

Selection manual of industrial control relay

RKE

Miniature General Purpose Relay

- 2 poles 7A; 4 poles 5A
- 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

Metal clip

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

Test button

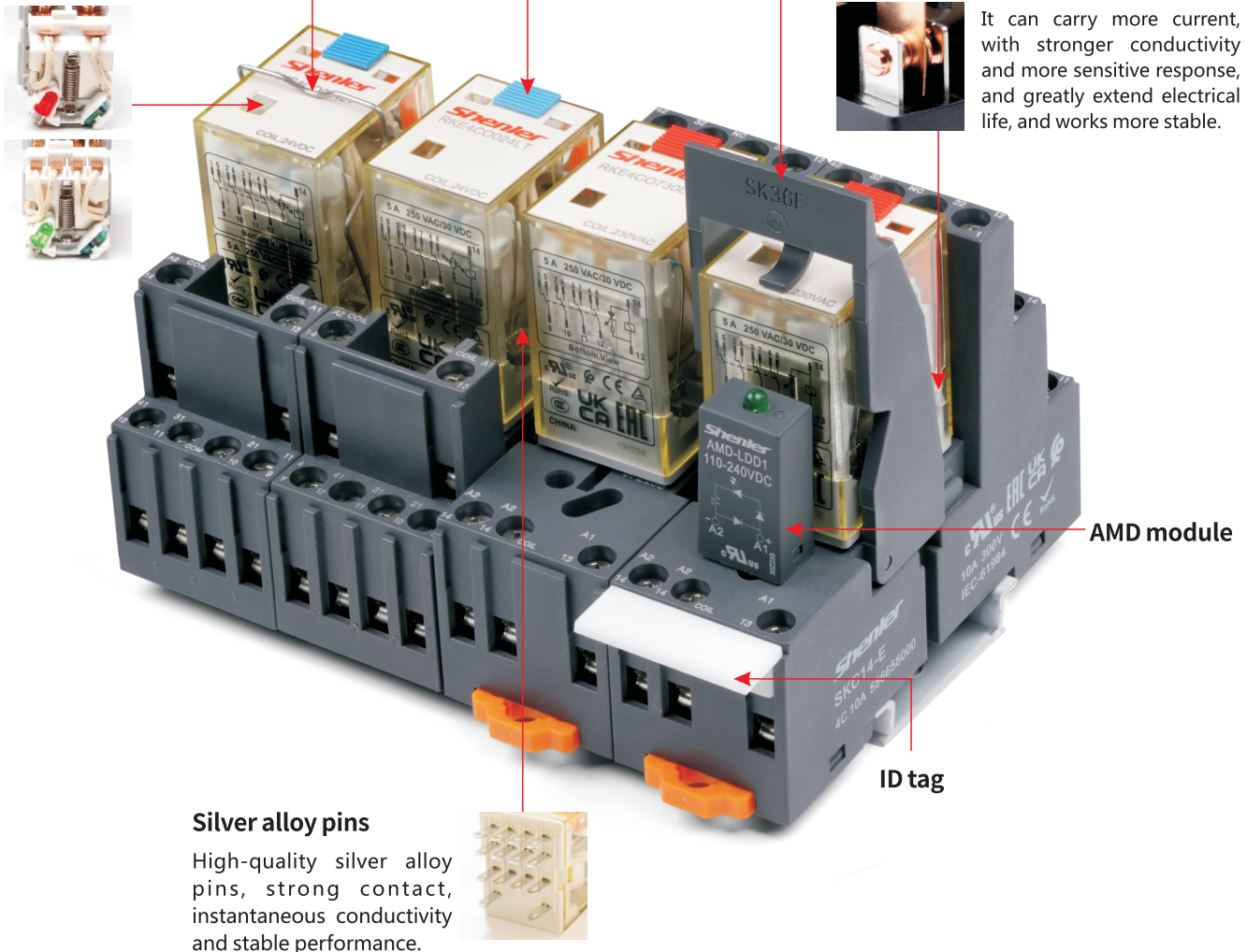
On-site test is available with test button.

Plastic clip

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

Silver alloy contacts

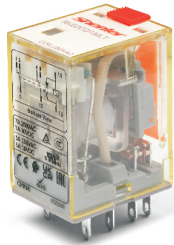
It can carry more current, with stronger conductivity and more sensitive response, and greatly extend electrical life, and works more stable.



