

ITT-15000S-450

15000 WATTS

THREE PHASE 400VAC INPUT

RUGGED DESIGN INTENDED FOR MILITARY RADAR SYSTEMS



KEY FEATURES:

- 17000W Peak Power – Intended for use in a Modulator Circuit for a Radar Application.
- Operating Temperature: 0°C to +55°C at 10,000ft altitude.
- 15000 Watts in 7.75" x 18.25" x 22.00" Size
- 3 Phase input 400V/47-63Hz.
- 400-450VDC adjustable 37.5A Output
- LED display for Input, Output, Fuse, Temperature, Over Current, Over Voltage status.
- Ruggedized Mechanical Design to Withstand Harsh Environmental Conditions.
- RS-485 serial interface with RS-232 protocol.
- One Year warranty

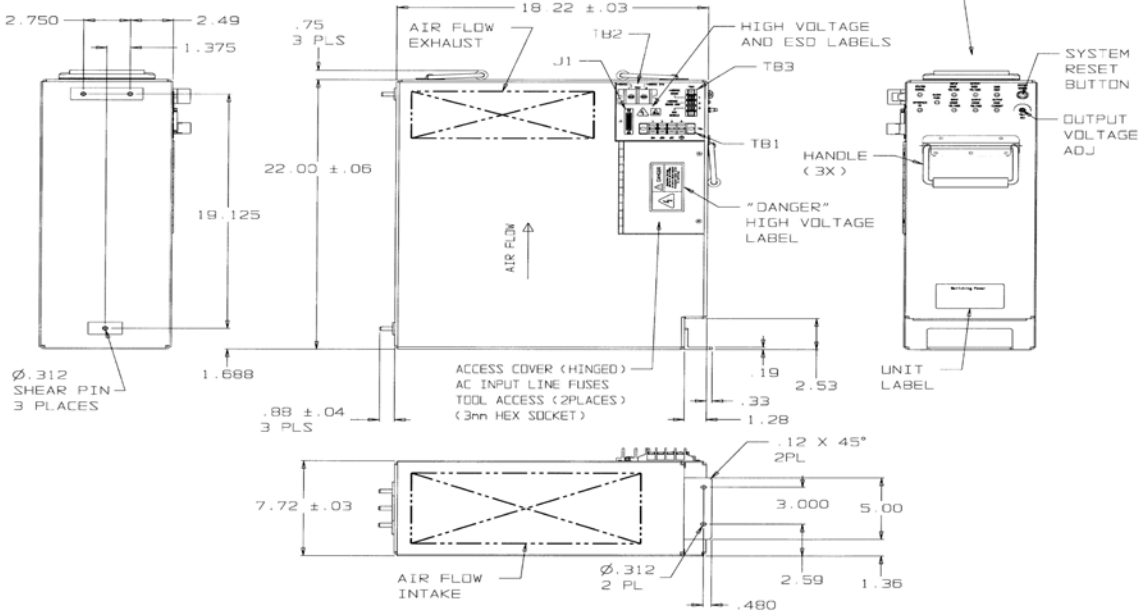
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TABLE 'A' AC INPUT	
TB1 TERMINAL BLOCK TO BE SUPPLIED WITH PROTECTIVE COVER/SHIELD	
PIN NO.	DESCRIPTION
TB1-1	400VAC PH A
TB1-2	400VAC PH B
TB1-3	400VAC PH C
TB1-4	CHASSIS GND

TABLE 'D' SENSE	
TB3 TERMINAL BLOCK TO BE SUPPLIED WITH PROTECTIVE COVER/SHIELD	
PIN NO.	DESCRIPTION
TB3-1	+450VDC CAP BANK SENSE
TB3-2	+450VDC RTN CAP BANK SENSE
TB3-3	SHIELD

TABLE 'B' DC OUTPUT	
TB2 TERMINAL BLOCK TO BE SUPPLIED WITH PROTECTIVE COVER/SHIELD	
PIN NO.	DESCRIPTION
TB2-1	+450VDC/42ADC MAX
TB2-2	+450VDC RTN

TABLE 'C' STATUS AND CONTROL	
J1 M2430B/2-3 (25 PIN D-SUB)	
PIN NO.	DESCRIPTION
1	BIT FAULT/RESET-A
2	N/C
3	N/C
4	N/C
5	PS GO/NO GO P
6	STANDBY CMD P
7	CONVERTER VOLT P
8	N/C
9	GND
10	N/C
11	N/C
12	SHIELD
13	N/C
14	N/C
15	BIT FAULT/RESET-B
16	N/C
17	N/C
18	PS GO/NO GO N
19	STANDBY CMD N
20	CONVERTER VOLT N
21	N/C
22	N/C
23	N/C
24	SHIELD
25	N/C



