

# LiFePO<sub>4</sub> LIX 50 BS

Lithium iron phosphate battery (LiFePO<sub>4</sub>)



## GENERAL SPECIFICATIONS

|                               |                   |
|-------------------------------|-------------------|
| Nominal Voltage               | 12,8 V            |
| Nominal Capacity              | 50 Ah / 640 Wh    |
| Resistance                    | ≤ 30 mΩ           |
| Efficiency                    | 99 %              |
| Self Discharge                | ≤ 1,5 % / month   |
| Maximum Batteries in Series   | 4                 |
| Maximum Batteries in Parallel | 4                 |
| Cycle Life                    | ≥3000 bei 90% DoD |

## DISCHARGE SPECIFICATIONS

|                                      |                 |
|--------------------------------------|-----------------|
| Maximum Continuous Discharge Current | 50 A (30 min)   |
| Pulse Discharge Current              | ≤ 170 A (3 s)   |
| Recommended Low Voltage Disconnect   | 11 V            |
| BMS Discharge Voltage Cut-Off        | 10 V ± 0,16 V   |
| BMS Reconnect Voltage (Discharging)  | 11,2 V ± 0,16 V |

## TEMPERATURE SPECIFICATIONS

|                                   |                   |
|-----------------------------------|-------------------|
| Discharge Temperature             | - 20 °C bis 60 °C |
| Charge Temperature                | 0 °C bis 45 °C    |
| Recommended Storage Temperature   | 15 °C bis 35 °C   |
| BMS Discharge Cut-Off Temperature | 70 °C             |

## GENERAL INFORMATION

|                        |                                |
|------------------------|--------------------------------|
| Dimensions (L x W x H) | (196 x 165 x 180 mm) ± 3 mm    |
| Weight                 | 6,8 kg ± 0,3 kg                |
| Case Material          | ABS                            |
| Enclosure Protection   | IP 65                          |
| Cell Type - Chemistry  | Prismatic, LiFePO <sub>4</sub> |
| Terminal               | M6                             |
| Product Code           | 502-50050                      |

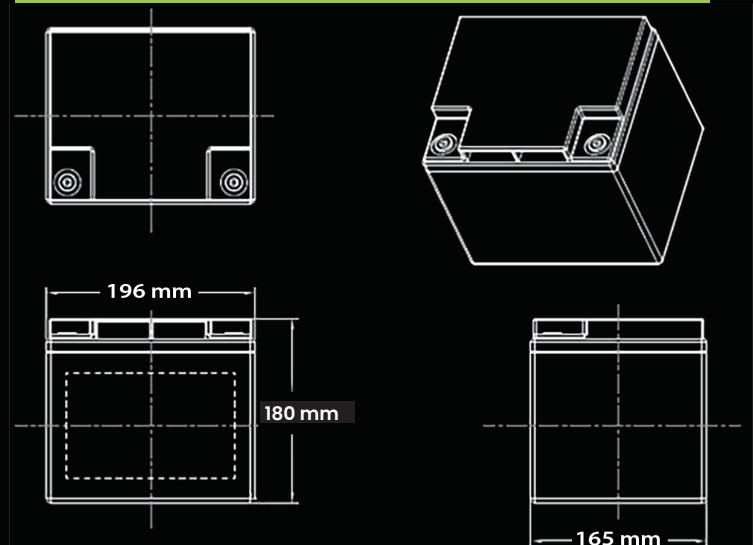
## CHARGE SPECIFICATIONS

|                                    |                 |
|------------------------------------|-----------------|
| Recommended Charge Current         | 25 A            |
| Maximum Charge Current             | 50 A            |
| Recommended Charge Voltage         | 14,6 V ± 0,1 V  |
| Float Charge Voltage (Standby use) | 13,8 V ± 0,1 V  |
| BMS Charge Voltage Cut-Off         | 15,0 V ± 0,12 V |
| BMS Reconnect Voltage (Charging)   | 14,4 V ± 0,16 V |

## COMPLIANCE SPECIFICATIONS

|                         |                                           |
|-------------------------|-------------------------------------------|
| Certifications          | CE (battery), UL1642 and IEC62133 (cells) |
| Shipping Classification | UN 3480, class 9                          |

