Southern Avionics Company

PV1000 – Antenna Tuning Unit

Part Number: SLF20100

SPECIFICATION SHEET

5055 Belmont, Beaumont, TX 77707
Phone +409.842.1717
Fax +409.842.2987
sales@southernavionics.com

FEATURE	SPECIFICATION
Frequency Range	190 – 535 kHz
Power Capacity	1000 Watts Continuous 2000 Watts Peak
Resistance Match Range	2 – 39 Ohms
Reactance Tune Range	500-3500pF (190-283.5 kHz) 300-3500pF (283.5-535 kHz)
Power Requirements	85 – 264 VAC, 47 – 63 Hz or +24VDC
RF Input Interface	Type N Jack
ATU Modes	Automatic (continuous) or Manual Local or Remote
Cabinet	Designed to meet IP66
Width	40 in. (102cm)
Height	40 in. (102cm)
Depth	23 in. (59cm)
Optional Equipment	Solar Shield

Application:

The Southern Avionics PV1000 is a 1000 Watt continuous duty automatic antenna tuning unit. This unit automatically adjusts for both reactive and resistive changes in the antenna system utilizing a state of the art microcontroller system. The microcontroller system eliminates differences in tuning and 50 Ohm matching using a dual motor system with limit switches and active real time monitoring.

The PV1000 utilizes an RS485 serial interface to actively communicate with the host SE or SC Series transmitter. This allows monitoring and remote control of the ATU's tuning and matching adjustments at a safe distance and transfers NFSS data to allow Automatic Level Control of power while maintaining a constant RF signal level coverage.

The PV1000 has built in test equipment capabilities allowing the user to accurately monitor and log critical parameters within the PV1000 either at the transmitter or remotely using a computer and a second RS485 interface.

The PV1000 comes standard with an IP66 Breather Drain.

The PV1000 is contained within an IP66 class enclosure with a built in circulation fan for heat transfer.

Parameters Monitored:

- Forward Power
- Reflected Power
- Antenna Current
- ATU Temperature
- Circulation Fan Status
- +5V +5V, and +12V Power Supply
- Near Field Signal Strength (NFSS)
- 50 Ohm Current
- Voltage/Current Phase

*Information provided is subject to change without notice

Inside View

Insulator View