GOLF CART BATTERY











Smart Battery Management System



4G Module

BTR-MV-51.2V-105Ah/ BTR-MV-51.2V-210Ah



TommaTech LiFePO4 batteries ensure safety during charging with the Anti-Walk Function, while the optional heating feature provides optimal charging performance even at low temperatures down to -20 °C. With IP65 protection, they are durable under all weather conditions. The real-time SoC indicator allows safe usage. Offering over 4,000 cycles, constant power output, and a smart BMS system, they are long-lasting and high-performing. With the 4G module, location and battery status can be monitored remotely. All these features are backed by a 5-year warranty.

GOLF CART BATTERY



Nominal Voltage [V]	Voltage - Capacity	BTR-MV -51.2V-105Ah	BTR-MV-51.2V-210Ah
Nominal Energy Wh	Nominal Voltage [V]	51,2	51,2
Recommended Charging Current [A] 52 105 Maximum Charging Current [A] 105 210 Recommended Charging Voltage [V] 56,8 56,8 Maximum Charging Voltage [V] 58,4 58,4 Recommended Discharging Current [A] 52 105 Continuous Discharging Current [A] 105 210 Maximum Discharging Current [A] 200 A for 30s 400 A for 30s Discharge Cut-off Voltage [V] 44,8+0.2 44,8+0.2 BATTERY / CELL 4000 44,8+0.2 Cycle Count 4000 44,8+0.2 Gravimetric Energy Density [Wh / Kg] 165 Volumetric Energy Density [Wh / Kg] 350 Volumetric Energy Density [Wh / Kg] 75 Volumetric Energy Density [Wh / Lg] 350 Internal Resistance [m] 0.27-0.40 STANDARD Yes Overclarge Protection Yes	Nominal Capacity [Ah]	105	210
Maximum Charging Current [A] 105 210 Recommended Charging Voltage [V] 56.8 56.8 Maximum Charging Voltage [V] 58.4 58.4 Recommended Discharging Current [A] 52 105 Continuous Discharging Current [A] 105 210 Maximum Discharging Current [A] 200 for 30s 400 for 30s Discharge Cut-off Voltage [V] 44.8+0.2 44.8+0.2 BATTERY / CELL Cycle Count 4000 Gravimetric Energy Density [Wh / Kg] 165 Volumetric Energy Density [Wh / Kg] 350 Internal Resistance [m] Ozer.0.40 STANDARD Overclarge Protection Yes Overclarge Protection Yes Overcurrent Protection Yes Overcurrent Protection Yes Short Circuit Protection Yes Short Circuit Protection Yes Safety [EC 61960 / 62133-2 /	Nominal Energy [Wh]	5376	10752
Recommended Charging Voltage [V] 56,8 56,8	Recommended Charging Current [A]	52	105
Maximum Charging Voltage IVI 58.4 58.4 Recommended Discharging Current [A] 52 105 Continuous Discharging Current IAI 105 210 Maximum Discharging Current IAI 200A for 30s 400A for 30s Discharge Cut-off Voltage [V] 44.8+0.2 44.8+0.2 BATTERY/CELL Cycle Count 4000 Gravimetric Energy Density [Wh / Kg] 165 Volumetric Energy Density [Wh / Kg] 350 Internal Resistance [m] 0.27-0.40 STANDARD Overcharge Protection Yes Overdaischarge Protection Yes Overdaischarge Protection Yes Overcurrent Protection Yes Overcurrent Protection Yes Overtemperature Protection Yes Overtemperature Protection Yes Adjustable Charge / Discharge Current Yes Battery Chemistry IFP Prismatic Battery Chemistry IFC 61960 / 62133-2 / TS EN 61427-1 Operating Conditions O ~ +60 Charging Temperature [°C]	Maximum Charging Current [A]	105	210
Recommended Discharging Current [A] 52 105 Continuous Discharging Current [A] 105 210 Maximum Discharging Current [A] 200A for 30s 400A for 30s Discharge Cut-off Voltage [V] 44,8+0.2 44,8+0.2 BATTERY / CELL Cycle Count 4000 4000 Gravimetric Energy Density [Wh / Kg] 165 Volumetric Energy Density [Wh / L] 350 Internal Resistance [m] 0.27-0.40 STANDARD Overcharge Protection Yes Overclarge Protection Yes Short Circuit Protection Yes Battery Charles	Recommended Charging Voltage [V]	56,8	56,8
