


Features

- 72 V rated
- Radial leaded devices
- Cured, flame retardant epoxy polymer insulating material meets UL 94V-0 requirements
- RoHS compliant* and halogen free**
- Agency recognition: 

Applications

- Almost anywhere there is a low voltage power supply, up to 72 V and a load to be protected, including:
- Security and fire alarm systems
 - Loudspeakers
 - Power transformers

PRCP-RX/72 Series - Polymer Resettable Circuit Protectors

Electrical Characteristics

Model	V max. Volts	I max. Amps	I _{hold}	I _{trip}	Initial Resistance		1 Hour (R ₁) Post-Trip Resistance	Max. Time To Trip		Tripped Power Dissipation
			Amperes at 23 °C		Ohms at 23 °C		Ohms at 23 °C	Amperes at 23 °C	Seconds at 23 °C	Watts at 23 °C
			Hold	Trip	Min.	Max.	Max.			Typ.
PRCP-RX020/72	72	40	0.20	0.40	1.50	2.84	4.40	1.0	2.2	0.40
PRCP-RX025/72	72	40	0.25	0.50	1.00	1.95	3.00	1.25	2.5	0.45
PRCP-RX030/72	72	40	0.30	0.60	0.76	1.36	2.10	1.5	3.0	0.50
PRCP-RX040/72	72	40	0.40	0.80	0.52	0.86	1.29	2.0	3.9	0.55
PRCP-RX050/72	72	40	0.50	1.00	0.41	0.77	1.17	2.5	4.0	0.75
PRCP-RX065/72	72	40	0.65	1.30	0.27	0.48	0.72	3.25	5.3	0.90
PRCP-RX075/72	72	40	0.75	1.50	0.18	0.40	0.60	3.75	6.3	0.90
PRCP-RX090/72	72	40	0.90	1.80	0.14	0.31	0.47	4.5	7.2	1.00
PRCP-RX110/72	72	40	1.10	2.20	0.15	0.25	0.38	5.5	8.2	1.50
PRCP-RX135/72	72	40	1.35	2.70	0.12	0.19	0.30	6.75	9.6	1.70
PRCP-RX160/72	72	40	1.60	3.20	0.09	0.14	0.22	8.0	11.4	1.90
PRCP-RX185/72	72	40	1.85	3.70	0.08	0.12	0.19	9.25	12.6	2.10
PRCP-RX250/72	72	40	2.50	5.00	0.05	0.08	0.13	12.5	15.6	2.50
PRCP-RX300/72	72	40	3.00	6.00	0.04	0.06	0.10	15.0	19.8	2.80
PRCP-RX375/72	72	40	3.75	7.50	0.03	0.05	0.08	18.75	24.0	3.20

Environmental Characteristics

Operating/Storage Temperature	-40 °C to 85 °C
Maximum Device Surface Temperature	
in Tripped State	125 °C
Passive Aging	+85 °C, 1000 hours.....±5 % typical resistance change
Humidity Aging	+85 °C, 85 % R.H. 1000 hours.....±5 % typical resistance change
Thermal Shock	+85 °C to -55 °C, 10 times.....± 10% typical resistance change
Solvent Resistance	MIL-STD-202, Method 215.....No change
Vibration	MIL-STD-883C, Method 2007.1,.....No change Condition A

Test Procedures And Requirements For Model PRCP-RX/72 Series

Test	Test Conditions	Accept/Reject Criteria
Visual/Mech	Verify dimensions and materials	Per P.R.C.P. physical description
Resistance	In still air @ 23°C	R _{min} ≤ R ≤ R ₁ max
Time to Trip	.5 times I _{hold} , V _{max} , 23 °C	T ≤ max. time to trip (seconds)
Hold Current	.30 min at I _{hold}	No trip
Trip Cycle Life	V _{max} , I _{max} , 100 cycles	No arcing or burning
Trip Endurance	V _{max} , 48 hours	No arcing or burning

UL File Number.....E300792
 TÜV Certificate Number.....R50421916

* RoHS Directive 2015/863 Mar. 31, 2015 and Annex.

