

# SIEMENS

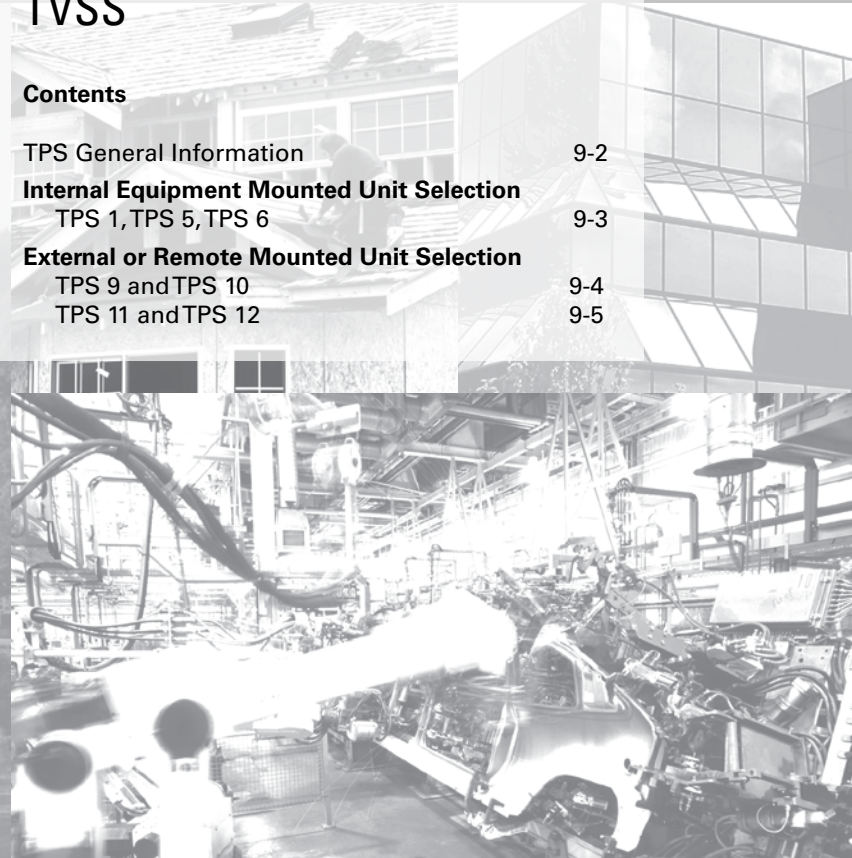
## Distribution Equipment **SPEEDFAX**

# 9

## Section 9 TVSS

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# AZ

# TVSS - Transient Voltage Surge Suppressors

SELECTION

## TPS - Transient Protection System

9  
TVSS

Siemens offers surge suppression products to provide for multi-stage protection. Why have multi-stage protection? High voltage transients enter your systems as the result of utility switching, lightning strikes and low voltage transients caused by internal equipment such as motors and compressors. All of these transients can destroy sensitive electronic equipment.

The Siemens TPS system has products to fit at every level of the electrical distribution system.

### Equipment Mounted Protection

#### General Specifications

Meets or exceeds the following:

#### CSA Requirements, cULus Listed

UL 1449 2nd edition

UL 1283

ANSI / IEEE C62.45 and C62.41

200 KA short circuit current rated in compliance to the 2002 NEC Article 285.6

Patented Trans Safe™ circuit design.

#### Lighting Panel Mounted Units

**TPS 1** – Fits lighting panels type P1 and P2.

#### Ratings:

120 kA

160 kA

240 kA

#### Standard features:

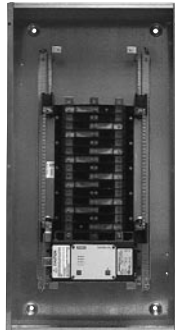
LED indicators for immediate status monitoring.

Audible alarm with silence switch.

Dry contacts with DB 9 connector for connection into building management systems.

#### Options

Surge counter  
Remote monitor



#### Distribution Panel and Distribution Section Switchboard Mounted Units

**TPS 5** – Fits distribution panels S4/F i / P4, S5/F2/P5 and front connected distribution section switchboards. These units are factory assembled and are close connected to the panel bus. Add 10" of unit space for this unit.