Recommended Discharging Current [A] 52 105 Continuous Discharging Current [A] 105 210 Maximum Discharging Current [A] 200A for 30s 400A for 30s Discharge Cut-off Voltage [V] 44,8+0.2 4400 BATTERY / CELL Cycle Count 4000 4000 Gravinetric Energy Density [Wh / Kg] 165 4000 Volumetric Energy Density [Wh / L] 350 4000 Internal Resistance [m] 0.27-0.40 4000 STANDARD Overclarge Protection Yes 4000 Stanciage Protection Yes 4000 Battery Chemistry IEC 61960 / 62133-2 / TS EN 61427-1 4000 Operating Conditions <th< td=""><td>Maximum Charging Voltage [V]</td><td>58,4</td><td>58,4</td></th<>	Maximum Charging Voltage [V]	58,4	58,4
Maximum Discharging Current [A] 200A for 30s 400A for 30s Discharge Cut-off Voltage [V] 44,8+0.2 44,8+0.2 BATTERY / CELL Cycle Count 4000 Gravimetric Energy Density [Wh / Kg] 165 Volumetric Energy Density [Wh / L] 350 Internal Resistance [m] 0,27-0.40 STANDARD Overcharge Protection Yes Overcharge Protection Yes Overcharge Protection Yes Overcurrent Protection Yes Overtige Protection Yes Short Circuit Protection Yes Overtige Protection Yes Adjustable Charge / Discharge Current Yes Battery Chemistry LFP Prismatic Safety IEC 61960 / 62133-2 / TS EN 61427-1 Operating Conditions Charging Temperature [°C] 0 ~ +60 Discharging Temperatu	Recommended Discharging Current [A]	52	
Discharge Cut-off Voltage [V] 44,8+0.2 44,8+0.2	Continuous Discharging Current [A]	105	210
BATTERY / CELL Cycle Count 4000 Gravimetric Energy Density [Wh / Kg] 165 Volumetric Energy Density [Wh / L] 350 Internal Resistance [m] 0.27-0.40 STANDARD Overcharge Protection Yes Overdischarge Protection Yes Overcurrent Protection Yes Overcurrent Protection Yes Short Circuit Protection Yes Overtemperature Protection Yes Adjustable Charge / Discharge Current Yes Battery Chemistry LFP Prismatic Safety IEC 61960 / 62133-2 / TS EN 61427-1 Operating Conditions Charging Temperature [°C] 0 ~ +60 Discharging Temperature [°C] 0 ~ +35 Humidity (Non-condensing) Protection Class Planned Product Lifetime [Year]	Maximum Discharging Current [A]	200A for 30s	400A for 30s
BATTERY / CELL Cycle Count 4000 Gravimetric Energy Density [Wh / Kg] 165 Volumetric Energy Density [Wh / Lg] 350 Internal Resistance [m] 0.27-0.40 STANDARD Overcharge Protection Yes Overclasty Protection Yes Overcurrent Protection Yes Overtemperature Protection Yes Overtemperature Protection Yes Temperature Sensor Yes Adjustable Charge / Discharge Current Yes Battery Chemistry LFP Prismatic Safety IEC 61960 / 62133-2 / TS EN 61427-1 Operating Conditions Charging Temperature [°C] 0 ~ +60 Discharging Temperature [°C] -20 ~ +60 Storage Temperature [°C] 0 ~ +35 Humidity (Non-condensing) Maximum 85% Protection Class IP65 Planned Product Lifetime [Year] >10	Discharge Cut-off Voltage [V]		
Gravimetric Energy Density [Wh / Kg] 165 Volumetric Energy Density [Wh / L] 350 Internal Resistance [m] 0.27-0.40 STANDARD Overcharge Protection Yes Overdischarge Protection Yes Overcurrent Protection Yes Short Circuit Protection Yes Overtemperature Protection Yes Overtemperature Sensor Yes Adjustable Charge / Discharge Current Yes Battery Chemistry LFP Prismatic Safety IEC 61960 / 62133-2 / TS EN 61427-1 Operating Conditions IEC 61960 / 62133-2 / TS EN 61427-1 Charging Temperature [°C] 0 ~ +60 Discharging Temperature [°C] 0 ~ +60 Discharging Temperature [°C] 0 ~ +35 Humidity (Non-condensing) Maximum 85% Protection Class IP65 Planned Product Lifetime [Year] >10	BATTERY / CELL	· -	· -
