

● Features

- 50A switching capability
- PCB coil terminals, ideal for heavy duty load
- Maximum 2500VAC dielectric strength (between coil and contacts)
- Sealed and flux tight type available
- Environmental friendly product (RoHS compliant)
- Dimensions: 32 x 27.2 x 20 mm



● Application

- Air Conditioner / Air Compressor / Home appliances / Heating controller / Automotive application / Refrigerator / Fan, etc.

● Contact Data

Contact Arrangement	1A, 1C
Contact Material	Ag Alloy
Contact Rating	NO: 50A 277VAC TV-15 NC: 40A 277VAC
Max. Switching Power	13850VA
Max. Switching Voltage	277VAC
Max. Switching Current	50A
Contact Resistance	$\leq 100\text{m}\Omega$ (1A, 24VDC)
Electrical Endurance	NO: 50A: 1×10^4 40A: 5×10^4 NC: 40A: 1×10^4
Mechanical Endurance	1×10^7

● Coil Parameter

Coil Voltage (VDC)		Coil Resistance ($\Omega \pm 10\%$)	Pickup Voltage(max) (VDC)	Release Voltage(min) (VDC)	Coil Power Consumption (W)
Rated	Max.				
12	13.2	120	9.00	0.6	1.20
24	26.4	480	18.00	1.2	

High Current Power Relay I HA1 50A



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● Operation Condition

Insulation Resistance		1000MΩ min (at 500VDC)
Dielectric Strength	Between Contacts	1500VAC, 50/60Hz 1min; Max. 4000VAC, 50/60Hz (Customized)
	Between Coil and Contact	2500VAC, 50/60Hz 1min; Max. 2500VAC, 50/60Hz (Customized)
Shock Resistance	Functional	98m/s ²
	Endurance	980m/s ²
Vibration Resistance		10~55Hz double amplitude 1.5mm
Ambient Temperature		-55 ~ +85℃
Operate Time		≤ 15ms
Release Time		≤ 10ms
Relative Humidity		5%~85%
Weight		Approx. 27g

● Ordering Information

	HA1	S	-12D	-A	50	-S	(XXX)
Model							
Termination	S: Without Pin No.6						
Coil Voltage	12, 24VDC						
Contact Arrangement	A: 1 Form A C: 1 Form C						
Contact Current	50: 50A						
Construction	Nil: Flux tight S: Sealed						
Special Code	Nil: Standard XXX: Customer special requirement						

Notes: 1) We recommend flux tight types for a clean environment (free from contaminations like H₂S, SO₂, NO₂, dust, etc.). We suggest to choose plastic sealed types and validate it in real application for an unclean environment (with contaminations like H₂S, SO₂, NO₂, dust, etc.).

2) Please inform us if water cleaning or surface treatment will involve after the relays installed on PCB.

3) Please inform us if dielectric strength between coil and contact exceed 2500VAC.

4) Avoid using relays under strong magnetic or shock conditions, or technical ratings will change.

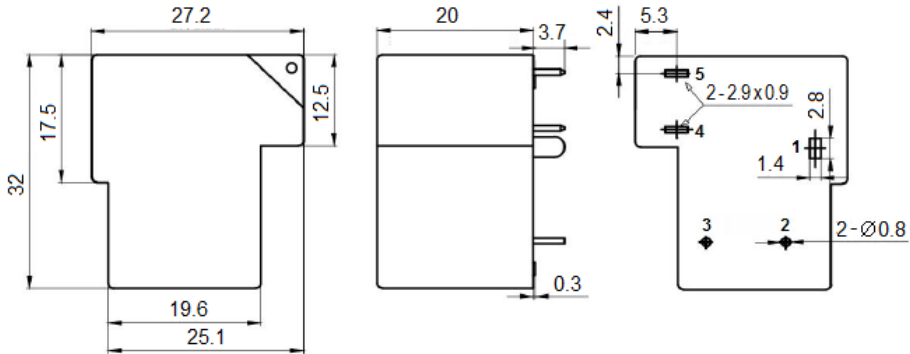
High Current Power Relay I HA1 50A



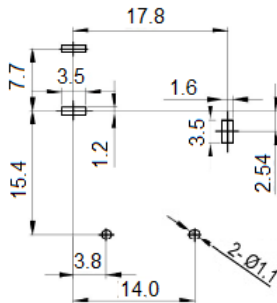
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● Dimensions (UNIT: mm)

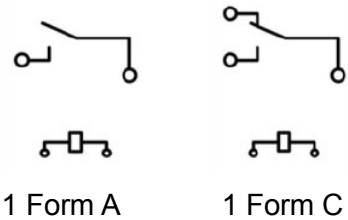
Outline Dimensions



Mounting (Bottom views)



Wiring Diagram (Bottom views)



- Notes: 1) In case of no tolerance shown in outline dimension: outline dimension $\leq 1\text{mm}$, tolerance should be $\pm 0.2\text{mm}$; outline dimension $>1\text{mm}$ and $\leq 5\text{mm}$, tolerance should be $\pm 0.3\text{mm}$; outline dimension $>5\text{mm}$, tolerance should be $\pm 0.4\text{mm}$.
- 2) The tolerance without indicating for PCB layout is always $\pm 0.1\text{mm}$.

● Engineering Data

