

# INDOOR C&I ESS SOLUTION

DEYE SUMMER BOS SERIES



## Reliable

- Operating temp : -20°C to 55°C
- Operate up to 3000m altitude
- 1.1x overload capacity
- Balancing solutions extend battery life
- Triple auxiliary power design for stable supply



## Scalable

- Support up to 20 units in parallel, maximum 2MW/4.3MWh



## Easy Maintenance

- 5U Standard Chassis
- User Interface & Bluetooth App
- USB & Cloud Upgrades
- TCP Protocol for EMS
- Fault Signal Input Support



## Intelligent Control

- Peak-valley mgmt, anti-backflow, overload protection
- Load tracking, demand control, backup power, phase separation



## Multi-Fusion

- Integrated EMS, PCS, and BMS
- Support expansion of MPPT module
- Support off-grid backup



## Safer

- LFP batteries
- Support aerosol fire extinguishing

≥6000

Cycles

5U

Standard Chassis

70%

EOL

10 years

Warranty



| Model                                     |                                                                     | BOS-B           |
|-------------------------------------------|---------------------------------------------------------------------|-----------------|
| <b>Main Parameter</b>                     |                                                                     |                 |
| Battery Module Energy ( kWh )             |                                                                     | 14.3            |
| Battery Module Nominal Voltage ( V )      |                                                                     | 51.2            |
| Battery Module Capacity ( Ah )            |                                                                     | 280             |
| Module Weight Approximate ( kg )          |                                                                     | 122             |
| Battery Module Qty In Series ( Optional ) |                                                                     | 15              |
| Scalability                               |                                                                     | 5 ~ 15          |
| System Nominal Voltage ( V )              |                                                                     | 768             |
| System Energy ( kWh )                     |                                                                     | 214.5           |
| System Usable Energy ( kWh )              |                                                                     | 193.05          |
| Charge/Discharge Current ( A )            | Recommend                                                           | 140             |
|                                           | Max                                                                 | 168             |
| <b>Other Parameter</b>                    |                                                                     |                 |
| Operating Temperature ( °C )              | discharge : -20 ~ 55                                                | charge : 0 ~ 55 |
| Storage Temperature ( °C )                | 0 ~ 35                                                              |                 |
| Thermal Management                        | Smart fan cooling                                                   |                 |
| LCD Display                               | SOC / Fault Code                                                    |                 |
| Status Indicator                          | Yellow : Battery High Voltage Power On   Red : Battery System Alarm |                 |
| Communication Port                        | TCP / RS485 / CAN                                                   |                 |
| Communication With BMS                    | CAN                                                                 |                 |
| Humidity                                  | 5% ~ 85%                                                            |                 |
| Altitude                                  | ≤3000m                                                              |                 |
| IP Rating of Enclosure                    | IP20                                                                |                 |
| Noise ( dB )                              | TBD                                                                 |                 |
| System Dimension ( W × H × D, mm )        | 2150 × 1136 × 800                                                   |                 |
| System Weight Approximate ( kg )          | 1850                                                                |                 |
| Installation Location                     | Rack Mounted                                                        |                 |
| Recommend Depth of Discharge              | 90%                                                                 |                 |
| Cycle Life                                | 25±2°C, 0.5C / 0.5C, EOL70%≥6000                                    |                 |
| Warranty Period                           | 10 years                                                            |                 |
| Certification                             | CE / IEC62619 / IEC62040 / UN38.3                                   |                 |

