

**CHAF7 RELAY SERIES**

**70A Automotive Relays**

**FEATURES**

- 70A Contact switching ability
- 1 Form A(SPST-NO)  
1 Form C(SPDT)  
2 Form A((DPST)contact arrangement
- Multiple installation mode
- Multiple working voltage
- Conform to RoHS、ELV directive

**APPLICATION**

Rear window defroster\heating control\Air conditioning  
Oil pumps control\klaxon control\Battery cut-off device  
Cooling fan control\Fog lamps\headlights control  
Anti-lock Braking (ABS)



**PERFORMANCE DATA**

Contact arrangement	1 Form A(SPST-NO) 1 Form C(SPDT)
Contact voltage drop	Typ: 40mV(at 10A)
	Max: 200mV(at 10A)
Minimum load	1A 6VDC
Electrical endurance	1×10 <sup>5</sup> ops. Refer the load data list for details
Mechanical endurance	1×10 <sup>7</sup> ops. 30ops/min
Max.carry current①	NO: 70A (Resistive)
	NC: 30A (Resistive)
Dielectric strength	Between open contacts: 550VAC (1min,electric leakage <1mA)
	Between coil and contacts: 550VAC (1min,electric leakage <1mA)
Insulation resistance	100MQ(500VDC)
Operation time	Max: 10ms (At nominal voltage)

Releasing time	Max:10ms (Measured within from rated voltage drop to the 0VDC and no coils to inhibit the circuit)
Ambient temperature	-40℃ ~ +125℃
Storage temperature	-40℃ ~ +155℃
Vibration resistance	10Hz~50Hz 2.5mm double amplitude
Shock resistance	196m/s <sup>2</sup> (20g)
Terminal	Quick connect terminal (QC)
	Printed circuit terminals②
Enclosure	Dust cover type、Enclosure type
Mechanical property	Push&Pull force with Case and Base: ≥200N
	Push&Pull force with Terminal: ≥100N
	Terminal Anti-Bending force: (All direction) ≥10N
Weight	Type of metal mounting plate: Approx 38.5 g
	Other models: Approx 36.1 g

Remark : ①This parameter applies only to the coil rated voltage of 12VDC products.

②Our product is satisfied with RoHS, suggest use the lead-free solder, recommended soldering temperature is 240 ~ 260 ℃.

**COIL DATA**

23℃

	Nominal voltage (V.dc)	Operation Voltage (V.dc)	Releasing Voltage (V.dc)	Coil Resistance (Ω±10%) ①	Parallel resistance (Ω±5%)	Equivalent resistance (Ω)	Relay power (W)	Max. Coil voltage (v.dc)②	
								23℃	85℃
Regular model	6	3.9	0.6	22	—	—	1.6	10.1	7.9
	6	3.9	0.6	22	180	19.6	1.8	10.1	7.9
	12	7.8	1.2	85	—	—	1.7	20.2	15.7
	12	7.8	1.2	85	680	75.6	1.9	20.2	15.7
	24	15.6	2.4	350	—	—	1.6	40.5	31.5
Special model	24	15.6	2.4	350	2700	309.8	1.9	40.5	31.5
	6	3.6	0.6	22	—	—	1.6	10.1	7.9
	6	3.6	0.6	22	180	19.6	1.8	10.1	7.9
	12	7.2	1.2	90	—	—	1.6	20.2	15.7
	12	7.2	1.2	90	680	79.5	1.8	20.2	15.7
	24	14.4	2.4	360	—	—	1.6	40.5	31.5
	24	14.4	2.4	360	2700	317.6	1.8	40.5	31.5

Remark: ①Parallel resistance power is 0.5 W.

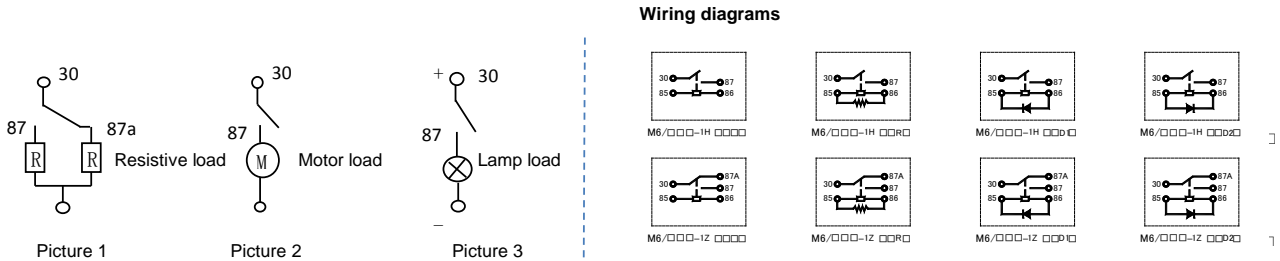
②In the case of no current with the contact, the relay allow to added the maximum voltage with coil, for example:  
for dust cover.

**LOAD DATA**

Contact load voltage	Load type		Contact load current (A)			Break-make ratio		Electrical endurance (ops)	Contact material	Test ambient temperature	Contact wiring diagrams③
			1C		1A	Make (S)	Break (S)				
			NO	NC	NO						
14VDC	Resistive	Make/Break	70	30	70	2	2	1×10 <sup>5</sup>	AgSnInO <sub>2</sub>	23℃	Picture 1
		Motor	Make	150②	—	150②	1				
	Lamp	Make	200②	—	200②	1		1	1×10 <sup>5</sup>	AgSnInO <sub>2</sub>	23℃
		Break	40	—	40						
28 VDC	Resistive	Make/Break	40	20	40	2	2	1×10 <sup>5</sup>	AgSnInO <sub>2</sub>	23℃	Picture 1

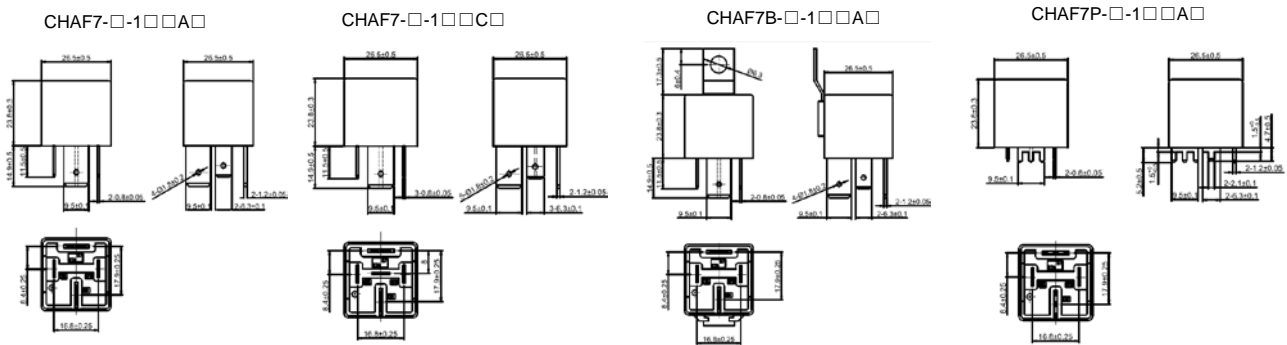
Note : ①The motor starts the inrush current. ②Initial cold filament dust peak inrush current.

③The load wiring diagram is shown below:



④When the load condition does not match this table. Please provide Churod Electronics with the detailed usage conditions for more support.

**OUTLINE DIMENSION UNIT:mm**



Remark: the perpendicularity of terminal is 0.25 mm max

**ORDERING INFORMATION**