Silver alloy pins

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





Relay

+



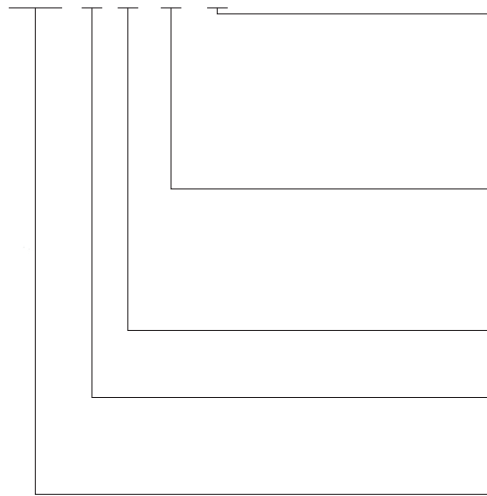
Socket

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Relay module

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Other options

- LT: LED + test button
- LTD: LED + test button + diode (13-,14+)
- LTD1: LED + test button + diode (13+,14-)
- LT M: LED+test button, with 0.65Un coil tuned
- LTA: LED + test button +gold plated contact

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

0: plug in

Contact form

- 2C: 2CO
- 4C: 4CO

Series name

Characteristics

		2C	4C
Configuration		2C	4C
Load	Resistance	7A/250VAC, 30VDC	5A/250VAC, 30VDC
	Motor load	1/6HP, 240VAC	
	Max. switching capacity (resistive)	1750VA, 210W	1250VA, 150W
Contact	Min. switching capacity	170mW(17V/10mA)	
	Initial contact resistance	≤50mΩ	
	Material	Ag alloy	
	Electrical durability (high temp., frequency 1s on, 1s off)	≥20 x 10 ⁴ Cycles (1800 Ops/h)	
	Electrical durability (normal temp., frequency 1s on, 1s off)	≥40x 10 ⁴ Cycles (360 Ops/h)	
	Electrical durability (normal temp., frequency 1s on, 9s off)	≥50x 10 ⁴ Cycles (1800 Ops/h)	
	Mechanical durability	≥2000 x 10 ⁴ Cycles (18000 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
		AC(VA)	approx. 1.2(60Hz)
	Operate time&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	
	IEC 60664 UL840 Overvoltage level	III	
	Impulse withstand voltage (waveform: 1.2/50μs)	4000V	
	Protection level	IP20	
	Storage temperature/ humidity	-55~+85°C/ ≤85%RH (18 months)	
	Working temperature/ humidity	-55~+70°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	

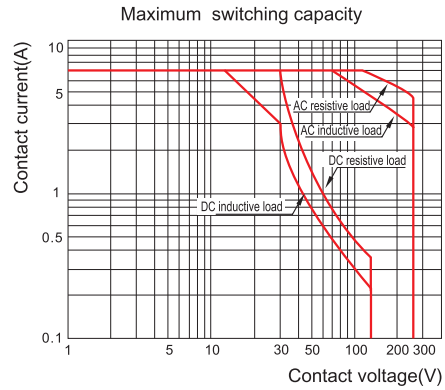
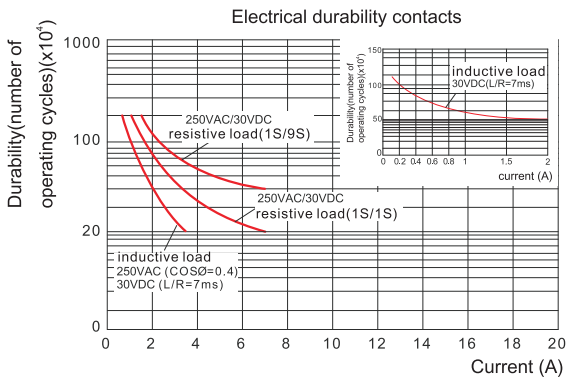
Coil Specifications (23°C)

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

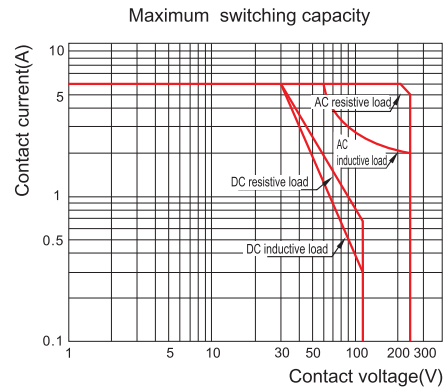
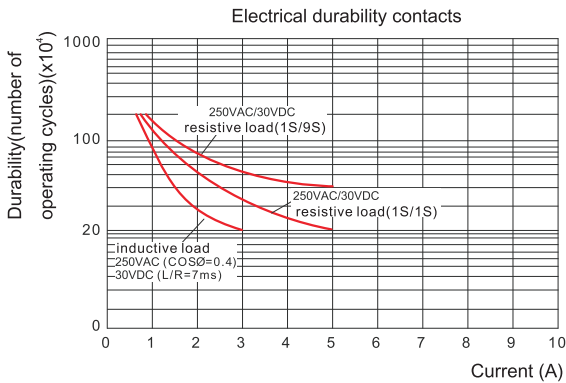
Coil resistance: under coil voltage 110V are measured with tolerance of ±10%Ω, above 110V with tolerance of ±15%Ω.

