

# CHI03 SERIES 17A MINIATURE POWER RELAY



## FEATURES

- Outline dimension(29.3×12.7×15.3)
- 1 Form A(SPST-NO) and 1 Form C(SPDT) contact arrangement
- Designed to meet UL/cUL,TUV,CQC requirements
- 5,000VAC dielectric strength between coil and contact
- F class Insulation System
- RoHS compliance
- REACH SvHC compliance
- Halogen-Free type available



File NO. E341422

File NO. R50384623

File NO. CQC20002240473

## APPLICATION

Appliances, power supply, Industrial Control...etc

## COIL PARAMETER

Coil voltage	5-48VDC
Coil power	400mW

## COIL DATA@23°C

CHI03				
Nominal coil voltage (VDC)	Nominal Current (mA)	Coil Resistance ( $\Omega \pm 10\%$ )	Operate Voltage (VDC Max.)	Release Voltage (VDC Min.)
5	80	62.5	3.75	0.25
6	66.7	90	4.5	0.3
9	44.4	202.5	6.75	0.45
12	33.3	360	9	0.6
18	22.2	810	13.5	0.9
22	18.2	1210	16.5	1.1
24	16.7	1440	18	1.2
36	11.1	3240	27	1.8
48	8.3	5760	36	2.4

## CONTACT DATA

Contact arrangement	1 Form A(SPST-NO), 1 Form C(SPDT), 1 Form B(SPST-NC)
Contact material	Ag Alloy
Initial contact resistance	100m $\Omega$ max.@6VDC,1A
Max. switching voltage	277VAC/30VDC
Max. switching current	20A
Max. switching power	5540VA / 600W
Contact rating	17A @277VAC/30VDC
	1HP @120/240/480VAC
	10FLA/60LRA @250VAC
	NO 5A pilot duty @120VAC and 277VAC
	16A general purpose @120VAC and 277VAC
	20A @277VAC resistive, 30K cycles
	TV-8 @120VAC 25K cycles
	1HP @120/240/480VAC
	10FLA/60LRA @250VAC
	NC 5A pilot duty @120VAC and 277VAC, 30K cycles
17A @277VAC/30VDC, 30K cycles	
16A general purpose @120VAC and 277VAC, 30K cycles	
Mechanical endurance	10,000,000 ops Min.(no load)
Electrical endurance	100,000 ops Min(rated load 1s on /9s off)
Minimum load(reference value)	100mA @5VDC

## CHARACTERISTICS

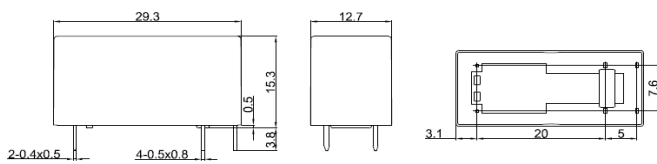
Operate voltage	75% of nominal voltage or less	
Release voltage	5% of nominal voltage or more	
Operate time (At nominal voltage)	15ms max.	
Release time(At nominal voltage)	8ms max.	
Insulation resistance	1,000 M $\Omega$ min. (at 500 VDC)	
Insulation system	155 (F)	
Dielectric strength	Between coil and contacts	5,000 VAC, 50/60 Hz for 1 min
	Between open contacts	1,000 VAC, 50/60 Hz for 1 min
Surge voltage between coil and contacts	10,000V(1.2/50us)	
Vibration resistance	Destruction	10 to 55 Hz, 1.5mm double amplitude
	Malfunction	10 to 55 Hz, 1.5mm double amplitude
Shock resistance	Destruction	1,000m/S <sup>2</sup> (100G approximately)
	Malfunction	100m/S <sup>2</sup> (10G approximately)
Ambient temperature	-40°C~ +105°C (without icing or condensation)	
Ambient humidity	20%~85% RH	
Terminal	PCB terminal	
Enclosure (94V-0 Flammability Ratings)	V: Vented(Flux-tight),plastic cover.(RT II)	
	S: Sealed,plastic cover.(RT III)	
Weight	Approx. 14g	

