

# TOMMATECH LFP LITHIUM BATTERY



**BTR-MRN-12.8V-100AH**



**BTR-MRN-12.8V-280AH**



**BTR-MRN-12.8V-200AH**



**BTR-MRN-25.6V-100AH**



TommaTech's new generation low-voltage lithium batteries offer unique solutions in energy storage. In addition to a long lifespan of up to 8000 cycles, TommaTech Lithium Batteries stand out with their high energy density, superior quality and performance, as well as their functional and environmentally friendly design.



**High Performance**  
Superior performance with new generation  $\text{LiFePO}_4$  battery technology



**Active Smart Management System**  
Efficient usage structure with active balancing, especially through BMS technology



**Long Service Life**  
Lifespan of up to 8000 cycles



**Innovative Design and Heat-Resistant Structure**  
Aesthetic, compact, and durable plastic case design



**Communication**  
Bluetooth



**IP20-IP65 Protection Class**  
Metal case and terminal components compliant with IP20-IP65 standards



**Sustainable Energy**  
Thanks to the ability to be charged from solar panels, it is an environmentally friendly and sustainable energy source.

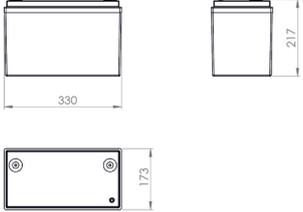
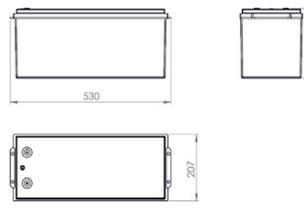
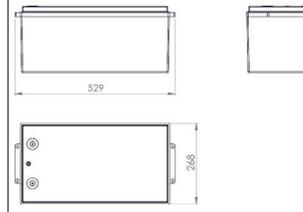
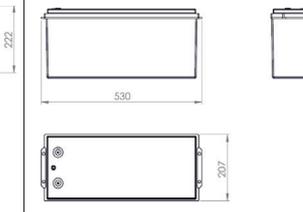
TommaTech Lithium Batteries are uniquely designed based on a heat-resistant and high-performance  $\text{LiFePO}_4$  battery architecture. At the same time, lithium batteries equipped with temperature sensors are offered to users with a durable plastic casing. Designed with a safety and quality concept, TommaTech Lithium Batteries utilize a BMS (Battery Management System) with balancing features. Batteries using Al-Cu alloy conductive bars enable parallel connections without performance loss.



## TECHNICAL SPECIFICATIONS

VOLTAGE - CAPACITY	BTR-MRN-12.8V-100Ah	BTR-MRN-12.8V-200Ah	BTR-MRN-12.8V-280Ah	BTR-MRN-25.6V-100Ah
Nominal Voltage [V]	12.8	12.8	25.6	25.6
Nominal Capacity [Ah]	102	204	102	204
Nominal Energy [Wh]	1305.6 <sup>1</sup>	2611.2 <sup>1</sup>	2611.2 <sup>1</sup>	5222.4 <sup>1</sup>
Recommended Charge Current [A]	50 <sup>2,3</sup>	80 <sup>2,3</sup>	50 <sup>2,3</sup>	100 <sup>2,3</sup>
Maximum Charge Current [A]	75 <sup>2,3</sup>	100 <sup>2,3</sup>	75 <sup>2,3</sup>	150 <sup>2,3</sup>
Recommended Charge Voltage [V]	14.2	14.2	28.4	28.4
Maximum Charge Voltage [V]	14.6	14.6	29.2	29.2
Recommended Discharge Current [A]	50 <sup>2,3</sup>	80 <sup>2,3</sup>	50 <sup>2,3</sup>	100 <sup>2,3</sup>
Maximum Discharge Current [A]	75 <sup>2,3</sup>	100 <sup>2,3</sup>	75 <sup>2,3</sup>	150 <sup>2,3</sup>
Discharge Cut-off Voltage [V]	11.1±0.2	11.1±0.2	22.4±0.2	22.4±0.2
<b>BATTERY / CELL</b>				
Cycle Life	8000 <sup>2,3,4,5,6</sup>			
Gravimetric Energy Density [Wh/kg]	165			
Volumetric Energy Density [Wh/L]	350			
Internal Resistance [mΩ]	0.27-0.40 <sup>7</sup>			
<b>STANDART</b>				
Overcharge Protection	Yes			
Overdischarge Protection	Yes			
Overcurrent Protection	Yes			
Short Circuit Protection	Yes			
Overtemperature Protection	Yes			
Temperature Sensor	Yes			
Adjustable Charge / Discharge Current	Yes			
Battery Chemistry	LFP Prismatic			
Safety	IEC 61960 / 62133-2 / RoHS			
<b>WORKING CONDITIONS</b>				
Charge Temperature [°C]	0 ~ +60			
Discharge Temperature [°C]	-20 ~ +60			
Storage Temperature [°C]	0 ~ +35			
Humidity (Non-condensing)	Maximum %85			
Protection Class	IP20-IP65			
Planned Product Life [Years]	>15			
Warranty Period [Years]	5			
<b>OTHER</b>				
Dimensions (W×D×H) [mm]	330x175x220	522x270x230	535x206x220	522x270x230
Weight (Kg)	11±0.5	20.5±0.5	28.5±0.5	20.5±0.5
Battery Connection	Positive (+) and Negative (-) Screw Terminal			
Series Connection	N/A			
Parallel Connection	Available (max. 8 pieces)			
Communication	Bluetooth			
Display	N/A			
External Cabinet	Plastic Case			

## PHYSICAL PROPERTIES

BTR-MRN-12.8V-100AH	BTR-MRN-12.8V-200Ah	BTR-MRN-12.8V-280Ah	BTR-MRN-25.6V-100Ah
			

Unit : mm

- 1) Usable Energy
- 2) 0.5C
- 3) 25°C ± 2°
- 4) 50% SOC (State Of Charge)
- 5) 75% D.O.D (Depth Of Discharge)
- 6) 80% EOL (End Of Life)
- 7) 17% ± 3% SOC (State Of Charge)

\*TommaTech GmbH reserves the right to change product specifications without prior notice.  
\*\*In modular lithium batteries, the lower base accessory is provided separately upon request.