



HL47

▶ FEATURES

- High capacity (2 pole : 10A)
- Various types available
- 2 pole configurations
- 5kV dielectric strength (between coil and contacts)
- Sockets available
- Environmental friendly product (RoHS compliant)



Outline Dimensions ;

- ▶ With button : 29mmx13mmx29mm
- ▶ Without button : 29mmx13mmx34.5mm

▶ CONTACT DATA

Contact Form		2C
Contact Resistance¹⁾		100mΩ (at 1A 24VDC)
Contact Material		AgSnO2In2O3
Contact Ratings (Res.load)		8A 250VAC / 30VDC
Max. Switching Voltage		250VAC / 30VDC
Max. Switching Current		10A
Max. Switching Power		2,500VA / 30W
Nominal coil power		Standard:0.45W, Sensitive:0.2W
Life Expectancy	Electrical	1 x 10 ⁵ ops (8A 250VAC/30VDC, Resistive load, room temp., 1sec on 9s off, NO or NC)
	Mechanical	AC : 3 x 10 ⁷ ops DC : 5 x 10 ⁷ ops

▶ CHARACTERISTICS

Insulation Resistance		1000M ohm min (at 500VDC)
Dielectric Strength	Between open Contacts	1,000VAC (For one minute)
	Between coil & Contacts	5,000VAC (For one minute)
	Between contact sets	3,000VAC (For one minute)
Operate time (at nomi. volt.)		15ms max.
Release Time (at nomi. volt.)		20ms max.(AC, with diode or CR circuit) DC : 10ms max.
Shock resistance	Functional	98m/s ²
	Destructive	980m/s ²
Vibration resistance		10Hz to 55Hz 1.5mm DA
Ambient temperature		-40°C to 70°C
Humidity		5% to 85% RH
Termination		Plug-in
Weight		Approx 23.5g(button type) Approx 22g(without button type)
Construction		Dust protected

Notes: 1) The data shown above are initial values.

► COIL DATA

Coil power		DC type: 400mW AC type: 0.75VA		
Nominal Voltage (VDC)	Pick-up Voltage VDC	Drop-out Voltage VDC	Max. Allowable Voltage VDC	Coil Resistance at 23°C (Ω)
5	3.5	0.5	5.5	47.2 x (1±10%)
6	4.2	0.6	6.6	67.9 x (1±10%)
12	8.4	1.2	13.2	271 x (1±10%)
24	16.8	2.4	26.4	1,080 x (1±10%)
36	25.2	3.6	39.6	2,445 x (1±10%)
48	77.0	4.8	52.8	4,340 x (1±10%)
60	33.6	6	66	6,792 x (1±10%)
100~110	77.0	11	110~121	18,870 x (1±10%)

Nominal Voltage (VAC)	Pick-up Voltage VAC ¹⁾	Drop-out Voltage VAC ¹⁾	Max. Allowable Voltage VAC ²⁾	Coil DC Resistance (Ω)
6	4.8	1.8	6.6	16 x (1±10%)
12	9.6	3.6	13.2	62.5 x (1±10%)
24	19.2	7.2	26.4	243 x (1±10%)
48	38.4	14.4	52.8	1,085 x (1±10%)
60	48	18	66	1,750 x (1±10%)
110	88	33	121	5,270 x (1±10%)
115	92	34.5	126.5	6,030 x (1±10%)
120	96	36	132	6,400 x (1±10%)
220	176	66	242	21,530 x (1±10%)
230	184	69	253	24,100 x (1±10%)
240	192	72	264	25,570 x (1±10%)

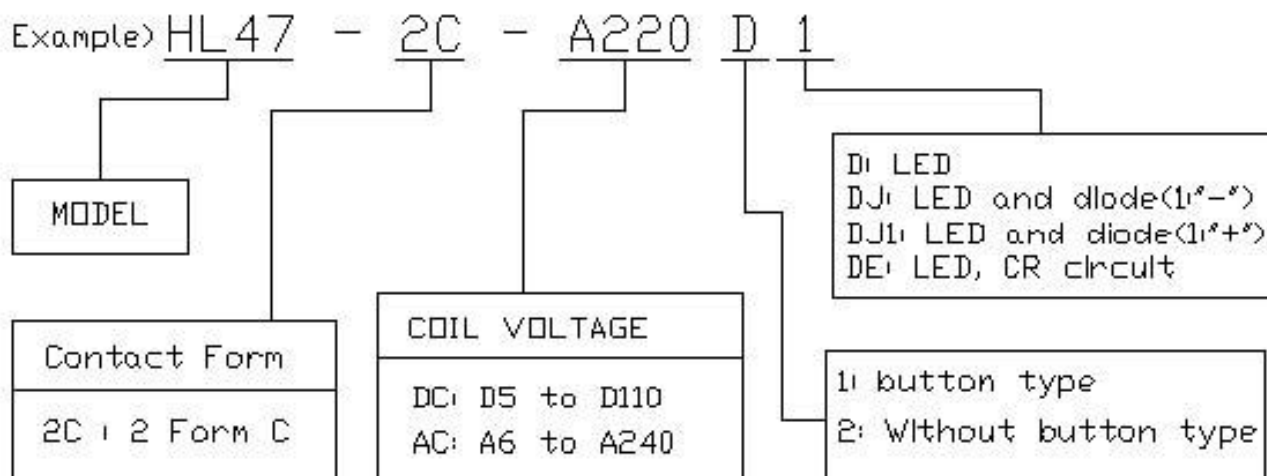
Notes: 1) The data shown above are initial values.

2) Maximum voltage refers to the maximum voltage which relay coil could endure in a short period of time.

► SAFETY APPROVAL RATINGS

UL&CUL TUV	8A 250VAC / 30VDC Resistive load 70°C 10A 250VAC / 30VDC Resistive load 70°C
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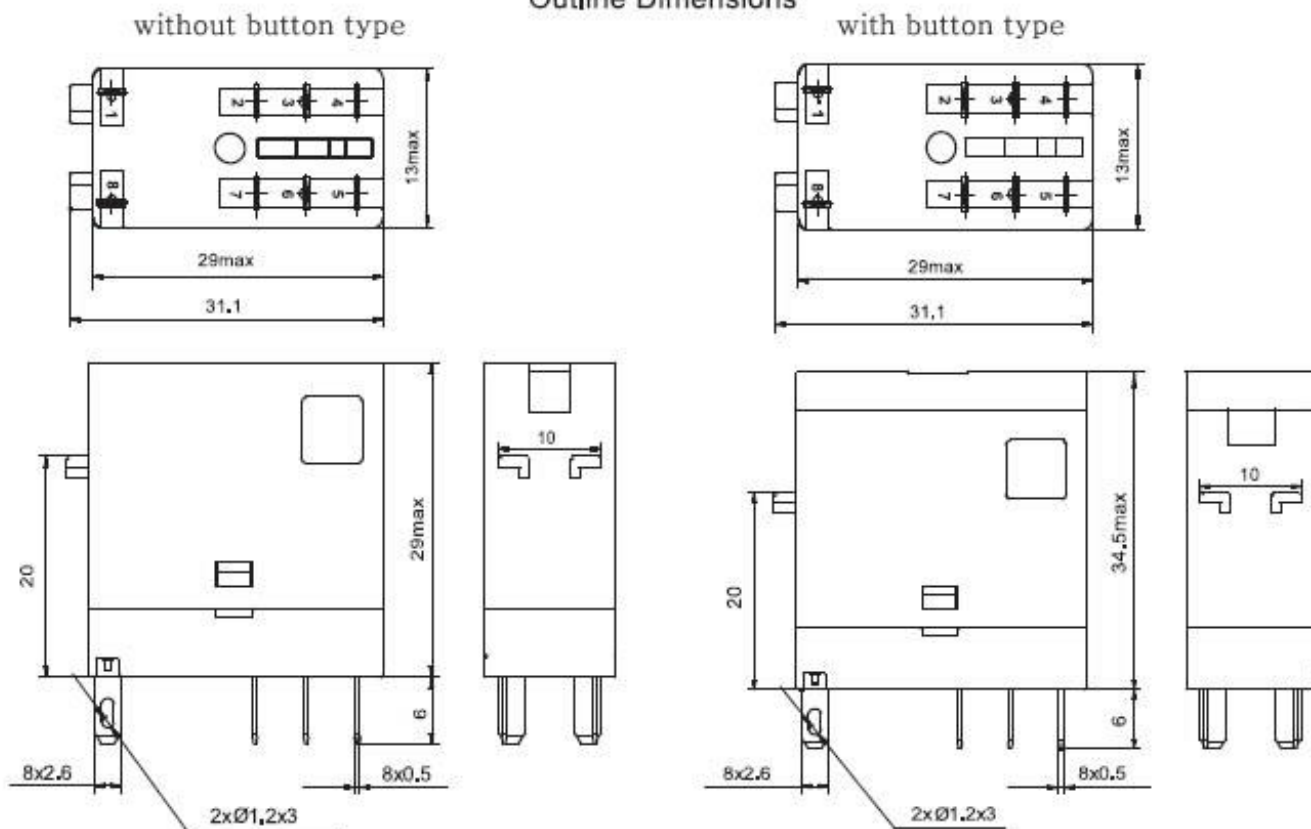
▶ ORDERING INFORMATION



