



GERMAN-based company ●●●

## LiFePO<sub>4</sub> BATTERY Catalogue





 Production Center Munich Germany



 Production Center Antalya Turkey



## Contents

About Us	4
Vision & Mission	4
Advantages of Lithium-Ion Batteries	8
Why Choose a TommaTech LiFePO <sub>4</sub> Battery?	14
Original Chargers	16
Forklift Batteries	18
Golf Cart Batteries	19
Pallet Truck Batteries	20
Cleaning Vehicle Batteries	21
LFP Lithium Battery Modules	24



In an increasingly complex world, we continuously adapt to changes and actively encourage all our partners to embrace our long-term goals and values through goal-oriented communication and a deep mutual understanding of our mission. In this way, we aim to provide a valuable contribution for future generations.

# T

## Technology

### Vision:

Our vision is to be a leader in the development of advanced solar energy technologies that maximize energy efficiency, protect the ecological balance, restore harmony between humans and nature, and accelerate the global transition to renewable energy in order to achieve the set climate goals.

### Mission:

We focus on continuous innovation and research to develop modern solar technology and integrate it efficiently into smart home systems, enabling our customers to benefit from connected and sustainable energy use.

### Today:

Many customers are already benefiting from our modern installations, which we have seamlessly integrated into their homes. This optimizes energy consumption, allowing customers to save money immediately and reduce their carbon footprint.

# O

## Optimization

"Through intelligent optimization solutions, we achieve the most efficient use of solar energy worldwide, actively supporting the achievement of climate neutrality."

"We are committed to developing and implementing advanced automation and control technologies to optimize energy consumption in households and businesses while significantly reducing operating costs."

Our customers' current energy optimization systems have already achieved significant improvements in emissions.

# M

## Manufacturing

We aim to be a leading manufacturer of solar technologies, setting industry standards for quality and sustainability.

We are committed to producing high-quality and innovative solar products that meet the needs of the present while addressing future challenges. Through continuous improvements and investments in our production processes, we strive to maximize efficiency and minimize environmental impact.

Our customers are already benefiting from the advanced solar products manufactured in our state-of-the-art facilities. These products are not only efficient and reliable but also leading in terms of sustainability and environmental protection. The continuous optimization of our production processes guarantees products that are both economically and ecologically advantageous.

# M

## Milestones

We are pioneering solar technology that plays a crucial role in contributing to energy independence and climate resilience.

We drive transformative change in the global use of solar energy. By developing technologies that enable significant improvements in performance and ease of use, we are setting new standards.

Customers worldwide are using our technology, and together we are accelerating the transition to renewable energy while achieving both economic and ecological benefits.

# A

## Automation

To drive the integration of intelligent automation solutions that make the interaction between solar technologies and end users seamless and intuitive.

To develop automation systems that not only operate smoothly but also adapt to consumer needs. These systems aim to optimize energy consumption, enhance operational efficiency, and accelerate the adoption of renewable technologies.

Our customers are enjoying the convenience and efficiency that our intelligent automation solutions bring to their daily lives. These technologies simplify the control of their energy supply, reduce costs, and support the transition to a more environmentally friendly future.



2014



60+



2

## T r a n s p a r e n c y

### Vision:

We aim to create an atmosphere of openness where everyone from our customers to our employees feels secure and well-informed.

### Mission:

Clear information, no secrets that's our motto. Whether it's about the production of our products or how they function, we keep you constantly updated. We believe that well informed people make better decisions.

### Today:

Our customers and partners benefit from our transparent business management. We ensure complete openness at every stage of our processes, from development to product delivery. This practice of open communication allows our stakeholders to make informed decisions and strengthens trust in long-term collaboration with our company.

## E x p e r i e n c e

We want every interaction with our company to be a positive experience for customers and partners. Our products and services should not only be reliable and innovative but also inspire enthusiasm.

Our goal is to provide each customer and partner with a personalized and valuable experience. With our extensive experience in solar technology, we know what works and we use that knowledge to exceed your expectations and make the transition to sustainable energy easier for you.

Our customers benefit directly from our many years of experience in solar technology. We deliver tailored solutions that are reliable and efficient, supporting every step of the journey toward sustainable energy. Our team ensures a seamless experience through professional advice and assistance.

## C o m m i t m e n t

Our vision is to be a leader in the solar industry through our unwavering commitment to quality and sustainability. We strive to improve in every aspect every day from product development to our services.

Our primary goal is to consistently exceed our customers' expectations. We are committed to the highest quality and continuous improvement of our products and services. Our dedication to sustainability and ethical business practices is unwavering and guides all our actions.

Our customers and partners can rely on our strong commitment. We employ innovative and sustainable technologies to ensure that our solutions are not only efficient but also environmentally friendly. Every project is executed with the highest standards of quality and a focus on long-term customer satisfaction.