** NIDEC COMPONENTS follows the prevailing definition of "halogen free" in the industry. NIDEC COMPONENTS considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

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Additional Features

- Resettable circuit protection
- Bulk packaging, tape and reel available on most models

PRCP-RX/72 Series - Polymer Resettable Circuit Protectors

Product Dimensions

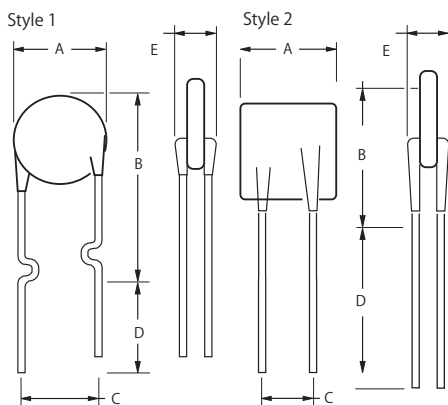
Model	A		B		C		D		E		Physical Characteristics		
	Max.	Max.	Nom.	Tol.±	Min.	Max.	Style	Lead Dia.	Material				
PRCP-RX020/72	7.4 (0.291)	12.7 (0.5)	5.1 (0.201)	0.7 (0.028)	7.6 (0.30)	3.1 (0.122)	1	0.51 (0.020)	Sn/CuFe				
PRCP-RX025/72	7.4 (0.291)	12.7 (0.5)	5.1 (0.201)	0.7 (0.028)	7.6 (0.30)	3.1 (0.122)	1	0.51 (0.020)	Sn/CuFe				
PRCP-RX030/72	7.4 (0.291)	13.4 (0.528)	5.1 (0.201)	0.7 (0.028)	7.6 (0.30)	3.1 (0.122)	1	0.51 (0.020)	Sn/CuFe				
PRCP-RX040/72	7.4 (0.291)	13.7 (0.539)	5.1 (0.201)	0.7 (0.028)	7.6 (0.30)	3.1 (0.122)	1	0.51 (0.020)	Sn/CuFe				
PRCP-RX050/72	7.9 (0.311)	13.7 (0.539)	5.1 (0.201)	0.7 (0.028)	7.6 (0.30)	3.1 (0.122)	1	10.51 (0.420)	Sn/Cu				
PRCP-RX065/72	9.7 (0.382)	15.2 (0.598)	5.1 (0.201)	0.7 (0.028)	7.6 (0.30)	3.1 (0.122)	1	0.51 (0.020)	Sn/Cu				
PRCP-RX075/72	10.4 (0.409)	16.0 (0.630)	5.1 (0.201)	0.7 (0.028)	7.6 (0.30)	3.1 (0.122)	1	0.51 (0.020)	Sn/Cu				
PRCP-RX090/72	11.7 (0.461)	16.70 (0.657)	5.1 (0.201)	0.7 (0.028)	7.6 (0.30)	3.1 (0.122)	1	0.51 (0.020)	Sn/Cu				
PRCP-RX110/72	10.84 (0.427)	16.84 (0.662)	5.1 (0.201)	0.7 (0.028)	7.6 (0.30)	3.1 (0.122)	2	0.81 (0.032)	Sn/Cu				
PRCP-RX135/72	12.26 (0.483)	18.26 (0.718)	5.1 (0.201)	0.7 (0.028)	7.6 (0.30)	3.1 (0.122)	2	0.81 (0.032)	Sn/Cu				
PRCP-RX160/72	13.94 (0.549)	19.94 (0.785)	5.1 (0.201)	0.7 (0.028)	7.6 (0.30)	3.1 (0.122)	2	0.81 (0.032)	Sn/Cu				
PRCP-RX185/72	15.18 (0.598)	21.18 (0.833)	5.1 (0.201)	0.7 (0.028)	7.6 (0.30)	3.1 (0.122)	2	0.81 (0.032)	Sn/Cu				
PRCP-RX250/72	17.84 (0.702)	23.84 (0.938)	10.2 (0.402)	0.7 (0.028)	7.6 (0.30)	3.1 (0.122)	2	0.81 (0.032)	Sn/Cu				
PRCP-RX300/72	20.67 (0.814)	26.67 (1.050)	10.2 (0.402)	0.7 (0.028)	7.6 (0.30)	3.1 (0.122)	2	0.81 (0.032)	Sn/Cu				
PRCP-RX375/72	23.51 (0.926)	29.51 (1.161)	10.2 (0.402)	0.7 (0.028)	7.6 (0.30)	3.1 (0.122)	2	0.81 (0.032)	Sn/Cu				