Notes: 1) Assembled component with “J” freewheel diode, applied in DC coil type, with “E” RC circuit board, applied in AC coil type.
2) The customer special requirement express at the last letter of part number a special code after evaluating by HANDOUK.

▶ DIMENSIONS (UNIT: MM)

Outline Dimensions

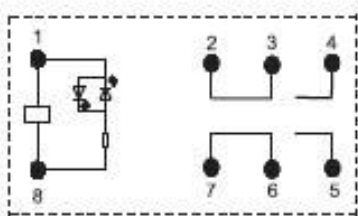


Remark: 1) In case of no tolerance shown in outline dimension: outline dimension ≤ 1 mm, tolerance should be ± 0.2 mm; outline dimension > 1 mm and ≤ 5 mm, tolerance should be ± 0.3 mm; outline dimension > 5 mm, tolerance should be ± 0.4 mm.
2) The tolerance without indicating for PCB layout is always ± 0.1 mm.

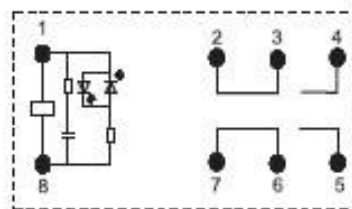
Wiring Diagram

(Bottom view)

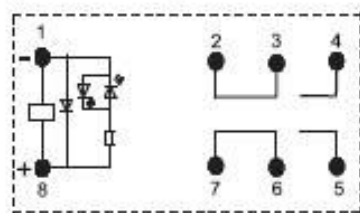
(With LED)



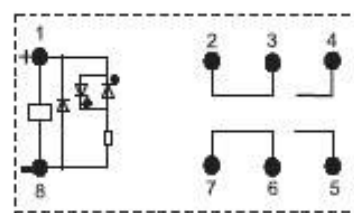
(With LED,CR circuit)



(With LED,fly-wheel diode1:"-")



(With LED,fly-wheel diode1:"+")



► RELAY SOCKET

- Dielectric strength can reach 4,000VAC(I/O),and the insulation resistance is 1,000M ohm.
- Two mounting types are available: screw mounting and DIN rail mounting.
- Components available: Plastic retainer(Collocation marker), metallic retainer.
- Environmental friendly product (RoHS compliant)