Contact Specification

RKE2CO

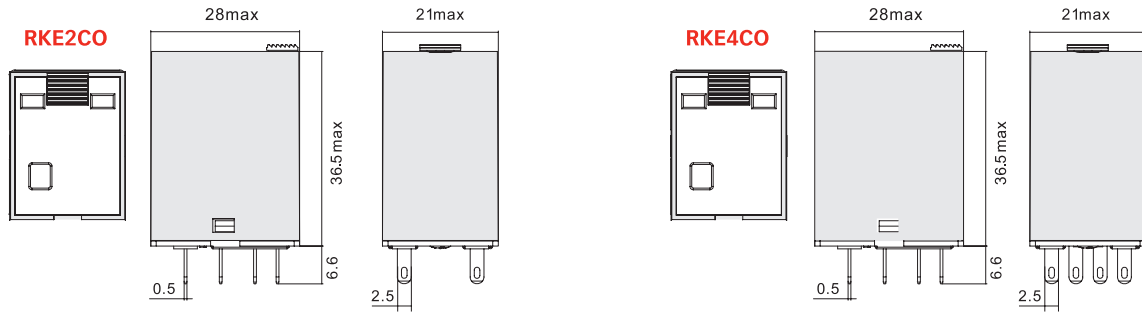


RKE4CO

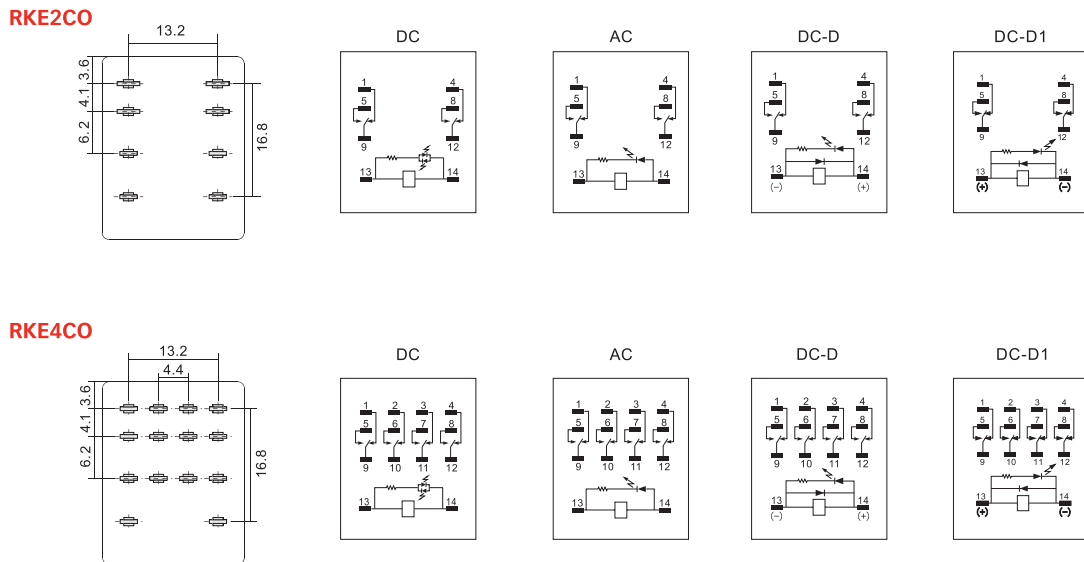


Note : These are typical curves, actual durability depends on load, environment, duty cycle, etc

Dimensions (mm)



Wiring Diagrams





Relay

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Socket

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Relay module

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Other options

LS: LED + Sealed
LSA: LED + Sealed + Signal Control

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

2C: 2CO
4C: 4CO

Series name



Humidity proof



Dust proof



Oil proof



Protection level

- ◆ Good performance in bad working condition, especially in much oil, dust, humidity places ◆ IP62
- ◆ 2 poles 7A; 4 poles 5A ◆ With non-polarity LED integrated in relay ◆ Conformity with RoHs Directive

