

INV-R

HEAVY DUTY INVERTER



POSITIVE PROBLEM SOLVING **+ =**

The INV-R is an extremely robust family of DC/AC Inverters with a variety of DC input options.

The units operate within a wide ambient temperature range from as low as -25°C to as high as $+55^{\circ}\text{C}$. Excellent shock and vibration figures make this unit ideal for mobile as well as static installations. These inverters are built to specific EN standards ensuring their suitability for railroad and locomotive applications. Rugged cases along with a load and temperature controlled fan provide additional resistance to the rigours of harsh environments.

- + Ideal for Vehicle Mount Applications
- + Short Circuit & Overload Protection
- + Sub Chassis Mounting
- + No 50Hz Transformer

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FURTHER DETAILS

Potential free alarm contacts are provided for signalling failure. The output can be enabled or disabled remotely via a galvanically isolated control input. The units have an overload capability of up to 1½ times the nominal output power. If the overload is experienced for an extended time period then the unit will switch off to protect itself. After approximately 30 seconds have elapsed the inverter will attempt to restart automatically.

SELECTION TABLE

Part Number	Maximum Power ¹	Input Voltage	Output Voltage ²	Output Frequency ²
INV-R 2000-24-230	2000VA	24VDC	230VAC	50Hz
INV-R 2000-110-230	2000VA	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.

OPTIONS

CODE	DESCRIPTION
/K3	Unit built to extend operating temperature range to -40°C to +70°C

TECHNICAL DATA

	INV-R 2000-24-230	INV-R 2000-110-230
Electrical Safety	EN 60950, VDE 0805 (overload and short circuit protected)	According to EN 50124 (overload and short circuit protected)
EMC	EN 50121-3-2	
INPUT		
Input Voltage Nom.	24VDC	110VDC
Input Range	17 - 33VDC	77 - 154VDC
OUTPUT		
Output Voltage Nom.	230VAC, single phase	
Output Frequency	50Hz	
Voltage Stability	±5%	
Efficiency	>86%	
Maximum Continuous True Power	1600W	
Permissible Power Factor	-0.8 to +0.8	
Maximum Continuous Apparent Power	2000VA	
Output Current	Nominal 6.95A	
Short Circuit Current	18A	20A
Load Range	0 - 100%	
Crest Factor	>2.5	
Harmonic Distortion	<2%	
Overload Capacity	1.50 × P _{NOM} for 3sec	
Restart After Overload	After 30 seconds	
HOUSING		
Casing	Sheet steel, zinc plated	
Dimensions	525 × 143 × 290mm [W × H × D]	600 × 170 × 270mm [W × H × D]
Weight	Approx. 10kg	
Protection	IP 20	
Cooling	Temperature and power controlled fan	
CONNECTING TERMINALS		
Input: -X1	PC 35 Phoenix, 3-pole	Phoenix power combicon, male, PC6/3-GF-10-16/10mm ² , with locking device
Remote ON/OFF: -X2.1	Wago 231-602 / 017-000 cage clamps, 2.5mm ² , 2-pole	Wago cage spring clamps, 2.5mm ² , 2-pole
Signal: -X2.2	Wago 231-603 / 017-000 cage clamps, 2.5mm ² , 3-pole	Wago cage spring clamps, 2.5mm ² , 3-pole
Output: -X3	Wago 231-608 / 017-000 cage clamps, 2.5mm ² , 8-pole	Wago cage spring clamps, 2.5mm ² , 4-pole
AMBIENT CONDITIONS		
Operating Temperature	-25°C to +70°C, acc EN 50155	-40°C to +70°C, acc EN 50155, +55°C to +70°C = 2%/K derating
Relative Humidity	<75% average per year	
Shock and Vibration	According to EN 61373 B	EN 50155 mounted in frame frequency range 5 - 150Hz, transfer frequency 8.2Hz
OTHER		
Green LED	Power supply OK	
Red LED	Overvoltage, fan failure, excess temperature and short circuit	
Remote ON/OFF	Potential free, 16 - 34VDC/10mA	Potential free, max. 150VDC/10mA
Signal	1-pole switch, max. 250VAC/1A	
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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