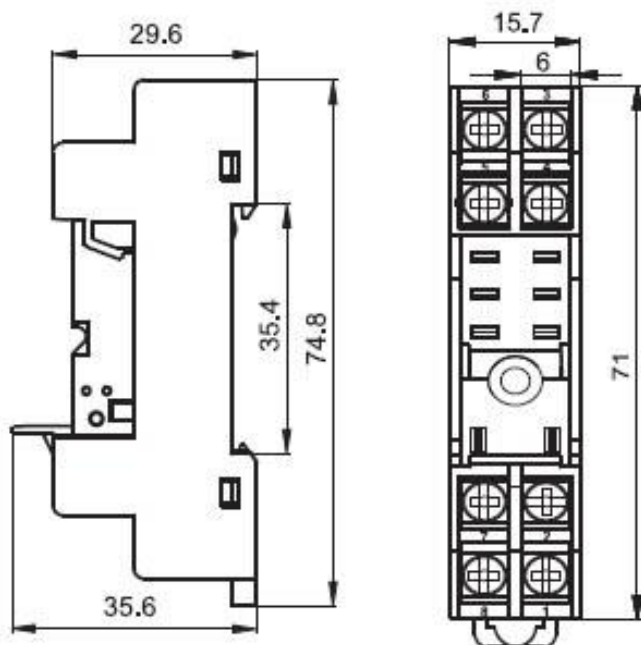


► CHARACTERISTICS

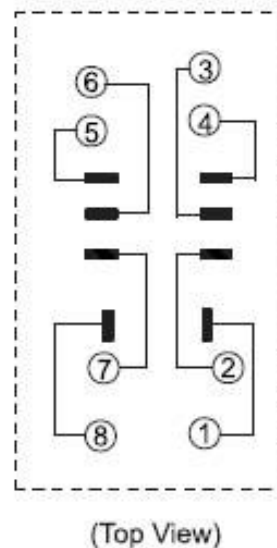
Type	Nominal Voltage	Nominal Current	Ambient Temperature	Dielectric Strength	Screw torque	Wire strip Length
HL47-2C-C1	250VAC / 30VDC	8A / 10A	-40°C to 70°C	4,000VAC (Between coil & contacts)	1.0N.m	7mm
				1,000VAC (Homopolar contacts)		
				3,000VAC (Heterospolar contacts)		

► DIMENSIONS (UNIT: MM)

Outline Dimensions



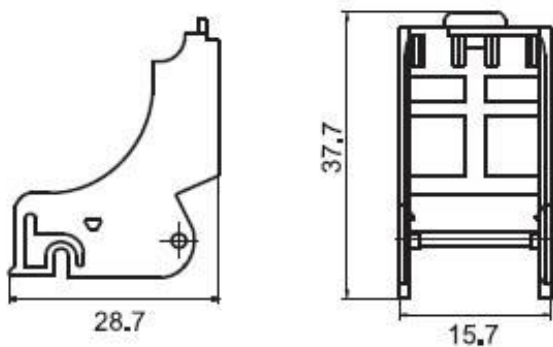
Wiring Diagram



Retainer

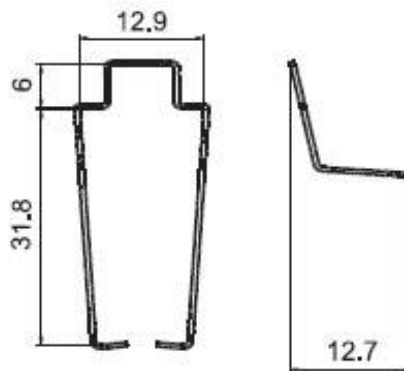
Plastic retainer (HL47-H1)

only for Button type



Metallic retainer (HL47-H2)

Both for Button type and No-button type



Disclaimer

This datasheet is for the customers' reference. All the specifications are subject to change without notice. We could not evaluate all the performance and all the parameters for every possible application. Thus the user should be in a right position to choose the suitable product for their own application. If there is any query, please contact handouk for the technical service. However, it is the user's responsibility to determine which product should be used only.