Characteristics

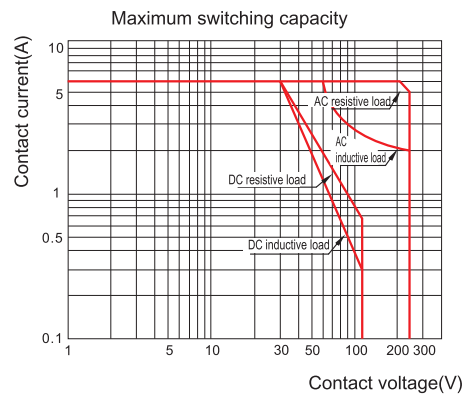
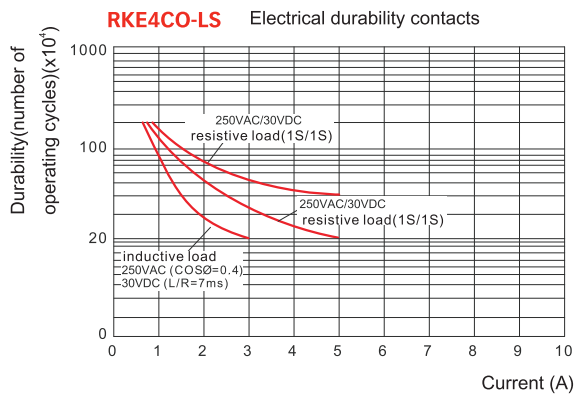
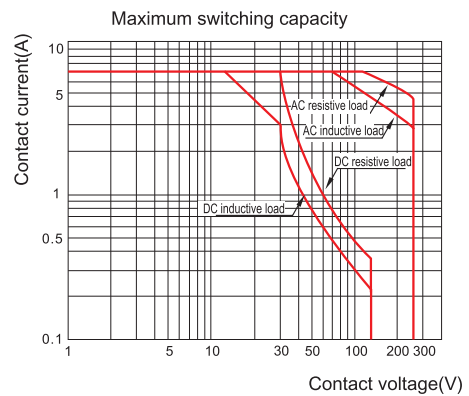
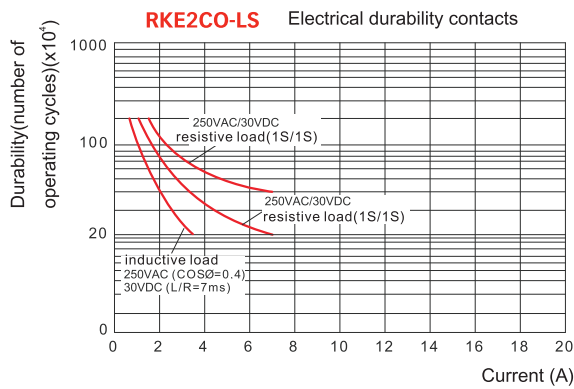
Configuration		2C	4C
Load	Resistance	7A/250VAC, 30VDC	5A/250VAC, 30VDC
	Motor load	1/6HP, 240VAC	
Max. switching capacity (resistive)		1750VA, 210W	1250VA, 150W
Contact	Min. switching capacity	170mW(17V/10mA)	
	Initial contact resistance	≤50mΩ	
	Material	Ag alloy	
	Electrical durability (110%rated voltage, 55°C)	≥20 x 10 ⁴ Cycles (1800 Ops/h)	
	Electrical durability (Normal temperature)	≥40 x 10 ⁴ Cycles (360 Ops/h)	
	Mechanical durability	≥2000 x 10 ⁴ Cycles (18000 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	
	AC(VA)	approx. 1.2(60Hz)	
Operate time&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	
Impulse withstand voltage (waveform: 1.2/50μs)		4000V(Altitude 2000m)	
Protection level		IP62	
Storage temperature/ humidity		-20~+85°C/ ≤85%RH (18 months)	
Working temperature/ humidity		-55~+70°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	

Coil Specifications (23°C)

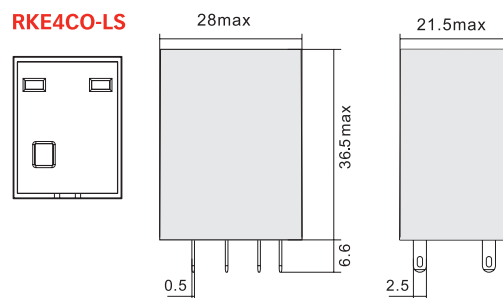
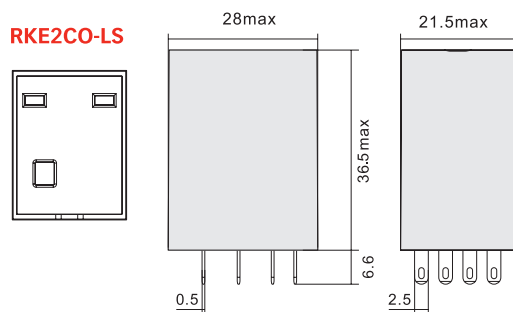
Nominal voltage V.DC	6	12	24	48	110	220	
Coil resistance Ω	40	180	640	2600	13000	42000	
Nominal voltage V.AC	6	24	36	48	115	230	380
Coil resistance Ω	11.5	180	370	640	4430	16500	42000

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

Contact Specification



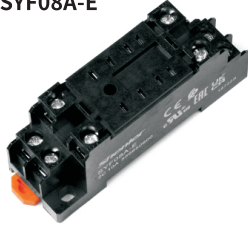
Dimensions (mm)



