



# Storage Systems

## BATTERY STORAGE KIT INDOOR BSI 50-176/109-872



- **Pre-configured indoor battery storage kit**
- **Easy installation and commissioning**
- **EMS and Battery inverter 50K or 88K**
- **Modular battery racks for capacity stacking**
- **Combiner rack for easy installation of parallel racks**



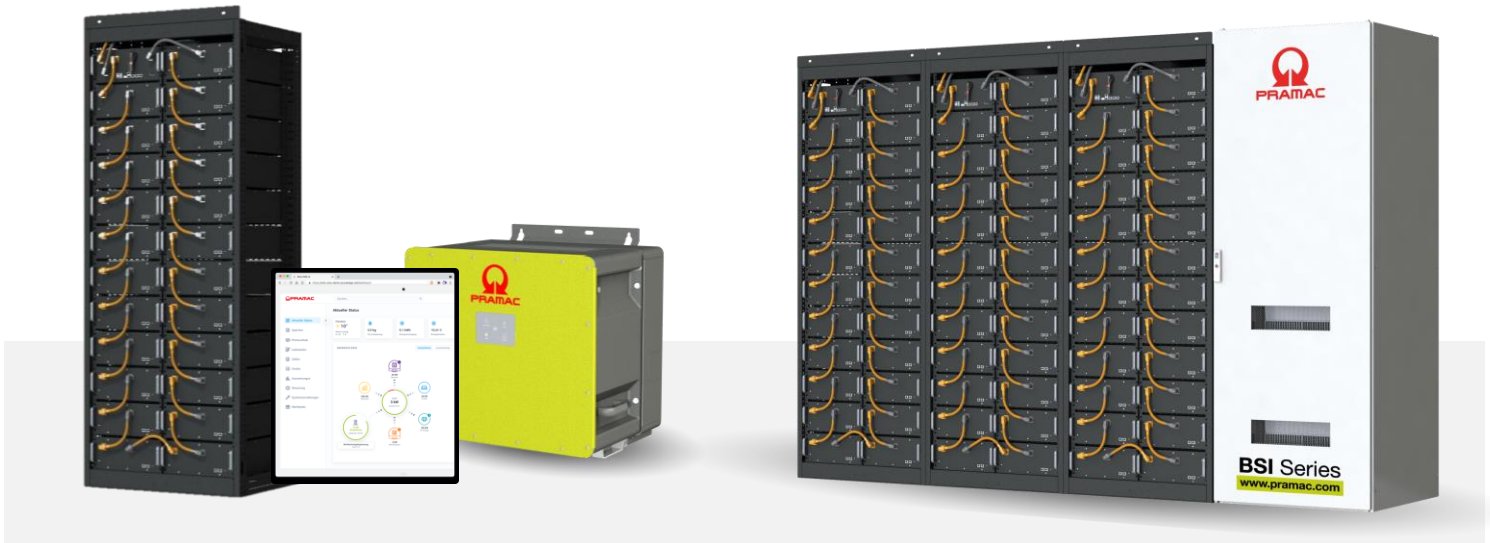
- **Commercial and Industrial Buildings** – Peak Shaving, Time of Use, Self-consumption optimisation
- **Buffer storage for EV fast charging** – increasing the usable output
- **Agricultural buildings** – use of PV electricity after end of subsidies
- **Urban storage or new buildings** – reducing the load on the transformer



- **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 KIT INDOOR BSI



TECHNICAL DATA		BSI /109	BSI /218	BSI /327	BSI /436	BSI /654	BSI /872
Total capacity (kWh)		109	218	327	436	654	872
Net capacity (kWh) (90% DoD)		98	196	294	392	589	785
Rated voltage (Vdc)		736					
Max. Charge/discharge current (A)		148					
Max. C-rate		1C					
Cell type		Li-Ion (LFP) Pouch					
Cycles @ 90% DoD   65% SoH   0,5C/0,5C		7300					
Battery efficiency (%) @ 0,5C		96					
Storage temperature (°C)		-20 to +60					
Working temperature (°C)		+10 to +40					
Humidity (% RH)		5-95, non condensing					
Max. permissible installation height (m)		2000					
Weight	Rack, assembled (kg)	1250	2×1250	3×1250	4×1250	6×1250	8×1250
	Module (kg)	48					
		1×	2×	3×	4×	6×	8×
Dimensions (WxDxH, mm)		(815×659× 2130)	(815×659× 2130)	(815×659× 2130)	(815×659× 2130)	(815×659× 2130)	(815×659× 2130)
Protection class		IP20					
Communication		RJ45 (Ethernet)					
Certificates / Approvals		CE / UN 38.3 / IEC 62619 / IEC 63056 / UL 1973 / UL 9540A / VDE 2510-50 / EN 61000-6-2 / EN 61000-6-4					