| PCS Model                                 |  | SUN-100K-PCSL01HP3              |
|-------------------------------------------|--|---------------------------------|
| <b>Battery Data</b>                       |  |                                 |
| Battery Type                              |  | Lithium-ion                     |
| Battery Voltage Range (V)                 |  | 630-1000                        |
| Max. Charging Current (A)                 |  | 175                             |
| Max. Discharging Current (A)              |  | 175                             |
| Charging Strategy for Li-ion Battery      |  | Self-adaption to BMS            |
| Number of Battery Input                   |  | 1                               |
| <b>AC Input/Output Data</b>               |  |                                 |
| Rated AC Input/Output Active Power (kW)   |  | 100                             |
| Max. AC Input/Output Apparent Power (kVA) |  | 110                             |
| Rated AC Input/Output Current (A)         |  | 151.6/145                       |
| Max. AC Input/Output Current (A)          |  | 166.7/159.5                     |
| Rated Input/Output Voltage/Range(V)       |  | 220/380V, 230/400V 0.85Un-1.1Un |
| Grid Connection Form                      |  | 3L+N+PE                         |
| Rated Input/Output Grid Frequency/Range   |  | 50Hz/45Hz-55Hz 60Hz/55Hz-65Hz   |
| Power Factor Adjustment Range             |  | 0.8 leading-0.8lagging          |
| Total Current Harmonic Distortion THDi    |  | <3% (of nominal power)          |
| DC Injection Current                      |  | <0.5% In                        |
| <b>Efficiency</b>                         |  |                                 |
| Max. Efficiency                           |  | 98.5%                           |
| Euro Efficiency                           |  | 98.0%                           |
| MPPT Efficiency                           |  | >99%                            |
| MPPT Module                               |  | SUN-MPPT-L01-EU-AM8             |
| <b>PV String Input Data</b>               |  |                                 |
| Max. PV Input Power (kW)                  |  | 200                             |
| Max. PV Input Voltage (V)                 |  | 1000                            |
| Start-up Voltage (V)                      |  | 200                             |
| MPPT Voltage Range (V)                    |  | 180-850                         |
| Full Load MPPT Voltage Range (V)          |  | 450-850                         |
| Rated PV Input Voltage (V)                |  | 600                             |
| Max. Operating PV Input Current (A)       |  | 40+40+40+40+40+40+40+40         |
| Max. Input Short-Circuit Current (A)      |  | 60+60+60+60+60+60+60+60         |
| No. of MPP Trackers                       |  | 8                               |
| <b>Efficiency</b>                         |  |                                 |
| Max. Efficiency                           |  | >99%                            |
| MPPT Efficiency                           |  | >99.9%                          |

| STS Module                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | SUN-STS500L             |                         |  |
|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|-------------------------|--|
| Grid Side Data                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                         |                         |  |
| Rated AC Input/Output Active Power （kW） | 500                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                         |                         |  |
| Rated AC Input/Output Current （A）       | 725                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                         |                         |  |
| Rated Input/Output Voltage(V)           | 220/380, 230/400 (three phase)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                         |                         |  |
| Grid Connection Form                    | 3L/N/PE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                         |                         |  |
| Rated Input/Output Grid Frequency       | 50Hz/60Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                         |                         |  |
| Load Side Data                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                         |                         |  |
| Rated Output Active Power （kW）          | 500                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                         |                         |  |
| Rated Output Current （A）                | 725                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                         |                         |  |
| Rated Output Voltage(V)                 | 220/380, 230/400 (three phase)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                         |                         |  |
| Grid Connection Form                    | 3L/N/PE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                         |                         |  |
| Rated Output Grid Frequency             | 50Hz/60Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                         |                         |  |
| GEN Side Data                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                         |                         |  |
| Rated AC Input Active Power （kW）        | 500                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                         |                         |  |
| Rated AC Input Current （A）              | 725                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                         |                         |  |
| Rated Input Voltage(V)                  | 220/380, 230/400 (three phase)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                         |                         |  |
| Grid Connection Form                    | 3L/N/PE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                         |                         |  |
| Rated Input Grid Frequency              | 50Hz/60Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                         |                         |  |
| Equipment Protection                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                         |                         |  |
| Integrated                              | DC Polarity Reverse Connection Protection, AC Output Overcurrent Protection, Thermal Protection, AC Output Overvoltage Protection, AC Output Short Circuit Protection, DC Component Monitoring, Overvoltage Load Drop Protection, Ground Fault Current Monitoring, Arc Fault Circuit Interrupter (optional), Power Network Monitoring, Island Protection Monitoring, Earth Fault Detection, DC Input Switch, DC Terminal Insulation Impedance Monitoring, Residual Current (RCD) Detection, Surge protection level |                         |                         |  |
| Surge Protection Level                  | TYPE II(DC), TYPE II(AC)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                         |                         |  |
| Interface                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                         |                         |  |
| LCD/LED display                         | LCD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                         |                         |  |
| Communication Interface                 | WIFI, RS485, CAN, Meter                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                         |                         |  |
| General Data                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                         |                         |  |
| Off grid switching time                 | <10ms                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                         |                         |  |
| Operating Temperature Range(°C)         | -25°Cto +60°C,>45°C Derating                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                         |                         |  |
| Permissible Ambient Humidity            | 0-95%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                         |                         |  |
| Permissible Altitude                    | 4000m                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                         |                         |  |
| Ingress Protection(IP) Rating           | IP 65(MPPT Module)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | IP 65(PCS Module)       | IP 20(STS Module)       |  |
| Cabinet Size(W×H×D)[mm]                 | 543×197.8×700(MPPT Module)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 543×310×775(PCS Module) | 543×575×866(STS Module) |  |
| Inverter Topology                       | Non-Isolated                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                         |                         |  |
| Over Voltage Category                   | OVC II(DC), OVC III(AC)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                         |                         |  |
| Type of Cooling                         | Intelligent Air Cooling                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                         |                         |  |
| Warranty                                | 5 Years/10 Years<br>the Warranty Period Depends the Final Installation Site of Inverter,<br>More Info Please Refer to Warranty Policy                                                                                                                                                                                                                                                                                                                                                                              |                         |                         |  |
| Grid Regulation                         | IEC 61727, IEC 62116, CEI 0-21, EN 50549, NRS 097, RD 140, UNE 217002,<br>OVE-Richtlinie R25, G99, VDE-AR-N 4105                                                                                                                                                                                                                                                                                                                                                                                                   |                         |                         |  |
| Safety/EMC Standard                     | IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                         |                         |  |

