

YOUR
SMART
ENERGY



STORION-TB187.5~500 (Indoor)

COMMERCIAL &
INDUSTRIAL SERIES



Self-Sufficient

Time Period Charge and Discharge

Automatic Calibration of SOC

Dual Power Supply



Backup Power

STORION-TB187.5~500



(Indoor)




Battery

| Item | Parameters | |
|-------------------------------------|---|---|
| |  |  |
| Battery Module | M38180-S | M38210-S |
| Battery Type | LiFePO ₄ | LiFePO ₄ |
| Pack | 3.2V / 90Ah@2P12S | 3.2V / 105Ah@2P12S |
| Internal Resistance | ≤10 mΩ | ≤10 mΩ |
| Energy Capacity | 6.912 kWh | 8.064 kWh |
| Usable Capacity | 6.22 kWh | 7.25 kWh |
| Depth of Discharge (DoD) | 90% | 90% |
| Rated Voltage | 38.4 V | 38.4 V |
| Operating Voltage Range | 36 ~ 43.2 V | 36 ~ 43.2 V |
| Max. Charging / Discharging Current | 180 A | 105 A |
| Cycle Life | 80%EOL with ≥ 6000@1C 25°C | 80%EOL with ≥ 6000@0.5C 25°C |
| Operating Temperature Range | -10°C ~ 50°C | -10°C ~ 50°C |
| Ingress Protection | IP21 | IP21 |
| Relative Humidity | 15% ~ 85% | 15% ~ 85% |
| Warranty | 3 Years Product Warranty, 10 Years Performance Warranty | |
| Communication | CAN | CAN |
| Dimensions (W×D×H) | 326×654×250 mm | 326×560×222 mm |
| Weight | 64 kg | 62 kg |
| String Pack Quantity | 17 ~ 20 | 17 ~ 20 |
| Certifications | IEC62619, IEC62477, UN38.3 | |


High Voltage Box

| Item | Parameters | |
|----------------------------|---|---|
| |  |  |
| Model | HV900180-II | HV900105-III |
| Rated Current | 180 A | 105 A |
| Max. Current | 220 A | 138 A |
| Rated Voltage | 900 VDC | 900 VDC |
| Ultimate Breaking Capacity | 250 kA | 250 kA |
| Dimensions (W×D×H) | 91.5×440×250.1 mm | 91.5×440×250.1 mm |
| Weight | 20 kg | 20 kg |


Battery Cluster System

| | Configuration | HV900180-II, | HV900105-III, |
|---|-------------------------------------|----------------------|----------------------|
| | | M38180-S, Rack | M38210-S, Rack |
|  | Dimensions (W×D×H) | 1049×556.3×1950 mm | 1072.5×602×2241.5 mm |
| | Battery Racks | 3×7 | 3×7 |
| | Overall Weight | 1233 ~ 1425 kg | 1199 ~ 1385 kg |
| | Single Cluster Capacity | 117.504 ~ 138.24 kWh | 137.088 ~ 161.28 kWh |
| | Max. Charging / Discharging Current | 180 A | 105 A |
| | Battery Cluster Voltage Range | 612 ~ 864 V | 612 ~ 864 V |

DC Junction Box

| | TOP BMU Box | Parameters | | |
|---|--------------|---------------|-----------------------------|-----------------|
| | | TOP BMU Power | 30 W | |
|  | Junction Box | Communication | RS-485×6, CAN×3 | |
| | | SCADA Power | 18 W | |
| | | Max. Voltage | 900 V | |
| | | | Max. Current | 630 A / 1250 A |
| | | | Operating Temperature Range | -30°C ~ 50°C |
| | | | Weight | 145 kg |
| | | | Dimensions (W×D×H) | 600×600×1650 mm |

Transformer

| | | |
|---|----------------------|------------------|
|  | Rated Capacity | 500 kVA |
| | Input Voltage | 380 V |
| | Output Voltage | 400 V |
| | Group of Connections | Dyn11 |
| | Insulation Class | H |
| | No-Load Current | 5% |
| | Full-Load Efficiency | ≥99.17% |
| | Ambient Temperature | -25 ~ 50°C |
| | Weight | 1580 kg |
| | Dimensions (W×H×L) | 1100×800×2160 mm |

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(Indoor)



Inverter



| Model | PWSI-500KTL | PWSI-437.5KTL | PWSI-375KTL | PWSI-312.5KTL | PWSI-250KTL | PWSI-187.5KTL |
|-------------------------------------|--|---------------|-------------|---------------|-------------|---------------|
| Battery Voltage Range | 600 ~ 900 V | | | | | |
| Max. Charging / Discharging Current | 873 A | 764 A | 655 A | 546 A | 436 A | 327 A |
| Nominal Power | 500 kW | 437.5kW | 375 kW | 312.5 kW | 250 kW | 187.5 kW |
| Rated Voltage | 400 V | | | | | |
| Grid Voltage Range | 340 ~ 460 V, 3L / N / PE | | | | | |
| Power Factor Range | 0.99 / -1 ~ 1 | | | | | |
| Overload Capacity | 105%~115% (10 min); 115%~125% (1 min); 125%~150% (200ms) | | | | | |
| Rated AC Current | 760 A | 665 A | 570 A | 475 A | 380 A | 285 A |
| Off-Grid Output Voltage Range | 360 ~ 440 V | | | | | |
| Rated Output Frequency | 50 / 60 Hz | | | | | |
| Dimensions (W×D×H) | 1100×800×2160 mm | | | | | |