Characteristics



SYF08A-E



SYF14A-E

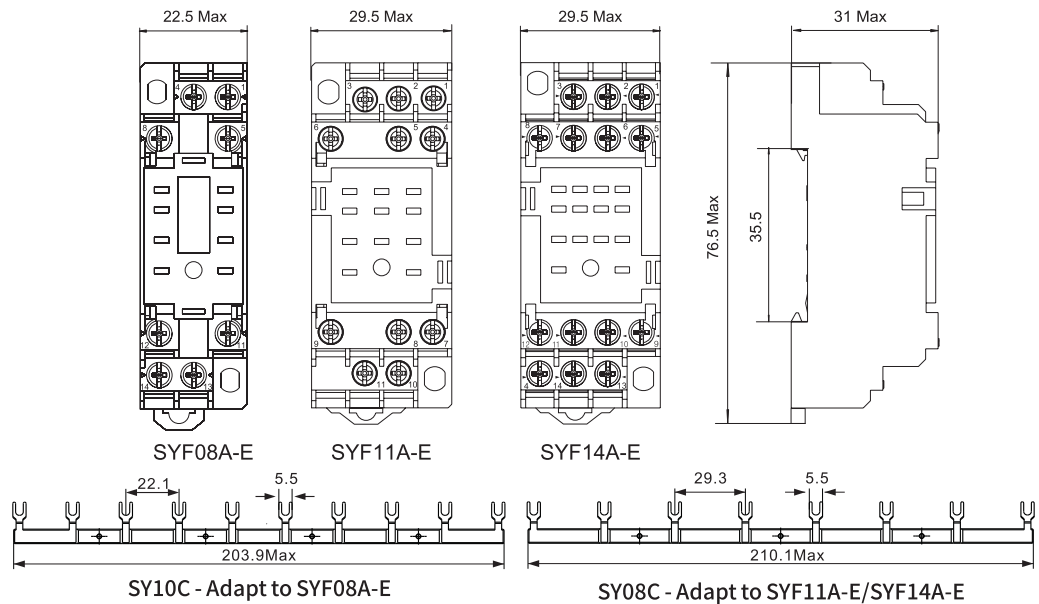


Type			SYF08A-E	SYF11A-E	SYF14A-E
Nominal load	Current	A	10	7	7
	Voltage	V	300		
Dielectric strength	Between coil and contact	V/min	3000		
	Between contacts	V/min	2000		
Max. tightening torque	Nm	1.0			
Wire size	AWG/mm ²	20-14/0.5-2.5			
Ambient temperature	°C	-40~+85			
Unit weight	g	37	56	57	

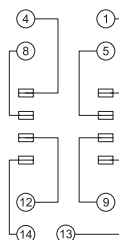
Accessories

Socket	Bus jumper	Metal clip
SYF08A-E	 SY08C SY10C	 SY36S
SYF11A-E		
SYF14A-E		

Dimensions (mm)

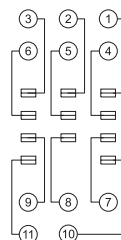


Connection Diagrams



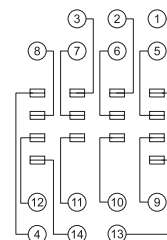
SYF08A-E

⑭ ⑬ : A1 A2
① ④ : NC
⑤ ⑧ : NO
⑨ ⑫ : COM



SYF11A-E

⑩ ⑪ : A1 A2
① ② ③ : NC
④ ⑤ ⑥ : NO
⑦ ⑧ ⑨ : COM



SYF14A-E

⑭ ⑬ : A1 A2
① ② ③ ④ : NC
⑤ ⑥ ⑦ ⑧ : NO
⑨ ⑩ ⑪ ⑫ : COM

Characteristics



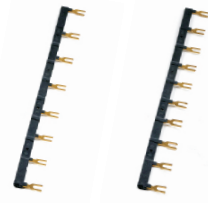

SYF08A



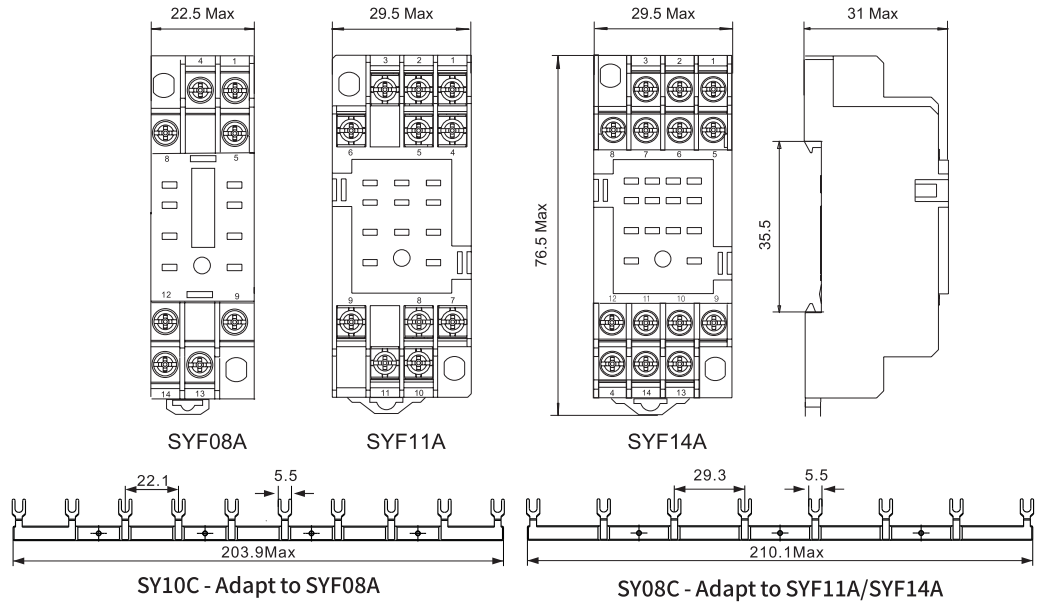
SYF14A

Type			SYF08A	SYF11A	SYF14A
Nominal load	Current	A	10	7	7
	Voltage	V	300		
Dielectric strength	Between coil and contact	V/min	3000		
	Between contacts	V/min	2000		
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	34	47	56	

