



Storage Systems

BATTERY STORAGE CONTAINER BSC 10ft / 20ft / 40ft



- **Pre-installed battery container all-in-one solution** – Capacity up to the MWh range
- **In-house power and control electronics** – Perfectly tuned with highest efficiency
- **Latest cell technology** – Highest quality, durability and safety
- **Modular scalability** – stackable containers



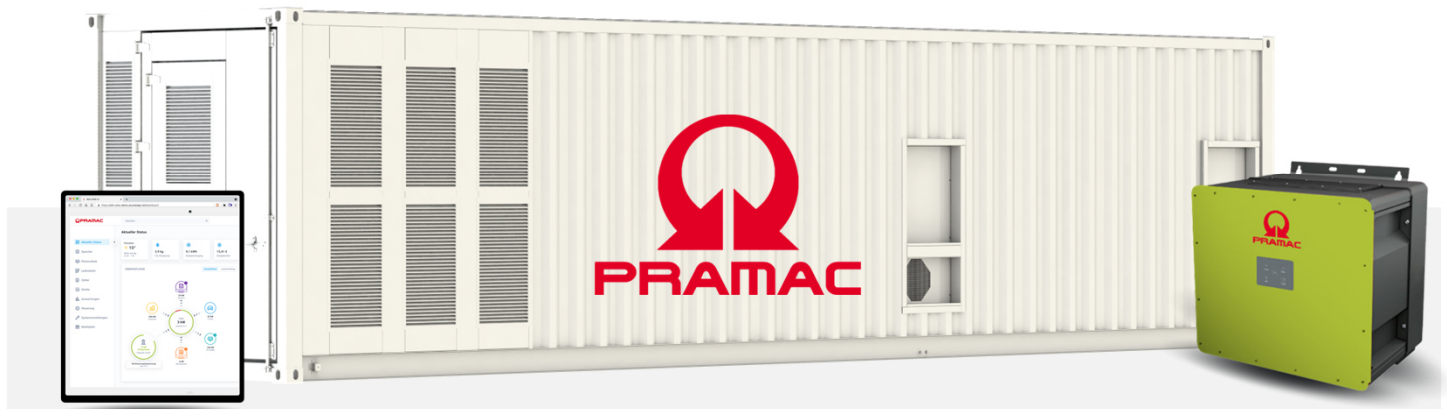
- **Commercial and industrial plants** – Peak Shaving, Time of Use, self-consumption optimization
- **Buffer storage for EV fast charging** – increase of usable power
- **Control power** – balancing grid fluctuations
- **Urban district storage or new buildings** – Transformer load relief



- **Pramac Storage Systems** – leading supplier of power electronics
- **Proven technology** – For a wide range of battery applications
- **Strong team** – with a global partner
- **Reliable energy storage solutions** – Indoor / Outdoor / Container



BATTERY STORAGE CONTAINER BSC



| | 10ft Container | 20ft HC-Container | | 40ft HC-Container | | | |
|---|--|----------------------------------|----------------------------------|-----------------------------------|------------------------------------|-----------------------------------|-----------------------------------|
| TECHNICAL DATA | BSC 352/436/10 ZC351T1D000 | BSC 352/474/20 ZD351T2D000 | BSC 704/948/20 ZD701T2H000 | BSC 264/1066/20 ZD261T2I000 | BSC 1408/1896/40 ZE142T2P000 | BSC 528/2133/40 ZE521T2R000 | BSC 792/2133/40 ZE791T2R000 |
| Battery Data | | | | | | | |
| Total gross capacity (kWh) | 436 | 474 | 948 | 1066 | 1896 | 2133 | 2133 |
| Rated capacity (kWh) (90% DoD) | 392 | 427 | 853 | 959 | 1706 | 1920 | |
| Rated power (kW) | 352 | | 704 | 264 | 1408 | 528 | 792 |
| Max. C-Rate | 1C | | | | | | |
| Celltype | Li-Ion (LFP) Pouch | | | | | | |
| Cycles @ 90% DoD 65% SoH 0,5C/0,5C | 7300 (For details see warranty conditions) | | | | | | |
| PBI 88K-PC | | | | | | | |
| Rated power (kW) | 88 | | | | | | |
| Rated voltage (Vac) | 380 / 400 / 415 | | | | | | |
| Max. AC current (A) | 128 | | | | | | |
| AC grid connection | 3P, PE / TT, TN-C, TN-S | | | | | | |
| Rated frequency (Hz) | 50 | | | | | | |
| THDi (%) | < 3 | | | | | | |
| AC power factor / range | 1 / 0,3i ... 0,3c | | | | | | |
| Max. Efficiency (%) | 98,6 | | | | | | |
| Topology | transformerless | | | | | | |
| Safety facilities container system | | | | | | | |
| Active device | Permanent monitoring of the battery cells | | | | | | |
| | Temperature sensor | | | | | | |
| | Smoke-sensor | | | | | | |
| Passive device | Fire extinguisher with Novec 1230 | | | | | | |
| | Overpressure flap | | | | | | |