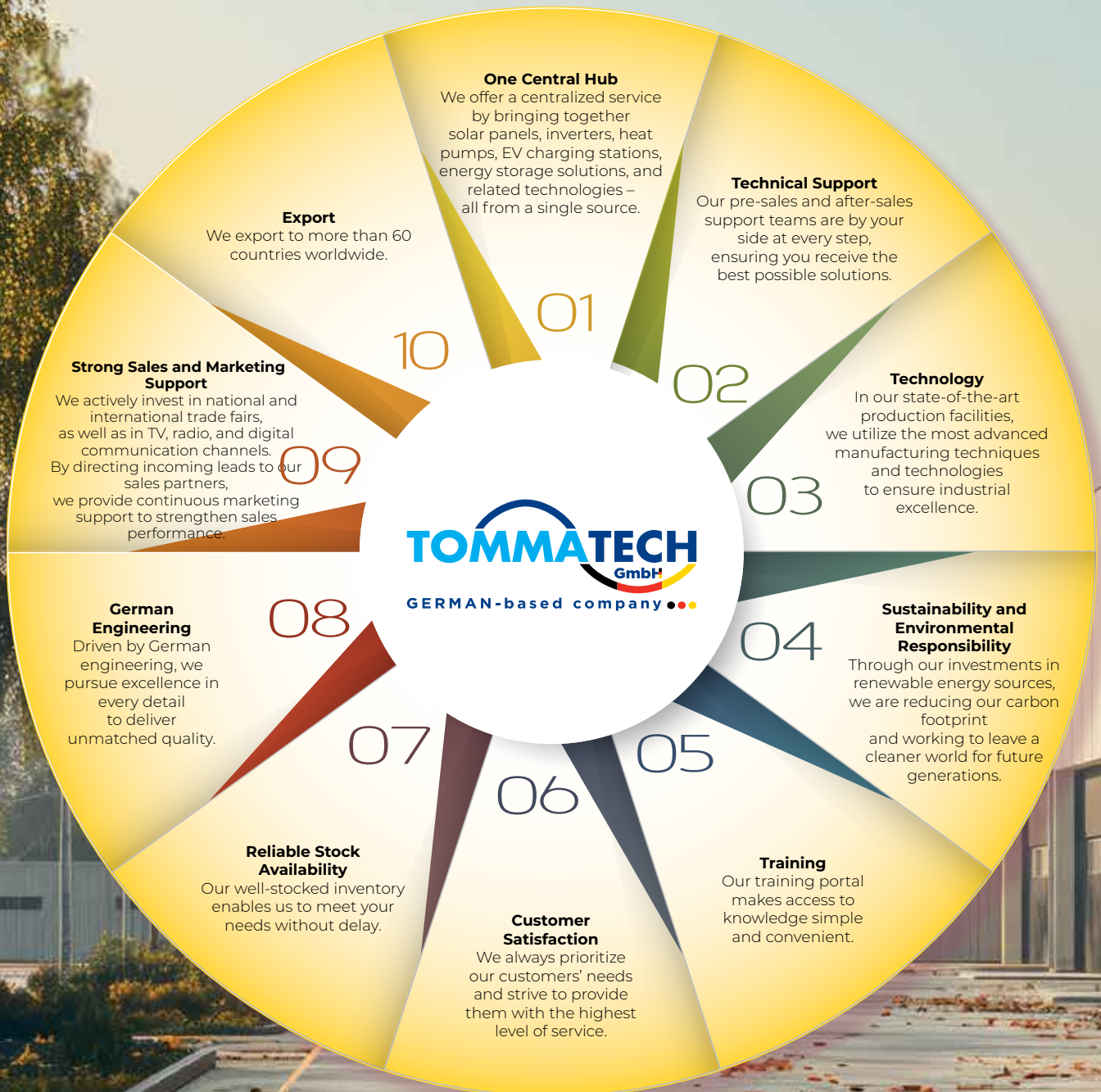
## H o m e S o l u t i o n

We aim to transform every home into an eco-friendly energy source. Our vision is to offer advanced solar solutions that are easy to integrate and optimize household energy consumption while contributing to global sustainability.

Our goal is to develop customized solar solutions tailored to the specific needs and conditions of each household. We are committed to providing our customers with the best combination of efficiency, ease of use, and economic benefit, making the transition to renewable energy simple and appealing.

Our Home Solution products enable customers to meet their energy needs sustainably while saving costs. Homes equipped with our technology benefit from intelligent energy management and a reduced carbon footprint. Our solutions are not only environmentally friendly but also user-friendly, allowing every household to fully harness the advantages of modern solar technology.





