

# **Mobile Military Training Inverter (AC)**

## **TINITRON, INC.**

### **MMT 8 kVA AC Inverter**

The Tinitron 8 kVA inverter offers superior energy capture, easy installation, and state-of-the-art design. The ultra-robust & safe design includes an isolation transformer plus AC and DC disconnects. The pure sinewave power output is ready for.

The Tinitron inverter automates start-up, shut down, and fault detection scenarios. To ensure reliability, the latest film capacitors developed for the U.S. military are used in the power section. Also, a laminated bus is used to ensure long life of the IGBTs. This means they undergo much less stress than in a typical layout increasing the reliability and life of your investment. Current is monitored and controlled by three independent mechanisms, to prevent damage to the IGBTs.

### **Features**

- **Highly reliable**
- **Ultra-efficient design with efficiency of 90% or better**
- **Closed design for air cooling eliminates need for filters and filter maintenance**
- **Integrated ground fault detection and interruption**
- **Zinc primed and powder-coated steel enclosure for maximum corrosion resistance**
- **Film-type capacitors and laminated copper sheets in the power loop**
- **Full electronic protection w/ low input ripple enhances operation of sensitive electronics**
- **Sinewave output with 8000VA of output power**
- **Field-proven, modular design topology**

### **Applications**

- **Marine, Military and Portable Power**
- **Transportation applications such as Automotive, Trucks and RVs**
- **Electric Utilities and Substations**
- **Industrial Controls**

## **Electrical Specifications**

### **Input DC**

Input DC voltage 400 VDC +/- 15%

Max Input Current 30 Amps

Input Protection: Inrush current limiting detection & prevention, current limiting with short circuit protection, reverse polarity protection, internal safety fuse, low voltage protection, varistors.

### **Output AC**

Nominal Output Power: 8 kVA

Output Voltage: 230 VAC

Frequency: 50/60 Hz

Nominal Output Current: 34 Amps rms with instantaneous or inrush current up to an additional 20% for 10 sec.

Power Factor: > 0.99 to Unity

Total Harmonic Distortion: < 3%

Line Regulation: 3%

Load Regulation:  $\pm 1\%$  from 10% Load to Full Load

Topology: Integrated Step-Wise Synthesis

Efficiency:  $\geq 92\%$

Output Protection: Short circuit protection with current limiting  
Thermal shutdown with manual reset

Electro-Magnetic Interference: Meets EN 55022 Class B

Load Crest Factor: 1.8

### **General Specifications**

NEMA degree of protection: NEMA 1

Enclosure material: STEEL

Product weight: 150#

Product Dimensions: (H x W x D) 28"L x 12"D x 16"H

Operating temperature: 0 to +50°C

Operating Altitude: 6000' (de-rated above 3280')

Relative Humidity: 0-95% non-condensing

Connections: Input: Cage clamp style terminals

Output: Standard AC receptacle

### **Features and Options**

Type of Cooling: Forced convection cooling

Display Type: HMI, LCD 5"

Communication Interface: Multiple communication protocols are available (contact factory for options)

AC & DC Disconnects: Standard and integrated within the inverter enclosure

Safety: compliance to C22.2 No. 107.1-01 and UL 458

Options: Output FAIL Alarms (Form C)

Remote Inhibit by connecting DC voltage to inhibit terminals

Remote monitoring: via Ethernet



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