## ORDERING INFORMATION

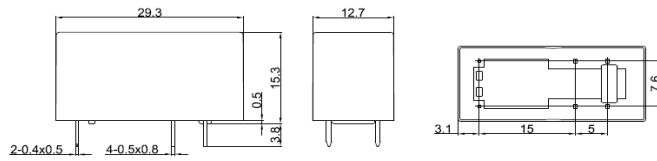
CHI03	-V	-1	12	D	A	2	,000
1. Product Family							
2. Enclosure V = Vented (Flux-tight), plastic cover. (RT II) S = Sealed, plastic cover. (RT III)							
3. Number of Poles 1 = 1 pole							
4. Rated Coil Voltage 05, 06, 09, 12, 18, 22, 24, 36, 48 VDC							
5. Coil Input D = Standard (400mW)							
6. Contact Arrangement A = Form A (SPST-NO) B = Form B (SPST-NC) C = Form C (SPDT)							
7. Contact material 2 = AgSnO <sub>2</sub>							
8. Additional numbers and /or letters 000-999, AAA-ZZZ, aaa-zzz or blank, which does not represent electrical changes, only for specific customer requirements							

## OUTLINE DIMENSION

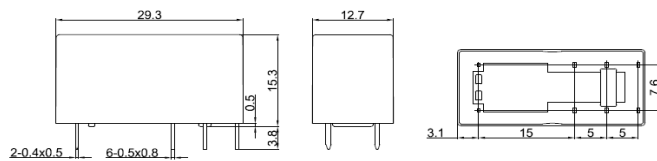
From A



From B

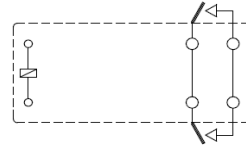


From C

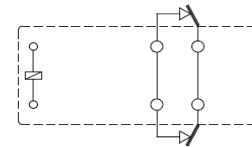


## WIRING DIAGRAMS (BOTTOM VIEWS)

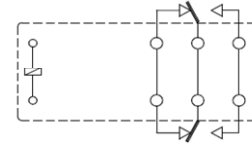
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From B



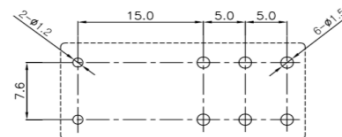
From C



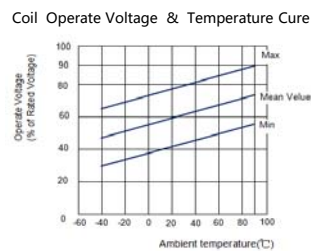
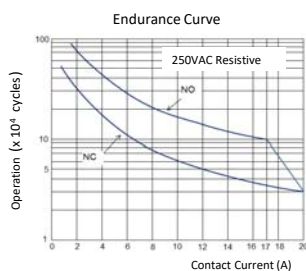
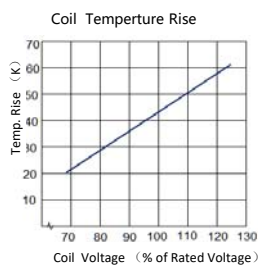
## PC BOARD LAYOUTS (BOTTOM VIEWS)

Remark:

- The reference tolerance in outline dimension:  
outline dimension  $\leq 1$ mm, reference tolerance is  $\pm 0.2$ mm;  
outline dimension  $> 1$ mm and  $\leq 5$ mm, reference tolerance is  $\pm 0.3$ mm;  
outline dimension  $> 5$ mm, reference tolerance is  $\pm 0.5$ mm.
- The reference tolerance for PC Board layout is  $\pm 0.1$ mm.

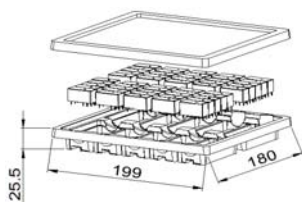


## REFERENCE DATA



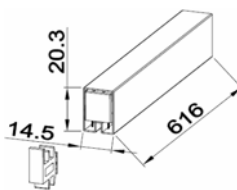
## PACKAGING FIGURE

1.Box



50 pcs inside a box  
500 pcs inside a carton

2.Tube



20 pcs inside a tube  
1000 pcs inside a carton

**Disclaimer:**

The specification is for reference only, if you need more detail information, please contact Churod. We could not evaluate all the performance and all parameters for every possible application. And the user should be in a right position to choose the suitable product for their own application. If there is any new need, please contact Churod for the technical service.