

Power Filter & Surge Suppressor

TTLP

TPD Commercial Grade Power Filter absorbs, dissipates and removes harmful transient voltages and noise traveling on AC & DC power circuits at the breaker panel reducing lockups, glitches, reprogramming issues & damage.

Improve power quality for your sophisticated electronic loads. **Rebooting, reprogramming and replacing processors, circuit boards and components** can be a never-ending battle. **Problems** in the system are as simple as occasional glitches locking up or turning on and off equipment without user input to **wide spread damage during a severe lightning storm**. Microprocessors read information through current pulses as binary code (0s and 1s). As different pieces of equipment, appliances and components turned on and off, voltage and current pulses, known as transients, are generated. These pulses of energy are distributed throughout every piece of equipment in the system. The problems will vary depending upon the size and frequency of these pulses. As microprocessors try to function, these transient pulses of energy will cause lock-ups where data can become lost or corrupted. **Larger pulses will cause catastrophic failure while smaller pulses degrade the life and reliability of these systems and controls.**

**Breaker Panels
Transfer Switches
Service Entrance
Gates & Elevators
LED's
Lighting Controls
Home Automation**



Total Protection Design offers a broad range of surge suppression products to extend the life and reliability of electronic equipment.

EMI/RFI FILTER ATTENUATION
MIL STANDARD 220B
Max attenuation 41dB @ 106kHz

SPECIFICATIONS

Application: ANSI/IEEE C62.41 Location C, B & A

Design: Ultra compact, fail-safe design with dual component-level fusing

Warranty: Lifetime Unlimited Free Replacement for Residential, 25 yr. for commercial & industrial applications.

Safety Listing: UL 1449 3rd Edition Type 1 for Type 1 and Type 2 locations.

Filter Listing: UL 1283 EMI/RFI Filter

Input Power Frequency: 47-63Hz

Maximum Continuous Operating Current: 15 amps

Modes of Discrete Suppression Circuitry:

All modes L-N, L-G, N-G & L-L

Response Time: < 0.5 nanosecond

Standard Monitoring: Status indicating light

Short Circuit Current Rating: 200kAIC - no upstream over-current protection device (breaker or fuse) required.

Dimensions Approx.:

Enclosure A: 6"H x 6"W x 4"D

Enclosure B: 8"H x 6"W x 6"D

Enclosure: Powder coated, impact resistant, weatherproof Nema 4 steel (IP56)

Connection: Prewired with 28 "(760mm) of #10 AWG (5.26mm²) conductor

Mounting Method: Dual mounting flanges. Flush-mounting trim plate included standard with 1S240 voltage. Order "-FMP" for other models.

Operating Temperature: -40° C to 85° C (-40° F to 185° F)

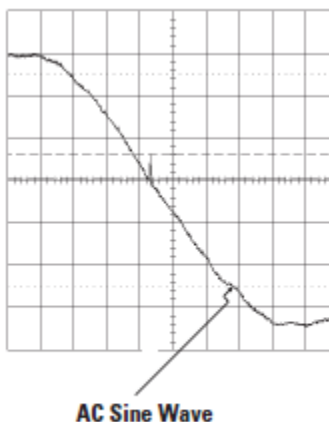
Weight: 1.00 lbs. (0.45 kg)

TTLP FILTER & SURGE VOLTAGES

| Model # | Voltage Description | Strength Per Phase | Strength Per System | Enclosure |
|-------------------|--------------------------------|--------------------|---------------------|-----------|
| *TK-TTLP-1S240-FL | 120/240VAC, 3W+G | 100kA | 150kA | A |
| TK-TTLP-3Y208-FL | 120/208VAC Three Phase 4W+G | 100kA | 150kA | A |
| TK-TTLP-3Y480-FL | 277/480VAC Three Phase 4W+G | 100kA | 150kA | A |
| TK-TTLP-3D240-FL | 120/240VAC Delta High Leg 4W+G | 100kA | 150kA | A |
| TK-TTLP-1P120-FL | 120VAC 2W+G (International) | 100kA | 150kA | A |
| TK-TTLP-1P240-FL | 240VAC 2W+G (International) | 100kA | 150kA | A |
| TK-TTLP-3Y600-FL | 347/600VAC Three Phase 4W+G | 100kA | 150kA | A |
| TK-TTLP-240NN-FL | 240VAC No Neutral 3W+G | 80kA | 80kA | B |
| TK-TTLP-480NN-FL | 480VAC No Neutral 3W+G | 80kA | 80kA | B |
| TK-TTLP-600NN-FL | 600VAC No Neutral 3W+G | 80kA | 80kA | B |

*Flush Mount Plate comes standard with 1S240 volt model. For other models, order Flush Mount Plate "TTLP-FMP" for recessed or flush mount applications.

