



# PS-POE-AF-TC 802.3af Compliant PoE Injector

## Overview

The PS-POE-AF-TC (**FG423-83**) is a 802.3af-compliant Power-over-Ethernet (PoE) power supply with integral DC Injector (FIG. 1). It provides DC power for one PoE-equipped device by "Injecting" DC power through the CAT5 ethernet cable.

The PS-POE-AF-TC supports the IEEE standard PoE pinout: Pins 4&5 Power (+) / Pins 7&8 Power (-). See *Pin Connections* (on reverse) for details.



FIG. 1 PS-POE-AF-TC Power-Over-Ethernet Power Supply

#### Key features include:

- Power over Ethernet (PoE)
- 10/100/1000 (MbPS) Data Rates
- Self-contained Injector
- 100-240VAC Universal Input
- Desktop Style / Non-vented Case
- IEEE802.3af Compliant Detection, Disconnect, Overload and Over Voltage Control Function
- Load Diagnostic LED
- · UNH IOL Test Report
- Over Load Shutdown and Short Circuit Protection
- · Regulated Output With Low Ripple
- Meets Safety Agency Requirements
- · Complies with EMI/RFI Regulations

## **Product Specifications**

PS-POE-AF-TC Specifications		
Input Specifications		
AC Input Voltage Range:	100-240VAC	
Line Frequency:	47-63Hz	
AC Input Current:	0.5A MAX at 110-240 VAC	
Protection:	Internal Primary Current Fuse     Inrush Limiting	
Input Power Cord:	150cm IEC power cord terminated with a grounded Edison plug for AC input	
Output Specifications:		
Output Voltage:	48 VDC Nominal	
Output Current:	375mA	
Output Power:	15.4 Watts guaranteed	
Ripple and Noise:	Below the IEEE802.3af requirements  • f<500Hz: Vp-p Max  • 500Hz to 150kKHz: Vp-p Max  • 150KHz to 500KHz: Vp-p Max  • 500KHz to 1MHz: Vp-p Max	
Protection:	Foldback Overcurrent Protection     Short Circuit Protection	

PS-POE-AF-TC Specifications (Cont.)		
Output Specifications (Cont.):		
Transient Response:	Meets IEC61000-4-4 (1Kv)	
Leakage Current:	Up to 3uA	
Efficiency:	81%	
Hold-Up Time:	18.4msec at 90VAC	
General Specifications:		
LEDs:	Yellow (On): power is on and active)     Green (On): A remote terminal is connected.     Green (Blinking): Overload state or short circuit	
Weight:	Without cord: 0.40 lbs (181.43 g)     With cord: 0.75 lbs. (340.19 g)	
Dimensions (HWD):	5.5" x 2.09" x 1.28" (14 cm x 5.3 cm x 3.25 cm)	
Enclosure:	Molded black matte plastic	
Cord and Connectors:	Dual RJ45 jacks built into the enclosure	
Compliances:	<ul> <li>802.3 AF compliant</li> <li>FCC Part 15 Class B</li> <li>CE EN55022 Class B and EN55024</li> <li>LVD EN 60950-1</li> <li>VCCI</li> <li>UL/cUL UL60950-1</li> <li>GS IEC 60950-1</li> </ul>	
Environmental Specifications:		
Operating Temp:	32°F to 104°F (0°C to 40°C)	
Storage Temp:	-4° F to +158° F (-20° C to +70° C)	
Relative Humidity:	Non-Condensing 10% to 95%	

# **Safety Information**

## **Important Safety Information**

- The PS-POE-AF-TC should be connected to PoE networks only, without routing to an outside network.
- Only qualified personnel can install or remove the PS-POE-AT-TC.
- · AC Power Cord Set:
  - \* The power cord must have regulatory agency approval for the specific country in which it is used (for example, UL, CSA, VDE, etc.)
  - \* The power cord must be a three-conductor type (two current-carrying conductors and one ground conductor) terminated on one end by an IEC 60320 appliance coupler (for connection to the PS-POE-AT-TC), and on the other end by a plug containing a ground (earthing) contact.
  - \* The power cord must be rated for a minimum of 250 VAC RMS operation, with a minimum rated current capacity of 5 amps or a minimum wire gauge of 18 AWG (0.75 mm²).
- A PS-POE-AF-TC installed in Australia requires power cords with a minimum wire gauge of 16 WWG (1.0 mm<sup>2</sup>).
- The PS-POE-AF-TC DATA IN and DATA & POWER OUT ports are shielded RJ45 data sockets. They CANNOT be used as Plain Old Telephone Service (POTS) telephone sockets. Only RJ45 data connectors may be connected to these sockets.
- The AC wall socket-outlet must be near the PS-POE-AF-TC and easily accessible. You can remove AC power from the PS-POE-AF-TC by disconnecting the AC power cord from either the wall socket-outlet or the PS-POE-AF-TC appliance coupler.
- The PS-POE-AF-TC "Data In" and "Data & Power Out" interfaces are qualified as Safety Extra-Low Voltage (SELV) circuits according to IEC 60950-1. These interfaces may only be connected to SELV interfaces on other equipment.

#### WARNINGS!

- The PS-POE-AF-TC should only be connected to devices compatible with this product. Using the PS-POE-AF-TC with incompatible devices may cause damage to the device.
- Read the installation instructions before connecting the PS-POE-AF-TC to its power source.
- Follow basic electricity safety measures before connecting the PS-POE-AF-TC to its power source.
- A voltage mismatch can cause equipment damage and may pose a fire hazard. If the voltage indicated on the label is different from the power outlet voltage, do not connect the PS-POE-AF-TC to this power outlet.

## Recycling and Disposal

Disposal instructions for old products. The WEEE (Waste Electrical and Electronic Equipment) national environmental initiatives have been put in place to ensure that products are recycled using best available treatment, and recovery and recycling techniques, to ensure human health and high environmental protection. Your product is designed and manufactured with high-quality materials and components which can be recycled and reused. Do not dispose of your old product in your general household waste bin. Inform yourself about the local separate collection system for electrical and electronic products marked by this symbol:



Use one of the following disposal options:

- Dispose of the complete product (including its cables, plugs, and accessories) in the designated WEEE collection facilities.
- If you purchase a replacement product, return your older product (including all components) back to the retailer. The retailer should accept it as required by the national WEEE legislation.

## Installing the PS-POE-AF-TC

The PS-POE-AF-TC may be placed on a desktop.

## **Preliminary Steps**

- Ensure that AC power is applied to the PS-POE-AF-TC, using an operational ground connection.
- Ensure that output Ethernet cable is connected to the DATA & POWER OUT port.
- Verify that a power-ready Ethernet-compatible device is connected.

## Before placing the PS-POE-AF-TC:

- Do not cover the device or block the airflow to the device with any foreign objects. Keep the PS-POE-AF-TC away from excessive heat and humidity and free from vibration and dust.
- Ensure that the cable length from the Ethernet network source to the terminal does not exceed 328 feet (100 meters). The device is not a repeater and does not amplify the Ethernet data signal.
- The PS-POE-AF-TC does not have a power switch. Simply plug the device into an AC power source.

## Installing the PS-POE-AF-TC

- Connect the PS-POE-AF-TC to an AC outlet (100-240VAC), using a standard power cord.
- Connect the DATA IN jack (input) to the remote Ethernet network switch's Patch panel and the DATA & POWER OUT jack (output) to the terminal.

## **Pin Connections**

FIG. 2 describes the PoE Gigabit pin-out connections for the IN and OUT Ports on the rear panel of the PS-POE-AF-TC:

