

**ERITECH**<sup>®</sup>

**TDX**

CRITEC<sup>®</sup> Transient Discriminating  
Panel Protectors



**ERICO**<sup>®</sup>

# TDXM Modular Series

## CRITEC® TDX200M Transient Discriminating Panel Protectors

### Features

- CRITEC® Transient Discriminating (TD) Technology provides increased service life
- Modular design allows individual modes to be field replaceable, built-in disconnect and fusing eliminates need for external fusing
- Built-in safety features include TD Technology, thermal protection and short circuit current cartridge fusing
- Compact NEMA-4 enclosure design can be flush mounted or installed in a small space
- Status indication flag per mode, voltage presence LED's, audible alarm and voltage-free contacts providing remote status monitoring
- 200kA 8/20 $\mu$ s maximum surge rating provides protection suitable for service entrance, main-distribution panels and highly exposed applications
- Available in various operating voltages to suit most common power distribution systems
- CE, UL® 1449 Edition 3 Listed

The TDX200 Series of Transient Voltage Surge Suppressors are designed for critical protection applications. The 200kA 8/20 $\mu$ s of surge protection exceeds the IEEE®C62.41.2 Scenario II single shot surge rating requirements for exposed service entrance locations – Exposure 3.

The NEMA-4 weather-tight housing allows the TDX to be installed on indoor or outdoor service panels. The pre-configured connecting leads simplify installation. The unique narrow construction allows the SPD to fit between adjacent panel boards and connect via a 90-degree elbow. A flush mounting kit is also available for installing the SPD in drywall applications.

Listed as a Type 1 SPD to UL1449 3rd Edition, the TDX200 Series can be installed within a Type 1 or 2 location in accordance with the NEC2008