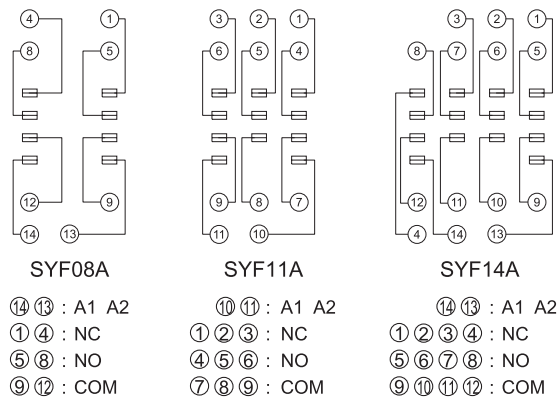
Accessories

Socket	Bus jumper	Metal clip
SYF08A	 SY08C SY10C	 SY36S
SYF11A		
SYF14A		

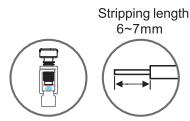
Dimensions (mm)



Connection Diagrams



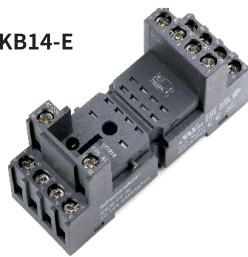
Characteristics



SKB08-E



SKB14-E

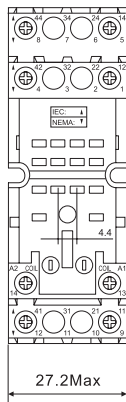


Type		SKB08-E	SKB14-E
Nominal load	Current	A	12
	Voltage	V	300
Dielectric strength	Between coil and contact	V/min	4000
	Between contacts	V/min	2500
Max. tightening torque	Nm	1.0	
Wire size	AWG/mm ²	20-14/0.5-2.5	
Ambient temperature	°C	-40~+85	
Unit weight	g	50	56

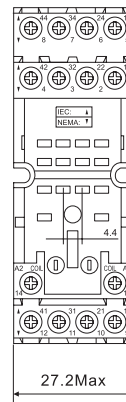
Accessories

Socket	Plastic clip	Metal clip	ID tag	Module
SKB08-E				
SKB14-E				
	SK36F	SK36M	SK4P	AMD

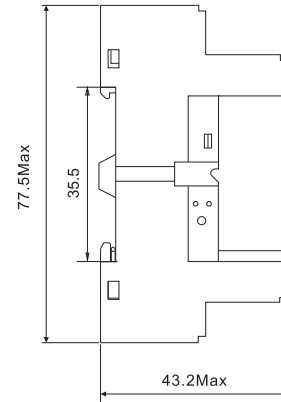
Dimensions (mm)



SKB08-E



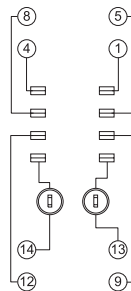
SKB14-E



Connection Diagrams

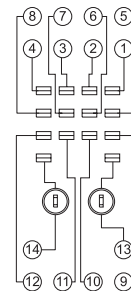
SKB08-E

- ⑬ ⑭ : A1 A2
- ① ④ : NC
- ⑤ ⑧ : NO
- ⑨ ⑫ : COM

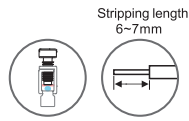


SKB14-E

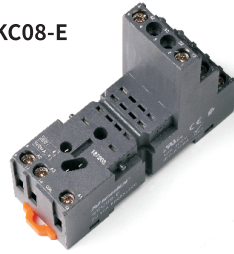
- ⑬ ⑭ : A1 A2
- ① ② ③ ④ : NC
- ⑤ ⑥ ⑦ ⑧ : NO
- ⑨ ⑩ ⑪ ⑫ : COM



Characteristics



SKC08-E



SKC14-E

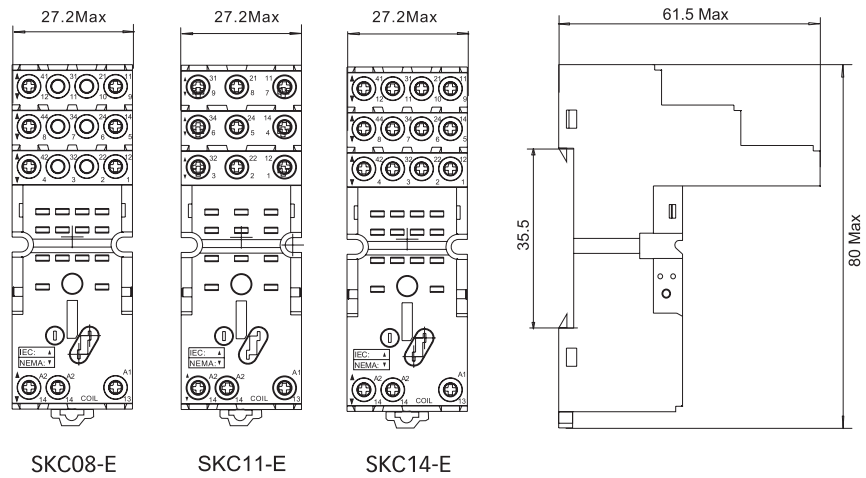


Type		SKC08-E	SKC11-E	SKC14-E	
Nominal load	Current	A	12	10	10
	Voltage	V	300		
Dielectric strength	Between coil and contact	V/min	4000		
	Between contacts	V/min	2500		
Max. tightening torque	Nm	1.0			
Wire size	AWG/mm ²	20-14/0.5-2.5			
Ambient temperature	°C	-40~+85			
Unit weight	g	50	56	62	

