V / 100Ah (5.12kWh)



BP20HRT
204.8V / 100Ah (20kWh)



BP40HRT
409.6 / 100Ah (40kWh)



BP60HRT
614.4V / 100Ah (60kWh)

SPECIFICATIONS

Model	BP20HRT	BP40HRT	BP60HRT
Battery Type	LiFePO4 Battery (Grade A)		
Battery Module Number	4*51.2V-100Ah	8*51.2V-100Ah	12*51.2V-100Ah
Nominal Energy	20.48kWh	40.96kWh	61.44kWh
Nominal Voltage	204.8V	409.6V	614.4V
Working Voltage Range	184V-224V	368V-448V	552V-672V
Rated Working Current	Charge / Discharge: 100A		
Peak Working Current	Charge / Discharge: 125A (@25°C, 5S)		
Cycle Life	≥6000 @25°C, to 70% EOL		
Design Life	≥10 years		
Self-consumption	≤3.5% per month @25°C		
Communication Interface	CAN / TCP / IP		
Installation Method	Floor-standing		
Protection Level	IP20		
Parallel Capacity	up to 5 units		
Working Temperature Range	Charge: 0 to 55°C; Discharge: -20 to 55°C;		
Weight (kg)	201.4	392.8	582.2
Dimension (W × D × H) (mm)	553×503×1011	553×503×1620	553×503×2230