



## Travelling Wave Tube Amplifier

### Type LY74



### Description

The LY74 is a travelling wave tube amplifier comprising an Albacom LY75 pulsed E-F Band travelling wave tube and a matched, modular power supply. The TWTA produces 2.5kW peak output power at up to 10% duty ratio and operates from a 200 volt 3 phase, 400 Hz power source.

The LY75 TWT incorporates a shadow gridded gun, ring loop slow wave structure, PPM focusing and a single stage depressed collector. The power supply produces all of the TWT electrode voltages to the high standards of stability and ripple required for modern radar systems performance. It uses a compact transformer rectifier unit in the high voltage supplies and a fast FET floating deck grid modulator. Built in features such as monitoring, control and protection circuits ensure safe operation; if required BITE (built in test equipment) can be provided, which simplifies fault finding and maintenance. The LY74 TWTA uses forced air cooling and is designed for operation in military environments.

### Features

The LY74 TWTA incorporates:

- LY75 TWT
- Modular PSU
- Monitoring, Control and Protection Circuits
- BITE

### Specification

Frequency Range	3.1-3.4GHz
Output Power	2.5kW Peak (min)
Duty Ratio (RF)	10% (max)
Duty Ratio (Beam)	12% (max)
Gain	45dB
Pulse length (RF)	10µs (max)
Pulse length (Beam)	15µs (max)
Pulse Rise & Fall Time	100ns
RF Input Connector	TNC Female
RF Output Connector	7/16 Suhner

## Electrical Supply

Connector	Type 602-14-19-P
Primary Supply	200V, 3 Phase, 3 Wire, 400Hz
Power Consumption	2000W at Maximum Duty Ratio
Modulator Trigger Pulse	+5V, Pulse Length as Required
Connector	BNC

## Monitor Outputs

Connector	Type 602-18-32-P
Cathode Voltage Sample	1V/kV
Cathode Current Sample	1V/A
Status Outputs	+ 15V for "Status Acheived"
Power On	
No Fault	
Standby	
High Voltages On	

## Physical

Overall Dimensions (approx)	TWT 560mm x 90mm x 145mm
Overall Dimensions (approx)	PSU 660mm x 270mm x 180mm
Weight (approx)	35kg
Cooling Flow PSU Base	200cfm at +60°C (max)

NB The tube is fitted with an integral cooling fan.  
The inlet air temperature is limited to +60°C.

**Albacom Limited reserve the right to alter any product specifications without prior notice.**