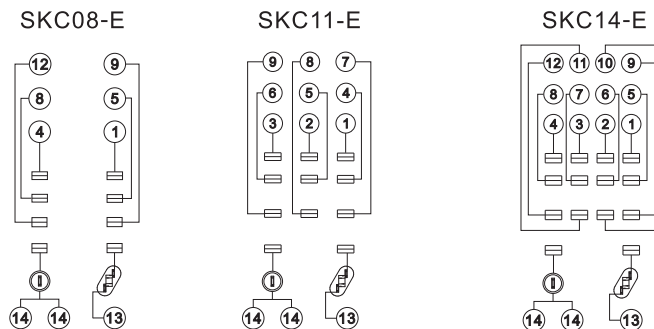
Accessories

Socket	Plastic clip	Metal clip	ID tag	Module
SKC08-E				
SKC11-E				
SKC14-E	SK36F	SK36M	SK4P	AMD

Dimensions (mm)



Connection Diagrams



Characteristics



SKC08-ST



SKC14-ST

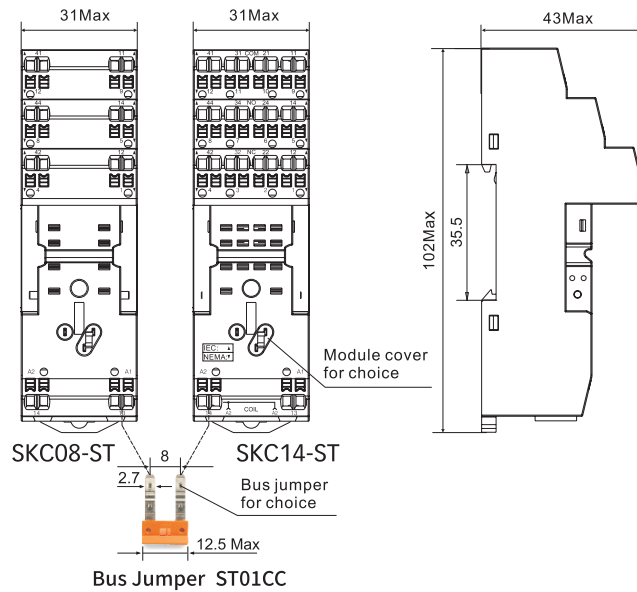


Type		SKC08-ST	SKC14-ST
Nominal load	Current	A	12
	Voltage	V	300
Dielectric strength	Between coil and contact	V/min	4000
	Between contacts	V/min	2500
Max. tightening torque	Nm	-	
Wire size	AWG/mm ²	20-16/0.5-1.5	
Ambient temperature	°C	-40~+85	
Unit weight	g	80	80

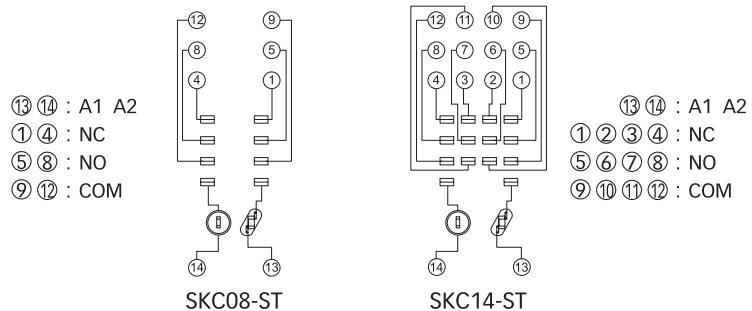
Accessories

Socket	Plastic clip	Metal clip	ID tag	Module	Bus Jumper
SKC08-ST					
SKC14-ST	SK36F	SK36M	SK4P	AMD	ST01CC

Dimensions (mm)



