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INV-TCRS

Sinewave Inverter with RS232

Description

The INV-TCRS are an industrial grade series of DC/AC Inverters built with an RS232 interface. Output values can be remotely measured and the output switched on and off by the computer interface. The units produce a true sinewave output regulated to within 1% of the nominal 50Hz. Each inverter in the range features a supervisory circuit that monitors the connected DC Input voltage. If the input falls below tolerance the inverter will automatically disconnect the input to protect batteries from a damaging deep discharge. A resettable DC breaker is also provided to ensure the unit is not damaged from drawing too much current. The inverter is further protected against short circuit and over temperature. With a wide operating power factor even highly inductive loads can be powered from the INV-TCRS. The broad operating temperature range helps to ensure these rugged units are suitable for a wide range of environments. The unit also incorporates an adjustable standby level. This is a useful feature designed to save needlessly flattening the battery when the connected load is in sleep or hibernation mode. A test pulse is sent every 800ms to check if the load has is demanding more then the preset threshold.



- Protection with Automatic Restart
- Adjustable Standby Function
- Remote control via RS232
- True Sinewave Output
- 2 Year Guarantee

Selection Table

Part Number	Max Continuous Power	Input Voltage	Output Voltage	Output Current
INV-TCRS 08-12	850VA	12VDC	230VAC	3.5A
INV-TCRS 10-24	1100VA	24VDC	230VAC	4.2A
INV-TCRS 10-48	1100VA	48VDC	230VAC	4.2A

Different output ranges and application/user specific options are possible. Please contact ET to discuss your requirements.



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Technical Data

Inverter	INV-TCRS 08-12	INV-TCRS 10-24	INV-TCRS 10-48
Rated Voltage UDC _{IN}	12V	24V	48V
Input Voltage Range	10.5 - 16.0VDC	21.0 - 32.0VDC	42.0 - 64.0VDC
Dynamic Low Voltage Cut Off	10.5 - 9.0VDC	21.0 - 18.0VDC	42.0 - 36VDC
Rated Current IDC _{IN}	78A	50A	25A
Current IDC _{IN} max.	250A	160A	80A
Rated Power P ₁₀	1100VA (10min at TA = 20°C)	1600VA (10min at TA = 20°C)	1600VA (10min at TA = 20°C)
Rated Power P ₃₀	950VA (30min at TA = 20°C)	1450VA (30min at TA = 20°C)	1450VA (30min at TA = 20°C)
Continuous Power PD	850VA	1100VA	1100VA
Rated Output Voltage UAC _{OUT}	230 VAC ±5% (short circuit proof)		
Output Frequency	50Hz ±0.5% (true sinewave)		
Rated Output Current IAC _{OUT}	3.5A	4.2A	4.2A
Short Circuit IAC _K (max. 0.5s)	8A	11A	11A
Allowable CosPhi	0.3 - 1		
Efficiency Factor max.	94%		
Adjustable Standby Level (logarithmic)	2 - 40W		
Consumption Standby/OFF	ca. 0.5W (test impulse every 800ms)/0W		
Consumption 230VAC OK	8W	10W	10W
Reset after Short Circuit	Every 60s		
Reset after Overload	Every 60s		
Reset after Overtemperature	Automatically after reaching semiconductor temperature +45°C		
Reset after Battery Failure	Automatically after reaching UDC _{IN}		

General	-25°C to +50°C (max. 95% rH, non condensing)		
Ambient Temperature Range	-25°C to +50°C (max. 95% rH, non condensing)		
DC- Breaker/Fuse	80A	80A	32A
Remote Control ON/OFF	Via RS232		
Status Indication	LED	LED	LED
Alarm Contact	No	No	No
Toroidal Transformer	EN61558 (IEC61558)		
Temperature & Load Controlled Fan	ON 55°C/OFF 45°C, PD >80%		
RS232 Interface	Yes, 9 pin, female		
Dimensions (L x W x H)	360 x 210 x 120mm		
IP Protections	IP20		
Standards	CE		
Included in Delivery	Connector for non-heating apparatus		
Weight	10kg	11kg	11kg
Warranty	2 Years		

Options Table

Code	Description
/19" Rack.....	Unit built into a 19" rack

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.