

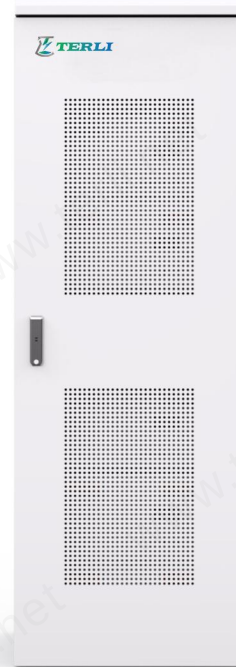
# TELECOM BATTERY ENERGY STORAGE SYSTEM



## INTRODUCTION

Communication energy storage adopts high-density Catl lithium battery cell , equipped with BMS power management system , mainly used in large capacity industrial energy storage , there are 100ah, 150ah, 200ah and other capacity options, and support series with the same capacity battery, smaller space, larger energy storage capacity , 10 years + design life , lightweight design, efficient power

Power Pack



Telecom Battery



5kWh Modular Type Battery Pack

## APPLICATION



Solar Energy



Wind Energy



Residential Area



Industrial Area

## VALUE



### More Usable Energy

90% Depth of Discharge  
Pack Level Energy Optimization



### Easy Installation

Standard design with helpful  
pulling ear quick stacking



### Smart BMS system

Each module is equipped  
with an independent BMS system



### Longer Lifetime

6000 cycles, 10 years design life



### Safe & Reliable

Safe lithium iron phosphate cell



### Modular design

Compact size and light weight

## ELECTRIAL CHARACTERISTICS

| Project         | Description                                                                |
|-----------------|----------------------------------------------------------------------------|
| Basic Parameter | Battery Type                                                               |
|                 | LifePO4(Iron Phosphate Battery)                                            |
|                 | Total Energy Capacity                                                      |
|                 | 5.12 kWh                                                                   |
|                 | Usable Energy Capacity                                                     |
|                 | 5.12 kWh                                                                   |
|                 | Battery Capacity                                                           |
|                 | 100Ah                                                                      |
|                 | Operating Voltage Capacity                                                 |
|                 | 47 to 55V DC                                                               |
|                 | Nominal Voltage                                                            |
|                 | 51.2 V DC                                                                  |
|                 | Charge/Discharge Current                                                   |
|                 | 100A                                                                       |
|                 | Max. Charge/Discharge Power                                                |
|                 | 5kW                                                                        |
|                 | Battery Pack Round-Trip Efficiency                                         |
|                 | >95% (under specific condition)                                            |
|                 | Communication Interface                                                    |
|                 | CAN 、 RS232、 RS485                                                         |
|                 | DC Disconnect                                                              |
|                 | Circuit Breaker, Contactor, Fuse                                           |
|                 | Battery Discharge Rate                                                     |
|                 | 0.5C                                                                       |
|                 | Expected Life Time                                                         |
|                 | 10 years                                                                   |
|                 | Calendar Life(cycles)                                                      |
|                 | 6000@25°C, 90%DOD                                                          |
|                 | Cell Type                                                                  |
|                 | LifePO4(LFP,Iron Phosphate Lithium Battery)                                |
|                 | Cell Nominal Voltage                                                       |
|                 | 3.2V                                                                       |
|                 | Cell Combination Method                                                    |
|                 | 1P16S                                                                      |
|                 | Recommend Charging Voltage                                                 |
|                 | 55V                                                                        |
|                 | Recommend Discharging Cutoff Voltage                                       |
|                 | 47V                                                                        |
|                 | Internal Resistance                                                        |
|                 | 0.3mΩ                                                                      |
|                 | Charging Rate                                                              |
|                 | 0.5C                                                                       |
|                 | Standard Charging Current                                                  |
|                 | 60A                                                                        |
|                 | Max Charging/Discharging Current                                           |
|                 | 100A                                                                       |
|                 | Discharge Rate                                                             |
|                 | 0.5C                                                                       |
|                 | Standard Discharging Current                                               |
|                 | 60A                                                                        |
|                 | Max Discharging Current                                                    |
|                 | 100A                                                                       |
|                 | Scalability                                                                |
|                 | ≤15 Units in Parallel                                                      |
|                 | Pros                                                                       |
|                 | Can be Used in Both Off-grid and Hybrid Setups, Compact Design, LCD Screen |
|                 | Monitoring & Protection                                                    |
|                 | Built-in BMS,Breaker Embedded in System                                    |
|                 | Design Life Time                                                           |
|                 | 10 Years                                                                   |