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| General data | | | | | | | |
| Working temperature range (°C) | -20 to +50 | | | | | | |
| Cooling / Heating Battery room | Active cooling and heating (air) | | | | | | |
| Cooling / Heating Inverter room | Smart active cooling | | | | | | |
| Max. permissible installation height (m) | 2000 | | | | | | |
| Insulation | Rock wool, 75mm on ceiling and floor | | | | | | |
| Doors | Front and rear access, middle corridor flat accessible | | | | | | |
| Weight Container, assembled (kg) | 8.900 | 11.000 | 17.800 | 18.700 | 33.600 | 35.500 | 37.000 |
| Battery module (kg) | 48 | | | | | | |
| Dimensions (WxDxH, mm) | 2.991×2.438×2.591 | 6.058×2.438×2.896 | | | 12.192×2.438×2.896 | | |
| Protection class | IP65 (Battery room) / IP54 (Inverter room) | | | | | | |
| Interfaces | RJ45 (Ethernet) | | | | | | |
| Certificates / Approvals | | | | | | | |
| Safety Battery | CE / UN 38.3 / UN 3536 / IEC 62619 / IEC 63056 / UL 1973 / UL 9540A / VDE 2510-50 | | | | | | |
| Safety Battery Inverter | IEC 62109-1 / IEC 62109-2 / IEC 62116 / IEC 61727 / IEC 62477-1 / IEC 61439-1 / IEC 61439-2 | | | | | | |
| EU-Directives | 2014/30/EU / 2014/35/EU / 2011/65/EU | | | | | | |
| EMC | EN 61000-6-2 / EN 61000-6-4 / EN 61000-3-12 / EN 61000-3-11 | | | | | | |
| Grid connection conditions | VDE AR-N 4110:2018 / TOR Erzeuger Typ B / UTE C15-712-1 VFR 2019 / G99 / EN 50549-1/-2 | | | | | | |
| Warranty | 10 years product warranty 10 years performance guarantee | | | | | | |



BATTERY STORAGE CONTAINER BSC

TECHNICAL DATA ENERGY-MANAGEMENT-SYSTEM

Pramac Smart Energy Controller (PSEC)
ZY000A00010 | PSEC-DDMM

Voltage supply (Vdc)

- 10-24
- UPS for controlled shutdown and recovery

USB

V 2.0 Micro-USB AB (OTG-Flash-Port)
V 2.0 USB-A (Host Port)

Connectors

LAN

2× RJ45 with 10/100 Mhz Dedicated MAC adresses for OT/IT use

IoT

2× Internal Digital-IO connection module
2× Internal RS485 connection module

Basic functions

- Self-consumption optimization
- Peak load shaving
- Time-based charging/discharging

Extended functions

- Simple management of charging stations
- Load management and prioritisation for charging points

POSSIBLE CONTAINER VARIANTS

| | | #Inverter in kW | | | | | | | | | | | | | | | | | | | | |
|-------------------|---------------|-----------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|--|--|--|--|--|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | | | | | |
| | | 88 | 176 | 264 | 352 | 440 | 528 | 616 | 704 | 792 | 880 | 968 | 1056 | 1144 | 1232 | 1320 | 1408 | | | | | |
| 10ft Container | #Racks in kWh | 1 | 109 | | | | | | | | | | | | | | | | | | | |
| | | 2 | 218 | | | | | | | | | | | | | | | | | | | |
| | | 3 | 327 | | | | | | | | | | | | | | | | | | | |
| | | 4 | 436 | | | | | | | | | | | | | | | | | | | |
| 20ft HC Container | #Racks in kWh | 4 | 474 | | | | | | | | | | | | | | | | | | | |
| | | 5 | 593 | | | | | | | | | | | | | | | | | | | |
| | | 6 | 711 | | | | | | | | | | | | | | | | | | | |
| | | 7 | 830 | | | | | | | | | | | | | | | | | | | |
| | | 8 | 948 | | | | | | | | | | | | | | | | | | | |
| 40ft HC Container | #Racks in kWh | 9 | 1067 | | | | | | | | | | | | | | | | | | | |
| | | 10 | 1185 | | | | | | | | | | | | | | | | | | | |
| | | 11 | 1304 | | | | | | | | | | | | | | | | | | | |
| | | 12 | 1422 | | | | | | | | | | | | | | | | | | | |
| | | 13 | 1541 | | | | | | | | | | | | | | | | | | | |
| | | 14 | 1659 | | | | | | | | | | | | | | | | | | | |
| | | 15 | 1778 | | | | | | | | | | | | | | | | | | | |
| | | 16 | 1896 | | | | | | | | | | | | | | | | | | | |
| | | 16 | 1896 | | | | | | | | | | | | | | | | | | | |
| | | 18 | 2133 | | | | | | | | | | | | | | | | | | | |

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