#### Ratings:

160 kA

240 kA

#### Standard features:

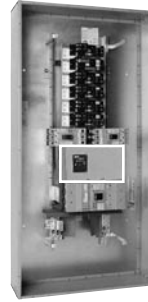
LED indicators for immediate status monitoring.

Audible alarm with silence switch.

Dry contacts with DB 9 connector for connection into building management systems.

#### Options

Surge counter  
Remote monitor



#### Service Section and Switchgear Mounted Units

**TPS 6** – For use in Switchboards other than front connected distribution sections and low voltage switchgear. The TPS unit is mounted in a customer instrument compartment.

#### Ratings:

240 kA

320 kA

400 kA

#### Standard features:

LED indicators for immediate status monitoring.

Audible alarm with silence switch.

Dry contacts with DB 9 connector for connection into building management systems.

#### Options

Surge counter  
Remote monitor



#### Remote Mounted Protection

#### General Specifications

Meets or exceeds the following:

#### CSA Requirements

UL 1449 2nd edition

UL 1283

ANSI / IEEE C62.45 and C62.41

200 KA short circuit current rated in compliance to the 2002 NEC Article 285.6

**TPS 9** – External mounted TVSS unit for close coupling to distribution equipment. L-N, L-G and L-L modes of protection.

#### Ratings:

80 kA

100 kA

120 kA for 120/240 and 208Y/120

150 kA for 120/240 and 208Y/120 systems only

#### Standard features:

LED indicators for immediate status monitoring.

NEMA 4X enclosure.

#### Options

Flush mounting



**TPS 10** – External mounted TVSS unit for close coupling to distribution equipment. L-N, L-G, L-L and N-G modes of protection.

#### Ratings:

50 kA

#### Standard features:

LED indicators for immediate status monitoring.

NEMA 12 enclosure.

#### Options

Audible alarm  
Dry contacts  
Flush mounting  
Remote monitor  
NEMA 3, 4 or 4X enclosure

**TPS 11** – External mounted TVSS unit for close coupling to distribution equipment. L-N, L-G, L-L and N-G modes of protection.

#### Ratings:

80 kA

#### Standard features:

LED indicators for immediate status monitoring.

NEMA 12 enclosure.

#### Options

Audible alarm  
Dry contacts  
Flush mounting  
Remote monitor  
NEMA 3, 4 or 4X enclosure



**TPS 12** – External mounted TVSS unit for close coupling to distribution equipment. L-N, L-G, L-L and N-G modes of protection.

#### Ratings:

120 kA

160 kA

240 kA

#### Standard features:

LED indicators for immediate status monitoring.

NEMA 12 enclosure.

Audible alarm.

Dry contacts.

#### Options

Surge counter  
Dual surge counter  
Internal disconnect  
Flush mounting  
Remote monitor  
NEMA 3, 4 or 4X enclosure



# TVSS - Transient Voltage Surge Suppressors

SELECTION

## TPS - Transient Protection System

Catalog Number

Equipment mounted (internal) TVSS



Voltage Code	kA	Product	Surge Current	Options
A = 120/240	1Ø3W	1 = P1 and P2 panels	120kA	R = Remote Monitor
B = 240/120	3Ø4W	5 = S4/F1 (P4) and S5/F2 (P5)	160kA	X = Surge Counter
C = 208/120	3Ø4W	6 = Service section switchboards and low voltage switchgear.	240kA	0 if no counter
D = 240V	3Ø3W		320kA	0 if no monitor
E = 480/277	3Ø4W		400kA	
F = 480V	3Ø3W			
G = 600V	3Ø3W			
K = 380Y/220	3Ø4W			
L = 600Y/347	3Ø4W			

### Factory Assembled

Product Selection	Voltage	120kA	160kA	240kA	320kA	400kA
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#### Panelboard - Lighting and Appliance 600A Maximum