# Typical Application Scenarios

## Backup Power Duration Plan

Hybrid inverter power

2 hours

100kW

4 hours

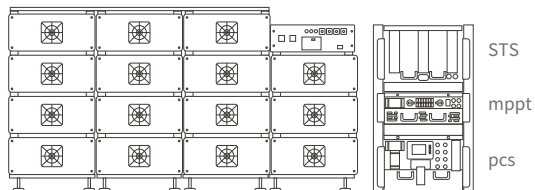
100kW

Battery model

BOS-B 215kWh

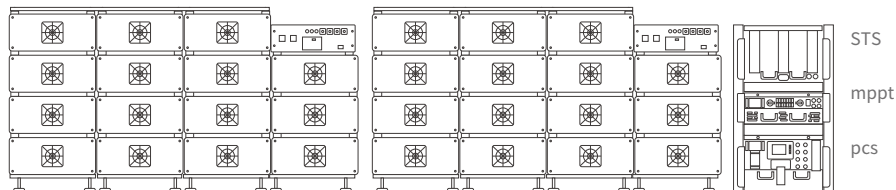
BOS-B 215kWh × 2

BOS-B 215kWh



2 hours

BOS-B 215kWh



4 hours

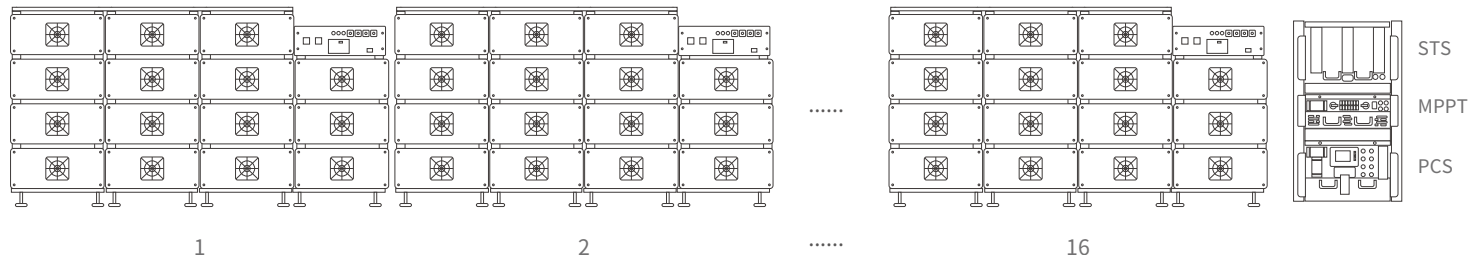
