

# Edco PC642 Series

Zone/Loop/Data

■ Surge Protection  
For Business-Critical Continuity™

The Edco PC642 Series surge suppressor is a two-pair (four wire) module implementing three-stage hybrid technology. This module addresses over-voltage transients with gas tubes and silicon avalanche components. In addition, sneak and fault currents are mitigated with resettable fuses (PTCs). The PTCs increase resistance several orders of magnitude when over-currents exceed safe levels. A normal state resumes when over-currents are removed. The ability to self-restore in this manner significantly increases suppressor performance and survivability.

The Edco PC642 card edge module is gold-plated, double sided and is designed to mate with the the Edco PCB1B gold-plated female terminal connector (sold separately). When snapped together, the data circuits “pass thru” the protector in a serial fashion from the four “Field Side” terminals to the four “Electronics Side” terminals. Terminals 1 or 10 of the PCB1B must be attached to Building-Approved Ground.

PCB1B-WKEY may be ordered along with PC642 module by adding “-KIT” to the end of the module part number (Example: PC642C-036LC-KIT).



## General Technical Specifications

Maximum Operating Voltage	5, 12, 18, 24, 30, 36, 43, 52, 180 VDC
Clamping Voltage	8, 15, 20, 30, 36, 43, 50, 60, 270 VDC
Operating Current	0.15 A
Peak Surge Current	10 kA (8 x 20 μs)
Frequency Range	0 to 20 MHz
Insertion Loss	< 0.1 dB at 20 MHz
SPD Technology	GDT, SAD, w/Series PTC
Connection Type	Terminal block w/compression lugs Terminals accept up to 10 AWG
Operating Temperature	-40°C to +85°C
Dimensions (Inches)	2H x 1W x 2.5L (PC642 + PCB1B Base)
Weight	1 oz
Certifications	UL 497B

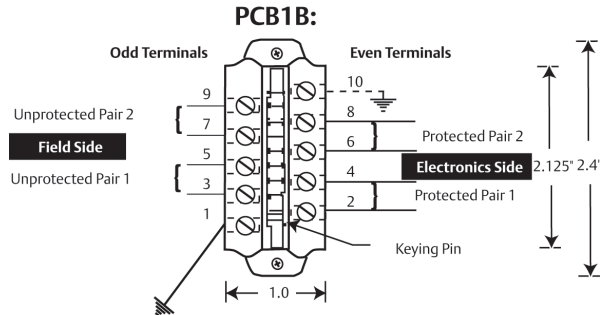
## Features

- Three-stage hybrid protection
- Sneak/fault current protection
- Resettable fuses – PTCs
- Low capacitance option
- Plug-in module
- Requires Edco PCB1B base
- Fast response time
- UL listed 497B
- PC642PTU (Pass Thru Unit) available for troubleshooting
- 5 year warranty

**Caution:** The hybrid design of this product includes series resistance. Do not place this product in service on any signal line capable of supplying more than 150 milliamperes continuously.

# Installation Instructions

## Terminal Assignments



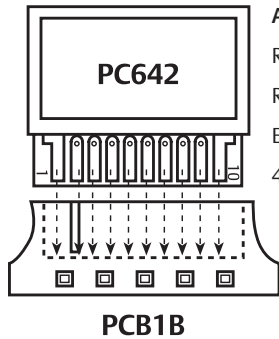
Ground Terminal 1 or 10 to Building Approved Ground.  
DO NOT daisy chain grounds. NOT intended for shield termination.  
Install ground in accordance with all applicable codes.

### Read and Understand These Instructions:

These protectors are intended for indoor use on communication loop circuits which have been isolated from the Public Switch Telephone Network.

The communication loop circuits shall not be exposed to accidental contact with the electric light or power conductors. The protectors shall be installed per the applicable requirements of the National Electric Code, ANSI/NFPA 70.

## Ordering Information



**APPLICATION:**

RS485, RS422:	PC642C-008LC & PCB1B
RS232:	PC642C-020 & PCB1B
E-NET, 10 BASE T:	PC642C-030LC & PCB1B
4-20ma:	PC642C-036 & PCB1B

### How to Specify the Appropriate Model

**PC642C - VOLTAGE CLAMP**

8 Volts	0	0	8
15 Volts	0	1	5
20 Volts	0	2	0
30 Volts	0	3	0
36 Volts	0	3	6
43 Volts	0	4	3
50 Volts	0	5	0
60 Volts	0	6	0
*270 Volts	2	0	0

**OPTION:**

- no suffix: stage 2 clamp each line-to-ground
- D: stage 2 clamp line-to-line only
- X: stage 2 clamp line-to-line and each line to ground
- LC: low capacitance option stage 2 clamp line-to-line and each line to ground

**OPTION:**  
DIN Rail Kit Available  
Order Part # 11604KIT-PC

**• Not UL Listed**

**Emerson Network Power.**  
The global leader in enabling *Business-Critical Continuity™*.

- AC Power
- Embedded Computing
- Outside Plant
- Racks and Integrated Cabinets
- Connectivity
- Embedded Power
- Power Switching & Control
- Services
- DC Power
- Monitoring
- Precision Cooling
- Surge Protection

### Emerson Network Power Contact information

**Headquarters**  
Surge Protection  
100 Emerson Parkway  
Binghamton, NY 13905  
T: (607) 721-8840  
T: (800) 288-6169  
F: (607) 722-8713  
E: [contactsurge@emerson.com](mailto:contactsurge@emerson.com)

[www.emersonnetworkpower.com](http://www.emersonnetworkpower.com)