TPS1 P1, P2, P3	120/240V 1Ø 3W	TPSA0112000I	TPSA0116000I	TPSA0124000I	—	—
	240/120V 3Ø 4W	TPSB0112000I	TPSB0116000I	TPSB0124000I	—	—
	208Y/120V 3Ø 4W	TPSC0112000I	TPSC0116000I	TPSC0124000I	—	—
	240V 3Ø 3W	TPSD0112000I	TPSD0116000I	TPSD0124000I	—	—
	480Y/277V 3Ø 4W	TPSE0112000I	TPSE0116000I	TPSE0124000I	—	—
	480V 3Ø 3W	TPSF0112000I	TPSF0116000I	TPSF0124000I	—	—
	600V 3Ø 3W	TPSG0112000I	TPSG0116000I	TPSG0124000I	—	—
	380Y/220V 3Ø 4W	TPSK0112000I	TPSK0116000I	TPSK0124000I	—	—
	600Y/347V 3Ø 4W	TPSL0112000I	TPSL0116000I	TPSL0124000I	—	—

#### Panelboard - Distribution and Power

TPS5 S4/F1 (P4)/S5/F2 (P5)	120/240V 1Ø 3W	—	TPSA0516000	TPSA0524000	—	—
	240/120V 3Ø 4W	—	TPSB0516000	TPSB0524000	—	—
	208Y/120V 3Ø 4W	—	TPSC0516000	TPSC0524000	—	—
	240V 3Ø 3W	—	TPSD0516000	TPSD0524000	—	—
	480Y/277V 3Ø 4W	—	TPSE0516000	TPSE0524000	—	—
	480V 3Ø 3W	—	TPSF0516000	TPSF0524000	—	—
	600V 3Ø 3W	—	TPSG0516000	TPSG0524000	—	—
	380Y/220V 3Ø 4W	—	TPSK0516000	TPSK0524000	—	—
	600Y/347V 3Ø 4W	—	TPSL0516000	TPSL0524000	—	—

#### Switchboards and LV Switchgear - Service Entrance

TPS6 SMP, FCI, FCI	120/240V 1Ø 3W	—	—	TPSA0624000	TPSA0632000	TPSA0640000
	240/120V 3Ø 4W	—	—	TPSB0624000	TPSB0632000	TPSB0640000
	208Y/120V 3Ø 4W	—	—	TPSC0624000	TPSC0632000	TPSC0640000
	240V 3Ø 3W	—	—	TPSD0624000	TPSD0632000	TPSD0640000
	480Y/277V 3Ø 4W	—	—	TPSE0624000		TPSE0632000
	TPSE0640000					
	480V 3Ø 3W	—	—	TPSF0624000		TPSF0632000
	TPSF0640000					
	600V 3Ø 3W	—	—	TPSG0624000	TPSG0632000	TPSG0640000



# TVSS - Transient Voltage Surge Suppressors

## TPS 9 - Transient Protection System

Selectio



### TPS 9 (external)

Transient Protection System for Sensitive Electronic loads. Externally mounted to Electrical Distribution Equipment.

### FEATURES

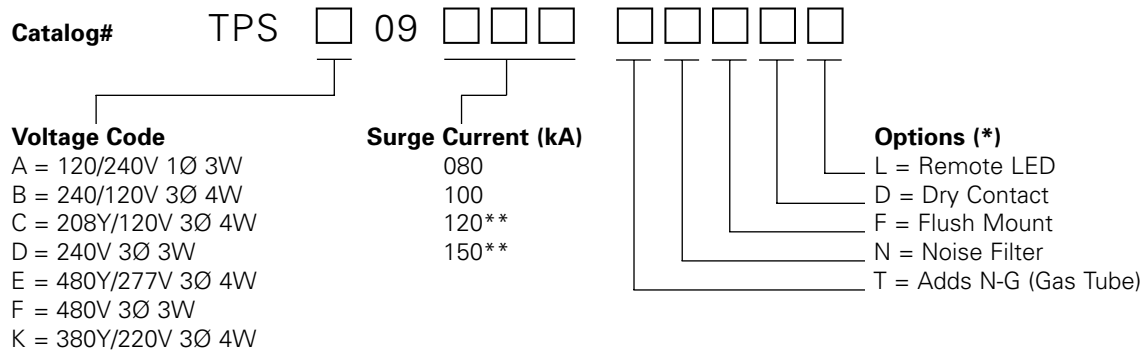
- cULus Listed
- UL 1449 Second Edition Revision effective Feb. 9, 2007 (aka UL 1449 Rev 2.5). Designed and tested in accordance with IEEE C62.41.1, C62.41.2, and C62.45
- UL 1449 Rev 2.5 listed for 200kA SCCR applications or below. In compliance with NEC Article 285.6
- Modes of protection: L-N, L-G, and L-L
- Multistage protection circuit
- Fast acting 20mm MOV's
- NEMA4X Standard Enclosure
- LED indicators for immediate status monitoring
- Dimensions: 8" x 3" x 3"
- Weight: 4 lbs.