**With TommaTech**  
*you are in control*





# New Technology

## Advantages of Lithium-Ion Batteries

### Lead-Acid.

### LiFePO<sub>4</sub> Battery



**3 Year  
Battery  
Life**



**Up to  
10-Year  
Battery  
Life**

- 3 to 4 times longer lifespan
- Reduces overall capital investment
- Environmentally friendly
- Less need for spare parts



**Frequent  
Maintenance**



**Zero  
Maintenance**

- No need for regular distilled water or electrolyte refills
- No labor or maintenance costs
- No frequent battery replacements



**2 Year  
Warranty**



**5 Year  
Warranty**

- Extended warranty
- Durable and reliable





## Fast Charging

If you operate a large fleet running 24/7, fast charging will offer significant advantages.

### Outstanding Fast-Charging Efficiency

Thanks to the smart charging algorithm implemented by the Battery Management System (BMS), lithium-ion batteries experience significantly less energy loss during the charge/discharge cycle compared to other battery types.

This makes them particularly useful for applications involving large-scale energy storage.



## Continuous Power

Extremely high energy density.

Lithium-ion batteries store more energy than other battery types of the same size.

The result: High performance and maximum efficiency.



## Eliminate the Need for Dedicated Charging Areas and Frequent Battery Swaps

- Minimizes the need to purchase, store, and maintain spare batteries
  - Eliminates the cost and space requirements associated with additional lead-acid batteries
  - No gas emissions during charging—no need for ventilation systems
- No risk of hazardous acid leaks

# Small Investment, Big Return!

Switching your battery system to lithium-ion requires a higher initial investment—but in the long run, you benefit from greater energy efficiency, lower operating costs, and outstanding performance throughout the battery's entire lifespan.






































## Advantages of LiFePO<sub>4</sub> Batteries

- ✓ Longer lifespan reduces total cost over time
- ✓ Maintenance-free – saves labor and upkeep expenses
- ✓ No gas emissions › no need for ventilation systems › lower operational and installation cost
- ✓ More efficient charging cycles mean shorter charging times and increased productivity

## Maximize Your Return on Investment: Save up to **%70** 5-Year Cost Comparison within 5 years

The table below illustrates a 5-year cost comparison between TommaTech LiFePO<sub>4</sub> batteries and conventional lead-acid batteries.

Purchases Made Over 5 Years	Investment Cost	Maintenance Costs	Reduced Energy Losses	Installation	Transport
Conventional Lead-Acid Battery					
					
					
					
					
					
	5 YEARS	5 YEARS	5 YEARS	5 YEARS	5 YEARS
TommaTech LiFePO <sub>4</sub> Battery					

**Note:** Actual costs may vary depending on local conditions.



# TommaTech Batarya, Intelligent & Integrated Systems

Maximum efficiency and uninterrupted operation – for top performance, reduced downtime, and reliable energy supply.



# 1

## Robust

TommaTech batteries are protected against external factors in accordance with IP65 standards. They ensure reliable performance under heavy use – ideal for warehouses, lifting equipment, and transport vehicles.

# 2

## 4G Modules

The 4G modules enable precise remote diagnostics of the State of Charge (SOC), temperature, voltage, and fault status. Thanks to over-the-air software updates, system issues can be detected and resolved in real time.

# 3

## Integrated Protection

The intelligent BMS automatically monitors each individual cell and optimally adjusts the charge/discharge process. It provides advanced protection against overheating, short circuits, and chemical instability – making it ideal for LiFePO cells.

# 0

Maintenance

# 4000+

Life Cycle

# 10

Design Life of Up to [10] Years

## Forklifts

Specially designed for cost-efficient, intelligent, and long-lasting operation.

Perfect for demanding use in warehouse and logistics environments



## Pallet Trucks (Hand Pallet Jacks)

Reliable, stable, and safe.

Ideal for a wide range of applications, offering high efficiency and strong performance.



## Golf Vehicles

Compared to lead-acid systems,  $\text{LiFePO}_4$  batteries offer higher performance while reducing operating costs.

Ideal for golf courses and recreational vehicles.



## Floor Cleaning Machines

Safe and user-friendly. Delivers excellent performance with low maintenance and operating costs.





# 83.2 V 608 Ah

Powerful and compatible with high-load applications – delivering maximum power under heavy-duty conditions.



# 25.6 V 208 Ah

Reliable solution for pallet trucks and forklifts – consistent performance.



# 51.2 V 210 Ah

For high-power applications – stable energy flow under heavy usage.



# 25.6 V 104 Ah

Ideal for cleaning machines and scrubber-dryers in professional use.



# Why Choose TommaTech LiFePO<sub>4</sub> Batteries?

## 5 Year Warranty

Peace of mind with a comprehensive manufacturer warranty.

