

# SmartPower 48V180Ah

## SSIFP48180A lithium-ion battery system

SSIFP48180A, a powerful 48V LiFePO<sub>4</sub> battery product, has been especially designed to provide power backup for remote or outdoor telecom sites. Its modular design enables parallel installation meeting also the needs for larger power back up.



### Benefits

- Increased energy in given space
- Easy installation and upscaling
- High operational reliability
- Optimized supervision strategy through remote control/diagnostic
- Super long life time
- Built-in intelligent BMS to protect the battery pack at any time and prolong its service life

### Standards

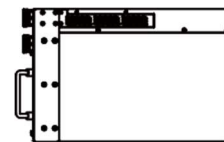
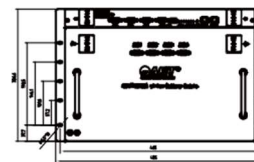
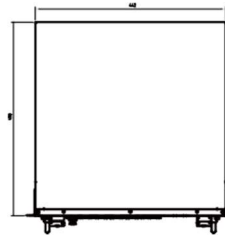
#### a. Product

- IEC 60950
- UN 38.3
- IEC 62321
- UL 1642
- IEC 62133
- UL 1973

#### b. MS certification

- ISO 9001
- ISO 14001
- OHSAS 18001

### Drawing



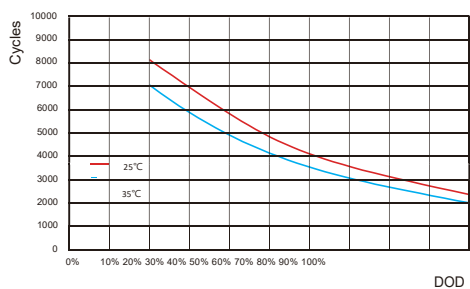
### Specifications

| Nominal Characteristics                    |        |                          |
|--|--------|--------------------------|
| Battery Model                              |        | SSIFP48180A              |
| Nominal Voltage                            |        | 48V                      |
| Typical Capacity                           |        | 180Ah(25°C,0.2c)         |
| Typical Energy                             |        | 8640 Wh                  |
| Volumetric Energy Density                  |        | 141.7 Wh/dm <sup>3</sup> |
| Gravimetric Energy Density                 |        | 115.2 Wh/kg              |
| Dimensions                                 | Width  | 442mm                    |
|  | Height | 306.6mm(7U)              |
|  | Depth  | 450mm                    |
| Reference Weight                           |        | 75.0Kg                   |
| Electrical Characteristics                 |        |                          |
| Voltage Window                             |        | 40.5~54.0V               |
| Charge Voltage Range                       |        | 52.5~54.0V               |
| Max. Permanent Discharge Current           |        | 150A                     |
| Max. Permanent Charge Current              |        | 150A                     |
| Faradic Charge Efficiency                  |        | 99% (+20°C)              |
| Energy Charge Efficiency                   |        | 94% (+20°C)              |
| Communication Interface (optional feature) |        | Modbus/SNMP/TACP         |
| Additional Features (optional feature)     |        | LCD Display              |
| Operation Environment                      |        |                          |
| Charge Temperature                         |        | 0°C to +55°C             |
| Discharge Temperature                      |        | -20°C to +60°C           |
| Storage Temperature                        |        | -20°C to +60°C           |
| Protection Class                           |        | IP20                     |

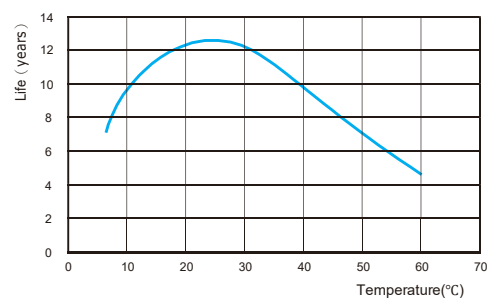
## Discharge Data

| Constant Current Discharge Data(25°C) |           |        |       |       |       |       |       |       |       |
|---------------------------------------|-----------|--------|-------|-------|-------|-------|-------|-------|-------|
| Voltage/V                             | Current/A | 0.1C   | 0.2C  | 0.3C  | 0.4C  | 0.5C  | 0.6C  | 0.7C  | 0.8C  |
|                                       | Time/h    |        |       |       |       |       |       |       |       |
| 45.0                                  |           | 9.560  | 4.902 | 3.283 | 2.442 | 1.943 | 1.601 | 1.369 | 1.191 |
| 43.5                                  |           | 10.017 | 4.993 | 3.339 | 2.475 | 1.978 | 1.634 | 1.399 | 1.210 |
| 42.0                                  |           | 10.094 | 5.041 | 3.374 | 2.517 | 2.008 | 1.654 | 1.409 | 1.232 |
| 40.5                                  |           | 10.201 | 5.090 | 3.390 | 2.533 | 2.021 | 1.674 | 1.420 | 1.240 |

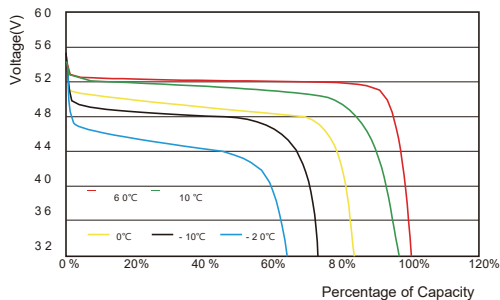
## Performance Curve



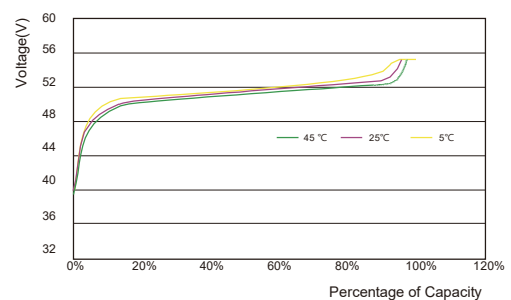
Cycle Life vs. Depth of Discharge (DOD)



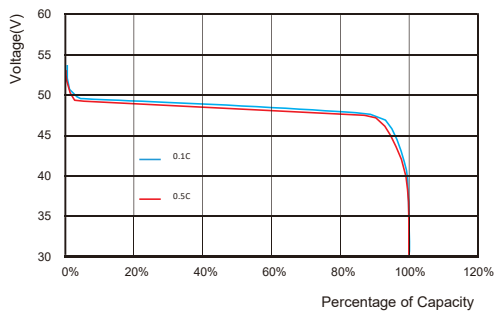
Calendar Life at Different Temperature



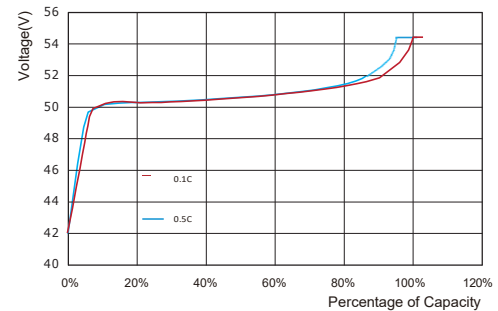
Discharge Curve at Different Temperature



Charge Curve at Different Temperature



Discharge Curve at Different Rate (25°C)



Charge Curve at Different Rate (25°C)

We reserves the right to change specifications or design without notice, please keep in touch with us for the latest information.

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