### AVAILABLE OPTIONS

- Flush Mount

### ORDERING INFORMATION



\* When an option is not selected, include a zero (0) in the option field  
 \*\*Only for voltage codes A and C

- Does require a 20A breaker to feed TVSS
- Standard NEMA 4X Enclosure

# TVSS - Transient Voltage Surge Suppressors

## TPS - Transient Protection System

Selection

### TPS 10

Transient Protection System for Sensitive Electronic loads. Externally mounted to Electrical Distribution Equipment.

### FEATURES

- cULus Listed
- UL 1449 Second Edition Revision effective Feb. 9, 2007 (aka UL 1449 Rev 2.5). Designed and tested in accordance with IEEE C62.41.1, C62.41.2, and C62.45
- Patented TranSafe™ Circuitry Design incorporating thermal cutouts and surge rated fuses
- UL 1449 Rev 2.5 listed for 200kA SCCR applications or below. In compliance with NEC Article 285.6
- All modes of protection: L-N, L-G, L-L, & N-G
- Multistage protection circuit
- Fast acting 20mm MOV's
- NEMA 4X Standard Enclosure
- LED indicators for immediate status monitoring
- Dimensions: 6" x 6" x 4"
- Weight: 8 lbs.



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TVSS

### AVAILABLE OPTIONS

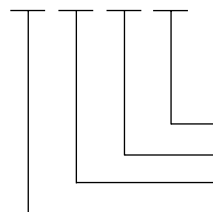
- Audible Alarm
- Dry Contacts
- Flush Mount
- Remote Monitor

### ORDERING INFORMATION

Catalog#      TPS        10050

#### Voltage Code

- A = 120/240V 1Ø 3W
- B = 240/120V 3Ø 4W
- C = 208Y/120V 3Ø 4W
- E = 480Y/277V 3Ø 4W



#### Options (\*)

- R = Remote Monitor
- D = Dry Contacts
- F = Flush Mount
- A = Audible Alarm

\* When an option is not selected, include a zero (0) in the option field

- Does require a 20A breaker to feed TVSS
- Standard NEMA 4X Enclosure

# TVSS - Transient Voltage Surge Suppressors

## TPS - Transient Protection System

Selectio

### TPS 11

Transient Protection System for Sensitive Electronic loads. Externally mounted to Electrical Distribution Equipment.

### FEATURES

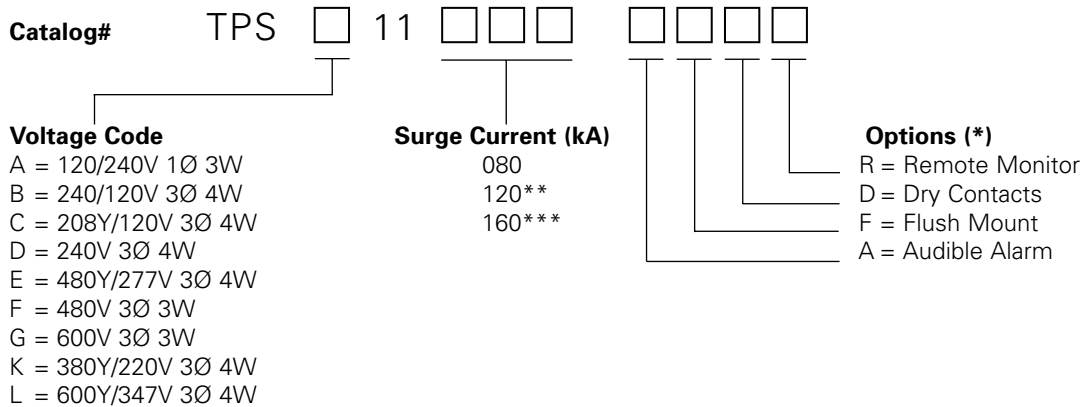
- cULus Listed
- UL 1449 Second Edition Revision effective Feb. 9, 2007 (aka UL 1449 Rev 2.5). Designed and tested in accordance with IEEE C62.41.1, C62.41.2, and C62.45
- Patented TranSafe™ Circuitry Design incorporating thermal cutouts and surge rated fuses
- UL 1449 Rev 2.5 listed for 200kA SCCR applications or below. In compliance with NEC Article 285.6
- All modes of protection: L-N, L-G, L-L, & N-G
- Multistage protection circuit
- Fast acting 20mm MOV's
- NEMA4X Standard Enclosure
- LED indicators for immediate status monitoring
- Dimensions: 6" x 6" x 4"
- Weight : 8 lbs.