## DIMENSIONAL SPECIFICATIONS [mm]



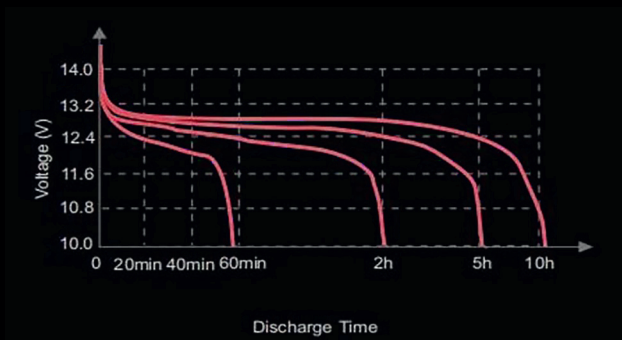
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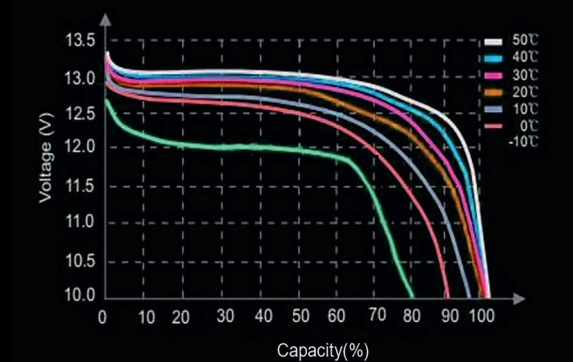
Lithium iron phosphate battery (LiFePO<sub>4</sub>)



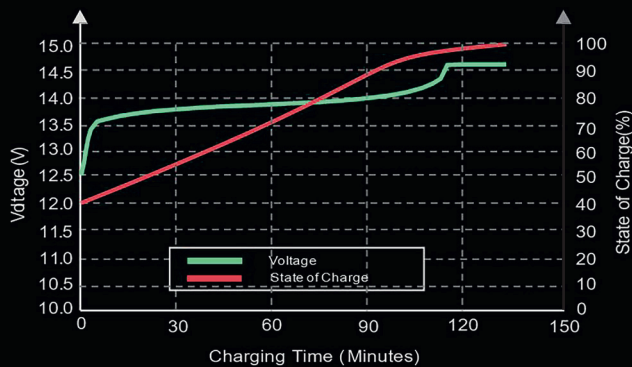
**DIFFERENT RATE DISCHARGE CURVE (25 °C)**



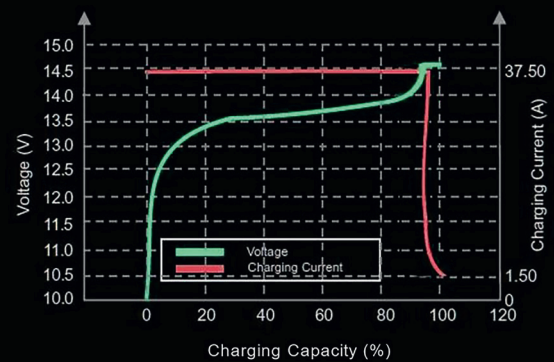
**DIFFERENT TEMPERATURE DISCHARGE CURVE (0.5 C)**



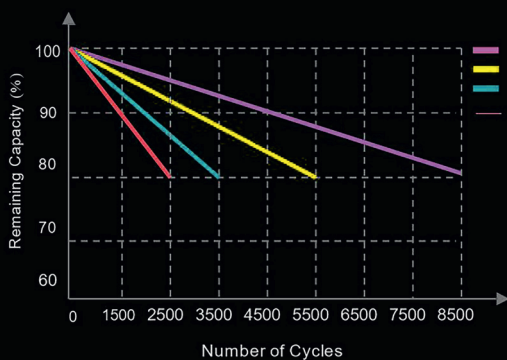
**STATE OF CHARGE CURVE( 0.5C 25 °C)**



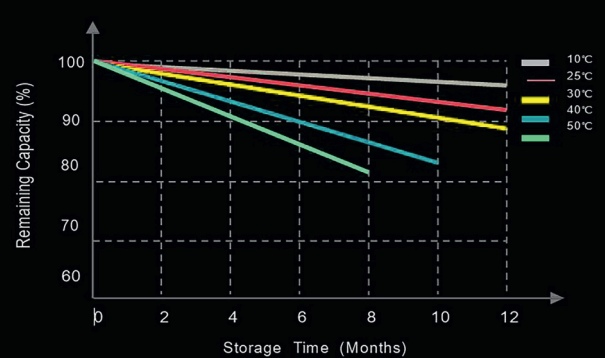
**CHARGING CHARACTERISTICS (0.5C, 25 °C)**



**CYCLE LIFE IN RELATION TO DEPTH OF DISCHARGE**



**DIFFERENT TEMPERATURE SELF DISCHARGE CURVE**



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