UPS SPECIFICATIONS
TRTC-0654-N1

ELECTRICAL	
INPUT	
Voltage Range	90 VAC to 150 VAC User programmable Default 100 to 130 +/- 2VAC
Frequency	60 Hz +/- 5 Hz
Maximum Input Current	20 A (resistive)
Inrush Current	Load Dependent
Over current Protection	Single pole single throw circuit breaker rated 20 A for input. DC bus 60 A breaker.
Transient Suppression	MOV transient suppression elements (>150 V)
Step Load Response (50% Load Change)	½ Cycle Full Recovery' (Full resistive load)
Short Circuit Protection	20 A Circuit Breaker
Battery String Voltage	24 VDC (Two 12 VDC Batteries)
OUTPUT	
Apparent Power	650 VA (Inverter Mode) 650 VA (Line Mode)
Active Power	650 W (Inverter Mode) 650 W (Line Mode)
Power Factor	1.0
Output Voltage Inverter Mode	120 VAC nominal 120 VAC+/- 5%
Frequency	60 Hz +/- 0.4 Hz
Transformer	Linear (non-isolated)
Output Waveform	Sine Wave
Output Waveform THD	<3% (Resistive Load)
Load Crest Factor	3:1 (Max)
Overload Capacity	110% for 3 min.
PERFORMANCE	
Transfer Time Controller PTS TOTAL	 4 to 10 ms <30 ms <65 ms
Efficiency, Line Mode	>95% (Resistive Load)
Efficiency, Inverter Mode	>80% (Resistive Load,100%)

ENVIRONMENTAL	
Operating Temp	-37°C to +74°C (See Notes 1 & 2)
Storage Temp	-50°C to +75°C
Humidity	<95% non-condensing
Altitude, ft (m)	3280 (1000) (See Note 2)
MECHANICAL	
Dimensions (W x D x H) inch/mm	W 17/432 D 10/254 H 3.5/89 2U
Weight lb/Kg	30.9/14
Mounting	19" (483mm) Rack or Shelf mount
Input Connection	Anderson PP45 connector
Output Connection to Loads	Anderson PP45 connector
Cooling	Microprocessor controlled, 12 VDC fan
Audible Noise Level	<50 dBA
MBS/PTS Dimensions (W x D x H) inch/mm For standard rack mount	W 17.5/444 D 8 .5/216 H 3.5/89 2U 19/483 w/flange
MBS/PTS Weight (lb/kg)	7.0/3.2
MBS/PTS Mounting	Shelf or 19" rack mount
MBS/PTS Input Connection	Terminal Block
MBS/PTS Output Connection to Loads	Terminal Block
MBS/PTS Output Connection to UPS	6-foot cable ready for hard wire to UPS terminal block
MBS/PTS Cooling	Convection (approx. 7 W contactor coil dissipation)
CERTIFICATIONS AND APPROVALS	
Surge Immunity	Tested to: IEC 1000-4-5, IEEE C62.41

NOTES:
1. Between 55°C and 74°C, the unit is de-rated to a maximum rectified-capacitive load of 520VA / 520W

2. De-rate operating temperature above 4900 ft (1500m) by 2°C per each additional 1000 ft (300m)

UPS SPECIFICATIONS
TRTC-0654-N1

FUNCTIONS	
Brownout Protection	Unit boosts output voltage (or transfers to battery) during brownout or low input line conditions and returns to normal when input power stabilizes over user-selected time period. Setpoints for Transfer / Retransfer, To / From Battery / Boost are users programmable
Generator Compatibility	Generator mode allows wider variation in input voltage and frequency for use with an AC generator
Battery Charger	12A selectable, temperature compensated (-2.5 to -5 mV/°C/cell, auto shutoff above 50°C)
Inverter Mode	Capable of running continuously in inverter mode
Inverter Mode Current Limit	Continuous electronic current limit is provided
External Fan	DC voltage 12 VDC and 24 VDC
Remote monitoring	-Input and output voltages -Input line frequency -Output power -Battery voltage -Battery temperature
CONTROL TERMINAL BLOCK	
Functions	A. Provides 6 sets of programmable contacts at pin 1 thru pin 18 for intersection flash control, Remote Alarms, Pagers or other user interface. 1. “Low Batt”: batteries have reached approximately 40% capacity remaining 2. “On Batt”: unit is in inverter mode 3. “Timer”: unit has been in inverter mode for 2 hours (programmable) 4. “Alarm”: any of the following conditions occur: a. Line Frequency error b. Low Output voltage c. No Temperature Probe d. Overload e. No battery connected f. High temperature g. Low temperature 5. “Fault”: any of the following conditions occur: a. Short circuit b. Batt low voltage c. Batt high voltage d. High temperature e. Overload B. Provides 24 VDC signal to PTS on pins 21 & 22 C. Provides a programmable input contacts. a. ”self-test”by momentarily shorting pin 19 & 20 with less than 100 ohm b. ”Ext. Alarm” c. ”Ext. BATT Alarm” d. ”Ext. Fan Alarm” e. ”Door Interlock”
Contact Type	Form C Dry contacts rated 1 Amp at 240V
Wiring	Uses 14-26 AWG
COMMUNICATIONS	
RS-232/USB/Ethernet ports	Monitors, controls with terminal emulation software
RS-232	DB-9, Female, Opto-Isolated, straight-through cable
USB	B-Type receptacle
Ethernet (optional)	10/100 Mbps Ethernet, auto-detecting
Display Panel	4-line Interactive LCD