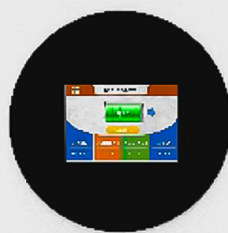


# Details Catalog

51.2V 100Ah (5.12kWh)  
KEMMO LiFePO<sub>4</sub>



**KEMMO**



[kemmotec.com](http://kemmotec.com)

## Performance Specifications

### General Information

|                                            |                          |
|--------------------------------------------|--------------------------|
| Nominal Voltage                            | 51.2 Vdc                 |
| Nominal Capacity                           | 100 Ah                   |
| Nominal Energy                             | 5120 Wh                  |
| Battery Chemistry                          | 3.2V LiFePO <sub>4</sub> |
| Cell Connectivity                          | 16S1P                    |
| Efficiency (Round Trip)                    | ≥98%                     |
| Self-Discharge Rate                        | <3% Monthly              |
| Max. In Parallel                           | 16 Pcs                   |
| Max. In Series                             | Not Allowed              |
| Cycle Life<br><i>0.2C, 25 °C @ 80% DoD</i> | 6500 Cycles              |
| Origin                                     | Shenzhen, China          |
| BMS Build-in                               | Yes                      |



### Operating Parameters

|                           |             |
|---------------------------|-------------|
| Operating Voltage Range   | 44.8V-57.6V |
| Discharge Cut-Off Voltage | 40V         |
| Max. Discharge Current    | 100A        |
| Peak Discharge Current    | 150A (3s)   |
| Max. Charge Voltage       | 58.4V       |
| Standard Charge           | 20A (0.2C)  |

### Environmental Specifications

|                       |              |
|-----------------------|--------------|
| Discharge Temperature | -20°C ~ 55°C |
| Charge Temperature    | 0°C ~ 55°C   |
| Storage Temperature   | -10°C ~ 30°C |
| Ingress Rating        | IP52         |

### Mechanical Specifications

|                    |                |
|--------------------|----------------|
| Dimensions (L*W*H) | 650*384*142 mm |
| Weight             | 45 Kg          |
| Mounting Options   | Wall           |
| Indicator State    | ALM/RUN/SoC    |

### Others

|                |                  |
|----------------|------------------|
| Screen         | Touchable LED    |
| Terminals      | Magnetic Plug-In |
| Case Material  | SPCC Steel       |
| Bracket        | Yes              |
| Heating        | Optional         |
| Bluetooth(App) | Optional         |

## BMS Protection Characteristics

|                        |                                          |                  |
|------------------------|------------------------------------------|------------------|
| Primary Charging       | Current :105A                            | Delay Time: 20s  |
| Second Charging        | Current :110A                            | Delay Time: 2~3s |
| Primary Discharging    | Current :110A                            | Delay Time: 10s  |
| Second Discharging     | Current :150A                            | Delay Time:100ms |
| Over-Charge Voltage    | Voltage :58.4V                           | Delay Time: 1~2s |
| Over-Discharge Voltage | Voltage :40V                             | Delay Time: 1~2s |
| Temperature            | PCB Temperature ≥ 95°C<br>Recover ≤ 85°C |                  |
| Communication Port     | RS485,Optional For CAN/Dry Contact       |                  |



## Constant Current Discharge Data (Amperes @ 25°C)

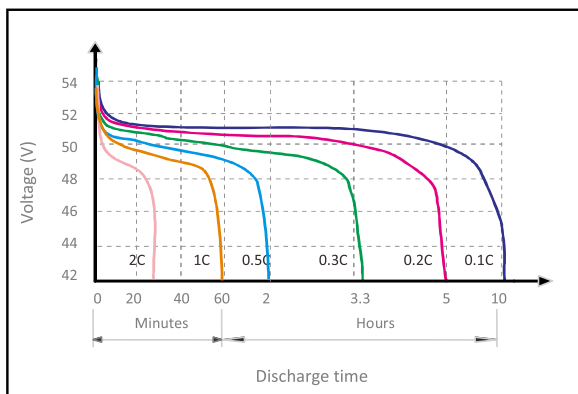
| Discharge Time        | 1h  | 2h  | 3h    | 4h  | 5h  | 10h | 20h |
|-----------------------|-----|-----|-------|-----|-----|-----|-----|
| Cut-Off Voltage (40V) | --- | 50A | 33.3A | 25A | 20A | 10A | 5A  |

## Constant Power Discharge Data (Watts @ 25°C)

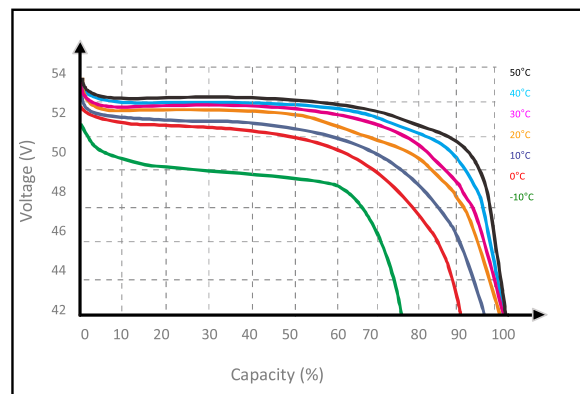
| Discharge Time        | 1h  | 2h    | 3h      | 4h    | 5h    | 10h  | 20h  |
|-----------------------|-----|-------|---------|-------|-------|------|------|
| Cut-Off Voltage (40V) | --- | 2560W | 1706.7W | 1280W | 1024W | 512W | 256W |

## Testing Report Curve

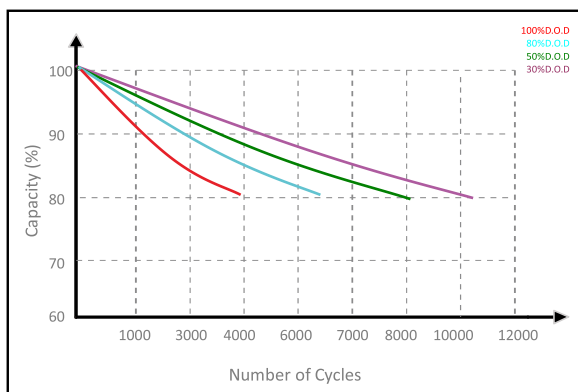
### Discharge Characteristics (25°C)



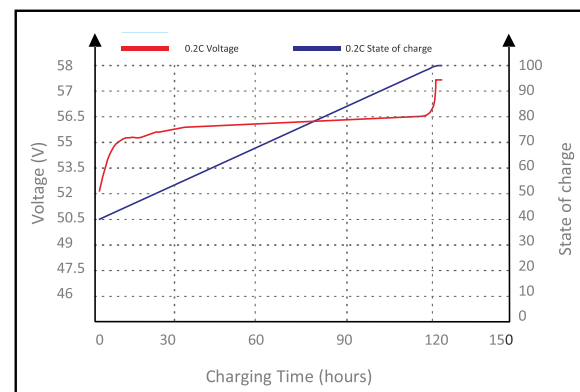
### Temperature VS Discharge (0.2C)



### DoD VS Cycle Life (0.2C 25°C)



### State of Charge (0.2C, 25°C)



Note 1. The recommended storage temperature is 20°C to 30°C, battery life would be reduced if stored at high temperature (The recharging interval should be 12 months under the condition of storage temperature < 30°C, and 8 months under the condition of 30°C < storage temperature < 40°C).

Note 2. Affected by the external environment factors, such as temperature and duration of transportation and storage, the rated capacity may fluctuate by ±5%.