Typical installation



TDX200M Enclosure



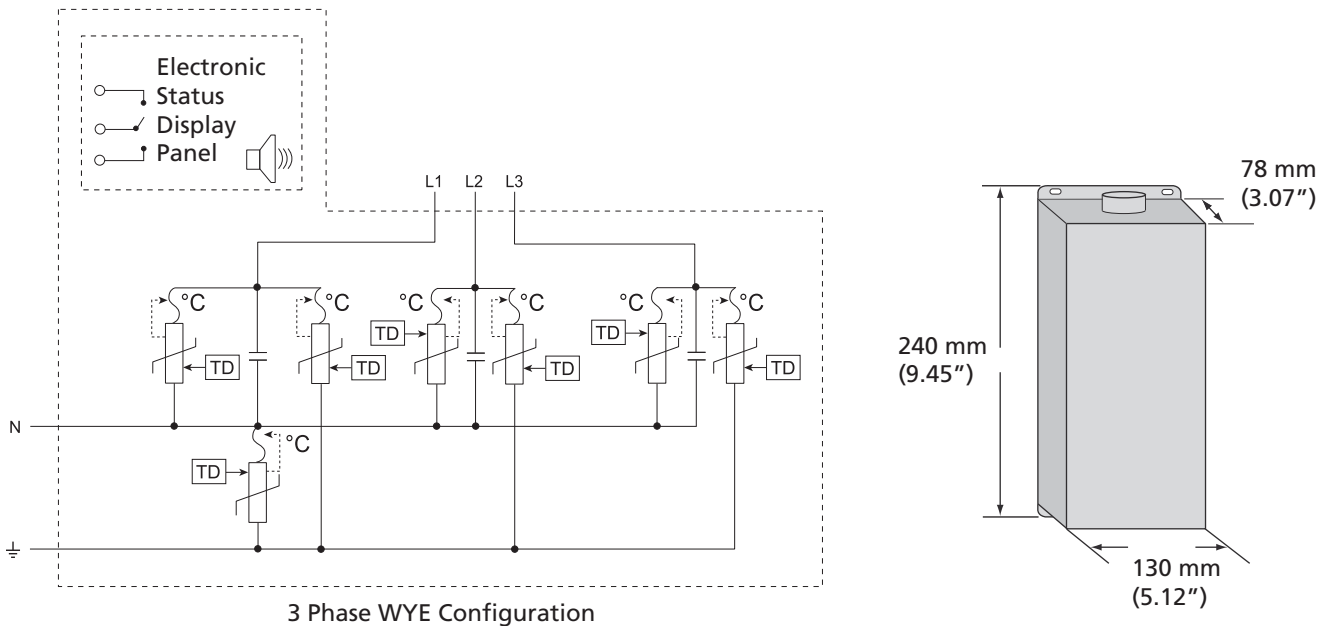
TDX Replaceable Modules



TDX Replaceable Module backplane fully removed

Model	TDX200M 120/208	TDX200M 120/240	TDX200M 120/240D	TDX200M 240D	TDX200M 277/480	TDX200M 277/480TT*	TDX200M 347/600	TDX200M 480D
Nominal Voltage, U <sub>n</sub>	120/208 V	120/240 V		240 V	277/480 V		347/600 V	480 V
Distribution System	3Ph 4W+G	1Ph 3W+G	3Ph Δ 4W+G	3Ph Δ 3W+G	3Ph 4W+G 3Ph 3W+G	3Ph 4W+G		3Ph Δ 3W+G
Max Cont. Operating Voltage, U <sub>c</sub>	170/295VAC	170/340VAC		275VAC	310/536VAC		560/970VAC	560VAC
Stand-off Voltage	240/415VAC	240/480VAC	240/415VAC	415VAC	480/813VAC	480/831VAC	790/1370VAC	790VAC
Frequency	50/60Hz							
Short Circuit Current Rating, I <sub>sc</sub>	200kAIC							
Technology	Over-current Replaceable Cartridge Fusing TD Technology with thermal disconnect							
Max Discharge Current, I <sub>max</sub>	200kA 8/20μs							
Impulse Current, I <sub>imp</sub>	20kA 10/350μs					20kA 10/350μs 50kA 10/350μs N-PE	20kA 10/350μs	
Nominal Discharge Current, I <sub>n</sub>	100kA 8/20μs			80kA 8/20μs				
Protection Modes	L-G, L-N, N-G			L-G, L-L	L-G, L-N, N-G	L-N, N-G	L-G, L-N, N-G	L-G, L-L
Voltage Protection Level, U <sub>p</sub>	L-N 600V @ 3kA 1.2kV @ 20kA			L-N 1000V @ 3kA 1.8kV @ 20kA		L-N 1.8kV @ 3kA 2.6kV @ 20kA		
Filtering	-40dB @ 100kHz							
Status	Audible Alarm LED status indication per phase, mechanical flag per mode, all modes monitored Remote contacts, change-over, 400V~ / 3A, max 1.5 mm <sup>2</sup> (#14AWG) terminals							
Dimensions H x D x W: mm (in)	240 x 78 x 130.0 (9.45 x 3.07 x 5.12)							
Weight: lbs (kg)	4.4 (2.00)							
Enclosure	Aluminum, IP 65 (NEMA-4)							
Connection	Line: 600 mm of 5.26 mm <sup>2</sup> (24" of # 10 AWG) flying leads Neutral/Ground: 900 mm of 5.26 mm <sup>2</sup> (36" of # 10 AWG) flying leads							
Mounting	3/4" straight nipple; Optional flush mounting plate for drywall							
Temperature	-40°C to 80°C (-40°F to 176°F)							
Humidity	0% to 90%							
Approvals	C-Tick, CE, IEC® 61643-1, UL® 1449 Ed 3 Listed Type 1/2							
Surge Rated to Meet	ANSI/IEEE® C62.41-1991 Cat A, Cat B, Cat C ANSI/IEEE® C62.41.2 Scenario II, Exposure 3, 100kA 8/20μs, 10kA 10/350μs IEC 61643-1 Class I, Class II UL® 1449 Ed3 In 20kA mode							
Available Options	Flush Mount Kit (Order TDXM200FP) Replacement Fuse Cartridge (Order TDXFUSE) Side Mount Kit (Order TDXSM) Surge Counter and Filtering insert "S" in Order Code, example TDX100S277/480							
Replacement Module	TDS150M150	TDS150M150 TDS150M240 (Lx-L3)	TDS150M240	TDS150M277	TDS150M277 (L-N) SGD125M (N-G)	TDS150M560		

\*Please use TDX200M277/480T for orders in North America



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# TDXM Modular Series

## CRITEC® TDX100M Transient Discriminating Panel Protection

### Features

- CRITEC® Transient Discriminating (TD) Technology provides increased service life
- Modular design allows individual modes to be field replaceable, built-in disconnect and fusing eliminates need for external fusing
- Built-in safety features include TD Technology, thermal protection and short circuit current cartridge fusing
- Compact NEMA-4 enclosure design can be flush mounted or installed in a small space
- Status indication flag per mode, voltage presence LEDs, audible alarm and voltage-free contacts providing remote status monitoring
- 100kA 8/20 $\mu$ s maximum surge rating provides protection suitable for smaller main-distribution panels and an extended operational life
- Available in various operating voltages to suit most common power distribution systems
- CE, UL® 1449 Edition 3 Listed

The TDX100 Series of Transient Voltage Surge Suppressors are designed for critical protection applications. The 100kA 8/20 $\mu$ s of surge protection meets the IEEE®C62.41.2 Scenario II single shot surge rating requirements for exposed service entrance locations – Exposure 3.

