Storage Systems

BATTERY INVERTER
PBI 50K / 90K

- **ON-Grid Variant** – 50kVA and 90kVA
- **ON/OFF-Grid Variant** – 90kVA ON-Grid / 75kVA Backup without additional transformer*
  - **120% Backup overload capability**
  - **Phase unbalance up to 20kVA (without transformer)**
  - **Diode load (up to 1kW)**

  *Only in combination with the Pramac Smart Transfer Switch (PSTS)

- **Commercial and Industrial Buildings** – Peak shaving, Self-consumption, Time of Use, Energy Trading, Mult- Use, Backup-Mode
- **Buffer storage for EV fast charging** – Increasing the usable output
- **Agricultural buildings** – Use of PV electricity after end of subsidy
- **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
- **Retrofitting of existing Pramac systems possible**



TECHNICAL DATA BATTERY INVERTER





* Connection Box

TECHNICAL DATA	PBI 50K / 90K ON-Grid	PBI 90K-BU ON/OFF-Grid
Art. No.	**422P050 / 422P090**	**423P090**
Optional for installation*	Connection Box 50K / 90K (940P300.100)	Connection Box 90K (940P300.200)
DC Data		
DC operational range min. – max. (V)	620 – 1000	
DC voltage range at nominal power (V)	650 – 900	
Nominal voltage DC (V)	720	
Max. operational current DC (A)	85 / 155	155
DC connection PowerUnit - ConnectionBox	1 Plus, 1 Minus: Connector with Button Activated Coupling	
AC Data – ON-Grid		
Apparent power (kVA)	50 / 90	90
AC Rated voltage AC, Uac (V)	400	
AC operational range min. – max. (V)	180 – 528	
AC grid connection / Grid types	3P, PE / TT, TN-C	3P, N, PE / TT, TN-C-S
Nominal power factor / Range	1 / 0i … 0c	
Rated frequency / Frequency Range (Hz)	50 / 45 … 65	
Max. AC current, Imax (A)	73 / 130	130
Max. THD (%)	< 3	
Max. efficiency (%)	98,4	
Initial short circuit current (Ik)	73 / 130	130
AC Data – Backup Mode**		
Apparent power (kVA)	-	75
AC Rated voltage AC, Uac (V)	-	400
Max. peak current (A)	-	185
Overload capability(%)	-	120

**** Only in combination with the Pramac Smart Transfer Switch (PSTS)**

TECHNICAL DATA BATTERY INVERTER

	PBI 50K / 90K ON-Grid	PBI 90K-BU ON/OFF-Grid
Art. No.	**422P050 / 422P090**	**423P090**
Ambient Conditions		
Cooling	Smart active cooling	
Max. working temperature for nominal power (°C)	45	
Working temperature range (°C)	-25 to +60	
Rel. Air humidity (%)	0 – 100	
Max. elevation (m above sea level)	3000	
Noise level (dBA)	< 70	
Environment classification (IEC 60721-3-4)	4K4H	
Type of protection	IP65	
Installation type	indoor / outdoor, vertical / flat	
Safety and Protection Functions		
Grid monitoring (acc. DIN VDE V 0126-1-1)	Voltage, Frequency, Passive and Active Anti-Islanding	
Grid separation	Gate Block / redundant Grid Relays	
Overvoltage category (IEC 60664-1)	DC: II / AC: III	
DC-precharge	integrated	
General Data		
Topology	Transformerless	
DC pole grounding	not allowed	
Interfaces	2 × Ethernet (Daisy-Chain), Bluetooth® BLE, 1 × Remote Off Signal	
Communication Protocols	Sunspec / MESA (Modbus TCP)	
Dimensions W × H × D (mm)	673 × 626 × 321	
Weight (kg)	69	73
Certificates		
EU Directive	2014/30/EU / 2014/35/EU / 2011/65/EU / 2015/863/EU	
Product safety	IEC 62109-1 / IEC 62109-2 / 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	
Environment	IEC 60068-2-2 / -2-78 / -2-6 / -2-27	
Grid Codes	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 / AS 4777.2 / Eirgrid	

All certificates are available at **www.pramac.com**

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