Volumetric Energy Density [Wh / L] 350 Internal Resistance [m] 0.27-0.40 STANDARD 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 / TS EN 61427-1 Operating Conditions Charging Temperature [°C] 0 ~ +60 Discharging Temperature [°C] 0 ~ +60 Storage Temperature [°C] 0 ~ +35 Humidity (Non-condensing) Maximum 85% Protection Class IP65 Planned Product Lifetime [Year] >10	Cycle Count	4000	
Internal Resistance [m] 0.27-0.40 STANDARD Overcharge Protection Yes Overdischarge Protection Yes Overcurrent Protection Yes Short Circuit Protection Yes Overtemperature Protection Yes Overtemperature Protection Yes Overtemperature Protection Yes Overtemperature Protection Yes Adjustable Charge / Discharge Current Yes Adjustable Charge / Discharge Current Yes Safety IEC 61960 / 62133-2 / TS EN 61427-1 Operating Conditions Charging Temperature [°C] 0 ~ +60 Discharging Temperature [°C] 0 ~ +60 Storage Temperature [°C] 0 ~ +35 Humidity (Non-condensing) Maximum 85% Protection Class Planned Product Lifetime [Year] >10	Gravimetric Energy Density [Wh / Kg]	165	
STANDARD 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 / TS EN 61427-1 Operating Conditions Charging Temperature [°C] 0 ~ +60 Discharging Temperature [°C] 0 ~ +60 Storage Temperature [°C] 0 ~ +35 Humidity (Non-condensing) Maximum 85% Protection Class IP65 Planned Product Lifetime [Year] >10	Volumetric Energy Density [Wh / L]	350	
Overcharge ProtectionYesOverdischarge ProtectionYesOvercurrent ProtectionYesShort Circuit ProtectionYesOvertemperature ProtectionYesTemperature SensorYesAdjustable Charge / Discharge CurrentYesBattery ChemistryLFP PrismaticSafetyIEC 61960 / 62133-2 / TS EN 61427-1Operating ConditionsCharging Temperature [°C]0 ~ +60Discharging Temperature [°C]-20 ~ +60Storage Temperature [°C]0 ~ +35Humidity (Non-condensing)Maximum 85%Protection ClassIP65Planned Product Lifetime [Year]>10	Internal Resistance [m]	0.27-0.40	
Overdischarge ProtectionYesOvercurrent ProtectionYesShort Circuit ProtectionYesOvertemperature ProtectionYesTemperature SensorYesAdjustable Charge / Discharge CurrentYesBattery ChemistryLFP PrismaticSafetyIEC 61960 / 62133-2 / TS EN 61427-1Operating ConditionsCharging Temperature [°C]0 ~ +60Discharging Temperature [°C]0 ~ +35Storage Temperature [°C]0 ~ +35Humidity (Non-condensing)Maximum 85%Protection ClassIP65Planned Product Lifetime [Year]>10	STANDARD		
Overcurrent ProtectionYesShort Circuit ProtectionYesOvertemperature ProtectionYesTemperature SensorYesAdjustable Charge / Discharge CurrentYesBattery ChemistryLFP PrismaticSafetyIEC 61960 / 62133-2 / TS EN 61427-1Operating ConditionsCharging Temperature [°C]0 ~ +60Discharging Temperature [°C]-20 ~ +60Storage Temperature [°C]0 ~ +35Humidity (Non-condensing)Maximum 85%Protection ClassIP65Planned Product Lifetime [Year]>10	Overcharge Protection	Yes	
