

INV-W

HEAVY DUTY & RAILROAD INVERTERS



POSITIVE PROBLEM SOLVING **+ =**

The INV-W is a series of wall mounting inverters that produce a true microprocessor controlled sinewave output. A variety of DC inputs are available from 24VDC to 220VDC.

The inverters are housed in compact metal cases with IP54 classification. Heavy duty 2-part connectors with mechanical fastenings are used for the input and output. Convection cooling is provided via a heat sink on the wall mount side. The INV-WR 400 & INV-WR 500 are built to meet environmental rail standards making the units ideal for low power locomotive applications. For higher power railroad applications a separate summary detailing the INV-R range is available.

- + Short Circuit & Overload Protected
- + Potential Free Alarm Contact
- + Reverse Polarity Protected
- + No 50Hz Transformer
- + IP54 (WR Models)
- + Railroad Versions

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SELECTION TABLE

Part Number	Maximum Power ¹	Input Voltage	Output Voltage ²	Output Frequency ²
INV-W 400-24 ³	400VA	24VDC	230VAC	50Hz
INV-WR 400-24 ⁴	400VA	24VDC	230VAC	50Hz
INV-W 500-48-60 ³	500VA	48/60VDC	230VAC	50Hz
INV-W 500-110 ³	500VA	110VDC	230VAC	50Hz
INV-W 500-220 ³	500VA	220VDC	230VAC	50Hz
INV-WR 500-48-60 ⁴	500VA	48/60VDC	230VAC	50Hz
INV-WR 500-110 ⁴	500VA	110VDC	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.

³Quick lock mating connectors are provided as standard. ⁴According to rail norm EN 50155. For the WR versions HAN Q5 connectors are used which require a special crimping tool to be used. This is required to provide a high performance against shock and vibration in railway applications.

OPTIONS

CODE	DESCRIPTION
/5	HAN 80 input for remote operation
/6	Power/PG, Overload/OVL signals (diodes), switch operated
/7	Unit built to operate at -25°C to +45°C (INV-W models only)



TECHNICAL DATA

	INV-W 400	INV-W 500	INV-WR 400	INV-WR 500
Maximum Continuous True Power	320W	400W	320W	400W
Permissible Power Factor	-0.8 to +0.8			
Maximum Continuous Apparent Power	400VA	500VA	400VA	500VA
Frequency	50Hz (option /3 for 60Hz)			
Voltage	230VAC, failure tolerance $\pm 5\%$			
Load Range	0 - 100%			
Crestfactor	>2.5%			
Harmonic Distortion	<3%			

INPUT RANGE

	INV-W 400	INV-W 500	INV-WR 400	INV-WR 500
24VDC	24 [19 - 31]VDC	--	24 [19 - 31]VDC	--
48/60VDC	--	48/60 [38 - 72]VDC	--	48/60 [38 - 72]VDC
110VDC	--	110 [88 - 132]VDC	--	110 [77 - 143]VDC
220VDC	--	220 [178 - 264]VDC	--	--

GENERAL

Electrical Safety	EN 60950, VDE 0805 (overload & short circuit protected)			
Efficiency	85% at nominal load	87% at nominal load	85% at nominal load	87% at nominal load
Galvanic Isolation	3.75kVDC			
EMC (Emission)	EN 50081-1, Curve EN 55022B			
EMC (Immunity)	EN 50082-2			
Environmental	--		EN 50155 [EN 50121-3-2]	
Operating Temperature	-5°C to +45°C (non condensing)		-25°C to +70°C	

HOUSING

Casing	Wall mounting case
Size	270 x 115 x 255mm (W x H x D)
Weight	Approx. 5kg
Classification	IP 54
Ventilation	Convection via heatsink on wall side

ELECTRICAL CONNECTIONS

Connector Position	Bottom of unit	
DC Input	Harting connector HAN Q5, 3-pole	
AC Output	Harting connector HAN Q5, 3-pole	
Signals	Binder round connector DIN 45322 (opt. HAN 80)	HAN 80, 5-pole (opt. DIN 45322)
Earthing	Harting HAN Q5 [DC In] earthing screw on the case	

OTHER

Optical Signals	Power/PG, Overload/OVL	Option /6: Power/PG, Overload/OVL
Signal Output	Voltage free alarm contact	Option /6: Voltage free alarm contact
Operation	Switch	Option /6: Switch used
Control Input	Option /5: HAN 80 for remote operation	HAN 80 for remote operation (octocoupler input)
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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PEOPLE
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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.



Tel: +44 (0) 1246 452909
Sales: 0800 612 95 75
sales@etps.co.uk
www.etps.co.uk

ETPS Ltd
Unit 14, The Bridge
Beresford Way, Chesterfield
S41 9FG



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