

INV-B

RACKMOUNTING INVERTER WITH BYPASS



POSITIVE PROBLEM SOLVING **+ =**

The INV-B is ideal for ensuring loads are continually supplied in the event of mains failure. This series of inverters are built with integrated static bypass switches.

Connected systems are protected from downtime caused by power failures and disturbances. Should the usual AC supply fail the INV-B will automatically switch over to the connected DC Source within 10ms. When the bypass is operated the phase angle of the voltage output is synchronised to the previous sinewave to provide a seamless changeover. Where the mains supply is particularly unreliable the INV-B can be set to permanently operate from the DC supply.

- + Robust IGBT End Stage**
- + Low Output Impedance**
- + No 50Hz Transformer**
- + Integrated Static Bypass**
- + Efficiency Over 88%**

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FURTHER DETAILS

The inverter can be manually switched to pass through the AC input when the batteries need to be serviced. The inverter produces a true stabilised sinewave output that is controlled by high quality micro-processors. This ensures the INV-B range is ideal for even the most sensitive loads. These robust units are extremely efficient at converting energy meaning longer autonomy times or smaller battery capacity requirements. The wide operating temperature range and choice of inputs help to ensure that the INV-B is the first choice for the majority of locations.

SELECTION TABLE

Part Number	Maximum Power ¹	Input Voltage	Output Voltage ²	Output Frequency ²
INV-B 500-24	500VA	24VDC	230VAC	50Hz
INV-B 500-48-60	500VA	48/60VDC	230VAC	50Hz
INV-B 500-110	500VA	110VDC	230VAC	50Hz
INV-B 500-220	500VA	220VDC	230VAC	50Hz
INV-B 1000-24	1000VA	24VDC	230VAC	50Hz
INV-B 1000-48-60	1000VA	48/60VDC	230VAC	50Hz
INV-B 1000-110	1000VA	110VDC	230VAC	50Hz
INV-B 1000-220	1000VA	220VDC	230VAC	50Hz
INV-B 2000-24	2000VA	24VDC	230VAC	50Hz
INV-B 2000-48-60	2000VA	48/60VDC	230VAC	50Hz
INV-B 2000-110	2000VA	110VDC	230VAC	50Hz
INV-B 2000-220	2000VA	220VDC	230VAC	50Hz
INV-B 4000-48-60	4000VA	48/60VDC	230VAC	50Hz
INV-B 4000-110	4000VA	110VDC	230VAC	50Hz
INV-B 4000-220	4000VA	220VDC	230VAC	50Hz
INV-B 4000-540	4000VA	540VDC	230VAC	50Hz

¹This is the maximum continuous apparent power at max PF. ²Different output voltage and frequencies are possible. Please contact ETPS to discuss your requirements.

OPTIONS

CODE	DESCRIPTION
/1	Unit built with 115VAC, 60Hz output (not available for INV-B 4000 units)
/2	Unit built with connectors mounted on rear of unit (not possible with option /L*)
/3	Unit built with 230VAC, 60Hz output
/L	LAN interface for remote setting and measurement (INV-B 2000 or INV-B 4000)

*Due to necessary prototyping, at present only the INV-B 4000-100 is available with rear mounted LAN interface. Feasibility for other models will be considered upon request.

TECHNICAL DATA

	INV-B 500	INV-B 1000	INV-B 2000	INV-B 4000
Maximum Continuous True Power	400W	800W	1600W	3200W
Permissible Power Factor	-0.8 to +0.8			
Maximum Continuous Apparent Power	500VA	1000VA	2000VA	4000VA
Voltage	230VAC, failure tolerance $\pm 5\%$ [Option /1 for 115VAC, 60Hz]			
Frequency	50Hz [Option /1 for 115VAC, 60Hz], sinewave processor controlled			
Load Range	0 - 100%			
Crestfactor	>2.5			
Harmonic Distortion	<2%			

INPUT RANGE

24VDC	19 - 31VDC
48/60VDC	38 - 72VDC
110VDC	88 - 132VDC
220VDC	178 - 264VDC
540VDC	350 - 750VDC [4kVA units only]

GENERAL

Electrical Safety	EN 60950, VDE 0805 (overload & short circuit protected)		
Efficiency	>88% at nominal load		
Galvanic Isolation	3.75kVDC		
EMC (Emission)	EN 50081-1, Curve EN 55022B		
EMC (Immunity)	EN 50082-2		
Operating Temperature (non condensing)	-5°C to +45°C	-5°C to +55°C	
Over-Temperature Derating (2%/K derating)	-45°C to 70°C	-55% to +70°C	

HOUSING

Casing	19" rack with mounting flanges			
Size	19" x 3U x 240mm (W x H x D)		19" x 3U x 360mm (W x H x D)	
Weight	Approx. 7kg	Approx. 7.5kg	Approx. 11kg	Approx. 15kg
Classification	IP 20			
Ventilation	Internal fan			

ELECTRICAL CONNECTIONS

Connector Position	Front of unit [Option /2 for rear of unit]			
DC Input (at 24, 48/60, 72VDC)	3 x high current terminal blocks 16mm			
DC Input (at 110, 220, 540VDC)	3 x high current terminal blocks 16mm	Phoenix Power Combicon	3 x high current terminal blocks 16mm	
AC Output	Appliance outlet Schurter		1 x Phoenix Power Combicon	
AC Input (bypass)	Appliance inlet Schurter		2 x Phoenix Power Subcon	
Alarm	Phoenix Mini Combicon		Binder round connector	
Bypass Switch Time	<10ms		<5ms	

OTHER

Optical Signals	LCD dot matrix display	LEDs for load display, PG/ON
Signal Output	Voltage free alarm contact for loss of output	Potential free contact
Accessories	Push button for setup, DC switch, AC switch	Push button for setup, DC switch
Warranty	2 years	

Every effort is made to ensure that the information provided within this technical summary is accurate. However, ETPS Ltd must reserve the right to make changes to the published specifications without prior notice. Where certain operating parameters are critical for your application we advise that they be confirmed at the time of order. ETPS Ltd specialises in modifying its proven platforms to suit your needs. Please contact our office if your requirement is non-standard. Please note that your actual unit may differ from those shown.



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ETPS engineer electronic power supply and testing systems. Our problem solving skills provide the spark of innovation to some of the world's leading technology brands.



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