Short Circuit Protection Overtemperature Protection Yes Temperature Sensor Adjustable Charge / Discharge Current Battery Chemistry EFP Prismatic Safety IEC 61960 / 62133-2 / TS EN 61427-1 Operating Conditions Charging Temperature [°C] Discharging Temperature [°C] Storage Temperature [°C] Storage Temperature [°C] Humidity (Non-condensing) Protection Class Planned Product Lifetime [Year]	Overdischarge Protection	Yes	
Overtemperature Protection Temperature Sensor Adjustable Charge / Discharge Current Battery Chemistry EFP Prismatic Safety IEC 61960 / 62133-2 / TS EN 61427-1 Operating Conditions Charging Temperature [°C] Discharging Temperature [°C] Storage Temperature [°C] Tumidity (Non-condensing) Awaimum 85% Protection Class Planned Product Lifetime [Year]	Overcurrent Protection	Yes	
Temperature Sensor Adjustable Charge / Discharge Current Pes Battery Chemistry LFP Prismatic Safety IEC 61960 / 62133-2 / TS EN 61427-1 Operating Conditions Charging Temperature [°C] Discharging Temperature [°C] Storage Temperature [°C] Tumidity (Non-condensing) Protection Class Planned Product Lifetime [Year]	Short Circuit Protection	Yes	
Adjustable Charge / Discharge Current Battery Chemistry Safety IEC 61960 / 62133-2 / TS EN 61427-1 Operating Conditions Charging Temperature [°C] Discharging Temperature [°C] Storage Temperature [°C] Humidity (Non-condensing) Protection Class Planned Product Lifetime [Year] Pyes IEC 61960 / 62133-2 / TS EN 61427-1 O ~ +60 O ~ +60 O ~ +60 O ~ +35 Maximum 85% IP65 Planned Product Lifetime [Year]	Overtemperature Protection	Yes	
Battery Chemistry Safety LEP Prismatic IEC 61960 / 62133-2 / TS EN 61427-1 Operating Conditions Charging Temperature [°C] Discharging Temperature [°C] Storage Temperature [°C] Humidity (Non-condensing) Protection Class Planned Product Lifetime [Year]	Temperature Sensor	Yes	
Safety IEC 61960 / 62133-2 / TS EN 61427-1 Operating Conditions Charging Temperature [°C] 0 ~ +60 Discharging Temperature [°C] -20 ~ +60 Storage Temperature [°C] 0 ~ +35 Humidity (Non-condensing) Maximum 85% Protection Class IP65 Planned Product Lifetime [Year] >10		Yes	
Operating Conditions Charging Temperature [°C] 0 ~ +60 Discharging Temperature [°C] -20 ~ +60 Storage Temperature [°C] 0 ~ +35 Humidity (Non-condensing) Maximum 85% Protection Class IP65 Planned Product Lifetime [Year] >10	Battery Chemistry	LFP Prismatic	
Charging Temperature [°C]0 ~ +60Discharging Temperature [°C]-20 ~ +60Storage Temperature [°C]0 ~ +35Humidity (Non-condensing)Maximum 85%Protection ClassIP65Planned Product Lifetime [Year]>10	Safety	IEC 61960 / 62133-2 / TS EN 61427-1	
Discharging Temperature [°C]-20 ~ +60Storage Temperature [°C]0 ~ +35Humidity (Non-condensing)Maximum 85%Protection ClassIP65Planned Product Lifetime [Year]>10	Operating Conditions		
Storage Temperature [°C]0 ~ +35Humidity (Non-condensing)Maximum 85%Protection ClassIP65Planned Product Lifetime [Year]>10	Charging Temperature [°C]	0 ~ +60	
Humidity (Non-condensing)Maximum 85%Protection ClassIP65Planned Product Lifetime [Year]>10	Discharging Temperature [°C]	-20 ~ +60	
Protection Class IP65 Planned Product Lifetime [Year] >10	• .	0 ~ +35	
Planned Product Lifetime [Year] >10	Humidity (Non-condensing)	Maximum 85%	
	Protection Class	IP65	
Warranty Period [Year] 5	Planned Product Lifetime [Year]	>10	
	Warranty Period [Year]	5	

^{*} Bu dokümanda belirtilen veriler ve teknik özellikler ön bilgilendirme amaçlı olup, ürünlerin kullanım şekli, sistem tasarımı ve ortam koşullarına göre değişkenlik gösterebilir.

