

Ideal for RJ11 and RJ 45 — Style Twisted Pair Interfaces

Introduction

The EMTJ Series of surge protectors for RJ45 and RJ11 connectors will ensure the reliable operations of devices in a wide variety of environments. We offer protection for LAN interface technologies such as Ethernet, 10/100Base-T, CAT5, CAT5e, CAT6, and Power over Ethernet. For WAN and Telco applications, we offer protection for ISDN, T-1, E-1, DDS, analog dial-ups, and more. Additionally, our Custom Products Division provides a solution for almost any application that sends data, voice or video over copper interconnects.

EMTJs Offer

- State-of-the-art, avalanche diode and thyristor technology
- Compact, in-line installation
- High speed, high energy handling capability
- Low shunt capacitance to reduce signal loss

You Receive

- Affordable, superior, equipment protection
- Improved reliability and maximized system up-time
- Protection at the interface card
- Adaptability to most industry applications

The EMTJ Series devices guard sensitive data networks against lightning induced surges, AC power interference, electrostatic discharge, and ground loop energies. Typical applications include: NICs, switches, hubs, repeaters, bridges, routers, point-of-sale terminals, modems, fax machines, telephones and most other types of communications equipment utilizing RJ45 or RJ11 modular telephone jacks.

High speed avalanche diode technology is used in conjunction with low capacitance circuitry, enabling the protectors to function at a much greater bandwidth without causing signal degradation.

Standard units are available with up to 8 wires protected on the RJ45 devices, and up to 6 wires protected on the RJ11 device. All this, in combination with their small size, makes the EMTJ exceedingly versatile.

Installation

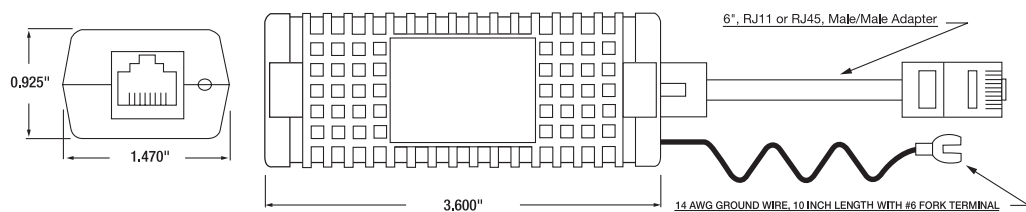
To install, insert the protector in series between the incoming communication line and the I/O port of the equipment to be protected. The protector ground wire must be connected to the metal chassis of the equipment being protected. Units should be installed at both ends of the data cable for the most effective protection.

Caution!

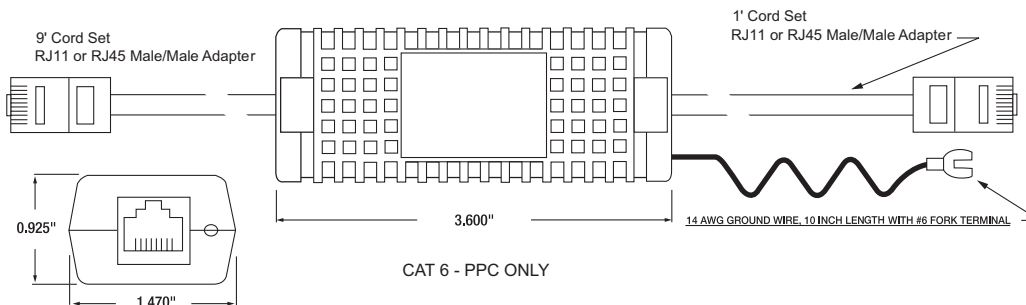
Ground wire **MUST** be grounded directly to the metal chassis of the equipment being protected. The equipment chassis **MUST** be connected to earth through a properly grounded AC power receptacle.

Warranty

Eaton Corporation offers a standard 5-year warranty for data communications surge protection. For more information, visit www.EatonElectrical.com.