OPERATING CONDITION

| Project     |                                    | Description                                                                                                                                     |
|-------------|------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| Environment | Installation Location              | Indoor / Outdoor (Wall-mounted / Floor Standing)                                                                                                |
|             | Operating Temperature              | -10 to 50°C                                                                                                                                     |
|             | Operating Temperature(Recommended) | 15 to 30°C                                                                                                                                      |
|             | Storage Temperature                | -30 to 60°C : acceptable for 7 days in total<br>-20 to 45°C : acceptable for the first 6 months<br>-20 to 30°C : acceptable for 7th ~12th month |
|             | Humidity                           | 5% to 95%                                                                                                                                       |
|             | Altitude                           | Max.2,000 m                                                                                                                                     |
|             | Cooling Strategy                   | Natural Convection                                                                                                                              |
|             | Alarms                             | Overcharge, Over-discharge, Over-current, Over-temperature, Short Circuit                                                                       |
|             | Protection Level                   | IP30                                                                                                                                            |

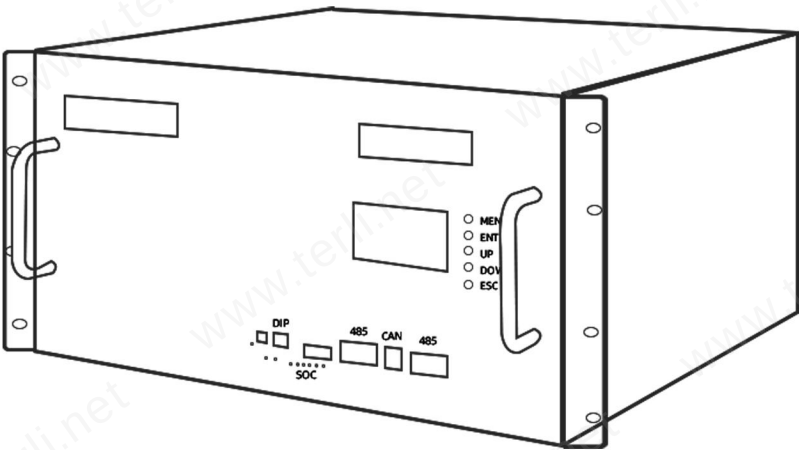
CERTIFICATION

| Project   |                     | Description                                    |
|-----------|---------------------|------------------------------------------------|
| Guarantee | Safety              | Cell      UL1642                               |
|           |                     | Battery Pack      IEC62619 /IEC60950(LVD) / CE |
|           | Emissions           | IEC61000-6-1, IEC61000-6-3                     |
|           | Hazardous Materials | Classification Class 9                         |
|           | Transportation      | UN38.3                                         |

- ※ Test Conditions - Temperature 25°C, at the beginning of life
- ※ Total Energy is measured under specific condition from LC (0.3CCCV/0.3CC)

MECHANICAL CHARACTERISTICS

|            |        | Battery | Package |
|------------|--------|---------|---------|
| Dimensions | Length | 553mm   | 590mm   |
|            | Width  | 390mm   | 430mm   |
|            | Height | 260mm   | 300mm   |
| Weight     |        | 53kg    | 60kg    |
| Color      |        | White   |         |



COMPATIBLE STORAGE INVERTERS WITH TELECOM BATTERY

















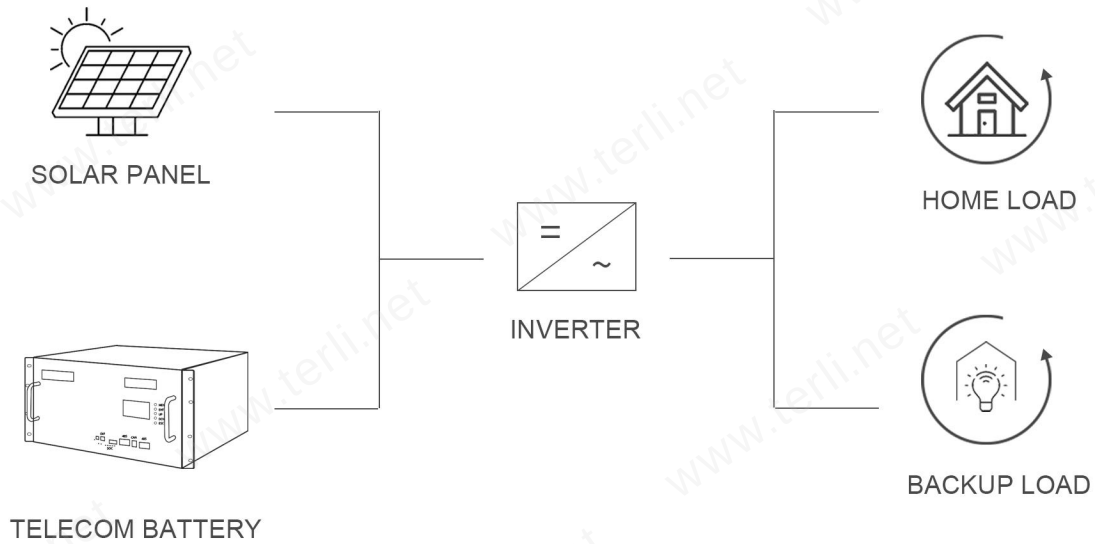




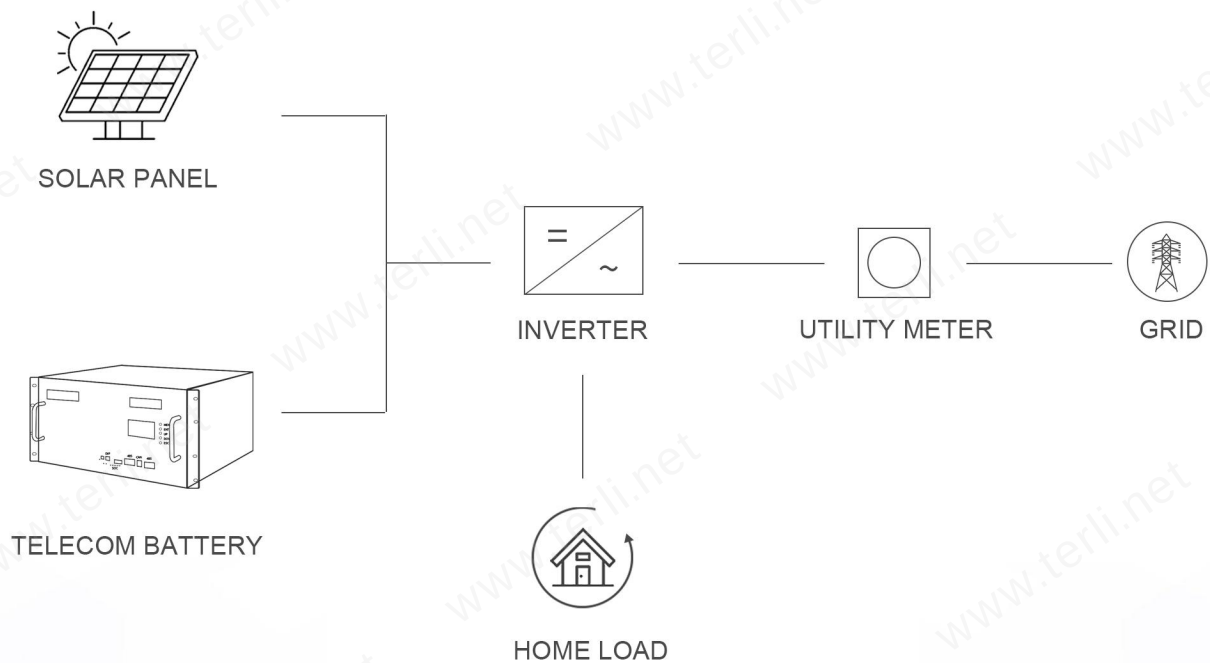




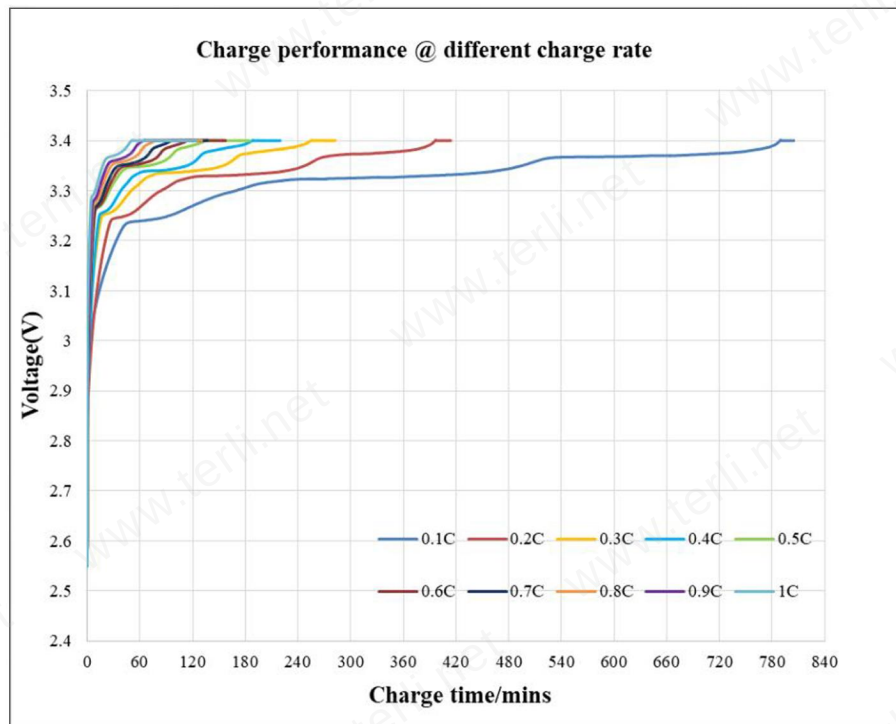
## OFF-GRID SYSTEM



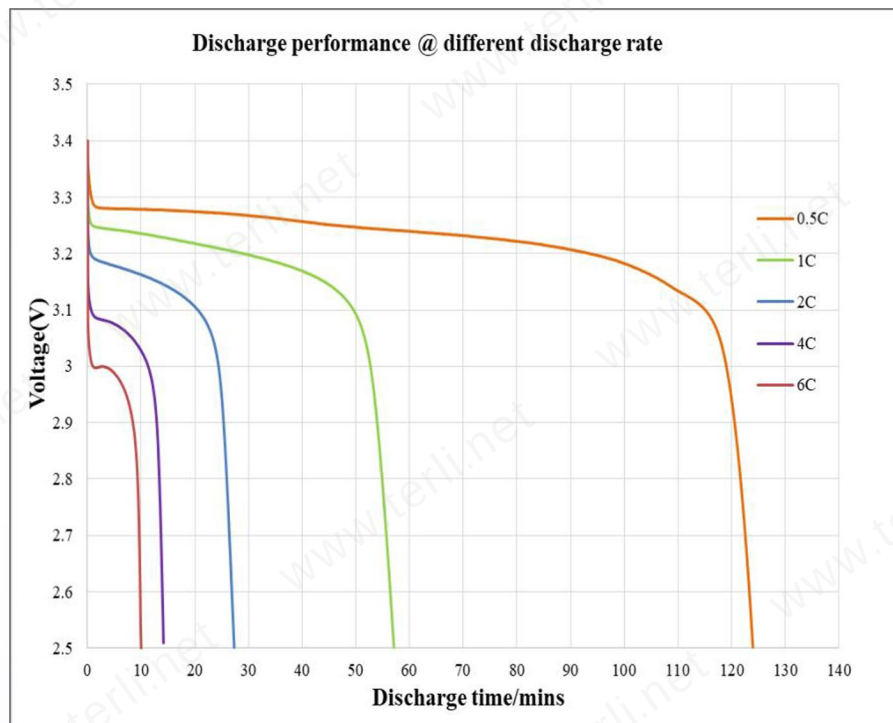