The NEMA-4 weather tight housing allows the TDX to be installed on indoor or outdoor service panels. The preconfigured connecting leads simplify installation. The unique narrow construction allows the SPD to fit between adjacent panel boards and connect via a 90-degree elbow. A flush mounting kit is also available for installing the SPD in drywall applications.

Listed as a Type 1 SPD to UL1449 3rd Edition, the TDX100 Series can be installed within a Type 1 or 2 location in accordance with the NEC2008



Typical Installation



Output contacts



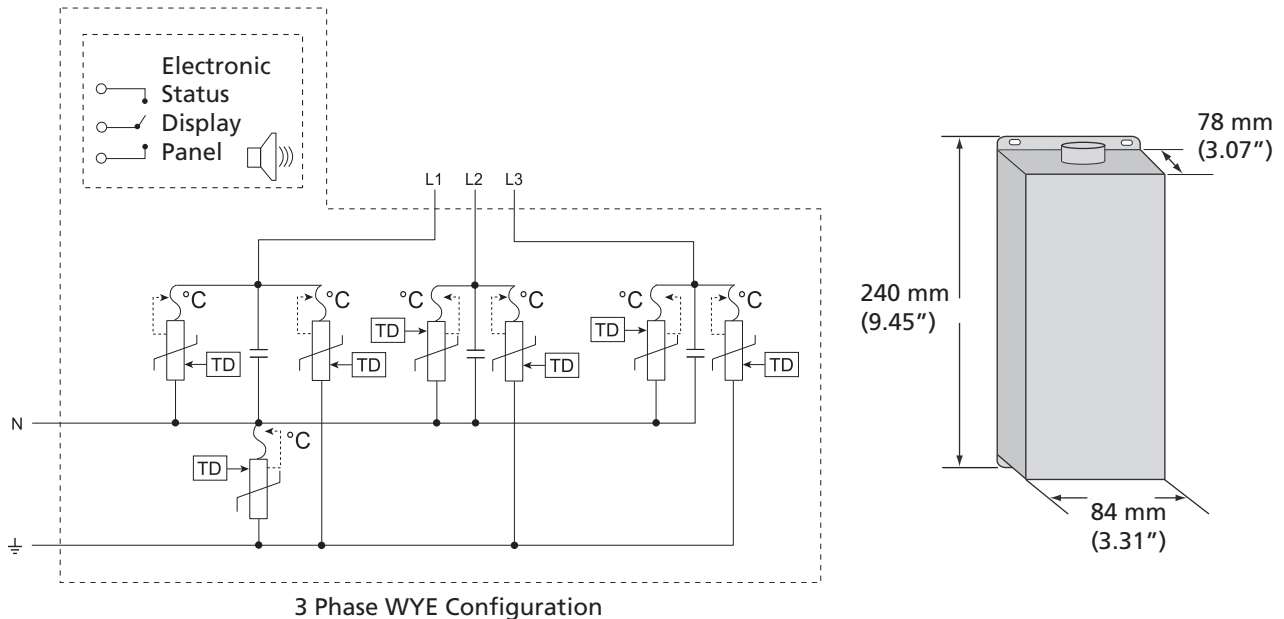
TDX Replaceable Cartridge overcurrent fuse protection