## 4G Module\*

Monitor battery status, charge cycles, and lifespan – anytime, anywhere

## Smart Battery Management System (BMS)

With a smart and reliable BMS system, it offers better performance and longer battery operating time and lifespan.

## Consistent Power Output

TommaTech LiFePO<sub>4</sub> batteries deliver stable output even under fluctuating loads.

## Over 4,000 Charge Cycles

Significantly longer lifespan than conventional battery technologies.

## Fire Protection

Environmentally friendly and safe: internal aerosol extinguishing systems combat fires quickly and effectively – ensuring maximum operational safety.

## SoC Display (State of Charge)

Displays precise charge status and faults – for easier diagnostics and maintenance..

## IP65 Protection Rating

Dust-tight and protected against water jets – ideal for harsh environments.

## Heating Function\*

Optional heating function for stable battery performance at low temperatures (down to -20°C).

## Anti-Slip Function

Prevents unintended rolling or slipping in operational vehicles.

\*Optional



# Tailored Solutions for All Your Needs

Empower Your Industry's Strength – Discover Solutions That Fit Your Needs!



# Original Chargers

TommaTech chargers maximize the performance of your batteries and enable seamless communication between the charger and the battery.




## Smart Charging Management

Thanks to intelligent algorithms and optimal energy efficiency, the Battery Management System (BMS) effectively transfers energy to each cell with minimal loss. Especially when handling larger amounts of energy, smart charging management ensures greater safety and efficiency in storage.

TommaTech's intelligent chargers guarantee safety and reliable charging cycles.

If the cell voltage drops too low, the system emits an audible warning.

When the cell voltage falls below 1V, a warning message will appear on the display.

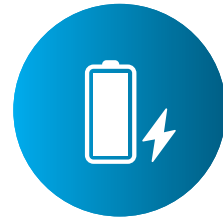
- |   |  |   |   |
|---|--|---|---|
| <br>Overtemperature Protection | <br>Short Circuit Protection  | <br>Reverse polarity protection  | <br>Overcharge Protection              |
| <br>Smart Screen               | <br>Current Limiting Function | <br>Automatic Shutdown           | <br>Overcurrent Protection             |
| <br>Overvoltage Protection     | <br>Time Delay Protection     | <br>Wide Voltage Range Operation | <br>Constant Current, Constant Voltage |





## How is it charged? **Simple & Safe**

**i** Power is cut off during charging to prevent possible accidents.



### 01 Connection to the Charging Station:

The charger is connected to the station – e.g., after parking the forklift.

### 02 Automatic Detection:

Once all conditions are met, the charging process starts automatically.

### 03 Automatic Shutdown When Fully Charged:

The charging process is automatically stopped once the battery is fully charged.

#### Intelligent Display

Displays the current charge status and system status of the battery.



## Where are TommaTech Lithium-Ion Batteries Charged? **Conveniently**

- ✓ The batteries can be charged anywhere – no special charging zone is required.
- ✓ The operator can park the vehicle flexibly without any restrictions.

#### NOTE

Unlike lead-acid batteries, no ventilation or protective devices are required.  
There are no additional investment costs for separate charging areas.

## FORKLIFT BATTERY



VOLTAGE - CAPACITY	BTR-P-51.2-304Ah	BTR-P-51.2-420Ah	BTR-P-51.2-608Ah	BTR-P-83.2-304Ah	BTR-P-83.2-420Ah	BTR-P-83.2-608Ah
Nominal Voltage [V]	51,2	51,2	51,2	83,2	83,2	83,2
Nominal Capacity [Ah]	304	420	608	304	420	608
Nominal Energy [Wh]	15564	21504	31129	25292	34944	50585
Recommended Charging Current [A]	150	150	150	150	150	150
Maximum Charge Current [A]	200	200	200	200	200	250
Recommended Charging Current [V]	56,8	56,8	56,8	92,3	92,3	92,3
Maximum Charging Voltage [V]	58,4	58,4	58,4	94,9	94,9	94,9
Recommended Discharge Current [A]	150	150	150	150	150	150
Continuous Discharge Current [A]	200	200	200	200	200	200
Maximum Discharge Current [A]	250A for 60s, 450A for 30s	250A for 60s, 450A for 30s	250A for 60s, 450A for 30s	250A for 60s, 450A for 30s	250A for 60s, 450A for 30s	250A for 60s, 450A for 30s
Discharge Cut-off Voltage [V]	44,8±0.2	44,8±0.2	44,8±0.2	72,8±0.2	72,8±0.2	44,8±0.2
CELL / BATTERY						
Number of Cells	4000					
Cell Energy Density [Wh / Kg]	165					
Energy Density Volume [Wh / L]	350					
Cell Type [m]	0.27-0.40					
STANDARDS						
Overcharge Protection	Yes					
Over Discharge Protection	Yes					
Over Current Protection	Yes					
Short Circuit Protection	Yes					
Over Temperature Protection	Yes					
Temperature Sensor	Yes					
Adjustable Charge / Discharge Current	Yes					
Battery Chemistry	LFP Prizmatik					
Security	IEC 61960 / 62133-2 / TS EN 61427-1					
WORKING CONDITIONS						
Charging Temperature [°C]	0 ~ +60					
Discharge Temperature [°C]	-20 ~ +60					
Storage Temperature [°C]	0 ~ +35					
Humidity (Non-condensing)	Maksimum %85					
Protection Class	IP65					
Planned Product Life [Yıl]	>10					
Warranty Period [Yıl]	5					

