

Power-Blox PBX-200



Input PV / Mppt (DC)	PBX-200 Pb	PBX-200 Li	PBX-200 Li/LE
Absolute maximum voltage ($V_{MAX PV}$)	45 V		
MPPT voltage range	30 V ... 45 V		
Maximum input DC power ¹	200 W		
Recommended input power ²	250 W ... 500 W		
Maximum DC input current	8 A		
Maximum short current ($I_{SC PV}$) ²	8 A		
Solar connection type	Neutrik powerCON TRUE1 inlet / terminals 0.2-6 mm ²		
Reverse polarity protection	Yes		

¹ Maximum power the MPPT can handle.

² If the solar module can generate a current higher than 8.0 A, an additional string fuse must be used.

Input Grid / Generator (AC)	PBX-200 Pb	PBX-200 Li	PBX-200 Li/LE
Input voltage range	220-240 V		–
Maximum input current	10 A		–
Grid frequency range	47 Hz ... 64 Hz		–
Grid connection	C14 socket / terminals 0.2-6 mm ²		–
Fuse	Resettable circuit breakers 10 A		–
Equipotential bonding	Screw M6 (only from the series 1707.x.xxx and higher installed)		

Input / Output Transfer (AC)	PBX-200 Pb	PBX-200 Li	PBX-200 Li/LE
Transfer voltage range	220-240 V		
Maximum transfer current	10 A		
Transfer frequency range	47 Hz ... 64 Hz		
Transfer cable	1.3 m cable with Neutrik powerCON Plug		
Transfer socket	Neutrik powerCON inlet / terminals 0.2-6 mm ²		
Fuse	Resettable circuit breakers 10 A		

Sockets output rating, mains operation (AC)	PBX-200 Pb	PBX-200 Li	PBX-200 Li/LE
Voltage range	220-240 V		–
Maximum continuous power ³	2'125 VA		–
Maximum continuous current ⁴	9.25 A		–
Frequency	47 Hz ... 64 Hz		–
Power factor range	0.1 ... 1		–
Amount	2		

³ For each additional PBX-200 connected, the maximum continuous current decreases by 0.75 A.

⁴ For each additional PBX-200 connected, the maximum continuous power decreases by 175 VA.

Sockets output ratings, standalone operation (AC)	PBX-200 Pb	PBX-200 Li	PBX-200 Li/LE
Voltage range	220-240 V		
Maximum continuous power per PBX-200 ⁵	200 VA		
Maximum continuous current per PBX-200 ⁶	0.87 A		
Frequency	47 Hz ... 64 Hz		
Power factor range	0.1 ... 1		
Amount	2		

⁵ For each additional PBX-200 connected, the maximum continuous power increases by 200 VA.

⁶ For each additional PBX-200 connected, the maximum continuous current increases by 0.87 A.

Car socket (DC)	PBX-200 Pb	PBX-200 Li	PBX-200 Li/LE
Voltage	12 V		
Maximum current	3 A		
Amount	1		
Total power (USB socket and car socket)	36 W		

USB sockets (DC)	PBX-200 Pb	PBX-200 Li	PBX-200 Li/LE
Voltage	5.0 V		
Maximum current	2 A		
Amount	2		
Total power (USB socket and car socket)	36 W		

Inverter (AC)	PBX-200 Pb	PBX-200 Li	PBX-200 Li/LE
Continuous output voltage	220-240 V		
Continuous output power	200 VA		
Maximum output power for 3 seconds	400 VA		
Output frequency range	47 Hz ... 64 Hz		
Harmonic distortion	<4%		
Power factor range	0.1 ... 1		

Mains charge controller (AC)	PBX-200 Pb	PBX-200 Li	PBX-200 Li/LE
Charging characteristic	IUoU ⁷	Li BMS ⁷	–
Input voltage range	220-240 V		–
Maximum input power	175 VA		–
Maximum input current	0.75 A		–
Input frequency range	47 Hz ... 64 Hz		–

⁷ IUoU = Multi-stage charging process for optimum charging of batteries. BMS = Battery Management System

Battery (DC)	PBX-200 Pb	PBX-200 Li	PBX-200 Li/LE
Integrated battery	2 x Hoppecke sun power VR M 12 V, 58 Ah	2 x GreenLiFE 12 V, 50 Ah or 1 x Ronda 24 V, 50 Ah	
Battery technology	Lead-acid / AGM ⁸	Lithium / LiFePO4 ⁹	
Battery capacity	1'392 Wh	1'200 Wh	
Usable capacity	80%	90%	
Internal battery voltage	24 V		
Expected lifetime	3 years ... 10 years	> 10 years	

⁸ AGM = Absorbent Glass Mat, Electrolyte is bound in a fleece of glass fibers

⁹ LiFePo4 = Lithium iron phosphate

Swarm connector	PBX-200 Pb	PBX-200 Li	PBX-200 Li/LE
Connecting multiple PBX-200	With integrated cable		
Maximum stacking tower height	3 units		
Maximum stacking / transfer capacity	9 units / 1.8 kW		