TDX Replaceable Modules

Model	TDX100M 120/208	TDX100M 120/240	TDX100M 120/240D	TDX100M 240D	TDX100M 277/480	TDX100M 277/480TT*	TDX100M 347/600	TDX100M 480D
Nominal Voltage, U <sub>n</sub>	120/208 V	120/240 V		240 V	277/480 V		347/600 V	480 V
Distribution System	3Ph 4W+G	1Ph 3W+G	3Ph Δ 4W+G	3Ph Δ 3W+G	3Ph 4W+G/3Ph 3W+G	3Ph 4W+G		3Ph Δ 3W+G
Max Cont. Operating Voltage, U <sub>c</sub>	170/295VAC	170/340VAC		275VAC	310/536VAC		560/970VAC	560VAC
Stand-off Voltage	240/415VAC	240/480VAC	240/415VAC	415VAC	480/813VAC	480/831VAC	790/1370VAC	790VAC
Frequency	50/60Hz							
Short Circuit Current Rating, I <sub>sc</sub>	200kAIC							
Technology	Over-current Replaceable Cartridge Fusing TD Technology with thermal disconnect							
Max Discharge Current, I <sub>max</sub>	100kA 8/20μs							
Impulse Current, I <sub>imp</sub>	12kA 10/350μs					12kA 10/350μs 25kA 10/350μs N-PE	12kA 10/350μs	
Nominal Discharge Current, I <sub>n</sub>	50kA 8/20μs			40kA 8/20μs				
Protection Modes	L-G, L-N, N-G			L-G, L-L	L-G, L-N, N-G	L-N, N-G	L-G, L-N, N-G	L-G, L-L
Voltage Protection Level, U <sub>p</sub>	L-N 600V @ 3kA 1.2kV @ 20kA			L-N 1000V @ 3kA 1.8kV @ 20kA		L-N 1.8kV @ 3kA 2.6kV @ 20kA		
Filtering	-40dB @ 100kHz							
Status	Audible Alarm LED status indication per phase, mechanical flag per mode, all modes monitored Remote contacts, change-over, 400V~ / 3A, max 1.5 mm <sup>2</sup> (#14AWG) terminals							
Dimensions H x D x W: mm (in)	240 x 78 x 84.0 (9.45 x 3.07 x 3.31)							
Weight: lbs (kg)	3.1 (1.41)							
Enclosure	Aluminum, IP 65 (NEMA-4)							
Connection	Line: 600 mm of 5.26 mm <sup>2</sup> (24" of # 10 AWG) flying leads Neutral/Ground: 900 mm of 5.26 mm <sup>2</sup> (36" of # 10 AWG) flying leads							
Mounting	3/4" straight nipple; Optional flush mounting plate for drywall							
Temperature	-40°C to 80°C (-40°F to 176°F)							
Humidity	0% to 90%							
Approvals	C-Tick, CE, IEC® 61643-1, UL® 1449 Ed 3 Listed Type 1/2							
Surge Rated to Meet	ANSI®/IEEE® C62.41-1991 Cat A, Cat B, Cat C ANSI®/IEEE® C62.41.2 Scenario II, Exposure 3, 100kA 8/20μs, 10kA 10/350μs IEC 61643-1 Class I, Class II UL® 1449 Ed3 In 20kA mode							
Available Options	Flush Mount Kit (Order TDXM100FP) Replacement Fuse Cartridge (Order TDXFUSE) Side Mount Kit (Order TDXSM) Surge Counter and Filtering insert "S" in Order Code, example TDX100S277/480							
Replacement Module	TDS150M150	TDS150M150 TDS150M240 (Lx-L3)	TDS150M240	TDS150M277	TDS150M277 (L-N) SGD125M (N-G)	TDS150M560		

\*Please use TDX100M277/480T for orders in North America



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# TDXC Compact Series

## CRITEC® TDX100C Transient Discriminating Panel Protection

### Features

- CRITEC® Transient Discriminating (TD) Technology provides increased service life
- Built-in safety features include TD Technology, thermal protection and short circuit current fusing
- Compact NEMA-4 enclosure design can be flush mounted or installed in a small space
- LED status indication and voltage-free contacts provide remote status monitoring
- 100kA 8/20 $\mu$ s maximum surge rating provides protection suitable for smaller main-distribution panels and an extended operational life
- Available in various operating voltages to suit most common power distribution systems
- CE, UL® 1449 Edition 3 Listed

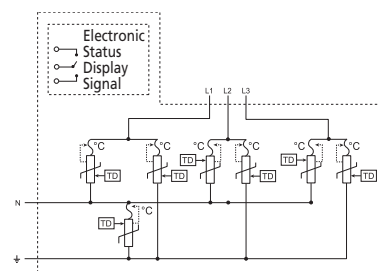
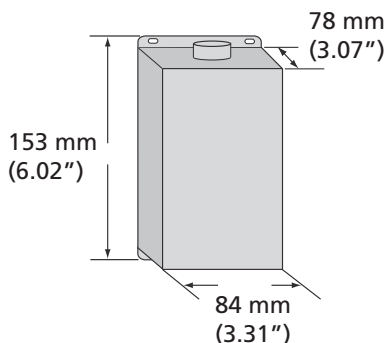
The TDX100 Series of Transient Voltage Surge Suppressors are designed for critical protection applications. The 100kA 8/20 $\mu$ s of surge protection meets the IEEE®C62.41.2 Scenario II single shot surge rating requirements for exposed service entrance locations – Exposure 3.

