

CHAR1 Series 50/70A AC Relay

Features

- Outline dimension : 38mm×29.8mm×33.6mm
- 1A (SPDM) , GAP > 3.0mm
- IEC61810 , IEC60664 , RoHS , REACH SvHC compliance
- Epoxy resin seal , Environmental protection category RTII
- 70A 85°C carrying capacity
- PCB mounting type



File NO.CQC22002334908



File NO.R50316974

Application

AC power control
Precharge circuit control of inverter
Industrial AC control unit
AGV car

Release voltage @ 23°C

Rated voltage (VDC)	Rated power (W)	Rated current (mA)	Coil resistance (Ω±10%)	Operate voltage (VDC)	Release voltage (VDC)
9	2	220	42.5	≤6.75	≥0.45
12	2	160	76	≤9	≥0.6
18	2	110	170	≤13.5	≥0.9
24	2	80	303	≤18	≥1.2
36	2	55	682	≤27	≥1.8
48	2	40	1212	≤36	≥2.4
60	2	33	1894	≤45	≥3.0
110	2	18	6368	≤82.5	≥5.5

Notes : The above values are the initial at 23°C.

Contact parameters

Contact form	1A(SPDM)
Contact material	AnSnO2
Initial voltage drop	≤60 mV at 50 A
Rated current (Resistive Load)	50A (@ 10mm ²) 70A (@ 25mm ²)
Rated switching voltage	800 Va.c.
Minimum applicable load	48Vd.c. , 100mA
Max switching voltage	800 Va.c.
Rated switching current	20A-70A-20A (800 Va.c.) 30000ops. 20A-50A-20A (800 Va.c.) 30000ops.

Durability

Electrical life (Resistive Load)	800Va.c.	20A ON (0.15s) →70A (0.7s) →20A (0.15s) OFF 30000ops. 20A ON (0.15s) →50A (0.7s) →20A (0.15s) OFF 30000ops.
	690Va.c.	
	400Va.c.	
Current tolerance	70A, continuous	
	80A, 20 min	
	100A, 30 s	
	150A, 10 s	
	300A, 0.6 s	
Mechanical life	200000次 , ON:OFF : 0.2s : 0.2s	

Notes : Unless otherwise indicated, Electrical life at 23°C, ON : OFF=1s : 9s. During the test, the coil was not connected to the surge suppression device. If the coil parallel diode is used, the release time of the relay will be lengthened and the service life will be reduced.

Other parameters

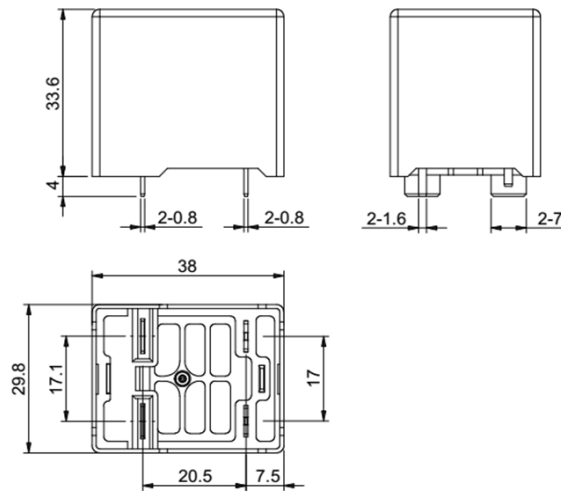
Dielectric strength	between open contacts	2500 Va.c. 50/60 Hz 1 min
	between coil to contacts	3500 Va.c. 50/60 Hz 1 min
Insulation resistance		1000 MΩ at 1000 Vd.c.
Operate time (at rated voltage)		≤25ms
Release time (at rated voltage)		≤10ms
Vibration resistance	Destruction	10Hz~ 500Hz , 49m/S ²
	Functional	10Hz~ 500Hz , 49m/S ²
Shock resistance	Destruction	490m/s ²
	Functional	ON : 196m/s ² OFF : 98m/s ²
Ambient temperature		-40°C~85°C(No dew, No ice)
Relative humidity		5% RH ~85% RH
Terminal style		PCB terminal
Installation		PCB terminal
Environmental protection category		RTII
Weight		About70g
Overall dimensions		38mm×29.8mm×33.6mm

Notes : The above values are conservative at 23°C.

Selection of reference

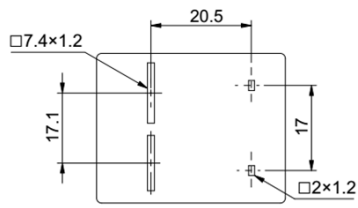
	CHAR1	-1	12	AV	50	G	XXX
1.Product code	CHAR1 series						
2.Contact form	1=1 Form A(SPDM)						
3.Coil rated voltage	09,12,18,24,36,48,60,110VDC						
4.Rated switching voltage	AV=800VAC AO=690VAC AM=400VAC						
5.Rated switching current	50=20A-50A-20A 70A=20A-70A-20A						
6.Structure tag	G=Standard structure						
7.Additional numbers and /or letters	000-999 , aaa-zzz or blank , which does not represent electrical changes, only for specific customer requirements						

Outline dimension

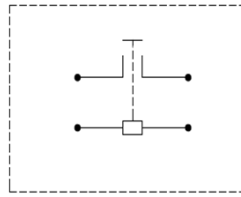


Notes : No dimensional tolerance noted ;
 size $\leq 10\text{mm}$; tolerance : $\pm 0.2\text{mm}$;
 size $10 \sim 50\text{mm}$; tolerance : $\pm 0.3\text{mm}$;
 size $> 50\text{mm}$; tolerance : $\pm 0.4\text{mm}$.

Mounting hole dimensions and wiring diagram



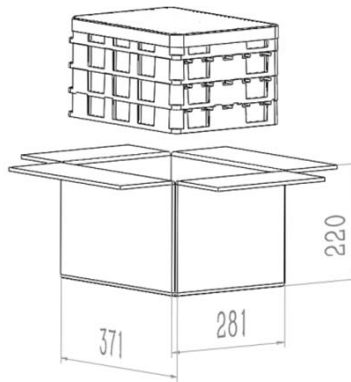
Wiring diagram



Notes : The load and the coil is non-polar.

Packaging figure

Each plastic box 25PCS ,
Per carton 100PCS.



Statement:

This information is for customer reference only. Churod has tried its best to ensure the accuracy of the information. However, errors are unavoidable and the specifications and parameters of the product may change due to the improvement of the product.

About application, Churod cannot assess relay for each specific application in the field of all performance parameters of the requirements, so customer should according to the specific conditions of use choose matching products, which did not make clear a regulation requirement, please contact Churod in order to get more technical support, Churod clear statement to this data information is only for reference, and the customer is responsible for the product to choose.