Packaging options:

BULK: 500 pcs. per bag.

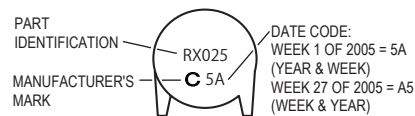
TAPE & REEL: PRCP-RX020/72-2 ~ PRCP-RX090/72-2 = 3000 pcs. per reel; PRCP-RX110/72-2 ~ PRCP-RX160/72-2 = 1500 pcs. per reel; PRCP-RX185/72-2 ~ PRCP-RX375/72-2 = 1000 pcs. per reel.

DIMENSIONS = $\frac{\text{MM}}{\text{(INCHES)}}$



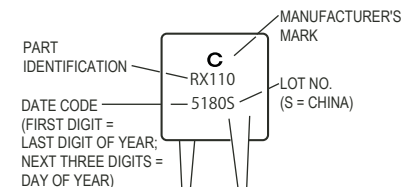
Typical Part Marking: RX020/72-RX025/72

Represents total content. Layout may vary.



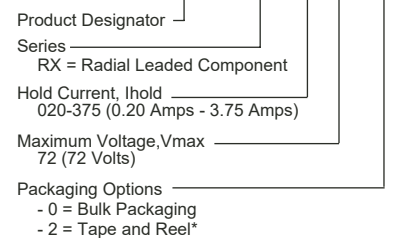
Typical Part Marking: RX030/72-RX375/72

Represents total content. Layout may vary.



