

Selection manual of industrial control relay

RKL

Miniature Power Relay

- 1 pole 16A; 2,3,4 poles 10A
- With non-polarity LED integrated in relay
- With lockable test button and inspection window
- Identification of coils through test button color (AC red/DC blue)
- Conformity with RoHs Directive



LED

Visible LED indicates the working status of the relay at any time, AC red, DC green

Test button

On-site test is available with test button.

Metal clip

The relay is firmly attached to the socket by Metal clip.

AMD module

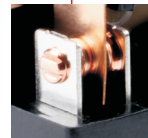
Silver alloy pins

High-quality silver alloy pins, strong contact, instantaneous conductivity and stable performance.



Silver alloy contacts

It can carry more current, with stronger conductivity and more sensitive response, and greatly extend electrical life, and works more stable.





Relay

+



Socket

=



Relay module

RKL □ □ □ □

Other options

LT: LED + test button

LTD: LED + test button + diode (13-,14+)

LTD1: LED + Test button + diode (13+,14-)

Coil voltage code

Code	006	012	024	048	110	220	
Voltage (V DC)	6	12	24	48	110	220	
Code	506	524	536	548	615	730	880
Voltage (V AC)	6	24	36	48	115	230	380

Terminal arrangement

O: plug in

Contact form

1C: 1CO

2C: 2CO

3C: 3CO

4C: 4CO

Series name

Characteristics

Contact	Configuration	1C	2C	3C	4C
	Resistance	16A/250VAC 30VDC			
	Load	15A/250VAC 30VDC			
	Motor load	1/2HP, 120VAC, 1HP, 240VAC	1/3HP 240VAC	1/6HP 240VAC	
	Max. switching capacity (resistive)	4000VA, 480W	2500VA, 300W		
	Min. switching capacity	170mW(17V/10mA)			
	Initial contact resistance	≤50mΩ			
	Material	Ag alloy			
	Electrical durability	1C/3C/4C: ≥10 x 10 ⁴ Cycles(1800 Ops/h), 2C: ≥20 x 10 ⁴ Cycles(1800 Ops/h)			
	Mechanical durability	≥1000 x 10 ⁴ Cycles (1800 Ops/h)			
Pick-up voltage (23°C) (Rated voltage)		DC:≤75%, AC:≤80% 50/60Hz			
Drop-out voltage (23°C) (Rated voltage)		DC:≥10%, AC:≥30% 50/60Hz			
Maximum voltage (23°C) (Rated voltage)		110%			
Insulation resistance		≥500MΩ (500VDC)			
Coil operating power	DC(W)	approx. 0.9	approx. 0.9	approx. 1.4	approx. 1.5
	AC(VA)	approx. 1.2	approx. 1.2	approx. 2	approx. 2.5
Operate time		≤20ms			
Release time (at nominal voltage)		≤20ms			
Initial breakdown voltage	Between open contacts	1000VAC/1min (leakage current 1mA)			
	Between poles	2000VAC/1min (leakage current 1mA)			
	Between contacts and coil	2000VAC/1min (leakage current 1mA)			
Insulation characteristics	Rated voltage	250VAC			
	Pollution level	3			2
	IEC 60664 UL840 Overvoltage level	III			II
Impulse withstand voltage (waveform: 1.2/50μs)		4000V			
Protection level		IP20			
Storage temperature/ humidity		-55~+85°C/ ≤85%RH (18 months)			
Working temperature/ humidity		-25~+55°C/ 5%~85%RH (No condensation)			
Air pressure		86~106KPa			

Shock resistance	10G (half-sine shock pulse: 11ms)			
Vibration resistance	10~55Hz double-amplitude:1.0mm			
Mounting	plug in			
Unit weight	approx. 35g	approx. 35g	approx. 50g	approx. 65g

Coil Specifications (23°C)

RKL1, RKL2

Nominal voltage V.DC	6	12	24	48	110	220	
Coil resistance Ω	40	180	640	2600	13000	42000	
Nominal voltage V.AC	6	24	36	48	115	230	380
Coil resistance Ω	11.5	180	370	640	4430	16500	42000

RKL3

Nominal voltage V.DC	6	12	24	48	110	220	
Coil resistance Ω	40	100	400	1600	8400	33000	
Nominal voltage V.AC	6	24	36	48	115	230	380
Coil resistance Ω	6.5	102	230	410	2500	10000	26000

