

LiFePO₄ Smart Battery

12,8V 200Ah

CONNECTSERIES



VE-SPBTC-12200

VOLTIUMENERGY.COM

APPLICATIONS

| | |
|----------------|--------------------|
| | |
| ENERGY STORAGE | RECREATION & SPORT |
| | |
| FISHING | MARINE |
| | |
| TRANSPORT | MOBILITY |
| | |
| EVENTS | MEDICAL |
| | |
| INDUSTRIAL | DATA CENTER |

BATTERY FEATURES

- ✓ Long lasting superpower, LiFePO₄ has up to 10 times more cycles than comparable lead acid batteries
- ✓ With the VE-SPBTC series it is possible to connect 4 batteries in series and/or 4 batteries in parallel (4S4P). When you connect the batteries both in series and parallel, it is necessary to use the Voltium Energy® Connect series COMBOX *
- ✓ The VE-SPBTC series is designed to withstand extreme conditions with temperatures down to -35°C. When necessary, the smart BMS will automatically activate the built-in heating module when a charger is connected to the battery *
- ✓ The intelligent Battery Management System (BMS) monitors and balances the cells, protects the battery against overcharging, deep discharge and has a temperature protection
- ✓ With our smart Bluetooth® app you can easily view and monitor all relevant data of your VE-SPBTC battery
- ✓ Low self-discharge and the ability to charge quickly and efficiently
- ✓ The VE-SPBTC series has a terminal communication interface which supports RS485 and CANBUS (coming soon).

* Please read the manual carefully to see exactly how the COMBOX and heating module works

CERTIFICATES

- ✓ CE certificate
- ✓ UL 1642 cell certificate
- ✓ IEC 62133 cell certificate
- ✓ UN 38.3 certified
- ✓ ISO9001:2015 - Quality management systems



DOWNLOAD THE APP OF VOLTIUM ENERGY

With our Bluetooth® app, you can view and monitor the current status of your LiFePO₄ battery!



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Bluetooth™

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VE-SPBTC-12200

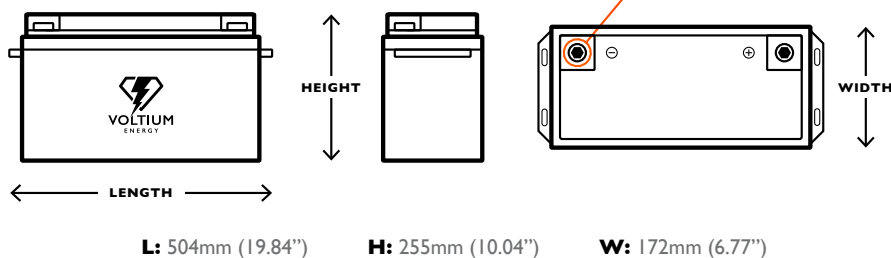
BATTERY SPECIFICATIONS

| GENERAL SPECIFICATIONS | |
|--|--|
| Nominal Voltage | 12,8V (4S) |
| Rated Capacity (CC 0.2C to 10V) | 200Ah |
| Nominal Energy | 2560Wh |
| Internal Resistance | ≤20mΩ |
| Terminal type | TI1 |
| Cycle Life (@DOD 100% at 1C and ±25°C) | 3000 |
| Cycle Life (@DOD 100% at 0.2C and ±25°C) | 6000 |
| Connection options | 4 in series OR 4 in parallel (without COMBOX) 4 in series and 4 in parallel combination (with COMBOX) |
| Communication | Bluetooth®, RS485, CANBUS (coming soon) |

| MECHANICAL CHARACTERISTICS | |
|----------------------------|----------------|
| Dimension | Length 504±2mm |
| | Width 172±2mm |
| | Height 255±2mm |
| Weight | Approx. 27.0Kg |
| Housing material | ABS |

| STORAGE SPECIFICATIONS | |
|-------------------------|---------------|
| Storage Temperature | 0-25°C |
| Self-discharge rate | ≤3% per month |
| Recommended storage SOC | 50-70% SOC |
| Storage condition | See manual |

DIMENSIONS



| CHARGE SPECIFICATIONS | |
|--|----------------------|
| Battery operation temperature range @charging | 0~45°C |
| Normal charge voltage | 14.6 ±0.1V |
| Recommended float charge voltage (for Standby use) | 13.8 ±0.1V |
| Max charge current | 200A 30min at 25±5°C |
| Recommended charge current | 0.2C |
| Charge Cut-off Voltage | 15.6V |

| DISCHARGE SPECIFICATIONS | |
|---------------------------------------|----------------------|
| Discharging temperature range | -20~60°C |
| Output Voltage Range | 10.0~14.6V |
| Max discharge current | 200A at ±25°C |
| Recommended discharge current | 0.2C |
| Pulse discharge current | 400A withstand 3s |
| Discharge Cut-off voltage | 10.0V |
| Discharge temperature characteristics | -20°C / 70% capacity |
| | 0°C / 90% capacity |
| | 25°C / 100% capacity |
| | 60°C / 102% capacity |

BMS TECHNICAL SPECIFICATIONS

| OVER CHARGE | |
|---|---------------------------------------|
| Over-charge protection for each cell (delay time) | 3.75V ±0.05V (3s) |
| Over-charge release for each cell (delay time) | 3.6V ±0.05V (3s) |
| Over-charge release method | When voltage is under release voltage |

| OVER DISCHARGE | |
|--|------------------|
| Over-discharge protection for each cell (delay time) | 2.5V ±0.05V (3s) |
| Over-discharge release for each cell (delay time) | 2.8V ±0.05V (3s) |
| Over-discharge release method | Charging recover |

| OVER CURRENT CHARGE | |
|---|---|
| Charge over-current protection (delay time) | 1st protection / 210A ±5A (10s) 2nd protection / N/A |
| Over-current release method (delay time) | Discharge or auto release (60s) |

| OVER CURRENT DISCHARGE | |
|--|--|
| Discharge over-current protection (delay time) | 1st protection / 210A ±5A (30s) 2nd protection / 400A ±20A (3s) |
| Over-current release method (delay time) | Charge or auto release (60s) |

| BATTERY TEMPERATURE CHARGING | |
|------------------------------|--|
| Temperature protection | Over / 60°C ±5°C (2s) Low / 0°C ±2°C (2s) |
| Release temperature | Over / 45°C ±2°C (2s) Low / 2°C ±2°C (2s) |
| Release method (delay time) | When temperature is on release |

| BATTERY TEMPERATURE DISCHARGING | |
|-------------------------------------|--|
| Over-temperature protection Battery | Over / 65°C ±5°C (2s) Low / -20°C ±2°C (2s) |
| Release temperature Battery | Over / 55°C ±5°C (2s) Low / -18°C ±2°C (2s) |
| Over-temperature protection Circuit | Over / 85°C ±5°C (2s) |
| Release temperature Circuit | Over / 70°C ±5°C (2s) |
| Release method (delay time) | When temperature is on release |

| SHORT CIRCUIT PROTECTION | |
|-----------------------------|--|
| Function condition | External short circuit |
| Short circuit delay time | 250-500 ms |
| Release method (delay time) | Remove load for the short circuit protection to release (0s) |

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To ensure safe and efficient operation always refer to the latest edition of our Technical Datasheet, as published on our website.



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