How to Order

PRCP - RX 110/72 - 2



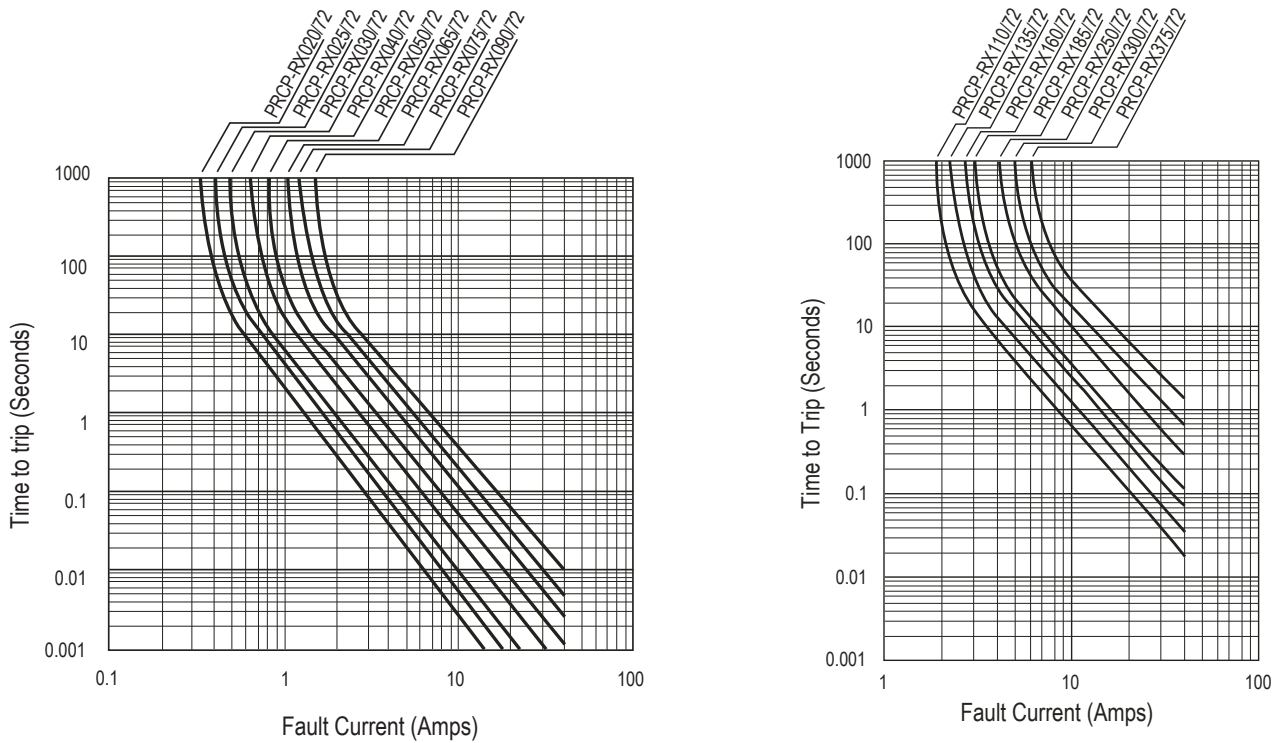
*Packaged per EIA 486-B

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PRCP-RX/72 Series - Polymer Resettable Circuit Protectors

Typical Time to Trip at 23 °C



The Time to Trip curves represent typical performance of a device in a simulated application environment. Actual performance in specific customer applications may differ from these values due to the influence of other variables.

Thermal Derating Chart - I_{hold} (Amps)

Model	Ambient Operating Temperature								
	-40 °C	-20 °C	0 °C	23 °C	40 °C	50 °C	60 °C	70 °C	85 °C
PRCP-RX020/72	0.31	0.27	0.24	0.20	0.16	0.14	0.13	0.11	0.08
PRCP-RX025/72	0.39	0.34	0.30	0.25	0.20	0.18	0.16	0.14	0.10
PRCP-RX030/72	0.47	0.41	0.36	0.30	0.24	0.22	0.19	0.16	0.12
PRCP-RX040/72	0.62	0.54	0.48	0.40	0.32	0.29	0.25	0.22	0.16
PRCP-RX050/72	0.78	0.68	0.60	0.50	0.41	0.36	0.32	0.27	0.20
PRCP-RX065/72	1.01	0.88	0.77	0.65	0.53	0.47	0.41	0.35	0.26
PRCP-RX075/72	1.16	1.02	0.89	0.75	0.61	0.54	0.47	0.41	0.30
PRCP-RX090/72	1.40	1.22	1.07	0.90	0.73	0.65	0.57	0.49	0.36
PRCP-RX110/72	1.71	1.50	1.31	1.10	0.89	0.79	0.69	0.59	0.44
PRCP-RX135/72	2.09	1.84	1.61	1.35	1.09	0.97	0.85	0.73	0.54
PRCP-RX160/72	2.48	2.18	1.90	1.60	1.30	1.15	1.01	0.86	0.64
PRCP-RX185/72	2.87	2.52	2.20	1.85	1.50	1.33	1.17	1.00	0.74
PRCP-RX250/72	3.88	3.40	2.98	2.50	2.03	1.80	1.58	1.35	1.00
PRCP-RX300/72	4.65	4.08	3.57	3.00	2.43	2.16	1.89	1.62	1.20
PRCP-RX375/72	5.81	5.10	4.46	3.75	3.04	2.70	2.36	2.03	1.50

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PRCP-RX/72 Series Tape and Reel Specifications

Devices taped using EIA468-B/IEC286-2 standards. See table below and Figures 1 and 2 for details.