\*Note: The technical specifications may vary depending on system design and environmental conditions.



## GOLF CART BATTERY



<b>VOLTAGE - CAPACITY</b>	<b>BTR-P-51.2-105Ah</b>	<b>BTR-P-51.2-210Ah</b>
Nominal Voltage [V]	51,2	51,2
Nominal Capacity [Ah]	105	210
Nominal Energy [Wh]	5376	10752
Recommended Charging Current [A]	52	105
Maximum Charge Current [A]	105	210
Recommended Charging Current [V]	56,8	56,8
Maximum Charging Voltage [V]	58,4	58,4
Recommended Discharge Current [A]	52	105
Continuous Discharge Current [A]	105	210
Maximum Discharge Current [A]	200A for 30s	400A for 30s
Discharge Cut-off Voltage [V]	44,8±0.2	44,8±0.2
<b>CELL / BATTERY</b>		
Number of Cells	4000	
Cell Energy Density [Wh / Kg]	165	
Energy Density Volume [Wh / L]	350	
Cell Type [m]	0.27-0.40	
<b>STANDARDS</b>		
Overcharge Protection	Yes	
Over Discharge Protection	Yes	
Over Current Protection	Yes	
Short Circuit Protection	Yes	
Over Temperature Protection	Yes	
Temperature Sensor	Yes	
Adjustable Charge / Discharge Current	Yes	
Battery Chemistry	LFP Prizmatik	
Security	IEC 61960 / 62133-2 / TS EN 61427-1	
<b>WORKING CONDITIONS</b>		
Charging Temperature [°C]	0 ~ +60	
Discharge Temperature [°C]	-20 ~ +60	
Storage Temperature [°C]	0 ~ +35	
Humidity (Non-condensing)	Maksimum %85	
Protection Class	IP65	
Planned Product Life [Yıl]	>10	
Warranty Period [Yıl]	5	

\*Note: The technical specifications may vary depending on system design and environmental conditions.

## PALLET TRUCK BATTERY



VOLTAGE - CAPACITY	BTR-P-25.6-104Ah	BTR-P-25.6-208Ah
Nominal Voltage [V]	25,6	25,6
Nominal Capacity [Ah]	104	208
Nominal Energy [Wh]	2662	5324
Recommended Charging Current [A]	52	104
Maximum Charge Current [A]	104	208
Recommended Charging Current [V]	28,4	28,4
Maximum Charging Voltage [V]	29,2	29,2
Recommended Discharge Current [A]	52	104
Continuous Discharge Current [A]	104	208
Maximum Discharge Current [A]	208A for 30s	400A for 30s
Discharge Cut-off Voltage [V]	22,4±0.2	22,4±0.2
CELL / BATTERY		
Number of Cells	4000	
Cell Energy Density [Wh / Kg]	165	
Energy Density Volume [Wh / L]	350	
Cell Type [m]	0.27-0.40	
STANDARDS		
Overcharge Protection	Yes	
Over Discharge Protection	Yes	
Over Current Protection	Yes	
Short Circuit Protection	Yes	
Over Temperature Protection	Yes	
Temperature Sensor	Yes	
Adjustable Charge / Discharge Current	Yes	
Battery Chemistry	LFP Prizmatik	
Security	IEC 61960 / 62133-2 / TS EN 61427-1	
WORKING CONDITIONS		
Charging Temperature [°C]	0 ~ +60	
Discharge Temperature [°C]	-20 ~ +60	
Storage Temperature [°C]	0 ~ +35	
Humidity (Non-condensing)	Maksimum %85	
Protection Class	IP65	
Planned Product Life [Yıl]	>10	
Warranty Period [Yıl]	5	

\*Note: The technical specifications may vary depending on system design and environmental conditions.