LED INDICATORS	
STATUS NORMAL	GREEN
INTERFACE OK	GREEN
BLOWN FUSE	RED
INPUT OVER VOLTAGE	RED
INPUT UNDER VOLTAGE	RED
OUTPUT OVER VOLTAGE	RED
OUTPUT UNDER VOLTAGE	RED
OVER TEMP	RED
OUTPUT OVER CURRENT	RED

Nominal Input Voltage	400VAC 3-phase, four wire 60Hz
Frequency	47-63Hz
Operation Voltage Range	340 - 440VAC
Transient Voltage	528VAC
Power Factor	Greater than 0.90 for all input line conditions from 50% to 100% of full load.
Voltage Spike	2000V per EN61000-4-5 Class 3
Input Load Balance	Current loading for any phase does not exceed the average of the currents in all 3 phases by more than 5%
Inrush Current	Less than 5msec 300Apk at 440 VAC
Fusing	(3X40Ampere)/600VAC, Very fast acting
Efficiency	86-88%, Input line dependent
Delay to Turn on Time	7 seconds after application of AC
Rise Time	Monotonic less than 150msec
Line and Load Regulation	±1% over AC input range and 0 to 100% load change
Minimum Load	No minimum load required
Ripple & Noise	Through 20MHz less than 0.25% pk-pk
Transient Response	Output excursion of less than 5% for full load step, recovery less than 500µsec
Overshoot/Undershoot	Less than 3% at turn-on. NO turn-off overshoot
Input Isolation	3600VDC from input to both chassis/output
Output Isolation	3600VDC from output to chassis
Signal Isolation	3600VDC from input to signals, and output to signals
Reverse Voltage	Protected against reverse voltage to supply current rating
Over Voltage Protection	Shutdown at 110- 115% of nominal Vout. Recycle input power to reset
Over Temp. Protection	Shutdown if over heated, requires reset to restart
Current Limiting	Current limit trip point less than 120% of rating. Unit disabled for 1 second when either an over current or short circuit event occurs and latch off after three events occur within a 5 second period requiring a reset to clear the fault condition.
Input Leakage Current	Less than 5.0mA at 440VAC
Output Setting	425V ±0.1V at full load

Remote Sense	Up to 2 feet maximum of #6AWG
Manual Reset Push Button	Located on Front panel to clear any faults and restart the unit.
FAULT Signal	Floating OPTO output which goes high whenever the output fails, output short circuit or overload, over temperature condition, Fan RPM less than 1/2 of normal
Indicators	GRN LEDs on front panel indicating: -Status Normal (ON when NO faults are present) -Interface OK (ON when receiving a message across serial interface in 1 second or less) RED LEDs indicating: -Fuse Blown (ON when one, two or all three of the line input fuses are blown) -Input Over Voltage (ON when the input voltage is greater than 485VAC) -Input Under Voltage (ON when the input voltage is less than 326VAC) -Over Temperature (ON when one or more semiconductor junction temps is in excess of 100°C) -Output Over Current (ON when output current is above 46ADC) -Output Over Voltage (ON when the output voltage is above 480VDC for more than 0.2 sec) -Output Under Voltage (ON when the output voltage is below 375VDC after enable and startup)
Control and Fault Signals	STANDBY CMD: Differential signal which when driven low allows the unit to turn ON PS GO/NO GO: Differential signal which goes low whenever any protection fault occurs CONVERTER VOLT: Provides analog sample of sensed converter voltage (Isolated from output 3600VDC) BIT FAULT/ RESET -A/B: Serial Interface to indicate any protection faults that are present and provide reset command from system. RS-485 Compatible, Using NRZ protocol, 1 startbit, 1 stop bit, 19200 baud rate.
Operating Temp.	0°C to +55°C
Non-Operating Temp.	-40°C to +55°C
Temperature Stability	Less than .01%/°C over the operating temperature range
Humidity	Operation from 5 to 90% non-condensing
Altitude	Operating; Sea level to 10,000ft
EMI	Designed to meet MIL-STD-461E
Weight	105 lbs max.
Size	7.75" x 18.25" x 22.00"