Dimension Description	IEC Mark	EIA Mark	Dimensions	
			Dimensions	Tolerance
Carrier tape width	W	W	$\frac{18}{(0.709)}$	$-0.5/+1.0$ $(-0.02/+0.039)$
Hold down tape width	W ₀	W ₄	$\frac{11}{(0.433)}$	min.
Hold down tape			No protrusion	
Top distance between tape edges	W ₂	W ₆	$\frac{3}{(0.118)}$	max.
Sprocket hole position	W ₁	W ₅	$\frac{9}{(0.354)}$	$\frac{-0.5/+0.75}{(-0.02/+0.03)}$
Sprocket hole diameter	D ₀	D ₀	$\frac{4}{(0.157)}$	$\frac{\pm 0.2}{(\pm 0.0078)}$
Abscissa to plane (straight lead)	H	H	$\frac{18.5}{(0.728)}$	$\frac{\pm 3.0}{(\pm 0.118)}$
Abscissa to plane (kinked lead)	H ₀	H ₀	$\frac{16}{(0.63)}$	$\frac{\pm 0.5}{(\pm 0.02)}$
Abscissa to top (straight lead)	H ₁	H ₁	$\frac{38.0}{(1.496)}$	max.
Abscissa to top (kinked lead)	H ₁	H ₁	$\frac{32.2}{(1.268)}$	max.
Overall width w/lead protrusion (straight lead)		C ₁	$\frac{55.0}{(2.165)}$	max.
Overall width w/lead protrusion (kinked lead)		C ₁	$\frac{43.2}{(1.7)}$	max.
Overall width w/o lead protrusion (straight lead)		C ₂	$\frac{54.0}{(2.126)}$	max.
Overall width w/o lead protrusion (kinked lead)		C ₂	$\frac{42.5}{(1.673)}$	max.
Lead protrusion	I ₁	L ₁	$\frac{1.0}{(0.039)}$	max.
Protrusion of cutout	L	L	$\frac{11}{(0.433)}$	max.
Protrusion beyond hold-down tape	I ₂	I ₂	Not specified	
Sprocket hole pitch	P ₀	P ₀	$\frac{12.7}{(0.5)}$	$\frac{\pm 0.3}{(\pm 0.012)}$
Pitch tolerance			20 consecutive	$\frac{\pm 1}{(\pm 0.039)}$
Device pitch: PRCP-RX020/72-PRCP-RX185/72			$\frac{12.7}{(0.5)}$	$\frac{\pm 0.3}{(\pm 0.012)}$
Device pitch: PRCP-RX250/72-PRCP-RX375/72			$\frac{25.4}{(1.0)}$	$\frac{\pm 0.6}{(\pm 0.024)}$
Tape thickness	t	t	$\frac{0.9}{(0.035)}$	max.
Tape thickness with splice: PRCP-RX020/72-PRCP-RX185/72		t ₁	$\frac{1.5}{(0.059)}$	max.
Tape thickness with splice: PRCP-RX250/72-PRCP-RX375/72		t ₁	$\frac{2.3}{(0.091)}$	max.
Splice sprocket hole alignment			0	$\frac{\pm 0.3}{(\pm 0.012)}$
Body lateral deviation	Δh	Δh	0	$\frac{\pm 1}{(\pm 0.039)}$
Body tape plane deviation	Δp	Δp	0	$\frac{\pm 1.3}{(\pm 0.051)}$
Lead seating plane deviation	ΔP ₁	ΔP ₁	$\frac{3.81}{(0.015)}$	$\frac{\pm 0.7}{(\pm 0.028)}$
Lead spacing : PRCP-RX110/72-PRCP-RX185/72	F	F	$\frac{5.08}{(0.2)}$	$\frac{-0.2/+0.8}{(-0.006/+0.031)}$
Lead spacing : PRCP-RX250/72-PRCP-RX375/72	F	F	$\frac{10.2}{(0.402)}$	$\frac{-0.2/+0.8}{(-0.006/+0.031)}$

