



Storage Systems

BATTERY INVERTER PBI 50K / 90K



- **ON-Grid Variant** – 50kVA und 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)



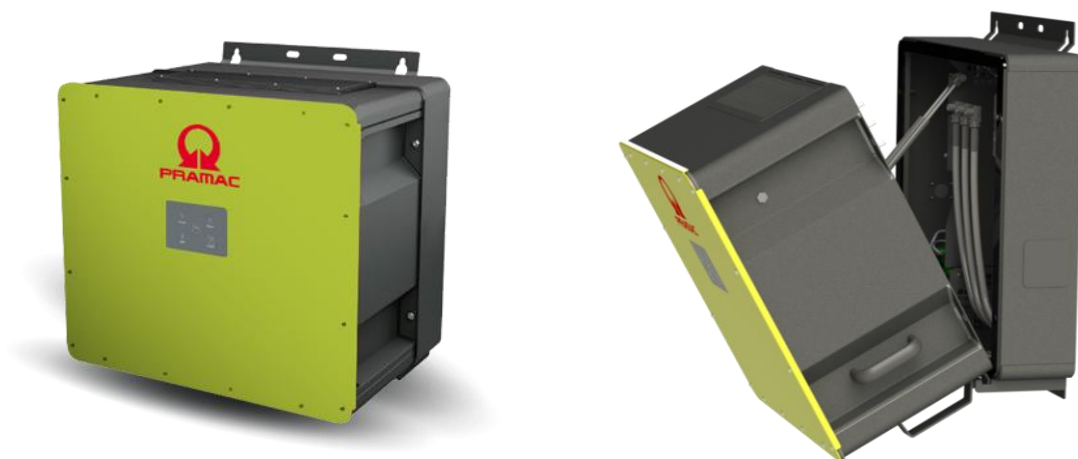
- **Commercial and Industrial Buildings** – Peak shaving, Self-consumption, Time of Use, Energy Trading, Backup-Mode
- **Buffer storage for EV fast charging** – Increasing the usable output
- **Agricultural buildings** – Use of PV electricity after end of subsidy
- **Urban storage or new buildings**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



TECHNICAL DATA	PBI 50K / 90K ON-Grid	PBI 90K ON/OFF-Grid
Art. Nr.	422P050.000 422P090.000	423P090.000
DC Data		
DC operational range min. – max. (V)	620 – 1.000	
DC voltage range at nominal power (V)	650 – 900	
Nominal voltage DC (V)	720	
Max. operational current DC (A)	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 / TN-C	3P, N, PE / TN-C-S
Nominal power factor / Range	1 / 0i ... 0c	
Rated frequency / Frequency Range (Hz)	50 / 45 ... 65	
Max. AC current, I _{max} (A)	74 / 130	130
Max. THD (%)	< 3	
Max. efficiency (%)	98,6 (applied standard IEC 61683)	
AC Daten – Backup Mode		
Apparent power (kVA)	-	75
AC Rated voltage AC, Uac (V)	-	400
AC grid connection / Grid types	-	3P, N, PE / TN-C-S
Overload capability(%)	-	120

TECHNICAL DATA BATTERY INVERTER

	PBI 50K / 90K ON-Grid	PBI 90K-BU ON/OFF-Grid
Art. Nr.	422P050.000 422P090.000	423P090.000
Ambient Conditions		
Cooling	Smart active cooling	
Max. temp. for nominal power (°C)	45	
Ambient temperature (°C)	-25 to +60	
Rel. Air humidity (%)	0 – 100	
Max. elevation (m above sea level)	3.000	
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, DC injection	
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	74,5
Certificates		
EU Directive	2014/30/EU / 2014/35/EU / 2014/53/EU / 2011/65/EU IEC 62109-1 / IEC 62109-2 / IEC 62116 / IEC 61727 / IEC 62477-1 / IEC 61439-1 / IEC 61439-2 / ETSI EN 300 328 V.2.1.1	
Product safety	EN 61000-6-2 / EN 61000-6-4 / EN 61000-3-12 / EN 61000-3-11	
EMC	IEC 60068-2-1 / -2-2 / -2-30 / -2-78 / -2-14 / -2-6 / -2-27 / -2-75	
Environment	DIN VDE V 0126-1-1 / VDE AR-N 4105:2018 / 4105:2018 / VDE AR-N 4110:2018 / TOR / TOR Erzeuger Typ A / C10/11 / Erzeuger Typ A/B / EN 50549- UTE C15-712-1 VFR 2019 / G99 / 1/-2 EN 50549-1/-2	
Grid Codes	VDE AR-N 4105:2018 / TOR Erzeuger Typ A/B / EN 50549- 1/-2 More in progress (Q3/Q4/24)	
All certificates are available at www.pramac-storage-systems.com		

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