## Typical Application Scenarios

Maximum support for 16 racks of batteries in parallel

BOS-B 215kWh

BOS-B 215kWh

BOS-B 215kWh

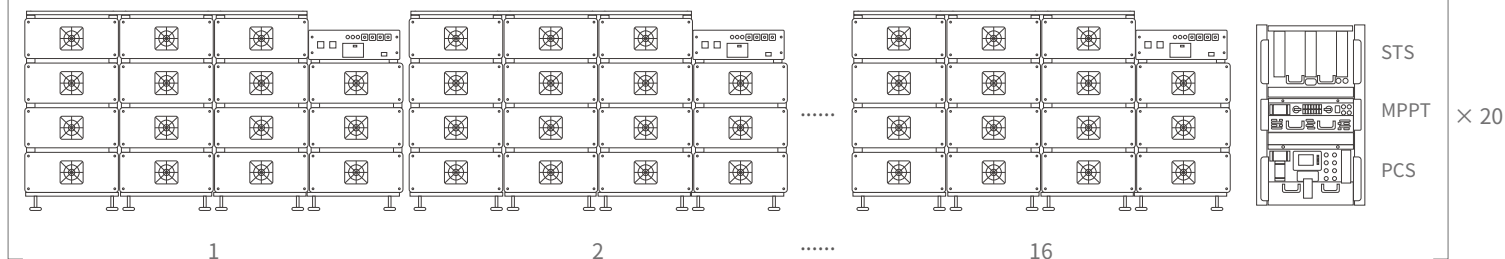


Maximum support for 20 inverters in AC parallel operation

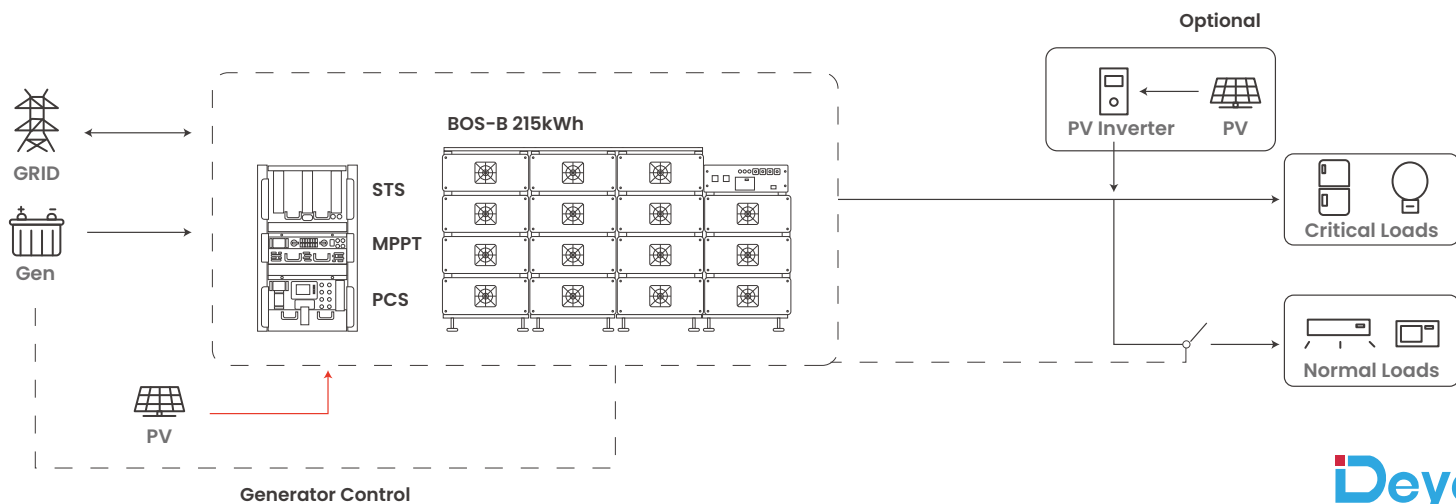
BOS-B 215kWh

BOS-B 215kWh

BOS-B 215kWh



AC → DC → Signal





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