DIMENSIONS = $\frac{\text{MM}}{\text{(INCHES)}}$

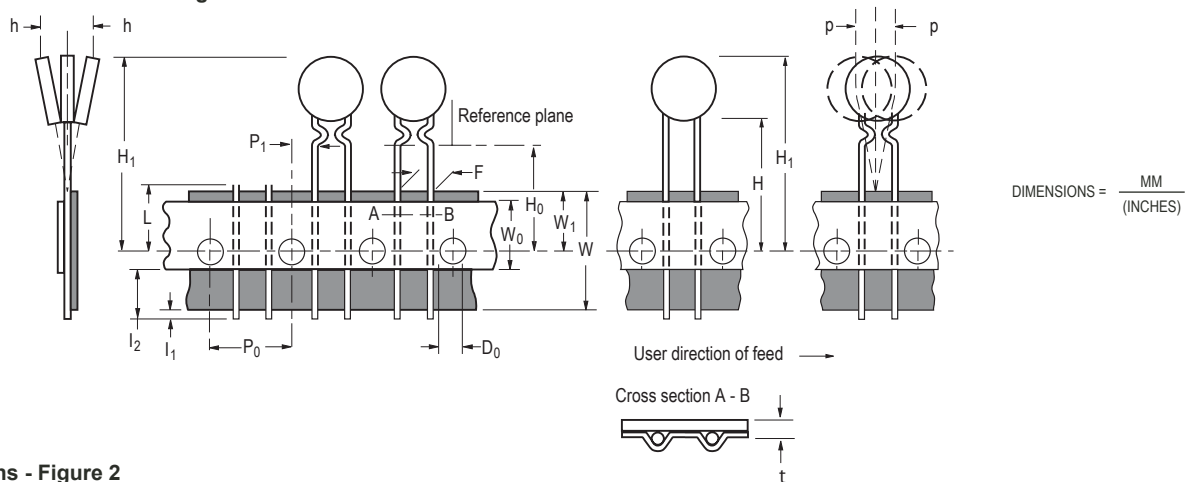
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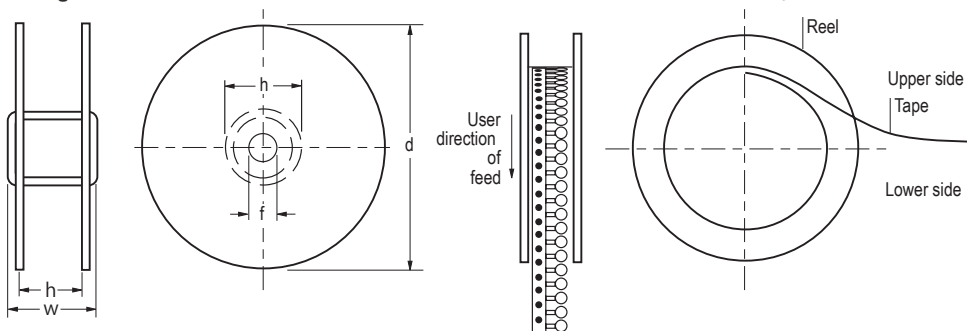
PRCP-RX/72 Series Tape and Reel Specifications

Dimension Description	IEC Mark	EIA Mark	Dimensions	
			Dimensions	Tolerance
Reel width	w	W ₂	56 (2.205)	max.
Reel diameter	d	a	370 (14.57)	max.
Space between flanges less device	W ₁	h	4.75 (0.187)	±3.25 (±0.128)
Arbor hole diameter	f	c	26.0 (1.024)	±12.0 (±0.472)
Core diameter	h	n	80 (3.15)	max.
Box			62 355 345 (2.44) (14.0) (13.6)	max.
Consecutive missing places			3	max.
Empty places per reel			Not specified	

Taped Component Dimensions - Figure 1



Reel Dimensions - Figure 2



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