## CLEANING VEHICLE BATTERY



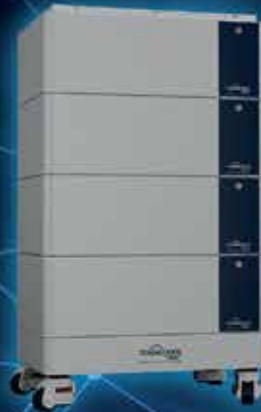
VOLTAGE - CAPACITY	BTR-P-25.6-104Ah
Nominal Voltage [V]	25,6
Nominal Capacity [Ah]	104
Nominal Energy [Wh]	2662
Recommended Charging Current [A]	52
Maximum Charge Current [A]	104
Recommended Charging Current [V]	28,4
Maximum Charging Voltage [V]	29,2
Recommended Discharge Current [A]	52
Continuous Discharge Current [A]	104
Maximum Discharge Current [A]	208A for 30s
Discharge Cut-off Voltage [V]	22,4±0.2
CELL / BATTERY	
Number of Cells	4000
Cell Energy Density [Wh / Kg]	165
Energy Density Volume [Wh / L]	350
Cell Type [m]	0.27-0.40
STANDARDS	
Overcharge Protection	Yes
Over Discharge Protection	Yes
Over Current Protection	Yes
Short Circuit Protection	Yes
Over Temperature Protection	Yes
Temperature Sensor	Yes
Adjustable Charge / Discharge Current	Yes
Battery Chemistry	LFP Prizmatik
Security	IEC 61960 / 62133-2 / TS EN 61427-1
WORKING CONDITIONS	
Charging Temperature [°C]	0 ~ +60
Discharge Temperature [°C]	-20 ~ +60
Storage Temperature [°C]	0 ~ +35
Humidity (Non-condensing)	Maksimum %85
Protection Class	IP65
Planned Product Life [Yıl]	>10
Warranty Period [Yıl]	5

\*Note: The technical specifications may vary depending on system design and environmental conditions.

# LiFePO<sub>4</sub> Products



**MODULAR SERIES - LFP  
LITHIUM BATTERY**  
12.8V-102Ah



**MODULAR SERIES - LFP  
LITHIUM BATTERY**  
12.8V-204Ah



**MODULAR SERIES - LFP  
LITHIUM BATTERY**  
25.6V-102Ah  
25.6V-204Ah  
51.2V-102Ah



**RACK SERIES - LFP  
LITHIUM BATTERY**  
51.2V-102Ah



**MODULAR SERIES - LFP  
LITHIUM BATTERY**  
51.2V-280Ah



**WITH OUR LITHIUM BATTERIES  
UNINTERRUPTED ENERGY, UNINTERRUPTED LIFE!**



# MODULAR LFP LITHIUM BATTERIES

BTR-P-12.8V-102Ah / BTR-P-12.8V-204Ah

BTR-P-25.6V-102Ah / BTR-P-25.6V-204Ah



■ Connection of up to 16 batteries in parallel possible

■ Long lifespan of up to 8,000 cycles.

■ Aesthetic, compact, and durable metal housing.

## Key Features



Outstanding  
Performance



Intelligent Battery  
Management System (BMS)