## Warranty

5 years product warranty  
10 years performance guarantee

All certificates are available online at [www.pramac-storage-systems.com](http://www.pramac-storage-systems.com)

# BATTERY STORAGE KIT INDOOR BSI

TECHNICAL DATA BATTERY INVERTER 50K/88K	PBI 50K-PC – 421P050.110	PBI 88K-PC – 421P100.110
Rated power (kW)	50	88
AC working range min. - max. (V)	180 ... 528	
Maximum AC current (A)	128	
AC grid connection	3P, PE / TT, TN-C, TN-S	
Rated voltage (Vac)	380 / 400 / 415	
Rated frequency (Hz)	50	
THDi (%)	< 3	
AC power factor / range	1 / 0,3i ... 0,3c	
Max. Efficiency (%)	98,6	
Operating temperature range (°C)	-25 to +60	
Cooling	Smart active cooling	
Weight (kg) Inverter only	69	
Topology	Transformerless	
Noise emission (dB(A))	< 70	
Certification / Approvals	EU Directives	2014/30/EU / 2014/35/EU / 2011/65/EU
	Battery inverter	IEC 62109-1 / IEC 62109-2 / IEC 62116 / IEC 61727 / IEC 62477-1 / IEC 61439-1 / IEC 61439-2
Approvals	EMC	EN 61000-6-2 / EN 61000-6-4 / EN 61000-3-12 / EN 61000-3-11
	Grid connection conditions	DIN VDE V 0126-1-1 / VDE AR-N 4105:2018 / VDE AR-N 4110:2018 / TOR Erzeuger Typ A / UTE C15-712-1 VFR 2019 / G99 / EN 50549-1/-2

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TECHNICAL DATA COMBINER RACK	Single ZY000A00004	Dual ZY000A00005
Space for inverter	1	2
Space for Master-BMS	1	2
+/-DC-Rack connection	4x(DC+/-)	8x(DC+/-)
AC connection terminal area (L1/L2/L3/PE)	4x35-70mm <sup>2</sup>	8x35-70mm <sup>2</sup>
AC auxiliary power supply (L1/N/PE)	0,75-2,5mm <sup>2</sup>	
Protection class	IP20	
Weight (kg) without inverter	165	185
Dimensions (W×D×H, mm)	800×800×2200	

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TECHNICAL DATA ENERGY-MANAGEMENT-SYSTEM		Pramac Smart Energy Controller (PSEC) ZY000A00011   PSEC-DMXX
<b>Voltage supply (Vdc)</b>		<ul style="list-style-type: none"> <li>• 10-24</li> <li>• UPS for controlled shutdown and recovery</li> </ul>
<b>Connectors</b>	USB	V 2.0 Micro-USB AB (OTG-Flash-Port) V 2.0 USB-A (Host Port)
	LAN	2× RJ45 with 10/100 Mhz Dedicated MAC addresses for OT/IT use
	IoT	1× Internal bus connection module Digital-IO 1× Internal bus connection module RS485
<b>Working temperature range (°C)</b>		-25 to +60
<b>Humidity range (% RH)</b>		5-95 (non-condensing)
<b>Case</b>		DIN Rail Case   6TE with low profile
<b>Basic functions</b>		<ul style="list-style-type: none"> <li>• Self-consumption optimization</li> <li>• Peak load shaving</li> <li>• Time-based charging/discharging</li> </ul>
<b>Extended functions</b>		<ul style="list-style-type: none"> <li>• Simple management of charging stations</li> <li>• Load management and prioritisation for charging points</li> </ul>

TECHNICAL DATA SMART METER		Acrel ADL3000-E* ZY000A00002
<b>Voltage</b>	Reference voltage	3×380 V, 3×220/380 V
<b>Current</b>	Input current	3×1(6) A, 3×1(6) A (Passive current transformer), 3×10(80) A
<b>Power</b>		Active, reactive, apparent power, error ±0,5 %
<b>Communication</b>		RS485 (Modbus RTU)
<b>Conductor cross-section voltage measurement min/max (mm<sup>2</sup>)</b>		2,5/16
<b>Mounting</b>		DIN rail
<b>Dimension (W×D×H, mm)</b>		126×88×69

\*Current transformer and fuse protection voltage measurement not included in the scope of delivery

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