

**LINE INTERACTIVE TOPOLOGY**

Functions	
Brownout Protection	This unit boosts the output voltage (or transfers to Battery) during Brownout or Low input line conditions and returns to Normal when input power stabilizes and returns to Normal. These values for Transfer / Retransfer, To / From Battery / Boost mode are user programmable
Generator Compatibility	Generator mode allows for more variations in input voltage and frequency for use with an AC generator
Battery Charger 10A	PFC switch-mode charger is temperature-compensated (-2.5 to -5 mV/C/Cell) with automatic shut off above 50 deg C / 122 deg F
Inverter Mode	Capable of running continuously in inverter mode
Inverter Mode Current Limit	Continuous electronic current limit is provided
Measurements available for remote monitoring	<ul style="list-style-type: none"> <li>- Input and output voltages</li> <li>- Input line frequency</li> <li>- Battery voltage and current</li> <li>- Battery and heat sink temp</li> </ul>
Mechanical Specifications	
Dimensions (H x W x D)	TRTC-0654-N1/N2, TRTC-1124-N1/N2: 88.6mm x 432mm x 254mm / 3.5" x 17.0" x 10"
Weight	TRTC-0654-N1/N2, TRTC-1124-N1/N2: 13 kg / 29 lbs
Input Connection	3 Position Terminal Block OR Anderson PP45 Quick connector OR IEC
Output Connection	3 Position Terminal Block OR Anderson PP45 Quick connector OR IEC
Mounting	19" (483 mm) or 23" (584 mm) rack/shelf mount
Cooling (Ext. Fan)	Microprocessor controlled, 24VDC Fan TRTC-0654-N1/N2, TRTC-1124-N1/N2:
Audible Noise Level	<40 dBA
Operating Temperature	-37° C to + 74° C / -35° F to +165° F
Storage Temperature	-50° C to + 75° C / -58° F to +167° F
Humidity	Less than or equal to 95%, Non-Condensing
Altitude	10,000 ft / 3048 meters (See Note 1)

Electrical Specifications	
Output Apparent Power	TRTC-0654-N1/N2: 650VA TRTC-1124-N1/N2: 1100VA (Inverter Mode)
Output Active Power Inverter Mode and Line Mode	TRTC-0654-N1/N2: 650W TRTC-1124-N1/N2: 1100W
Power Factor	1.0
Input Frequency +/- 3Hz	120V: 60Hz
Output Frequency +/- 0.3Hz	220/230/240V: 50/60Hz
Input Voltage Range	120V: 85 to 150 VAC 230V: 175 to 287 VAC User programmable
Output Voltage Inverter Mode	120/220/230/240 VAC (Tolerances are User programmable) 120/220/230/240 VAC +/-5%
Maximum Input Current	TRTC-0654-N1/N2 and TRTC-1124-N1/N2: 20A
Transformer	Linear (Non-Isolated)
Transfer Time UPS PTS TOTAL	4 to 10 ms <30 ms <65ms
Inrush Current	Load Dependent
Output Waveform THD	< 3 % (Resistive Load)
Load Crest Ratio	3:1
Efficiency, Line Mode	> 95% (Resistive Load)
Efficiency, Inverter Mode	> 80% (Resistive Load)
Nominal Battery String Voltage	TRTC-0654-N1/N2: 24VDC TRTC-1124-N1/N2: 24VDC
Step Load Response	1 Cycle Full recovery.
Over current Protection	TRTC-0654-N1/N2 / TRTC-1124-N1/N2: 20A Single pole circuit breaker for input TRTC-0654-N1/N2 / TRTC-1124-N1/N2: 60A Circuit Breaker for DC Bus:
DC Power	Drawn from batteries
Compliance	Conforms to UL 1778, CSA 107.1
Surge Immunity	ANSI/IEEE C62.41

## 22 Position Terminal Block

Functions	<p>A. Provides 6 sets of programmable contacts at pin 1 thru pin 18 for intersection flash control, Remote Alarms, Pagers or other user interface.</p> <ol style="list-style-type: none"> <li>1. "Low Batt": batteries have reached approximately 40% capacity remaining</li> <li>2. "On Batt": unit is in inverter mode</li> <li>3. "Timer": unit has been in inverter mode for 2 hours (programmable)</li> <li>4. "Alarm": any of the following conditions occur: <ol style="list-style-type: none"> <li>a. Any alarm</li> <li>b. Line freq. un-match</li> <li>c. Output under voltage</li> <li>d. Temp. Probe disconnect</li> <li>e. Over load</li> <li>f. Batt. Not Connect</li> <li>g. Batt Hi Temp. &gt; +60 Deg C</li> <li>h. Batt Hi Temp. &lt; -15 Deg C</li> </ol> </li> <li>5. "Fault": any of the following conditions occur: <ol style="list-style-type: none"> <li>a. Any fault</li> <li>b. Short circuit</li> <li>c. Battery under voltage</li> <li>d. Battery over voltage</li> <li>e. Battery over temperature</li> <li>g. Over load</li> </ol> </li> </ol> <p>B. Provides 24VDC (TRTC-0654-N1/N2, TRTC-1124-N1/N2, signal to PTS on pins 21 &amp; 22)</p> <p>C. Provides programmable input contact on pins 19 &amp; 20.</p> <ol style="list-style-type: none"> <li>1. Self-test</li> <li>2. EXT. Alarm</li> <li>3. EXT. BATT Alarm</li> <li>4. EXT. FAN Alarm</li> <li>5. DOOR INTERLOCK</li> </ol>
Contact Type	Form C. Dry contacts rated 1 Amp at 240V
Wiring	Uses 14-26 AWG
<b>Communication Specifications</b>	
RS-232/USB/Ethernet ports	Monitors, controls and calibrates with terminal emulation software for service personnel to obtain unit diagnostics
RS-232	DB-9, Female, Opto-Isolated, straight-through cable
USB	B-Type receptacle
Ethernet (optional)	10/100 Mbps Ethernet, auto-detected
Display Panel	4-line LCD

### Notes:

De-rate operating temperature above 4900 ft (1500m) by 2°C per 1000 ft (300m).  
Due to ongoing product improvements, specifications are subject to change without notice.

### Model Numbers:

120V: TRTC-0654-N1, TRTC-1124-N1  
230V: TRTC-0654-N2, TRTC-1124-N2