Long Lifespan



Metal Housing



Sustainable  
Energy



Shock and  
Vibration Resistant



IP20/IP65  
Protection

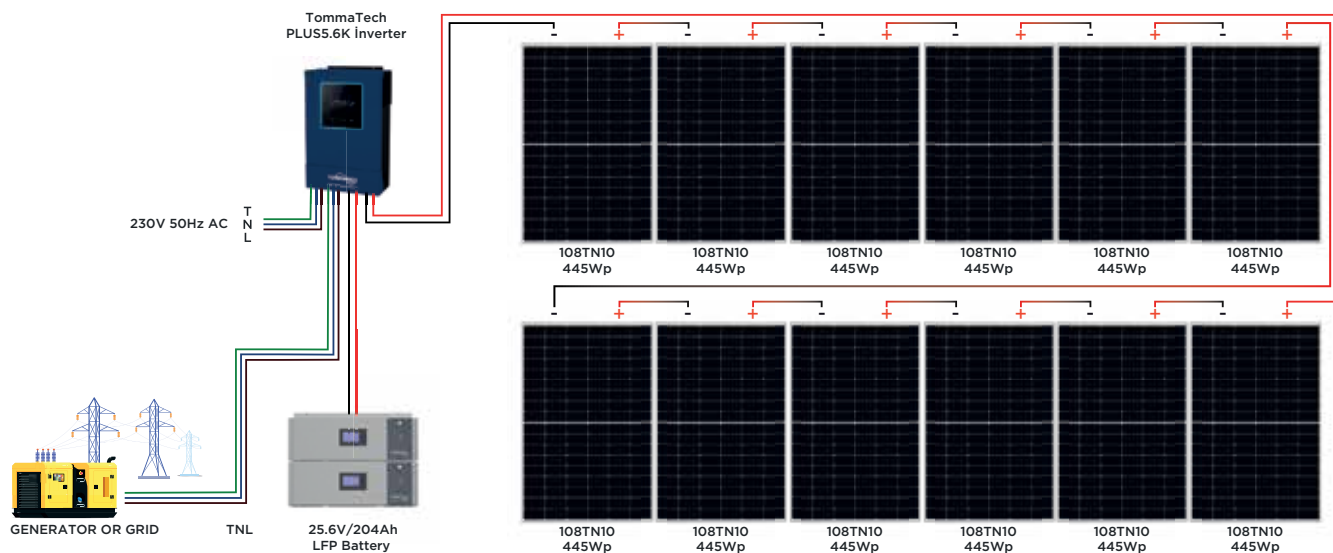


Expandable  
Capacity



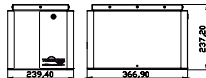
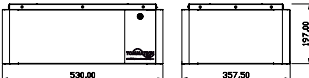
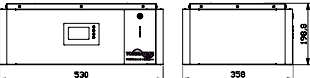
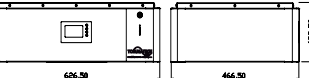
Communication  
Capability

## Connection Diagram



VOLTAGE - CAPACITY	BTR-P-12.8V-102Ah	BTR-P-12.8V-204Ah	BTR-P-25.6V-102Ah	BTR-P-25.6V-204Ah
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 Charging 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 Charging Current [V]	14.2	14.2	28.4	28.4
Maximum Charging 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
BATTERY / CELL				
Number of Cycles	8000 <sup>2,3,4,5,6</sup>			
Mass Energy Density [Wh/Kg]	165			
Mass Energy Density [Wh/Kg]	350			
Internal Resistance [mΩ]	0.27-0.40 <sup>7</sup>			
STANDARD				
Overcharge Protection	Yes			
Over Discharge Protection	Yes			
Over Current Protection	Yes			
Short Circuit Protection	Yes			
Over Temperature Protection	Yes			
Temperature Sensor	Yes			
Adjustable Charge / Discharge Current	Yes			
Battery Chemistry	LFP Prizmatik			
Security	IEC 61960 / 62133-2 / RoHS			
WORKING CONDITIONS				
Charging Temperature [°C]	0 ~ +60			
Discharge Temperature [°C]	-20 ~ +60			
Storage Temperature [°C]	0 ~ +35			
Humidity (Non-condensing)	Maksimum %85			
Protection Class	IP20-IP65			
Planned Product Life [Yıl]	>15			
Warranty Period [Yıl]	5			
OTHER				
Dimensions (WxDxH) [mm]	239.4x366.9x237.2	530x357.5x197	530x358x198.8	466.5x626.5x198.5
Weight (Kg)	16.50±0.2	27.75±0.2	27.75±0.2	47.70±0.2
Battery Connection	IP67 Protected Plus (+) and Minus (-) Connector Header			
Serial Connection	No			
Parallel Connection	Yes (Maximum 16 pieces)			
Communication	Not Available		CAN / RS485 / Bluetooth	
Screen	Not Available		LCD	
Outer Cabin	Metal Case			

### PHYSICAL PROPERTIES

BTR-P-12.8V-102Ah	BTR-P-12.8V-204Ah	BTR-P-25.6V-102Ah	BTR-P-25.6V-204Ah
			



# MODULAR LFP LITHIUM BATTERIES

BTR-P-51.2V-102AH / BTR-P-51.2V-102AH-R / BTR-P-51.2V-280AH



- Connection of up to 16 batteries in parallel possible
- Long lifespan of up to 8,000 cycles.
- Aesthetic, compact, and durable metal housing.

## Key Features



Outstanding Performance



Intelligent Battery Management System (BMS)