ALL PRODUCTS (except CAT6 - PPC)



CAT 6 - PPC ONLY

Electrical Specifications

Specification	Standard Clamp Voltage	Peak Pulse Current (10/1000 us s.c. Waveform @Vcl)	Response Time	Maximum Shunt Capacitance
10Base-T RS/422/423	7.5 Volts	132 Amps	< 5 Nanoseconds	<40 pF
100Base-T Ethernet CAT5/5E	12 Volts	97 Amps	< 5 Nanoseconds	<25 pF
1000Base-T Ethernet CAT6	7.5 Volts	132 Amps	< 5 Nanoseconds	<5 pF (Device Only)
Power over Ethernet	Pins 1, 2, 3 & 6 — 7.5 Volts Pins 4, 5, 7 & 8 — 60 Volts	Pins 1, 2, 3 & 6 — 132 Amps Pins 4, 5, 7 & 8 — 50 Amps	< 5 Nanoseconds	<25 pF (Ethernet Lines Only)
RS-232	18 Volts	60 Amps	< 5 Nanoseconds	<40 pF
Digital, ISDN, DDS, T-1/E-1, CSU/DSU	60 Volts	50 Amps	< 5 Nanoseconds	<75 pF
Analog Dial-up/Modem Fax	240 Volts	75 Amps	< 5 Nanoseconds	<95 pF

Note: Subject to change without notice.

System Application and Catalog Number ^①

Application	Wires Protected	10Base-T Ethernet	100Base-T Ethernet	RS-422/RS-423	RS-232	CSU/DSU	ISDN
RJ-11	2 Wire, 2 Center Pins	—	—	—	—	—	—
RJ-11	4 Wire, 4 Center Pins	—	—	EMTJ04E/RJ11	—	—	—
RJ-11	6 Wire, All Pins	—	—	EMTJ06E/RJ11	—	—	—
RJ-45	1, 2, 3, 6	EMTJ04E/RJ45	—	—	—	—	—
RJ-45	1, 2, 4, 5	—	—	—	—	—	—
RJ-45	1, 2, 7, 8	—	—	—	—	—	—
RJ-45	4 Wire, 4 Center Pins	—	—	EMTJ04E/RJ45-C	EMTJ04T/RJ45	EMTJ-ISDN ^{②③}	EMTJ-ISDN ^{②③}
RJ-45	8 Wire, All Pins	EMTJ08E/RJ45	EMTJ-C5E	EMTJ08E/RJ45	EMTJ08T/RJ45	EMTJ-DIGITAL	—

Application	Wires Protected	DDS	T1	Dial-up Modem/Fax	1000Base-T Ethernet CAT 6	Power over Ethernet
RJ-11	2 Wire, 2 Center Pins	—	—	EMTJ02G/RJ11	—	—
RJ-11	4 Wire, 4 Center Pins	—	—	EMTJ04G/RJ11	—	—
RJ-11	6 Wire, All Pins	—	—	EMTJ06G/RJ11	—	—
RJ-45	1, 2, 3, 6	—	—	—	—	—
RJ-45	1, 2, 4, 5	—	EMTJ-T1 ^③	—	—	—
RJ-45	1, 2, 7, 8	EMTJ-DDS ^③	—	—	—	—
RJ-45	4 Wire, 4 Center Pins	—	—	—	—	—
RJ-45	8 Wire, All Pins	EMTJ-DIGITAL	EMTJ-DIGITAL	EMTJ08G/RJ45	CAT6-PPC	EMTJ-PoE 60V

^① See Ordering Guidelines below.

^② With pins 1 and 8 passed through.

^③ Not UL listed.

Note: All specifications and dimensions are subject to change without notice.

Ordering Guidelines

Note: Do not include any dashes, brackets or hyphens in the catalog numbers when ordering.

Example: EMTJ04E/RJ45-C = EMTJ04ERJ45C.



MADE IN THE USA



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