



# Storage Systems

## BATTERY INVERTER 50K / 88K



- **Maximum power density**
- **Highest serviceability**
- **Suitable for 2nd life battery applications**
- **Wide AC and DC voltage range above average**



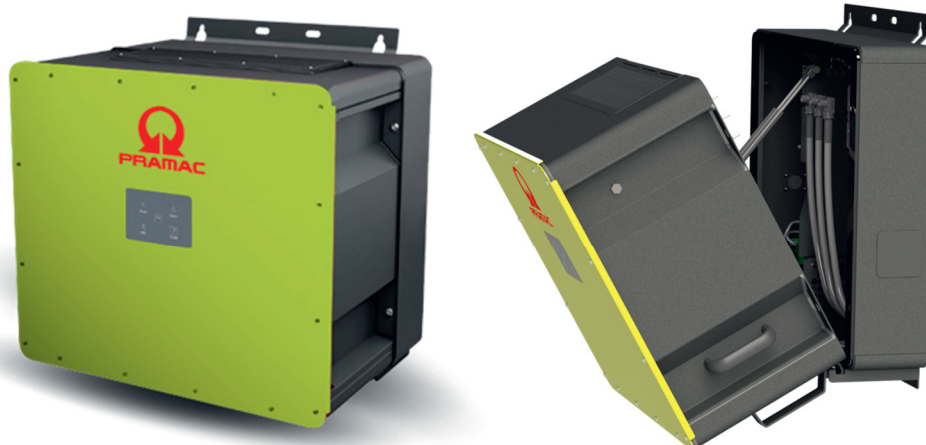
- **Commercial and Industrial Buildings** – Peak Shaving, Self consumption, Time of Use
- **Buffer storage for EV fast charging** – increasing the usable output
- **Agricultural buildings** – use of PV electricity after end of EEG
- **Urban storage or new buildings** – reducing the load on the transformer



- **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



# TECHNICAL DATA BATTERY INVERTER



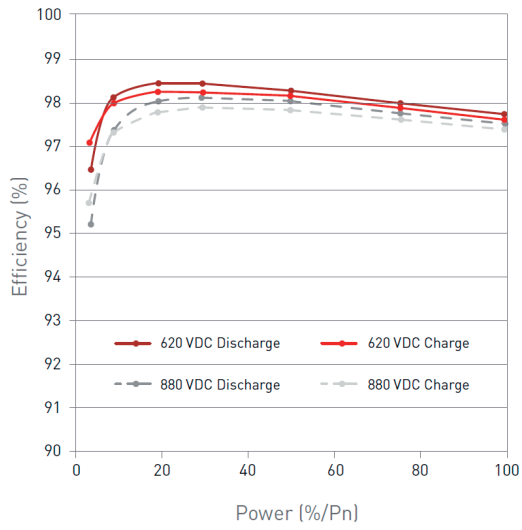
TECHNICAL DATA	PBI 88K	PBI 50K
Art. Nr. Standard	420P088.120	420P050.120
Art. Nr. DC precharge integrated	421P100.110	421P050.110
<b>DC Data</b>		
DC operational range min. – max. (V)	585 – 1.000	
DC voltage range at nominal power (V)	585 – 900	
Nominal voltage DC (V)	720	
DC start-up open circuit voltage, Usdc (V)	585	
Max. operational current DC (A)	153	87
DC connection PowerUnit - ConnectionBox	1 Plus, 1 Minus: Connector with Button Activated Coupling	
<b>AC Data</b>		
Apparent power (kVA)	88	50
Rated voltage AC 3-Phase, Uac (V)	400	
AC operational range min. – max. (V)	180 – 528	
AC grid connection / Grid types	3 Phasen, PE / TT, TN-C, TN-S	
Nominal power factor / Range	1 / 0.3i ... 0.3c	
Rated frequency / Frequency Range (Hz)	50, 60 / 45 ... 65	
Max. AC current, I <sub>max</sub> (A)	128	
Max. AC short circuit current (A rms)	64 (3 period average)	
Inrush current (peak / duration)	25 A / 0.5 ms	
Max. THD (%)	< 3	
Max. efficiency (%)	98,6 (applied standard IEC 61683)	
Maximum admissible external AC fuse	160 A, gG, Un = 500 V	
Maximum admissible external DC fuse	200 A, gR, Un = 1.000 V	
Peak current (I <sub>p</sub> ) / Initial short circuit current (I <sub>k</sub> ) acc. IEC 60690-0 (A)	128 / 325	
AC connection PowerUnit - ConnectionBox	Connector with Button Activated Coupling	

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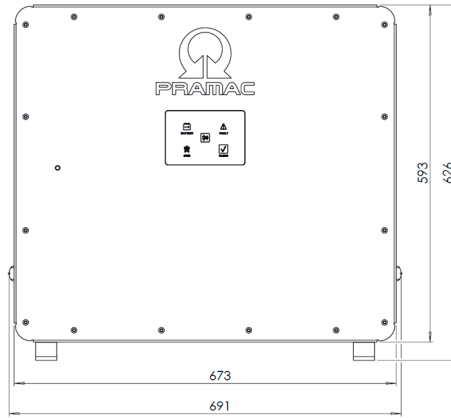
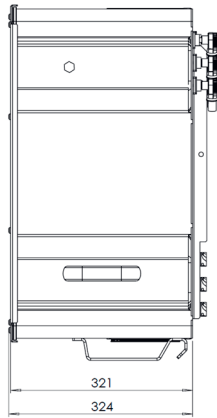
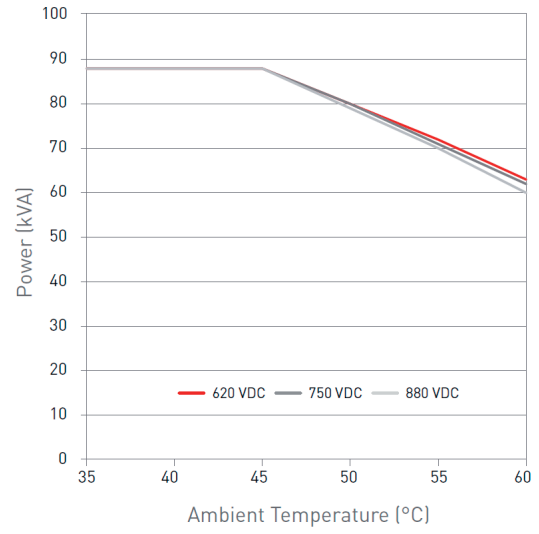
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Art. Nr. Standard	420P088.120	420P050.120
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<b>Ambient Conditions</b>		
Cooling	Smart active cooling	
Max. temp. for nominal power (°C)	45	
Ambient temperature (°C)	-25 to +60	
Rel. Air humidity (%)	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	
<b>Safety and Protection Functions</b>		
Safety and protection devices	Refer to ConnectionBox	
Grid monitoring (acc. DIN V VDE V 0126-1-1)	Voltage, Frequency, Passive and Active Anti-Islanding, DC injection	
Grid separation	Gate Block / redundant Grid Relays	
Compatibility external RCD	Type A / Type B	
Protection class (IEC 62109)	1	
Overvoltage category (IEC 60664-1)	DC: II / AC: III	
DC-precharge	420: no (not integrated) 421: integrated	
<b>General Data</b>		
Topology	Transformerless	
DC pole grounding	not allowed	
Status display / Keys	4 LED's (DC status, AC status, Fault, Bluetooth®) / 2 Keys (Connect, Clear)	
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	
<b>Certificates</b>		
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	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, VDE AR-N 4110:2018, TOR Erzeuger Typ A, UTE C15-712-1 VFR 2019, G99; EN 50549-1/-2	
Grid Codes		

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

## EFFICIENCY



## POWER / TEMPERATURE



## CONNECTIONBOX 940P300.100

