

MBS3200 Mobile Battery Solution

MBS3200 Series



- 48V rated voltage
- 102.4 Ah capacity
- High energy density and operational reliability
- >1000 cycle life
- Compatible with standard telecom equipment
- C.C/C.V. charging modes
- Standard and fast charging
- Short circuit protection
- RoHS compliance

Ascent's MBS3200 Mobile Battery Solution is a 48V Li-ion battery system. The system uses advanced Li-ion battery technology which features long cycle life, compact size, light weight, safety and environmental protections, and has a strong environmental adaptability. It is ideal for harsh outdoor environments.

The system also integrates a smart battery management and monitoring module, support for remote centralized monitoring and remote battery management and maintenance, to meet the requirements of unattended operations.

The MBS3200 system can fully meet the backup power supply requirements of access network equipment, mobile communications equipment, transmission equipment, micro base stations, and microwave communication equipment.

Key Features

- 48.1 rated voltage
- 102.4 Ah capacity
- High energy density and operational reliability
- >1000 cycle life
- Compatible with standard telecom equipment
- C.C/C.V. charging modes
- Charges in 12 hours (fast charging) or 24 hours (standard charging)
- Short circuit protection
- RoHS compliance

Product Dimensions



Specifications

Item	Parameter	Remarks
Rated Voltage	48.1 V	3.7 V × 13
Capacity	102.4 Ah	0.2 C discharge after full charge
Minimum capacity	99.2 Ah	
Charge Voltage	54.6 V ± 0.05 V	
Impedance	200 mΩ (max.)	
Charging Mode	C.C/C.V.	Constant Current/ Constant Voltage
Charging Method	Standard Charging	Charging Current 5A
	Fast Charging	Charging Current 10A
Charging Time	Standard Charging	24 hours
	Fast Charging	12 hours
Overcharge Voltage	4.20 V ± 0.05 V	Single-cell monitoring
Over Discharge Cut Off Voltage	2.8 V ± 0.1 V	Single-cell monitoring
Over Current	60A	Instant current
Short Circuit	Short circuit protection 100 A	Short circuit protection time 500 μS

Charging Temperature Protection

	Min.	Typ.	Max.	Unit
High Temperature Protection	55	60	65	°C
High Temperature Recovery	50	55	60	°C
Low Temperature Protection	-15	-10	-5	°C
Low Temperature Recovery	-10	-5	0	°C

Discharging Temperature Protection

	Min.	Typ.	Max.	Unit
High Temperature Protection	65	70	75	°C
High Temperature Recovery	60	65	70	°C
Low Temperature Protection	-25	-20	-15	°C
Low Temperature Recovery	-20	-15	-10	°C

Operating Power Consumption	30 mA (max.)	
Hibernating Power Consumption	500 μA	
Operating Temperature	Charging	0 to +45°C
	Discharging	-10 °C to +60°C
Storage Temperature	-10 °C to +40 °C (25 °C ± 5 °C recommended)	Storage capacity should be 40%~50% full charge capacity

Cell Model	MH 3200(MH1)	
Capacity per Cell	3200 mAh	
Voltage per Cell	3.6 V	
Voltage of the Battery	46.8 V	13 in series, $3.6 \times 16=46.8$ (V)
Solution Requirement	50 Ah, 2 Hours	System needs capacity of battery ≥ 100 Ah
Capacity of Battery	102.4 Ah	32 in parallel; $32 \times 3.2 = 102.4$ (Ah)
Power of the Battery	4792.32 W·h	$46.8 \times 102.4 = 4792.32$ (W·h)
Constituting Method	13 series	
	32 parallels	
Cell Quantity	416 pcs	
Weight per Cell	49 g	
Weight of Battery	20384 g	
Supplementary Material Weight per Cell	8 g	
Supplementary Material Weight	3328 g	
Waterproof Plastic Case Weight	5700 g	Case with wheel
Total Weight	29.4 kg	
Case Dimensions (L×W×H)	546 mm × 400 mm × 200mm	
Cycle Life	> 1000	Capacity $\geq 80\%$

Ordering Information

Item	Description
MBS3200-100-48-A	ACT MBS3200 Mobile Battery Solution Pack

Contact Information

Ascent Communication Technology Ltd

AUSTRALIA

140 William Street, Melbourne
Victoria 3000, AUSTRALIA
Phone: +61-3-8691 2902

CHINA

Unit 1933, 600 Luban Road
200023, Shanghai CHINA
Phone: +86-21-60232616

EUROPE

Pfarrer-Bensheimer-Strasse 7a
55129 Mainz, GERMANY
Phone: +49 (0) 6136 926 3246

HONG KONG SAR

Unit 9, 12th Floor, Wing Tuck Commercial Centre
177 Wing Lok Street, Sheung Wan, HONG KONG
Phone: +852-2851 4722

USA

2710 Thomes Ave, Cheyenne
WY 82001, USA
Phone: +1-203 816 5188

VIETNAM

15 /F TTC Building, Duy Tan Street, Cau Giay Dist.
Hanoi, VIETNAM
Phone: +84 243 795 5917

WEB: www.ascentcomtec.com **EMAIL:** sales@ascentcomtec.com

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Ver. ACT_MBS3200_Battery_Datasheet_V1b_Jul_2016