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# INV-B Rackmounting Inverter with Bypass

## Description

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. 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.



- Robust IGBT end stage
- Low output impedance
- No 50Hz transformer
- Built-in static bypass
- Efficiency over 88%

## Selection Table

Part Number	Maximum Power	Input Voltage	Output Voltage	Output Frequency
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

\*Different output voltages and frequencies are possible. Please contact ET to discuss your requirements.



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# INV-B Rackmounting Inverter with Bypass

## Technical Data

	INV-B-500	INV-B-1000	INV-B-2000	INV-B-4000
<b>Output</b>				
Output Power	500VA/400W	1kVA/800W	2kVA/1600W	4kVA/3200W
Voltage	230VAC, failure tolerance $\pm 5\%$ (Option /1 for 115VAC, 60Hz)			
Frequency	50Hz (Option /1 for 115VAC, 60Hz), sinewave processor controlled			
Power Factor	0.8			
Load Range	0 - 100%			
Crestfactor	> 2.5			
Harmonic Distortion	< 2%			
<b>Input Range</b>				
24VDC	24 (19 - 31)VDC			
48/60VDC	48/60 (38 - 72)VDC			
110VDC	110 (88 - 132)VDC			
220VDC	220 (178 - 264)VDC			
<b>General</b>				
Electrical Safety	EN 60950, VDE 0805 (overload & short-circuit protected)			
Efficiency	>88% at nominal load			
Galvanic Isolation	3.75 kVDC			
EMC (Emission)	EN 50081-1, Curve EN 55022B			
EMC (Immunity)	EN 50082-2			
Operating Temperature	-5 to +45 °C (non-condensing)		-5 to +55 °C (non-condensing)	
Over-Temperature Derating	+45 to +70 °C (2%/K derating)		+55 to +70 °C (2%/K derating)	
<b>Housing</b>				
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			
<b>Electrical Connections</b>				
Connector Position	Front of unit (optionally rear of unit)			
DC Input (at 24, 48/60VDC)	3 x high current terminal blocks 16mm <sup>2</sup>			
DC Input (at 110, 220VDC)	3 x high current terminal blocks 16mm <sup>2</sup>	Phoenix Power Combicon	3 x high current terminal blocks 16mm <sup>2</sup>	
AC Output	Appliance outlet Schurter		Phoenix Power-Combicon	
AC Input (bypass)	Appliance inlet Schurter		Phoenix Power-Subcon plug	
Alarm	Phoenix Mini-Combicon		Binder round connector	
Bypass Switch Time	<10ms		<5ms	
<b>Other</b>				
Optical Signals	LCD dot matrix display		LEDs for load display, PG/ON	
Signal Output	Voltage free alarm contact		Potential free status-/alarmcontact	
Operation	Push-button for setup, DC switch, AC switch		Push-button for setup, DC switch	
Warranty	2 Years			

## Options Table

Code	Description
/1.....	Unit built with 115Vac, 60Hz output (not available for INV-B-2000 or INV-B-4000 units)
/2.....	Unit built with connectors mounted on rear of unit

Every effort is made to ensure that the information provided within this technical summary is accurate. However, ET 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. ET 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.