APP

AVIAT POWER PROTECTOR

DATASHEET [ANSI / ETSI]

The Aviat Power Protector (APP) is designed to protect all-outdoor radio products like WTM 4000 during severe stormy conditions, where there is high probability of direct lightning strikes onto tower infrastructure.

Module Overview

APP is a complementary protection device designed for WTM 4000, and works alongside the internal Gas Discharge Tube (GDT) based surge protection.

APP is designed to operate in standard -48 Vdc telecom voltage range with power consumption up to 144 W. APP must always be installed with and protected by Miniature Circuit Breaker (MCB) up to 6 A.

Operation

During lightning strikes, internal protection can get indirectly damaged, where inbuilt surge protection circuits remains locked in the protective operation mode. During this mode, WTM 4000 protection circuits may get thermally damaged due to the very high-power dissipation, rendering them inoperable.

To prevent this, the APP monitors for several different physical conditions which can cause WTM 4000 surge protection lock-up events.

Whenever any of those conditions occur, APP disconnects the power supply toward the WTM 4000 (for approx. 3 seconds), protecting the WTM 4000 from any long-term damage. The WTM 4000 then immediately powers up and connects back to the remote-end radio to continue transmission.

The APP offers the highest level of protection and is recommended for every WTM 4000 installation.

The APP is simple to use and provides basic LED indications to display activation history and current status.

The APP is compact and designed to easily mount into existing DIN-rails in customer cabinets and shelters.

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Hardware Specifications

General	
DIN rail enclosure (IP20)	
Input power supply polarity protection	
Impulse discharge current rating on output	20 kA (8/20 us) 4 kA (10/350 us)

Functions	
Over current detection	>2.8 A
Over voltage detection	>60 V
Under voltage detection	<35 V
Reverse current detection	

LED User Functions	
Two-color	Red / Green
Current state of protector	Green if protector is on Red if protector cut off power due to any failure triggers. Lit if any events triggers protector. It stays on until push button is pressed. Whenever abnormal event happens, protector cuts of power for ~3 seconds

Standards Compliance	
EMC	EN 301 489-4 EN 301 489-1
Safety	IEC 60730-1

Operating Environment & Power	
Power supply	Designed for -48 V telecom power supplies
Operating temperature	-40º to +55º C [-40º to +131º F]
Max current	2.8 A (over current detection)
Power consumption	~300 mW
Input voltage range	-35 V to -60 V

Mechanical	
Dimensions (W x H x L)	22.7 mm x 99.5 mm x 92.6 mm (0.9 in x 3.9 in x 3.65 in)

Disclaimer

This material is for informational purposes only and does not constitute a legal obligation to deliver any product, feature or functionality and should not be relied upon in making purchasing decisions. All specifications are guaranteed values, at room temperature (20 to 30ºC, 68 to 86ºF), referenced to the ACU antenna port (including ACU losses) unless otherwise stated, and are subject to change without notice. The development, release and timing of any features or functionality described for our products is at Aviat Networks' sole discretion.

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