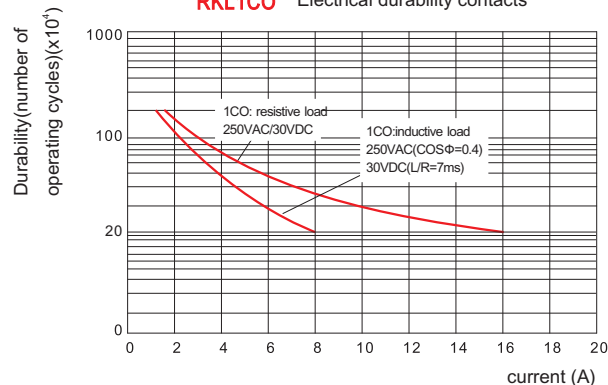
RKL4

Nominal voltage V.DC	6	12	24	48	110	220	
Coil resistance Ω	24	96	360	1500	6800	29000	
Nominal voltage V.AC	6	24	36	48	115	230	380
Coil resistance Ω	5	80	180	320	1680	8000	20000

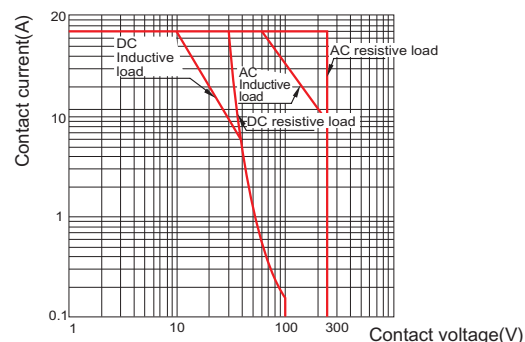
Coil resistance: under coil voltage 110V are measured with tolerance of $\pm 10\%$, above 110V with tolerance of $\pm 15\%$.

Contact Specification

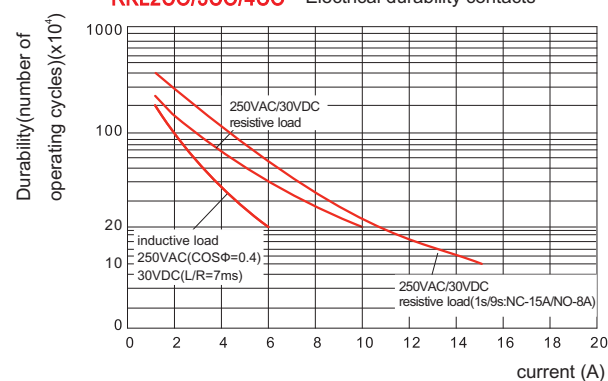
RKL1CO Electrical durability contacts



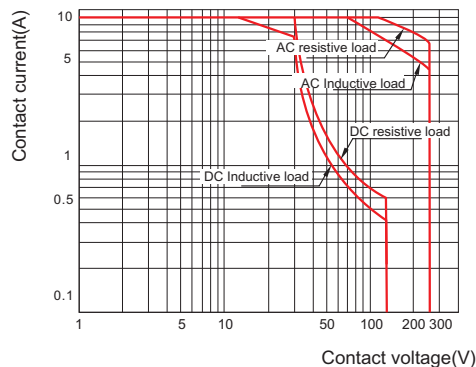
RKL1CO Maximum switching capacity



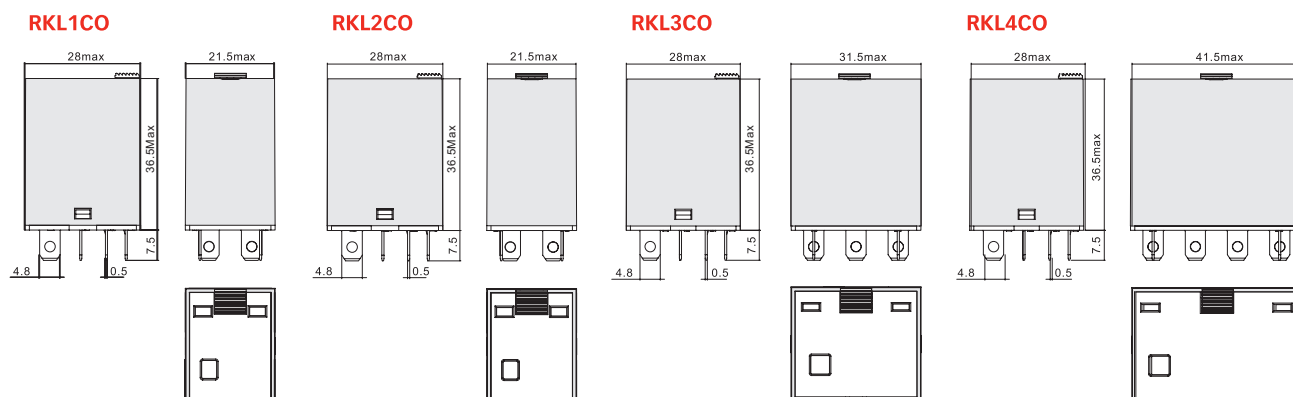
RKL2CO/3CO/4CO Electrical durability contacts