The NEMA-4 weather tight housing allows the TDX to be installed on indoor or outdoor service panels. The preconfigured connecting leads simplify installation. The unique narrow construction allows the SPD to fit between adjacent panel boards and connect via a 90-degree elbow. A flush mounting kit is also available for installing the SPD in drywall applications.

Listed as a Type 1 SPD to UL1449 3rd Edition, the TDX100 Series can be installed within a Type 1 or 2 location in accordance with the NEC2008



Typical Installation



Model	TDX100C 120	TDX100C 120/208	TDX100C 120/240	TDX100C 240	TDX100C 277/480	TDX100C 347/600
Nominal Voltage, $U_n$	120 V	120/208 V	120/240 V	240 V	277/480 V	347/600 V
Distribution System	1Ph 2W+G	3Ph 4W+G	1Ph 3W+G	1Ph 2W+G	3Ph 4W+G 3Ph 3W+G	3Ph 4W+G
Max Cont. Operating Voltage, $U_c$	170VAC	170/295VAC	170/340VAC	340VAC	310/536VAC	480/830VAC
Stand-off Voltage	240VAC	240/415VAC	240/480VAC	480VAC	480/813VAC	600/1040VAC
Frequency	50/60Hz					
Short Circuit Current Rating, $I_{sc}$	200kAIC					
Technology	Over-current Fusing TD Technology with thermal disconnect					
Max Discharge Current, $I_{max}$	100kA 8/20 $\mu$ s					
Impulse Current, $I_{imp}$	12kA 10/350 $\mu$ s					
Nominal Discharge Current, $I_n$	40kA 8/20 $\mu$ s					
Protection Modes	All modes protected via L-N, L-G, & N-G					
Voltage Protection Level, $U_p$	L-N 600V @ 3kA 1.2kV @ 20kA		L-N 1000V @ 3kA 1.8kV @ 20kA		L-N 1.8kV @ 3kA 2.6kV @ 20kA	
Status	LED status indication per phase, all modes monitored Remote contacts, change-over, 125V~ / 3A, max 1.5 mm <sup>2</sup> (#14AWG) terminals					
Dimensions H x D x W: mm (in)	153 x 78 x 84 (6.02 x 3.07 x 3.31)					
Weight: kg (lbs)	0.8 (1.76)					
Enclosure	Aluminum, IP 65 (NEMA-4)					
Connection	Line: 600 mm of 5.26 mm <sup>2</sup> (24" of # 10 AWG) flying leads Neutral/Ground: 900 mm of 5.26 mm <sup>2</sup> (36" of # 10 AWG) flying leads					
Mounting	3/4" straight nipple; Optional flush mounting plate for drywall					
Temperature	-40°C to 80°C (-40°F to 176°F)					
Humidity	0% to 90%					
Approvals	C-Tick, CE, IEC® 61643-1, UL® 1449 Ed 3 Listed Type 1/2					
Surge Rated to Meet	ANSI®/IEEE® C62.41-1991 Cat A, Cat B, Cat C ANSI®/IEEE® C62.41.2 Scenario II, Exposure 2, 50kA 8/20 $\mu$ s IEC 61643-1 Class I, Class II UL® 1449 Ed3 In 20kA mode					
Available Options	Flush Mount Kit (Order TDXM100FP) Side Mount Kit (Order TDXSM)					

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# TDXC Compact Series

## CRITEC® TDX50C Transient Discriminating Panel Protection

### Features

- CRITEC® Transient Discriminating (TD) Technology provides increased service life
- Built-in safety features include TD Technology, thermal protection and short circuit current fusing
- Compact NEMA-4 enclosure design can be flush mounted or installed in a small space
- LED status indication and voltage-free contacts provide remote status monitoring
- 50kA 8/20µs maximum surge rating provides protection suitable for sub-distribution panels and a long operational life
- Available in various operating voltages to suit most common power distribution systems
- CE, UL® 1449 Edition 3 Listed

