

PVBOF SERIES

1KVA/24V

1-6KVA/48V

5-7.5KVA/96V




5-12.5KVA/120V

15KVA/240V

MPPT-BASED PCU (SINGLE PHASE)

The Heavyduty Soldier of Solar Inverters

DATASHEET

-  **Maximum utilisation of solar power**
-  **No dependency on grid**
-  **5 modes of priority**



PVbInk inverters are the perfect amalgamation of power and performance. Our powerful inverters are ideal for running high-load requirements. PVbInk's inverter range comes with intelligent charging features to ensure extended power backup. Our inverters have been designed to save energy by providing high performance and minimum losses. The compact size and light weight of the inverters make them easy to install. With continuous research and development in PV inverters and renewable power, PVbInk is your one-stop solar technology solutions provider.

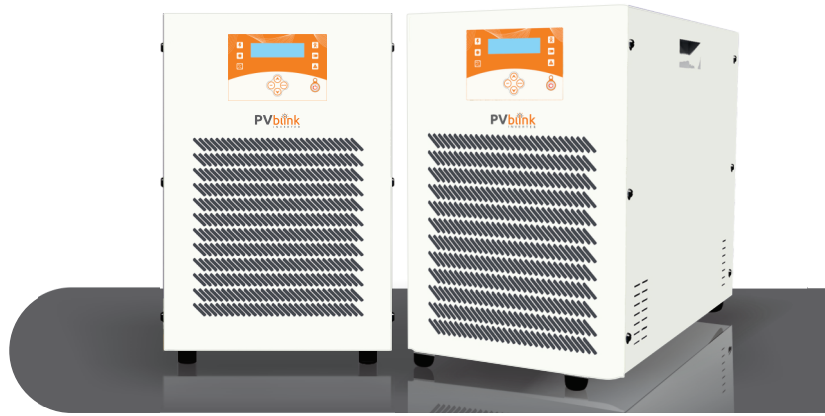
LOW VOLTAGE MPPT PCU PVBOF SERIES SINGLE PHASE

RATINGS	1KVA/24V	1KVA/48V	2KVA/48V	3KVA/48V	4KVA/48V	5KVA/48V	6KVA/48V
Models	PVBOF-024-1K0-1P	PVBOF-048-1K0-1P	PVBOF-048-2K0-1P	PVBOF-048-3K0-1P	PVBOF-048-4K0-1P	PVBOF-048-5K0-1P	PVBOF-048-6K0-1P
A. MPPT CHARGER							
Type (Buck)	MPPT						
Nominal capacity (Kwp)	1	1	2	3	4	5	6
Max PV strings in parallel	2	1	2	3	4	5	6
No of MPPT channel	1						
Max. open circuit voltage (Voc)	105	190					
MPPT tracking range (Vmp)	35-72	75-160					
Max. output current (A)	40	20	40	60	80	100	120
Peak efficiency	≥92%			≥94%			
B. SOLAR INVERTER							
Nominal capacity	1KVA	1KVA	2KVA	3KVA	4KVA	5KVA	6KVA
Output current(A)	3.5	3.5	7.0	10.4	13.9	17.4	20.8
Battery voltage (V)	24	48					
Output Voltage/Freq/Phase	230V(±2%)/50Hz/1P						
Power Factor	0.8-unity						
Peak efficiency	≥85%						≥88%
Over loads:60sec/30sec/5sec	101-110%/111-125%/126-150%						
Auto bypass feature	Provided						
C. GRID CHARGER							
Grid voltage range (V)	230V(+10% & -20%)						
Grid freq range (Hz)	50Hz(+5% & -5%)						
Max. grid import power	1.5KVA	1.5KVA	3KVA	4.5KVA	6KVA	7.5KVA	9KVA
D. PROTECTIONS & DISPLAY PARAMETERS							
	PROTECTIONS				LCD PARAMETERS		
PV side	• Reverse polarity, PV overload, Surge protection (MOV)				• Voltage, Current, Power, Energy		
Battery side	• Reverse polarity, O/U Voltage, Current limit				• Voltage, Current, Battery charging/discharging		
Grid side	• O/U voltage, O/U frequency, Surge protection (MOV)				• Voltage, Current, Frequency		
Load side	• O/U voltage, Overloads, Short circuit, Surge protection (MOV)				• Voltage, Current, Frequency, Power		
Miscellaneous	• Over temperature				• Mode of operation, Faults		
E. MISCELLANEOUS							
Switchgear protection	MCB/MCCB provided on PV, Battery, Load & grid path.						
LED indications	Power on, Inverter on, Solar present/Charging, Load on grid/Charging, Battery low, System trip						
Remote monitoring	Optional through GPRS based modem						
Degree of protection	Indoor type (IP-20)						
Operating temperature	0-50 degrees (without derating)						
Type of cooling	Forced cooled (Temp. controlled)						
Humidity	Max. 95% Non-condensing						
Altitude	1000m above sea level						
Dimensions (H x W x D)*	175 x 450 x 360	347 x 275 x 385	348 x 295 x 415	448 x 275 x 580	498 x 300 x 680		