RKL2CO/3CO/4CO Maximum switching capacity

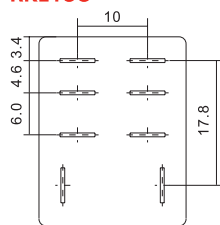


Dimensions (mm)

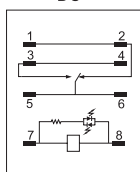


Wiring Diagrams

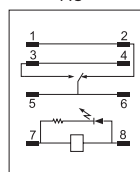
RKL1CO



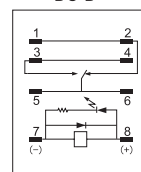
DC



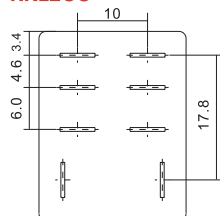
AC



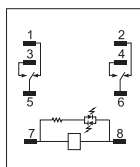
DC-D



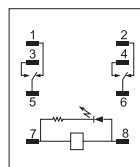
RKL2CO



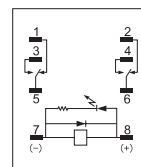
DC



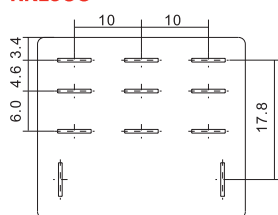
AC



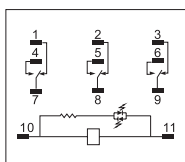
DC-D



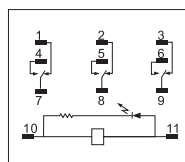
RKL3CO



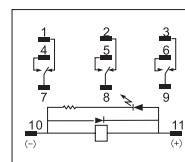
DC



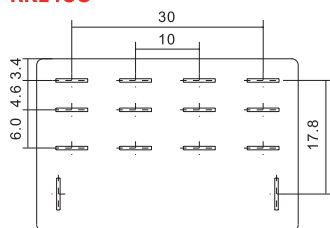
AC



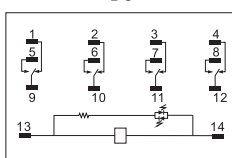
DC-D



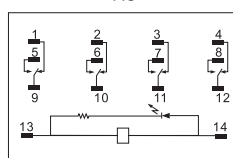
RKL4CO



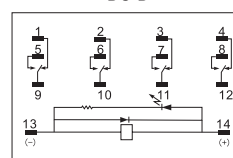
DC



AC



DC-D



Characteristics



STB08-E



STB14-E

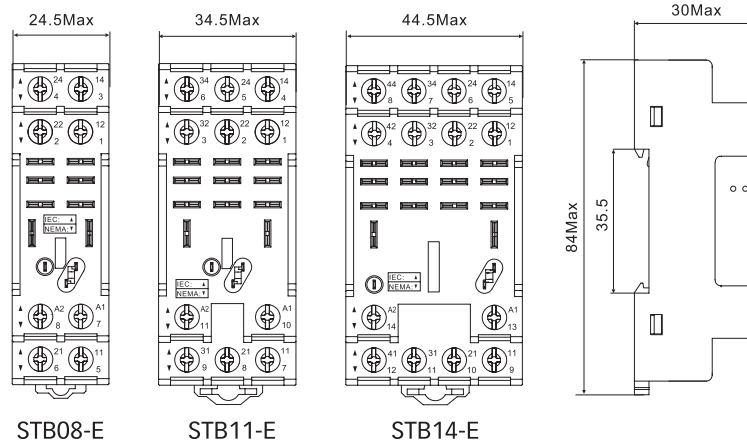


Type		STB08-E	STB11-E	STB14-E
Nominal load	Current	16		
	Voltage	300		
Dielectric strength	Between coil and contact	4000		
	Between contacts	2500		
Max. tightening torque	Nm	1.0		
Wire size	AWG/mm ²	20-14/0.5-2.5		
Ambient temperature	°C	-40~+85		
Unit weight	g	46	62	78

Accessories

Socket	Metal clip	Module
STB08-E	SK36M	AMD
STB11-E	ST36M3C	
STB14-E	ST36M4C	BMD

Dimensions (mm)



Connection Diagrams