### AVAILABLE OPTIONS

- Audible Alarm
- Dry Contacts
- Flush Mount
- Remote Monitor

### ORDERING INFORMATION



\*When an option is not selected, include a zero (0) in the option field

\*\* Only for voltage codes A, B, C, E, K and L

\*\*\* Only for voltage codes A, B, C, E and K

# TVSS - Transient Voltage Surge Suppressors

## TPS - Transient Protection System

Selection

### TPS 12

Transient Protection System for Sensitive Electronic loads. Externally mounted to Electrical Distribution Equipment.

### FEATURES

- cULus Listed
- UL 1449 Second Edition Revision effective Feb. 9, 2007 (aka UL 1449 Rev 2.5). Designed and tested in accordance with IEEE C62.41.1, C62.41.2, and C62.45
- Patented TranSafe™ Circuitry Design incorporating thermal cutouts and surge rated fuses
- UL 1449 Rev 2.5 listed for 200kA SCCR applications or below. In compliance with NEC Article 285.6
- All modes of protection: L-N, L-G, L-L, & N-G
- Multistage protection circuit
- Fast acting 40mm MOV's
- Standard monitoring: *LED Indicators, Audible Alarm, and Dry Contacts*
- NEMA 12 Standard Enclosure:
 

Standard	10" x 10" x 5"
W/Disconnect	12" x 12" x 5"
Flushmount	12" x 12" x 6"
Weight	21 lbs.

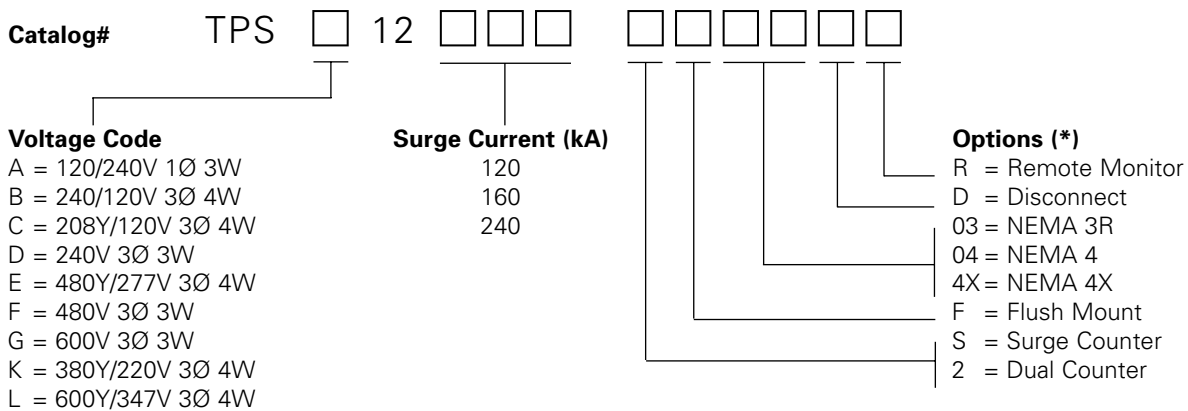


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TVSS

### AVAILABLE OPTIONS

- Surge Counter
- Remote Monitor
- Flush Mount
- Dual Surge Counter
- Internal Disconnect
- NEMA3R, 4, and 4X (may increase enclosure size)

### ORDERING INFORMATION



\*When an option is not selected, include a zero (0) in the option field

- Does require a 30A breaker to feed TVSS
- Standard NEMA 4X Enclosure