TYCON Power®

TP-ESP-71G

INDUSTRIAL STRENGTH

DATA SHEET

Outdoor Ethernet Surge Protector

Features

- **10/100/1,000(1G) Data Rate**
- **CAT5/6 Compatible.**
- **802.3af, 802.3at and Passive PoE Compatible**
- **PoE and PoE+ Compatible. Output to 13W.**
- **Isolated Design for Negative or Positive Ground Systems**
- **Shielded RJ45 Jacks and Weatherproof Housing**
- **Industrial Strength Operating Range to -40 to 60C**
- **Powers With 802.3af/at PoE or 23-59V Passive PoE Input**
- **Over-Current Protected**
- **Meets UL1950, CSA 22.2 and TUV EN60950 Standards**

Applications

- **Cambium ePMP1000 sync radios**
- **Wireless Access Points and Client Devices**
- **Security Camera Systems**

Description

The TP-ESP-71G is a high performance Outdoor Rated Ethernet surge protector / gas discharge lightning arrestor to help protect sensitive equipment from power surges caused by lightning and grid power fluctuations. They protect on all 4 pairs and are compatible with up to 1Gbps Ethernet networks.

The surge protectors are an isolated design to further enhance their protection ability by isolating the input and output connectors with 2 KVDC isolation. An added benefit of the isolated design is that they can be used in positive or negative grounded systems.

The input is 802.3af/at PoE compatible and also accepts 23V to 59V passive PoE so they can be used in a variety of different applications. Output is 48V 13W PoE with power supplied per Mode B on pins 4,5- and 7,8+.

The enclosure is UV resistant and weatherproof. It can be mounted to a pole using tie-wraps or to a wall with screws. Cable feedthroughs offer a cable strain relief feature using tie-wraps.
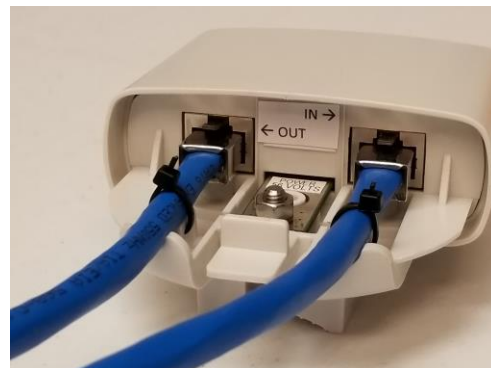
Specifications

	TP-ESP-71G
Input	802.3af/at POE and 23–59VDC Passive PoE
Output	Passive PoE (-48V 0.27A 13W)
Line / Load Regulation	1% / 5%
Ripple and Noise	1%
ESD Protection (IEC61000-4-2)	+/-30kV (air), +/-30kV (contact)
EFT Protection (IEC61000-4-4)	40A (5/50ns)
Surge Protection (IEC61000-4-5)	20A (8/20us)
Lightning Protection – Gas Discharge	2kA (8/20us)
Lightning Isolation	2k VDC
Clamping Voltage	16V pins 1,2,3,6 75V pins 4,5,7,8

Peak Pulse Current	20A (8/20us)
Protection Mode	Differential Mode
Overcurrent Protection	120% ~ 160% of Full Load (13W)
Input Polarity Protection	Yes
Efficiency	>85%
Capacitance (line to line)	< 1.5 pF
Data Rate	10/100/1,000 Mbps (1Gbps)
Operating Temperature	-40 to +60°C (-40 to + 140°F)
Storage Temperature	-40 to +80°C (-40 to +176°F)
Operating Humidity	Weatherproof, Outdoor Rated (IP65)
Size (L x W x H)	4.5 x 3.5 x 1.75" (114 x 89 x 44.5mm)
Weight	6.5oz (184g)
Connectors	RJ45 Shielded Jacks Qty 2
Ethernet Cable Compatibility	CAT5/6
Safety Standards	Meets UL1950, CSA 22.2, TUV EN60950
EMC Standards	Meets FCC Class B and EN55022 Class B
MTBF (Mean Time Between Failure)	103,111 Hours
Warranty	3 Years

Connector pinouts

	RJ-45 Input		RJ-45 Output (Data & Power)	
Pin	Symbol	Description	Symbol	Description
1	+/-Vdc BI_DA+	power(+/-)Data Pair A+	BI_DA+	Data Receive
2	+/-Vdc BI_DA-	power(+/-)Data Pair A-	BI_DA-	Data Receive
3	+/-Vdc BI_DB+	power(+/-)Data Pair A-	BI_DB+	Data Transmit
4	+/-Vdc BI_DC+	power(+/-)Data Pair B+	-Vdc + BI_DC+	power(-)+Data Pair C+
5	+/-Vdc BI_DC-	power(+/-)Data Pair C+	-Vdc + BI_DC-	power(-)+Data Pair C-
6	+/-Vdc BI_DB-	power(+/-)Data Pair C-	BI_DB-	Data Transmit
7	+/-Vdc BI_DD+	power(+/-)Data Pair D+	+Vdc + BI_DD+	power(+)+Data Pair D+
8	+/-Vdc BI_DD-	power(+/-)Data Pair D-	+Vdc + BI_DD-	power(+)+Data Pair D-

System Ordering:

TP-ESP-71G   1Gbps Isolated Network Lightning/Surge Suppressor, 13W

For further information contact: