

TITAN[®] SE Service Entrance Protection

Titan SE Service Entrance surge protection panels can be configured to meet the specific requirements of any installation. Design engineers can specify options and features ranging from system voltage, peak surge current, housing type, diagnostics, integral fused disconnect, etc. The Titan SE is the ultimate protection device.



APPLICATIONS

Designed and manufactured for main service applications, the Titan SE can also be installed inside gear switch or motor control centers for industrial, medical and commercial applications. Its peak surge current rating can be specified to meet different needs, ranging from 360,000 amps up to 600,000 amps per phase. The Titan SE can be installed in series for sensitive loads up to 175 amps. Titan SE surge suppression panels offer ultimate protection to service entrances in a cascaded filter suppression network.

SUPERIOR PERFORMANCE

The Titan SE utilizes a hybrid Sine Wave Tracker[™] suppression circuit in bolt-on replaceable modules. Modules bolt onto tin plated copper bus bars to ensure the lowest possible impedance to ground. The Titan SE provides both transient protection and up to -40 dB noise filtration.

SAFETY

The Titan SE provides safe and reliable operation by incorporating EFI's latest safety developments. Each MOV is individually fused and the product is contained in a NEMA 4/12 metallic housing for maximum safety. The Titan SE has been tested and is UL and cUL listed.

EASY INSTALLATION

The Titan SE easily mounts adjacent to any switch boards, MCC or distribution panels. Its durable construction makes the Titan SE the right choice for full facility protection in high exposure facilities. Operating status lights are conveniently observed through the front cover and an audible alarm and form C dry contacts alert the user in the case of suppressor damage.

| FEATURES | ADVANTAGES | BENEFITS |
|---|--|---|
| Online Diagnostic Test Switches | Allows unit to be tested without disabling protection during test conditions | Allows building maintenance personnel to perform regular inspections of suppressor status |
| LED, Audible Alarm and NO/NC Dry Contacts Status Indicators | Provides additional indication of the suppression status | Allows the building engineer to remotely monitor device's status |
| 360,000 to 600,000 Peak Amp Surge Current Capacity | Protects against high-energy lightning strikes | Delivers protection, even in the worst electrical conditions |
| Sine Wave Tracker Circuitry | Provides a tight clamping window above and below the AC sine wave | Ensures customer superior protection from transient voltages |

Titan SE Product Specifications

MODELS AVAILABLE

TSE120/240, TSE120/208, TSE240, TSE240/120, TSE220/380, TSE277/480, TSE480, TSE347/600

PERFORMANCE

| 360 kA/Phase, 240 kA L-N, 120 kA L-G, 120 kA N-G or |
|---|
| 480 kA/Phase, 240 kA L-N, 240 kA L-G, 240 kA N-G or |
| 600 kA/Phase, 360 kA L-N, 240 kA L-G, 240 kA N-G |
| 200 kA, 600 V Maximum |
| Wye connected models |
| -40 dB Wye models/ -20 dB Delta models |
| 200 kAIC User Replaceable |
| <1 ns |
| 50/60 400 Hz |
| Yes |
| |

MECHANICAL DESCRIPTION

| See Diagram Below |
|--|
| Nema 4/12 |
| -40 to 140 F (-40 to 60 C) |
| -40 to 185 F (-40 to 85 C) |
| Sea level to 12,000 feet (3,658 meters) |
| 48 lbs |
| Max 2/0 (67.4 sq mm) Min 14 (2.08 sq mm) |
| |

DIAGNOSTICS

| Standard | Suppression Status Per |
|----------|------------------------|
| | Form C Dry Contacts, C |
| | |

Optional

Suppression Status Per Phase, Alarm w/Silence Switch, Form C Dry Contacts, On-line Diagnostic Test Switch Surge Counter, Fused Disconnect Switch

SAFETY APPROVALS

c ∰us 1449 2nd Edition

WARRANTY

Product

10 years

TSE SYSTEM DESCRIPTION

| Model | Configuration | MCOV | UL 1449 2-nd Ed | | | ANSI C 62.41 Clamping Voltage | | | |
|--------------|---------------------------|------|-----------------|-----|-----|-------------------------------|-------|--------|--------|
| | | | L-N | L-G | N-G | L-L | Cat A | Cat B3 | Cat C1 |
| TSE 120/240Y | 1 Phase Wye, 3-wire + G | 150 | 400 | 400 | 400 | 700 | 280 | 330 | 390 |
| TSE 120/208Y | 3 Phase Wye, 4-wire + G | 150 | 400 | 400 | 400 | 700 | 280 | 330 | 390 |
| TSE 220/380Y | 3 Phase Wye, 4-wire + G | 320 | 800 | 800 | 800 | 1500 | 492 | 636 | 792 |
| TSE 277/480Y | 3 Phase Wye, 4-wire +G | 320 | 800 | 800 | 800 | 1500 | 492 | 636 | 792 |
| TSE 347/600Y | 3 Phase Wye, 4-wire + G | 390 | 900 | 900 | 800 | 1800 | 550 | 700 | 900 |
| TSE 240D | 3 Phase Delta, 3-wire + G | 300 | N/A | N/A | N/A | 700 | 528 | 632 | 724 |
| TSE 380D | 3 Phase Delta, 3-wire + G | 640 | N/A | N/A | N/A | 1200 | 592 | 840 | 1552 |
| TSE 480D | 3 Phase Delta, 3-wire + G | 640 | N/A | N/A | N/A | 1500 | 592 | 840 | 1552 |
| TSE 600D | 3 Phase Delta, 3-wire +G | 780 | N/A | N/A | N/A | 1800 | 640 | 1020 | 2136 |

| Surge Current Rating/Phase | 360,000 | 480,000 | 600,000 | |
|----------------------------------|---|---|---|--|
| Enclosure Size | 24" x 24" x 8", 75 lbs | 30" x 24" x 8", 96 lbs | 36" x 24" x 8", 113 lbs | |
| Enclosure Size w/Disconnect | 30" x 24" x 8", 80 lbs | 36" x 24" x 8", 100 lbs | 36" x 24" x 8", 118 lbs | |
| Modules Per Phase | 3 | 4 | 5 | |
| Modules Per Mode (L-N, L-G, L-L) | 3 modules/phase configured per mode as required Example: L-N (1) & L-G (1) | 4 modules/phase configured per mode as required Example: L-N (1) & L-G (1) | 5 modules/phase configured per mode as required Example: L-N (1) & L-G (1) | |
| Surge Current Rating N-G | 120,000 Amps (1 module) -or- 240,000 (2 modules) available on all Titan SE's | | | |



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