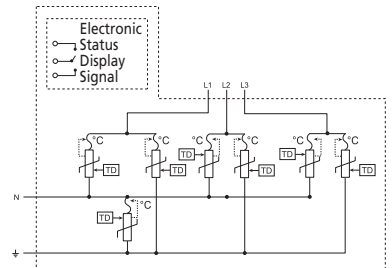
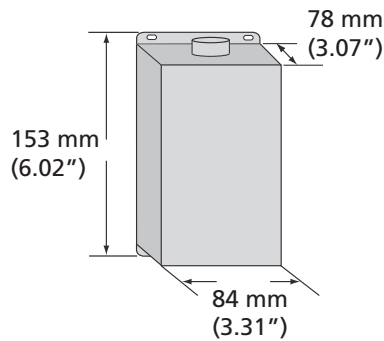
The TDX50 Series of Transient Voltage Surge Suppressors for equipment, panel and motor protection applications are specifically designed to provide long life, even under the most adverse over-voltage conditions.

The NEMA-4 weather tight housing allows the TDX to be installed on indoor or outdoor service panels. The preconfigured connecting leads simplify installation. The unique narrow construction allows the SPD to fit between adjacent panel boards. A flush mounting kit is also available for installing the SPD in drywall applications.

Listed as a Type 1 SPD to UL1449 3rd Edition, the TDX50 Series can be installed within a Type 1 or 2 location in accordance with the NEC2008



Typical Installation



Model	TDX50C 120	TDX50C 120/208	TDX50C 120/240	TDX50C 120/240D	TDX50C 240	TDX50C 277/480	TDX50C 347/600
Nominal Voltage, $U_n$	120 V	120/208 V	120/240 V	120/240 V	240 V	277/480 V	347/600 V
Distribution System	1Ph 2W+G	3Ph 4W+G	1Ph 3W+G	3Ph $\Delta$ 4W+G	1Ph 2W+G	3Ph 4W+G	3Ph 4W+G
Max Cont. Operating Voltage, $U_c$	170VAC	170/295VAC	170/340VAC		340VAC	310/536VAC	480/830VAC
Stand-off Voltage	240VAC	240/415VAC	240/480VAC	240/415VAC	480VAC	480/813VAC	600/1040VAC
Frequency	50/60Hz						
Short Circuit Current Rating, $I_{sc}$	200kAIC						
Technology	Over-current Fusing TD Technology with thermal disconnect						
Max Discharge Current, $I_{max}$	50kA 8/20µs						
Nominal Discharge Current, $I_n$	20kA 8/20µs						
Protection Modes	All modes protected via L-N, L-G, & N-G						
Voltage Protection Level, $U_p$	L-N 600V @ 3kA 1.2kV @ 20kA		L-N 1000V @ 3kA 1.8kV @ 20kA			L-N 1.8kV @ 3kA 2.6kV @ 20kA	
Status	LED status indication per phase, all modes monitored Remote contacts, change-over, 125V~/3A, max 1.5 mm <sup>2</sup> (#14AWG) terminals						
Dimensions H x D x W: mm (in)	153 x 78 x 84 (6.02 x 3.07 x 3.31)						
Weight: kg (lbs)	0.7 (1.54)						
Enclosure	Aluminum, IP 65 (NEMA-4)						
Connection	Line: 600 mm of 5.26 mm <sup>2</sup> (24" of # 10 AWG) flying leads Neutral/Ground: 900 mm of 5.26 mm <sup>2</sup> (36" of # 10 AWG) flying leads						
Mounting	3/4" straight nipple; Optional flush mounting plate for drywall						
Temperature	-40°C to 80°C (-40°F to 176°F)						
Humidity	0% to 90%						
Approvals	C-Tick, CE, IEC® 61643-1, UL® 1449 Ed 3 Listed Type 1/2						
Surge Rated to Meet	ANSI®/IEEE® C62.41-1991 Cat A, Cat B, Cat C ANSI®/IEEE® C62.41.2 Scenario II, Exposure 2, 50kA 8/20µs EC 61643-1 Class II UL® 1449 Ed3 In 10kA mode						
Available Options	Flush Mount Kit (Order TDXM100FP) Side Mount Kit (Order TDXSM)						

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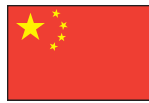


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### WARNING

ERICO products shall be installed and used only as indicated in ERICO's product instruction sheets and training materials. Instruction sheets are available at [www.erico.com](http://www.erico.com) and from your ERICO customer service representative. Improper installation, misuse, misapplication or other failure to completely follow ERICO's instructions and warnings may cause product malfunction, property damage, serious bodily injury and death.