

# INV-TC3P

## 3 PHASE SINEWAVE INVERTER



POSITIVE PROBLEM SOLVING **+ =**

**The INV-TC3P is used when a 3 phase AC Supply needs to be generated from a DC Source.  
The system is delivered as 3 separate modules which are all powered from a nominal 48Vdc.**

These compact units are ideal for stand alone applications where the batteries are charged from photo voltaic arrays or DC generators. A wide cos phi with peak power capability helps to make this inverter system is suitable for many motor type AC Loads that require a relatively high start up current. The INV-TC3P is built with a variety of protection features.

- + 3 Phase True Sinewave Output**
- + High Conversion Efficiency**
- + Automatic Restart**
- + 2 Year Warranty**
- + Remote On/Off**

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## FURTHER DETAILS

The output is protected from both short circuit and overloaded conditions. To protect itself the inverter will switch the output off. Automatic restart attempts are made every 30 seconds in case the fault is transitory. The input is constantly monitored to ensure that the voltage range is within the tolerances permitted.

The unit will automatically disconnect the input if the voltage is too low. This is done in order to save the battery from a damaging deep discharge. The actual low cut out voltage is dependent on the load and the power being drawn.

Resettable DC breakers are provided on the unit. Insulated relay contacts are also available for signalling failure. A switch can also be wired to the master unit to allow all three phases of the inverter system to be turned on and off remotely.

The wide operating temperature range helps to ensure the INV-TC3P is ideal for the majority of locations.

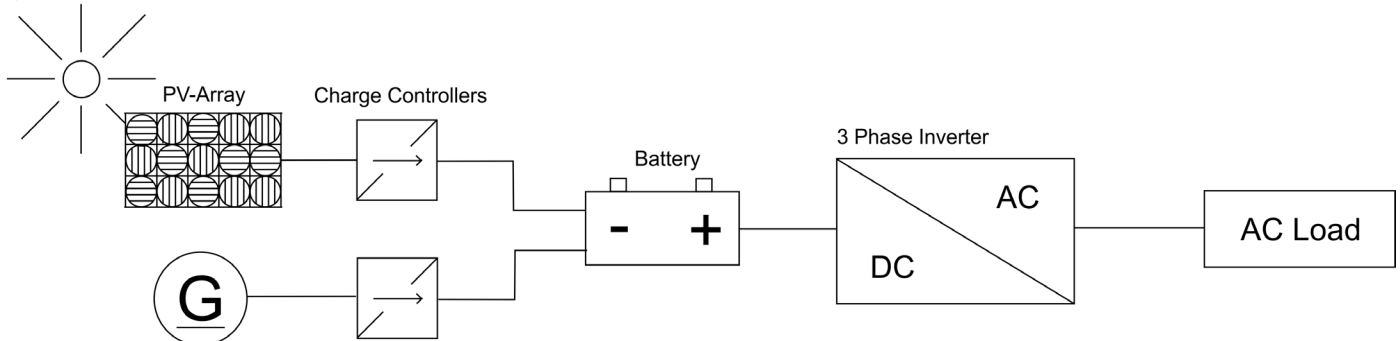
## SELECTION TABLE

Part Number	Max. Continuous Power	Input Voltage	Output Voltage	Output Current
INV-TC3P 10-48	9.6kVA	48VDC	3 × 230/400VAC	3 × 17A

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

## TYPICAL SET UP

### Typical Set Up



## TECHNICAL DATA

GENERAL	
Rated Voltage $V_{DC_{IN}}$	48V
Input Voltage Range	42.0 - 64.0VDC
Dynamic Low Voltage Cut Off	42.0 - 36.0VDC
Rated Current $IDC_{IN}$	3 × 83A
Current $IDC_{IN}$ Max.	3 × 251A
Rated Power $P_{10}$ (10min at TA = 20°C)	11.7kVA (10min at TA = 20°C)
Rated Power $P_{30}$ (30min at TA = 20°C)	10.5kVA (30min at TA = 20°C)
Continuous Power $P_D$	9.6kVA
Rated Output Voltage $VAC_{OUT}$	3 × 230/400 VAC ±2% (short circuit proof)
Output Frequency	50Hz ±0.5% (true sine wave)
Rated Output Current $IAC_{OUT}$	3 × 17A
Short Circuit $IAC_K$ (Max. 0.5s)	3 × 38A
Allowable CosPhi	0.3 - 1
Efficiency Factor Max.	93%
Consumption 230VAC OK	3 × 16W
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 $V_{DC_{IN}}$
Ambient Temperature Range	-25°C to +85°C (max. 95% rH, non condensing)
DC- Breaker/Fuse	3 × 100A
Remote Control ON/OFF	Yes, via external switch connected to master unit
Status Indication	LED
Alarm Contact	Yes
Toroidal Transformer	EN61558 (IEC61558)
Temperature & Load Controlled Fan	ON 55°C/OFF 45°C, PD >80%
Dimensions (L x W x H)	3 × (456 × 320 × 211mm)
IP Protections	IP20
Standards	CE
Weight	90kgs (3 × 30kgs)
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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