Long Lifespan



Metal Housing



Sustainable Energy



Shock and Vibration Resistant



IP20/IP65 Protection

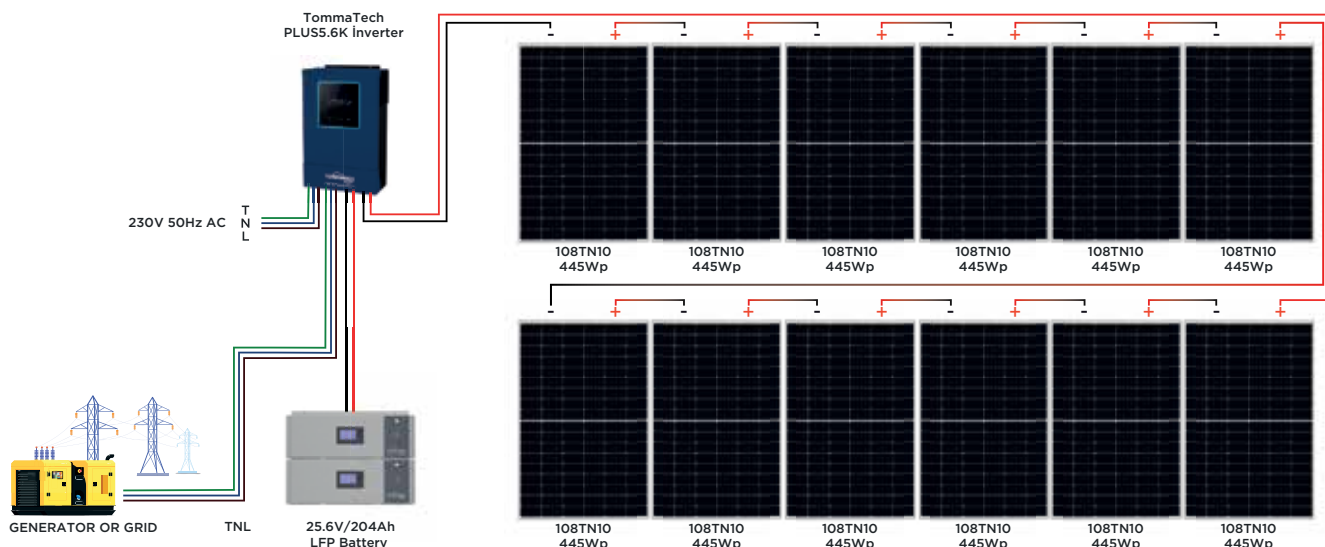


Expandable Capacity



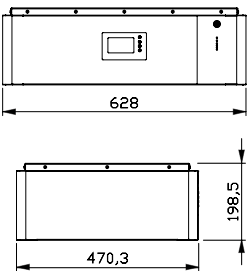
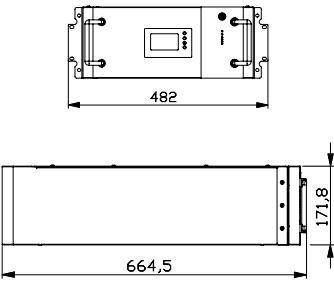
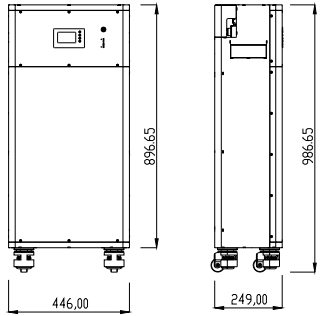
Communication Capability

## Connection Diagram



VOLTAGE - CAPACITY	BTR-P-51.2V-102Ah	BTR-P-51.2V-102Ah-R	BTR-P-51.2V-280Ah
Nominal Voltage [V]	51.2		51.2
Nominal Capacity [Ah]	102		280
Nominal Energy [Wh]	5222.4		14336
Recommended Charging Current [A]	50		100
Maximum Charge Current [A]	75		140
Recommended Charging Current [V]	56.8		56.8
Maximum Charging Voltage [V]	58.4		58.4
Recommended Discharge Current[A]	50		100
Maximum Discharge Current [A]	50		100
Maksimum Deşarj Akımı [A]	75		180A for 30s
Discharge Cutoff Voltage [V]	44.8±0.2		44,8±0.2
BATTERY / CELL			
Number of Cycles	8000		6000
Mass Energy Density [Wh/Kg]	165		165
Volumetric Energy Density [Wh/L]	350		350
Internal Resistance [mΩ]	0.27-0.40		0.1-0.15
STANDARDS			
Overcharge Protection	Yes		
Over Discharge Protection	Yes		
Over Current Protection	Yes		
Short Circuit Protection	Yes		
Over Temperature Protection	Yes		
Temperature Sensor	Yes		
Adjustable Charge / Discharge Current	Yes		
Battery Chemistry	LFP Prizmatik		
Security	IEC 61960 / 62133-2 / RoHS		
WORKING CONDITIONS			
Charging Temperature [°C]	0 ~ +60		
Discharge Temperature [°C]	-20 ~ +60		
Storage Temperature [°C]	0 ~ +35		
Humidity (Non-condensing)	Maksimum %85		
Protection Class	IP20-IP65		
Planned Product Life [Yıl]	>15		
Warranty Period [Yıl]	5		

## PHYSICAL PROPERTIES

BTR-P-51.2V-102Ah	BTR-P-51.2V-102Ah-R	BTR-P-51.2V-280Ah
		



tommatech.de



**www.tommatech.de**  
München • GERMANY