



Storage Systems

BATTERY STORAGE KIT INDOOR BSI 50-180/109-872



- **Pre-configured indoor battery storage kit**
- **Easy installation and commissioning**
- **EMS and Battery Inverter 50K or 90K integrated**
- **Modular battery racks for easy capacity expansion**
- **CombinerRack for capacity or power expansion**



- **Commercial and Industrial Buildings** – Peak shaving, Time of Use, Self-consumption optimization, Multi-Use, Energy Trading
- **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 1C/1C		7.300					
Storage temperature (°C)		-20 to +60					
Working temperature (°C)		+10 to +40					
Humidity (% RH)		5-95, non condensing					
Max. permissible installation height (m)		2.000					
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 type		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 warranty					

* For details, see current warranty conditions at www.pramac.com

BATTERY STORAGE KIT INDOOR BSI

TECHNICAL DATA BATTERY INVERTER 50K/90K		PBI 50K 422P050.000	PBI 90K 422P090.000
Rated apparent power (kVA)		50	90
AC working range min. - max. (V)		180 ... 528	
Maximum AC current (A)		73	130
AC grid connection		3P, PE / TT/ TN-C, TN-S	
Rated voltage (Vac)		400	
Rated frequency (Hz)		50	
THDi (%)		< 3	
AC power factor / range		1 / 0i ... 0c	
Max. Efficiency (%)		98,4	
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 / 2015/863/EU	
	Safety Battery Inverter	IEC 62109-1 / IEC 62109-2 / IEC 62116 / IEC 61727 / IEC 62477-1 / IEC 61439-1 / IEC 61439-2	
	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 4110:2023 / TOR Stromerzeugungsanlagen Typ A/B / C10/11 / G99 / CEI 0-16, CEI 0-21 / NTS 631, UNE 217002 / EN 50549-1/-2	

All certificates are available online at www.pramac.com

TECHNICAL DATA COMBINER RACK	CombinerRack Single (CR-Single)	CombinerRack Dual (CR-Dual)
Space for Inverter	1	2
Space for Master-BMS	1	2
+/-DC-Rack connection	4×(DC+/-)	8×(DC+/-)
AC connection terminal area (L1/L2/L3/PE)	4×35-70mm ²	8×35-70mm ²
AC auxiliary power supply (L1/N/PE)	0,75-2,5mm ²	
Protection type	IP20	
Weight (kg) without Inverter	165	185
Dimensions (W×D×H, mm)	800×800×2200	

BATTERY STORAGE KIT INDOOR BSI

Pramac Smart Energy Controller (PSEC) PSEC-DMXX

Basic functions



Monitoring – visualization of energy flows & 24/7 historical data



Local & Cloud access



Operations management



Peak shaving



Self-consumption optimization



Time-of-Use



Multi-Use

Interfaces



REST (Cloud & Local), Modbus TCP

Compatible with

Charging stations

EnerCharge | Wallbox | Alpitronic | Mennekes | ABL
| Cubos | i-charging

Energy meter / Data logger

Janitza | Acrel | Carlo Gavazzi / SMA | Solar-Log | SunGrow

POSSIBLE BSI VARIANTS

			#Inverter in kVA			
			1	1	2	2
			50	90	100	180
#Racks in kWh	1	109	CR-Single/C-Box	CR-Single/C-Box	-	-
	2	218	CR-Single	CR-Single	CR-Dual/C-Box	CR-Dual/C-Box
	3	327	CR-Single	CR-Single	-	-
	4	436	CR-Single	CR-Single	CR-Dual	CR-Dual
	6	654	-	-	CR-Dual	CR-Dual
	8	872	-	-	CR-Dual	CR-Dual