Connection Diagrams



Characteristics



SKF08-E






SKF14-E

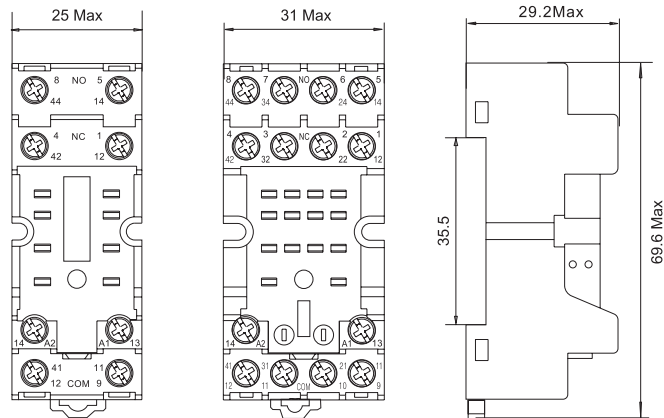


Type		SKF08-E	SKF14-E
Nominal load	Current	A	12
	Voltage	V	300
Dielectric strength	Between coil and contact	V/min	4000
	Between contacts	V/min	2000
Max. tightening torque	Nm	1.0	
Wire size	AWG/mm ²	20-14/0.5-2.5	
Ambient temperature	°C	-40~+85	
Unit weight	g	35	45

Accessories

Socket	Metal clip	ID tag	Module
SKF08-E			
SKF14-E	 SK36M	 SK2P	 AMD

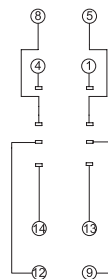
Dimensions (mm)



SKF08-E

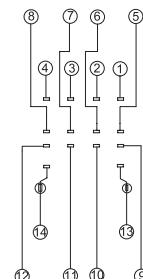
SKF14-E

Connection Diagrams



SKF08-E

⑬ ⑭ : A1 A2
 ① ④ : NC
 ⑤ ⑧ : NO
 ⑨ ⑫ : COM



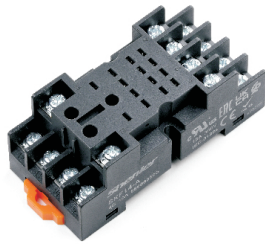
SKF14-E

⑬ ⑭ : A1 A2
 ① ② ③ ④ : NC
 ⑤ ⑥ ⑦ ⑧ : NO
 ⑨ ⑩ ⑪ ⑫ : COM

Characteristics






SKF14-A

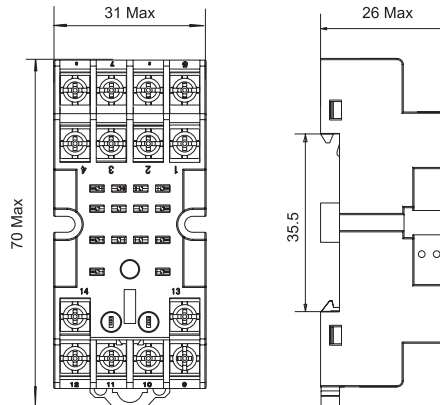


Type			SKF14-A
Nominal load	Current	A	10
	Voltage	V	300
Dielectric strength	Between coil and contact	V/min	4000
	Between contacts	V/min	2000
Max. tightening torque	Nm	1.0	
Wire size	AWG/mm ²		20-14/0.5-2.5
Ambient temperature	°C	-40~+85	
Unit weight	g	42.9	

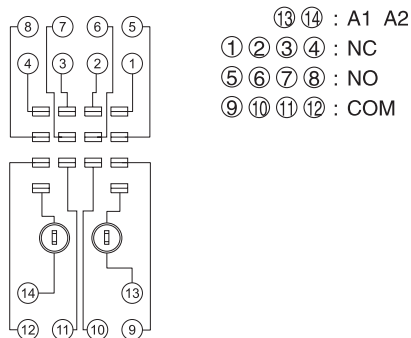
Accessories

Socket	Metal clip	ID tag	Module
SKF14-A	 SK36M	 SK2P	 AMD

Dimensions (mm)

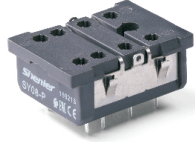


Connection Diagrams

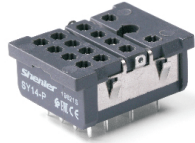



Characteristics

SY08-P

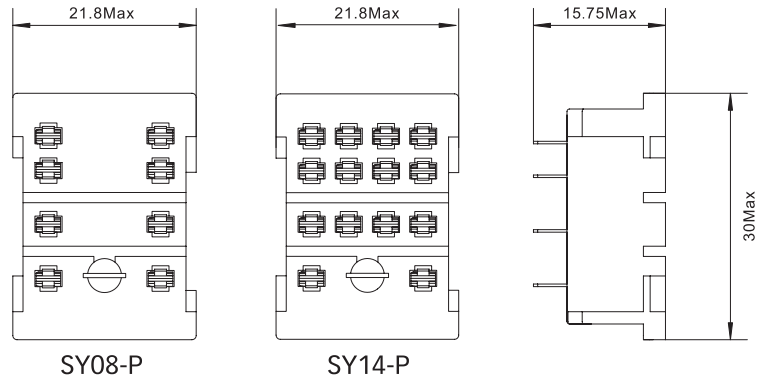


SY14-P



Type		SY08-P	SY14-P
Nominal load	Current	A	10
	Voltage	V	300
Dielectric strength	V/min	2000	
Ambient temperature	°C	-40~+85	
Unit weight	g	7	7
Accessories			
Socket	Metal clip		
SY08-P	 SY36M		
SY14-P			

Dimensions (mm)



Connection Diagrams

