

Critical filter— ITCFxxx10-DIN model



ITCFxxx10-DIN Series

Introduction

Since 1980, Eaton's Innovative Technology® has provided surge protective devices (SPDs) to power quality equipment users around the world. Whatever your electrical surge protection need may be, Eaton's Innovative Technology has a surge protective device to fill it.

Product description

Series or parallel wired, DIN rail mounted, multi-stage hybrid Active Tracking Network (ATN®) surge protective device.

Application description

Dedicated AC power circuits operating at 5–250 Vac / 5–300 Vdc, ≤10A, feeding variable speed drives, variable frequency drives, process controllers, PLCs, power supplies, microprocessor-based loads, CNCs, and a wide variety of other mission-critical and general-purpose individual loads.

Features

- Peak surge current: 40 kA per phase
- Warranty: 10-year free replacement ①
- Enclosure: polyamide, nylon 6,6 UL 94V-0
- Connection: wire clamping box terminals
 - 24 AWG (0.25 mm²) wire size
 - 12 AWG (4 mm²) wire size
- Series current rating: 10A maximum
- UL nominal discharge current rating: 3 kA ②
- UL SCCR: 10 kA ②
- Weight: ≈ 1 lb (0.45 kg)
- Operating temperature: –40°F (–40°C) to +140°F (+60°C)
- Provides three modes of protection: L–G, L–N, and N–G
- Input power frequency: 0–64 Hz (AC)
- Response time: <1 nanosecond
- Maximum continuous operating current: 10A
- Circuit interrupt: reference installation instructions for details

① With product registration.

② AC units only.

Table 1. Maximum EMI/RFI Attenuation—
MIL-STD-220

10 kHz	100 kHz	1 MHz	10 MHz	100 MHz	Maximum Attenuation Frequency
Model xxCF12010-DIN					
16 dB	35 dB	56 dB	29 dB	51 dB	66 dB at 0.7 MHz

Standards and certifications

- Unit listings: recognized components under UL 1449 Third Edition and cUL, UL 1283 Fifth Edition filter
- Manufacturer qualifications: ISO® 9001:1994 Quality System Certification BSI FM 30833
- RoHS compliant



Powering Business Worldwide



Performance data

Table 2. Technical Specifications

Catalog Number	Voltage Range	Protection Modes	VPR	MCOV	I _n	SCCR	Peak Surge Current Per Mode
ITCF02410-DIN ①	5–38 Vdc	L–N, L–G, N–G	—	—	—	—	4, 2, 2 kA
ITCF04810-DIN ①	24–65 Vdc	L–N, L–G, N–G	—	—	—	—	13, 6.5, 6.5 kA
ITCF12010-DIN ②	48–149 Vdc ① 100–127 Vac	L–N	500	150	3 kA	10 kA	20 kA
		L–G	500	150	3 kA	10 kA	10 kA
		N–G	500	150	3 kA	10 kA	10 kA
ITCF24010-DIN ②	150–300 Vdc ① 200–240 Vac	L–N	800	275	3 kA	10 kA	20 kA
		L–G	900	275	3 kA	10 kA	10 kA
		N–G	900	275	3 kA	10 kA	10 kA

① UL 1449 Third Edition does not list SPD products rated less than 100 Vac or DC voltages.

② UL 1449 Third Edition, UL 1283 Fifth Edition.

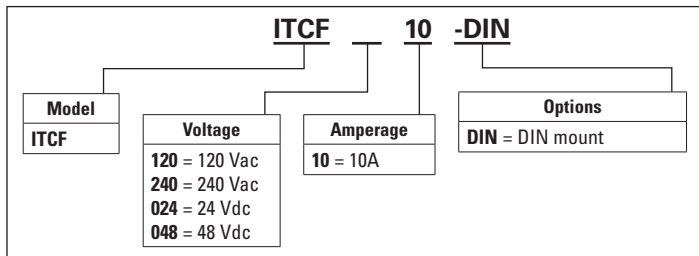
Table 3. Let-Through Voltages Based Upon IEEE Std C62.62-2010 Testing Waveforms ①

Test Impulse	xxCF12010-DIN
IEEE Category A 100 kHz ring wave—6000V, 200A	300V
IEEE Category B 100 kHz ring wave—6000V, 500A	400V
IEEE Category B combination wave—6000V, 3000A (UL 1449-3 VPR)	480V

① All tests conducted on 120 Vac units.

Product selection

Table 4. Catalog Numbering Selection



Dimensions

Approximate dimensions in inches (mm).

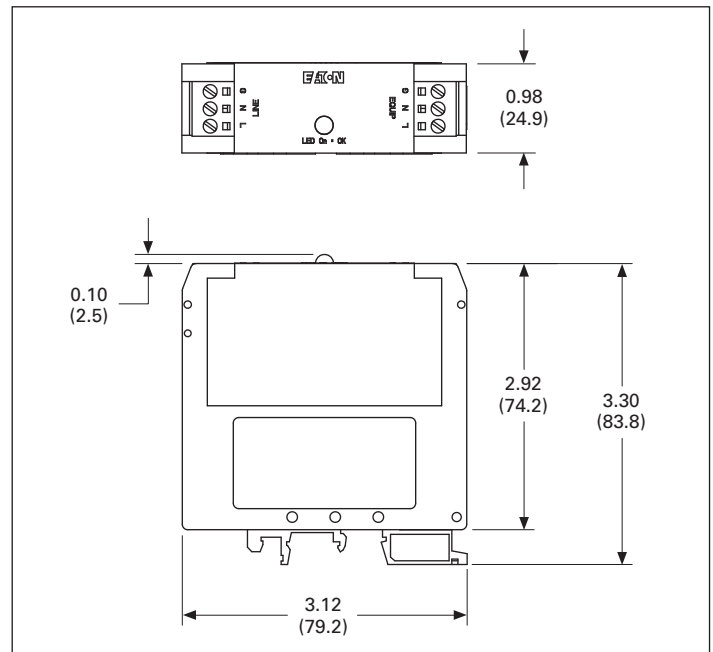


Figure 1. ITCFxxx10-DIN Series Dimensions

For additional information, go to www.itvss.com or call 1-800-809-2772 option 4, option 2.

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