PV Inverter (AC Coupled)



| Model | GW60KS-MT |
|----------------------------------|--------------------|
| Max. PV Input Power | 90 kW |
| PV Voltage Range | 200 ~ 950V |
| Max. Input Voltage | 1100V |
| MPPT Number/String | 6/2 |
| Max. PV Input Current | 30A |
| Nominal Output Power | 60kVA |
| Max. AC Apparent Power | 66 kVA |
| Grid Rated Voltage | 320 ~ 460V 3L/N/PE |
| Operating Temperature Range (°C) | -30 ~ +60 C |
| Dimension (W×D×H) | 520 × 660 × 220mm |
| Weight | 55kg |
| Max Efficiency | 98.60% |
| Ingress Protection | IP 65 |

DC / DC Converter (DC Coupled)



| Model | PDS-400K |
|-----------------------|---|
| HV DC bus voltage | LV Voltage+40V ~ 850V |
| HV DC bus current | 0~130A×8 |
| Power rating | 50kW×8 |
| Cooling | Forced air cooling |
| Noise | < 75dB |
| Ingress Protection | IP20 |
| Altitude | 3000m |
| Peak Efficiency | 98.60% |
| Operation temperature | -20°C to 50°C |
| Dimensions (W×H×L) | 1100×2160×800mm |
| Weight | Cabinet 280kg + Module 40kg*n (n=1,2,...,8) |

Meter (Optional)



| Model | DTSU666 | |
|---------------------|---------------------------------------|-------------------|
| Voltage Input | Rated Voltage | 230V AC / 400V AC |
| | Accuracy Class | ±1% |
| Communication Mode | RS485, Modbus RTU | |
| General Parameters | Dimensions (W×D×H) | 72×101×80 mm |
| CT Model | AKH-0.66, K-60×40, AKH-0.66, K-100×40 | |
| CT Current Ratio | 800 / 5A, 1250 / 5A | |
| CT Perforation Size | 60×40 mm, 100×40 mm | |

STS



| Model | PW_STS_300K | PW_STS_800K |
|----------------------|----------------------|----------------------|
| Rated Capacity | 300 kW | 800 kW |
| Rated Voltage | 400 V | 400 V |
| Input Voltage Range | -48% ~ 20% | -15% ~ 15% |
| Output Voltage Range | -48% ~ 20% | -15% ~ 15% |
| Nominal Current | 434.8 A | 1155 A |
| AC Frequency | 50Hz / 60Hz | 50Hz / 60Hz±2.5Hz |
| Switching Time Gap | ≤30 ms | ≤20 ms |
| Ingress Protection | IP20 | IP20 |
| Wiring Mode | Three Phase, 4 Wires | Three Phase, 4 Wires |
| Max. Efficiency | 99.5% (Full Load) | 99.5% (Full Load) |
| Cooling Method | Forced Air Cooling | Forced Air Cooling |
| Dimensions (W×H×L) | 440*300*645 mm | 800*800*2160 mm |
| Weight | 50 kg | 450 kg |
| Altitude | 3000 m | 3000 m |

STORION-TB187.5~500 (Indoor)



System Technical Specifications

| Item | STORION-TB500 (Indoor) | STORION-TB437.5 (Indoor) | STORION-TB375 (Indoor) | STORION-TB312.5 (Indoor) | STORION-TB250 (Indoor) | STORION-TB187.5 (Indoor) |
|-----------------------------|---|--------------------------|------------------------|--------------------------|------------------------|--------------------------|
| DC Data | | | | | | |
| Battery Type | LiFePO ₄ | | | | | |
| Depth of Discharge (DoD) | 90% (On-Grid), 85% (Off-Grid) | | | | | |
| Battery Voltage Range | 600 ~ 900 V | | | | | |
| Max. Battery Energy Range | 117.5 ~ 1612.8 kWh | | | | | |
| Standard Battery Cluster | 1 ~ 10 | | | | | |
| AC Data - Grid | | | | | | |
| Rated Power | 500 kVA | 437.5 kVA | 375 kVA | 312.5 kVA | 250 kVA | 187.5 kVA |
| Max. Output Power | 550 kVA | 481.25 kVA | 412.5 kVA | 343.75 kVA | 275 kVA | 206.25 kVA |
| Rated Grid Voltage | 3L / N / PE, 340 ~ 460 V | | | | | |
| Rated Frequency | 50 / 60 Hz | | | | | |
| Rated Current | 760 A | 665 A | 570 A | 475 A | 380 A | 285 A |
| General Data | | | | | | |
| Ingress Protection | IP20 | | | | | |
| Operating Temperature Range | -20°C ~ 50°C | | | | | |
| Relative Humidity | 0 ~ 95% (No Condensation) | | | | | |
| Max. Working Altitude | 3000m / 9842ft | | | | | |
| Warranty | 3 Years Product Warranty | | | | | |
| Cooling Method | Forced Air Cooling / HVAC | | | | | |
| Communication Interfaces | RS485, CAN, Ethernet | | | | | |
| Certifications | NRS 097-2-1:2017 Edition 2.1, EN IEC 61000-6-2&4:2019, IEC 61727:2004, IEC 62116:2014, IEC62109-1:2010, IEC62109-2:2011 | | | | | |

* Please ensure proper system wiring by following the standard topology scheme to prevent potential issues.

**Under AC coupled condition, off-grid scenarios, it is essential to maintain a reasonable capacity ratio. The PV power must be less than the lower of the rated power of the battery and the PCS, and the load power must also be less than the lower of the rated power of the battery and the PCS.



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