Certifications	PBX-200 Pb	PBX-200 Li	PBX-200 Li/LE
Electromagnetic compatibility (EMC)	IEC/EN55032, IEC/EN61000		
Safety standards	EC/EN62109-1, IEC62109-2		

Environmental conditions	PBX-200 Pb	PBX-200 Li	PBX-200 Li/LE
Ingress Protection Marking	IP20		
Relative humidity	95% non condensing		
Operating temperature ¹⁰	-10 °C ... 45 °C ¹¹	-0 °C ... 50 °C ¹²	
Ventilation	Passive, no active cooling		
Maximum operating altitude	2'000 m.a.s.l.		
Warranty	2 years		

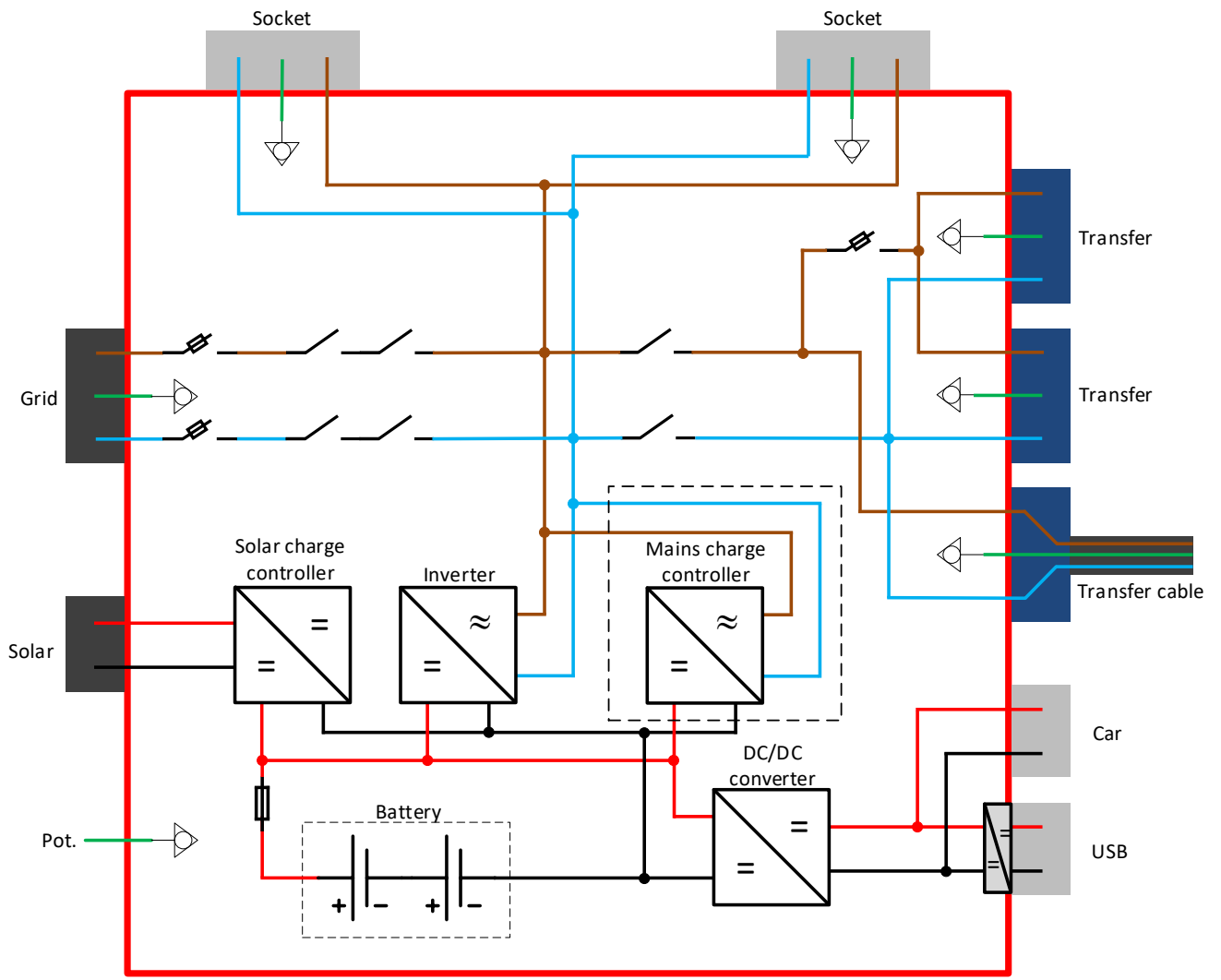
¹⁰ All technical data refer to an ambient temperature of 25° C.


¹¹ The batteries age much faster if the operating temperature remains above 30°C.

¹² The batteries age much faster if the operating temperature remains above 45°C.

General data	PBX-200 Pb	PBX-200 Li	PBX-200 Li/LE
Weight	52 kg	22 kg	21 kg
Dimensions (W / H / D)	400 mm / 443 mm / 400 mm		

Schematic diagram PBX-200



 Mains charge controller
not available in LE-version.

Pot. Only from the series 1707.x.xxx
and higher installed.