

Features

- Radial leaded devices
- Aids compliance with:
  - ITU-T K.20/21/45
  - Telcordia GR-1089-CORE
  - UL 60950, 3rd Ed.
- Narrow resistance tolerance
- Agency recognition:
- RoHS compliant*

Additional Information

Click these links for more information:

PRODUCT SELECTOR | TECHNICAL LIBRARY | INVENTORY | SAMPLES | CONTACT

CMF-RL Series - Telecom CPTC Resettable Fuses

Electrical Characteristics

Model	Induction Voltage Withstand	Rated Voltage (Vr)	Rated Resistance (Rn)		Packaging Resistance Matching	Hold Current	Trip Current	Imax @ 230 Vac	Time to Trip @ Imax / Vr
	VAC	Volts	Ohms	Tolerance	Ohms @ 25 °C	Amps @ 25 °C	Amps @ 25 °C	Amps @ 25 °C	Seconds @ 25 °C
CMF-RL10	600	60 Vdc	10	±20 %	± 0.5	0.15	0.30	3	≤ 0.45
CMF-RL10-10	600	60 Vdc	10	±10 %	± 0.5	0.15	0.30	3	≤ 0.45
CMF-RL25**	600	230 Vac	25	±20 %	± 0.5	0.100	0.200	3	≤ 0.3
CMF-RL25U**	600	230 Vac	25	±20 %	± 0.5	0.060	0.150	0.9	≤ 0.5
CMF-RL35	600	230 Vac	35	±20 %	± 0.5	0.080	0.220	3	≤ 0.15
CMF-RL35-10	600	230 Vac	35	±10 %	± 0.5	0.080	0.220	3	≤ 0.15
CMF-RL35A**	600	230 Vac	35	±20 %	± 0.5	0.080	0.220	3	≤ 0.15
CMF-RL35A-10**	600	230 Vac	35	±10 %	± 0.5	0.080	0.220	3	≤ 0.15
CMF-RL50	600	230 Vac	50	±20 %	± 0.5	0.065	0.150	3	≤ 0.15
CMF-RL50-10	600	230 Vac	50	±10 %	± 0.5	0.065	0.150	3	≤ 0.15
CMF-RL50A**	600	230 Vac	50	±20 %	± 0.5	0.050	0.100	3	≤ 0.1
CMF-RL50A-10**	600	230 Vac	50	±10 %	± 0.5	0.050	0.100	3	≤ 0.1
CMF-RL55	600	230 Vac	55	±20 %	± 0.5	0.060	0.150	3	≤ 0.15
CMF-RL55-10	600	230 Vac	55	±10 %	± 0.5	0.060	0.150	3	≤ 0.15
CMF-RL55A**	600	230 Vac	55	±20 %	± 0.5	0.050	0.100	3	≤ 0.1
CMF-RL55A-10**	600	230 Vac	55	±10 %	± 0.5	0.050	0.100	3	≤ 0.1

Operating Temperature Range: -40°C to +125 °C
** UL recognition pending

Test Procedures And Requirements For Model CMF-RL Series

Test	Primary Protection	Test Condition	Requirements
Mains Power Contact - ITU-T K.20, K.21	None	230 V rms, 10 ohms, 15 Min.	(Ri-Rf) / Ri < ±10 %
Power Induction - ITU-T K.20, K.21	None	600V rms, 600 ohms, 0.2 seconds, 10 cycles, every 1 Min.	(Ri-Rf) / Ri < ±10 %
Power Induction - ITU-T K.20, K.21	GDT	600 V rms, 600 ohms, 1 second, 10 cycles, every 1 Min.	(Ri-Rf) / Ri < ±10 %
Power Induction - ITU-T K.20, K.21	GDT	600 V rms, 200 ohms, 1 second, 10 cycles, every 1 Min.	(Ri-Rf) / Ri < ±10 %
Lightning Surge - ITU-T K.20, K.21		10/700 µs, 25 ohms, 1.0 kV, 10 Tests, every 1 Min.	(Ri-Rf) / Ri < ±10 %
Lightning Surge		10/1000 µs, 40 ohms, 1.0 kV, 30 Tests, every 3 Min.	(Ri-Rf) / Ri < ±10 %

Ri = R initial Rf = R final

Test	Model	Test Condition	Passing Criteria
UL 1950	CMF-RL50***	600 V / 2.2 A for 30 minutes. 600 V / 7 A for 5 seconds 600 V / 40 A for 1.5 seconds	No charring cheesecloth indicator

***For other models, please contact Bourns.

UL File Number ..... E307915 ..... http://www.ul.com/ Follow link to Online Certificates Directory, then enter UL File No. E307915 or click here

Environmental Characteristics

Moisture Sensitivity Level 1
ESD Classification (HBM) ..... Class 6

WARNING Cancer and Reproductive Harm
www.P65Warnings.ca.gov

* RoHS Directive 2015/863, Mar 31, 2015 and Annex.
Specifications are subject to change without notice.
Users should verify actual device performance in their specific applications.
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Applications

Used as a secondary overcurrent protection device in:

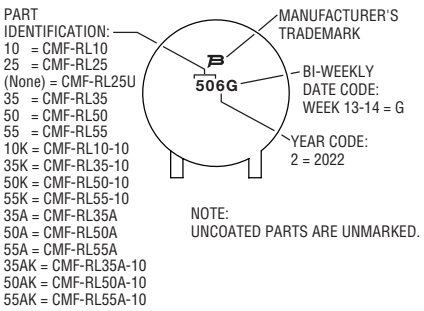
- Customer Premise Equipment (CPE)
- Central Office (CO)
- Access equipment

CMF-RL Series - Telecom CPTC Resettable Fuses

BOURNS®

Typical Part Marking

Represents total content. Layout may vary.