## HYBRID SYSTEM



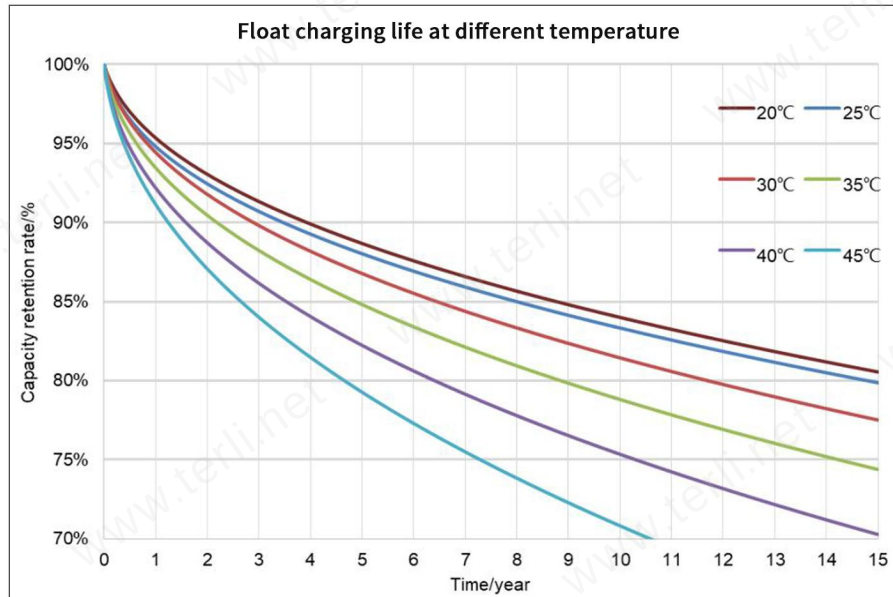
## CHARGING CURVES UNDER DIFFERENT CHARGING RATES



## DISCHARGE CURVE UNDER DIFFERENT DISCHARGE RATES



## FLOATING CHARGING LIFE CURVES AT DIFFERENT TEMPERATURES



## CYCLE LIFE CURVES AT DIFFERENT TEMPERATURES AND DOD CONDITIONS