Optional grid charging

Optional two-way lot access

Large LCD display



HIGH VOLTAGE 5-15 KVA PVBOF SERIES SOLAR MPPT PCU

RATINGS	5KVA/96V	6KVA/96V	7.5KVA/96V	5KVA/120V	7.5KVA/120V	10KVA/120V	12.5KVA/120V	15KVA/240V	
Models	PVBOF-096-5K0-IP	PVBOF-096-6K0-IP	PVBOF-096-7K5-IP	PVBOF-120-5K0-IP	PVBOF-120-7K5-IP	PVBOF-120-10K0-IP	PVBOF-120-15K0-IP	PVBOF-240-15K0-IP	
A. SOLAR CHARGE CONTROLLER									
PV nominal capacity (Total Kwp)	5	6	7.5	5	7.5	10	10	15	
Max. PV strings in parallel	4	5	6	4	6	6	6	5	
Charge controller type (Buck)	MPPT								
No of MPPT channel	1								
MPPT Voltage range	140-299			165-299			165-299	365-560	
Max. Open circuit PV Volts (Voc)	360								
Max. O/P Amps	50	60	75	40	60	80	80	60	
Peak charging efficiency	≥94%								
B. SOLAR INVERTER									
Nominal capacity	5KVA	6KVA	7.5KVA	5KVA	7.5KVA	10KVA	12.5KVA	15KVA	
Output current (A)	17.5	21	26	17.5	26	35	43.5	52	
Battery voltage (V)	96			120			240		
Output Voltage/Freq/Phase	230V/50Hz/1P								
Power Factor	0.8-unity								
Peak efficiency	≥88%								
Over loads:60sec/30sec/5sec	101-110%/110-125%/126-150%								
Auto bypass feature	Provided								
C. GRID CHARGER									
Grid voltage range (V)	230V(+10% & -20%)								
Grid freq range (Hz)	50Hz(+5% & -5%)								
Max. grid import power	7.5KVA	9KVA	11.3KVA	7.5KVA	11.3KVA	15KVA	18.7KVA	22.5KVA	
D. PROTECTIONS & DISPLAY PARAMETERS									
	PROTECTIONS				LCD PARAMETERS				
PV side	• Reverse polarity, PV overload, Surge protection (MOV)				• Voltage, Current, Power, Energy				
Battery side	• Reverse polarity, O/U Voltage, Current limit				• Voltage, Current, Battery charging/discharging				
Grid side	• O/U Voltage, O/U Frequency, Surge protection (MOV)				• Voltage, Current, Frequency				
Load side	• O/U Voltage, Overloads, Short circuit, Surge protection (MOV)				• Voltage, Current, Frequency, Power				
Miscellaneous	• Over temperature				• Mode of operation, Faults				
E. MISCELLANEOUS									
Switchgear protection	MCB/MCCB provided on PV, Battery, Load & grid path.								
LED indications	Power on, Inverter on, Solar present/Charging, Load on grid/Charging, Battery low, System trip								
Remote monitoring	Optional through GPRS based modem								
Degree of protection	Indoor type (IP-20)								
Operating temperature	0-50 degrees (without derating)								
Type of cooling	Forced cooled (Temp. controlled)								
Humidity	Max. 95% Non-condensing								
Altitude	1000m above sea level								
Dimensions (H x W x D)*	652 x 375 x 625					650 x 400 x 700	650 x 450 x 700	667.5 x 500 x 700	

*Specifications are subject to change without prior notice due to constant improvement in design and technology. The above models are compatible with lead-acid batteries only.