NOTE:
UNCOATED PARTS ARE UNMARKED.

How to Order

CMF - RL 50 __ A -10 - 0

Product Designator

Style
RL = Telecom Radial Leaded CPTC

Rated Resistance (RN)
10-55 (10 Ohms - 55 Ohms)

Uncoated Option
U = Uncoated Part Blank = Standard Part

Size Option
A = Reduced Size Blank = Standard Size

Rated Resistance Tolerance
-10 = ±10 % Blank = ±20 % (Standard)

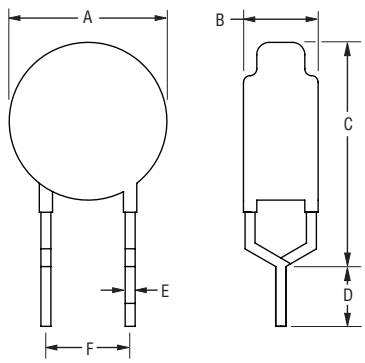
Packaging Options
- 0 = Bulk Packaging - Tray or Bag

Alternative tolerances, resistances and lead lengths available on request.

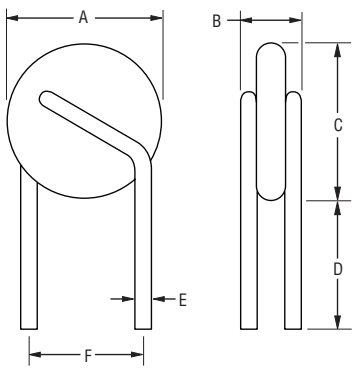
Product Dimensions

Model	A	B	C	D	E	F	Characteristics	
	Max.	Max.	Max.	Nom.	Nom.	Nom.	Material	Style
CMF-RL10 CMF-RL10-10	9.8 (0.366)	5.0 (0.197)	14.0 (0.551)	2.84 ~ 3.84 (0.112 ~ 0.151)	0.6 ± 0.05 (0.024 ± 0.002)	5.0 ± 1.5 (0.197 ± 0.059)	Sn/Cu	1
CMF-RL25	9.8 (0.386)	5.0 (0.197)	14.0 (0.551)	2.84 ~ 3.84 (0.112 ~ 0.151)	0.6 ± 0.05 (0.024 ± 0.002)	5.0 ± 1.5 (0.197 ± 0.059)	Sn/Cu	1
CMF-RL25U	5.2 (0.205)	3.5 (0.138)	5.2 (0.205)	25 (0.984) MIN.	0.6 ± 0.05 (0.024 ± 0.002)	5.0 ± 1.5 (0.197 ± 0.059)	Sn/Cu	2
CMF-RL35 CMF-RL35-10	9.8 (0.386)	5.0 (0.197)	14.0 (0.551)	2.84 ~ 3.84 (0.112 ~ 0.151)	0.6 ± 0.05 (0.024 ± 0.002)	5.0 ± 1.5 (0.197 ± 0.059)	Sn/Cu	1
CMF-RL35A CMF-RL35A-10	8.5 (0.335)	4.5 (0.177)	13.0 (0.512)	2.84 ~ 3.84 (0.112 ~ 0.151)	0.6 ± 0.05 (0.024 ± 0.002)	5.0 ± 1.5 (0.197 ± 0.059)	Sn/Cu	1
CMF-RL50 CMF-RL50-10	9.8 (0.386)	5.0 (0.197)	14.0 (0.551)	2.84 ~ 3.84 (0.112 ~ 0.151)	0.6 ± 0.05 (0.024 ± 0.002)	5.0 ± 1.5 (0.197 ± 0.059)	Sn/Cu	1
CMF-RL50A CMF-RL50A-10	7.5 (0.295)	4.5 (0.177)	13.0 (0.512)	2.84 ~ 3.84 (0.112 ~ 0.151)	0.6 ± 0.05 (0.024 ± 0.002)	5.0 ± 1.5 (0.197 ± 0.059)	Sn/Cu	1
CMF-RL55 CMF-RL55-10	9.8 (0.386)	5.0 (0.197)	14.0 (0.551)	2.84 ~ 3.84 (0.112 ~ 0.151)	0.6 ± 0.05 (0.024 ± 0.002)	5.0 ± 1.5 (0.197 ± 0.059)	Sn/Cu	1
CMF-RL55A CMF-RL55A-10	7.5 (0.295)	4.5 (0.177)	13.0 (0.512)	2.84 ~ 3.84 (0.112 ~ 0.151)	0.6 ± 0.05 (0.024 ± 0.002)	5.0 ± 1.5 (0.197 ± 0.059)	Sn/Cu	1

Style 1



Style 2



DIMENSIONS: MM / (INCHES)

Bulk Packaging Specifications

CMF-RL25U ..... 700 pcs. per bag
All other models..... 300 pcs. per tray

Specifications are subject to change without notice.
Users should verify actual device performance in their specific applications.
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