Add "-M" suffix for optional dry relay contacts & audible alarm with mute button.



Peak Let-Through Voltage Level - 36V
Reference Level Zero Crossing of AC Sine Wave

For 120/208V Configuration

**ANSI/IEEE C62.41.1
Category A1 Ring Wave
2000V, 67A Test Plot**

**L-N Mode, Dynamic,
180 Phase Angle,
6" Leads, Positive Polarity
1 msec/div Horizontal
45V/div Vertical**

Specifications subject to change without notice, see web site www.totalprotectiondesign.com or latest revisions.

All voltages are peak values (+10%) from the zero reference point at the phase angles referenced above using a 10 μs/div display rate and 500MS/s sampling rate. Specifications subject to change without notice, see web site www.totalprotectiondesign.com for latest revisions.

Need additional assistance?

Call Technical Support

1-800-604-9980

www.totalprotectiondesign.com

Tech Note: For proper grounding and installation techniques please refer to installation manual.

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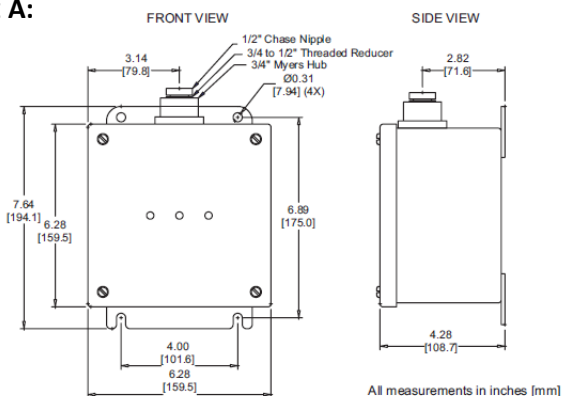


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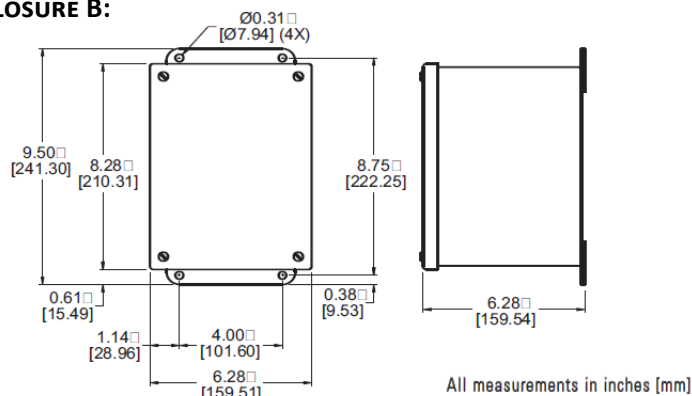
TTLP

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ENCLOSURE A:



ENCLOSURE B:



| Model Number | System Voltage | System Configuration | Protection Mode | MCOV | ANSI/IEEE C62.41.1-2002, C62.41.2-2002, & C62.45-2002 Measured Limited Voltage | | | UL Voltage Ratings | |
|------------------|----------------|--|-----------------|------|---|---|--|--|--|
| | | | | | ETF Models A1 Ring Wave 2kV, 67A 180° Phase Angle | All Models B3/C1 Impulse Wave 6kV, 3kA 90° Phase Angle | All Models C3 Impulse Wave 20kV, 10kA 90° Phase Angle | UL 1449 2nd Edition/ UL 1449 3rd Edition Voltage Protection Ratings | |
| | | | | | | | | | |
| TK-TTLP-1P120-FL | 120V | 1-Phase 2-wire+grnd | L-N | 150V | 42V | 590V | 970V | 400/600 | |
| | | | L-G | 150V | 541V | 597V | 1160V | 400/600 | |
| | | | N-G | 150V | 765V | 590V | 1100V | 400/600 | |
| TK-TTLP-1P240-FL | 240V | 1-Phase 2-wire+grnd | L-N | 320V | 42V | 1038V | 1660V | 800/1200 | |
| | | | L-G | 320V | 541V | 1037V | 1690V | 800/1200 | |
| | | | N-G | 320V | 765V | 1037V | 1510V | 800/1200 | |
| TK-TTLP-1S240-FL | 120/240V | Split-Phase 3-wire+grnd | L-N | 150V | 36V | 590V | 970V | 400/600 | |
| | | | L-G | 150V | 283V | 597V | 1160V | 400/600 | |
| | | | L-L | 300V | 56V | 980V | 1490V | 800/1000 | |
| | | | N-G | 150V | 322V | 590V | 1100V | 400/600 | |
| TK-TTLP-3Y208-FL | 120/208V | 3-Phase WYE 4-wire+grnd | L-N | 150V | 36V | 590V | 970V | 400/600 | |
| | | | L-G | 150V | 283V | 597V | 1160V | 400/600 | |
| | | | L-L | 300V | 56V | 980V | 1490V | 800/1000 | |
| | | | N-G | 150V | 322V | 590V | 1100V | 400/600 | |
| TK-TTLP-3Y380-FL | 220/380V | 3-Phase WYE 4-wire+grnd | L-N | 320V | 42V | 1040V | 1660V | 800/1200 | |
| | | | L-G | 320V | 541V | 1037V | 1690V | 800/1200 | |
| | | | L-L | 640V | 63V | 1860V | 2570V | 1500/2000 | |
| | | | N-G | 320V | 765V | 1035V | 1510V | 800/1200 | |
| TK-TTLP-3Y480-FL | 277/480V | 3-Phase WYE 4-wire+grnd | L-N | 320V | 42V | 1040V | 1660V | 800/1200 | |
| | | | L-G | 320V | 541V | 1037V | 1690V | 800/1200 | |
| | | | L-L | 640V | 63V | 1860V | 2570V | 1500/2000 | |
| | | | N-G | 320V | 765V | 1035V | 1510V | 800/1200 | |
| TK-TTLP-3D240-FL | 120/240V | 3-Phase high-leg DELTA 4-wire+grnd | L-N | 150V | 36V | 598V | 960V | 400/600 | |
| | | | H-N | 320V | 39V | 1041V | 1326V | 800/1200 | |
| | | | L-G | 150V | 283V | 595V | 1160V | 400/600 | |
| | | | H-G | 320V | 735V | 1042V | 1495V | 800/1200 | |
| | | | L-L | 320V | 31V | 988V | 1490V | 800/1000 | |
| | | | H-L | 470V | 71V | 1394V | 1629V | 1500/1500 | |
| TK-TTLP-240NN-FL | 480V | 3-Phase DELTA 3-wire+grnd | L-G | 320V | 525V | 1039V | 1500V | 800/1200 | |
| | | | L-L | 300V | 60V | 978V | 1300V | 800/1000 | |
| TK-TTLP-480NN-FL | 480V | 3-Phase DELTA 3-wire+grnd | L-G | 550V | 919V | 1591V | 1882V | 1500/1800 | |
| | | | L-L | 550V | 50V | 1599V | 1960V | 1500/1800 | |
| TK-TTLP-600NN-FL | 600V | 3-Phase DELTA 3-wire+grnd | L-G | 750V | 1265V | 2223V | 2433V | 2000/2500 | |
| | | | L-L | 750V | 50V | 2228V | 2421V | 2000/2500 | |
| TK-TTLP-3Y600-FL | 347/600V | 3-Phase WYE 4-wire+grnd | L-N | 420V | 58V | 1191V | 1722V | 1200/1200 | |
| | | | L-G | 420V | 982V | 1170V | 1794V | 1200/1200 | |
| | | | L-L | 720V | 88V | 2292V | 2898V | 2000/2500 | |
| | | | N-G | 420V | 948V | 1197V | 1624V | 1200/1200 | |

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