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email minsk17@tut.by tel. +375297584780 МТС,

Электронные компоненты, радиодетали

Shenler в Беларуси

где и как купить в Минске?

Сделать заявку или запрос можно по телефону факсу или по электронной почте, viber

Просим Вас указывать в заявке:

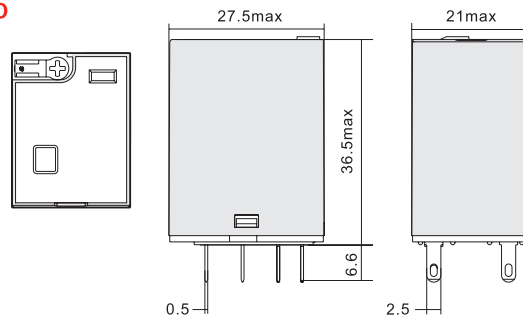
- название предприятия, факс, контактный телефон, контактное лицо;
- полное наименование и количество товара;
- возможность замены или аналоги;

каталог, описание, технические, характеристики, datasheet, параметры, аналог, замена, чем заменить,

маркировка, габариты, фото, **Shenler**

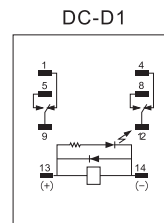
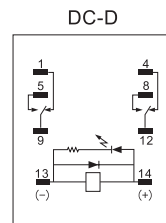
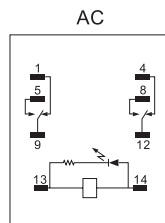
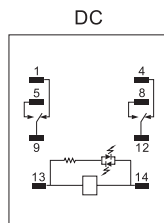
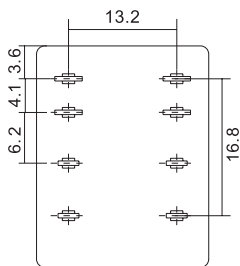
Dimensions (mm)

RKF2CO



Wiring Diagrams

RKF2CO



SYF08A-E S

RKF Magnetic Blow-out Power Relay Socket



Characteristics




SYF08A-E S

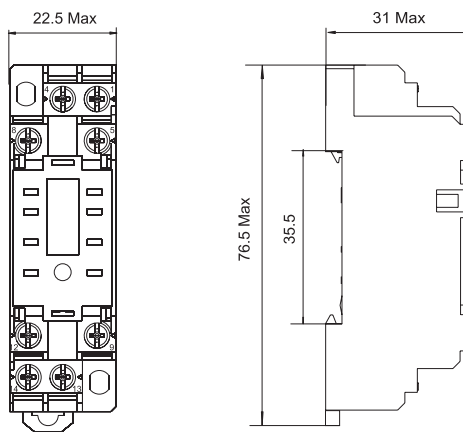


Type			SYF08A-E S
Nominal load	Current	A	15
	Voltage	V	300
Dielectric strength		V/min	2000
Max. tightening torque		Nm	1.0
Wire size		AWG/mm ²	20-14/0.5-2.5
Ambient temperature		°C	-40~+65
Unit weight		g	37

Accessories

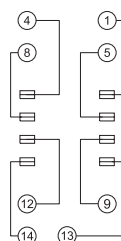
Socket	Metal clip
SYF08A-E S	 SY36S

Dimensions (mm)



SYF08A-E S

Connection Diagrams



SYF08A-E S

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

SKC08-E S

RKF Magnetic Blow-out Power Relay Socket



Characteristics







SKC08-E S

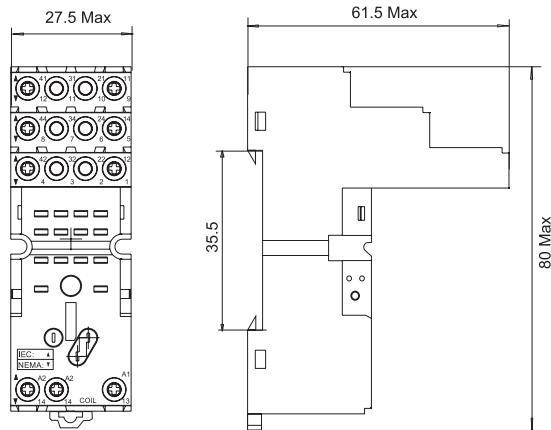


Type			SKC08-E S
Nominal load	Current	A	15
	Voltage	V	300
Dielectric strength	Between coil and contact	V/min	4000
	Between contacts	V/min	2500
Max. tightening torque	Nm	-	
Wire size	AWG/mm ²	20-16/0.5-1.5	
Ambient temperature	°C	-40~+85	
Unit weight	g	50	

Accessories

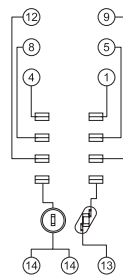
Socket	Plastic clip	Metal clip	ID tag	Module
SKC08-E S	 SK36F	 SK36M	 SK4P	 AMD

Dimensions (mm)



SKC08-E S

Connection Diagrams



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

SKC08-E S

Selection manual of industrial control relay

RKL
Miniature Power Relay

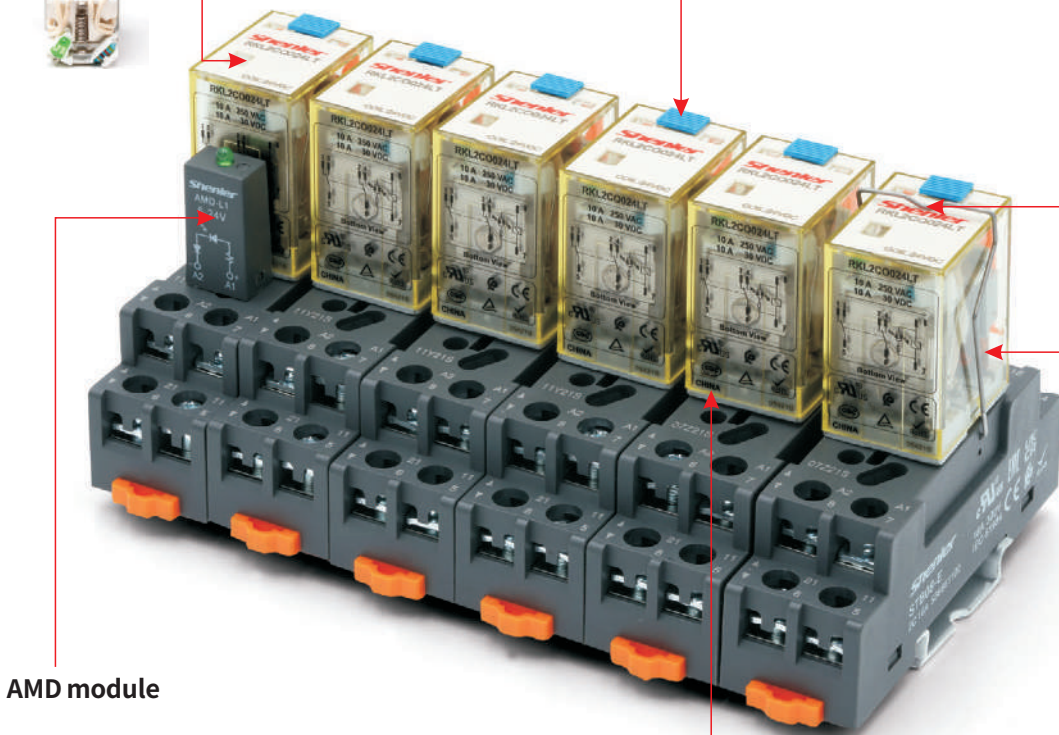
- ◆ 1 pole 16A; 2,3,4 poles 10A
- ◆ With non-polarity LED integrated in relay
- ◆ With lockable test button and inspection window
- ◆ Identification of coils through test button color (AC red/DC blue)
- ◆ Conformity with RoHs Directive



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.

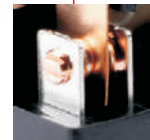


AMD module

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

Configuration	1C	2C	3C	4C
Load	Resistance			
	16A/250VAC 30VDC		15A/250VAC 30VDC	
	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
	AC(VA)	approx. 1.2	approx. 1.2	approx. 2
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

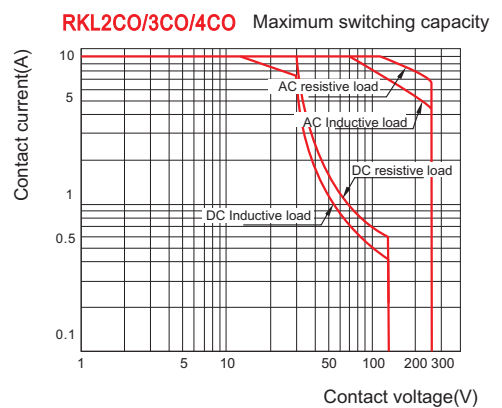
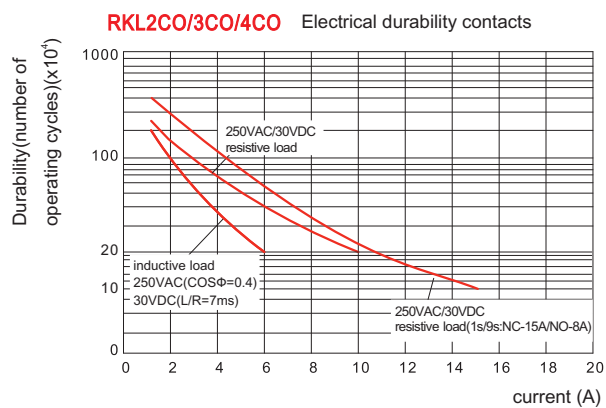
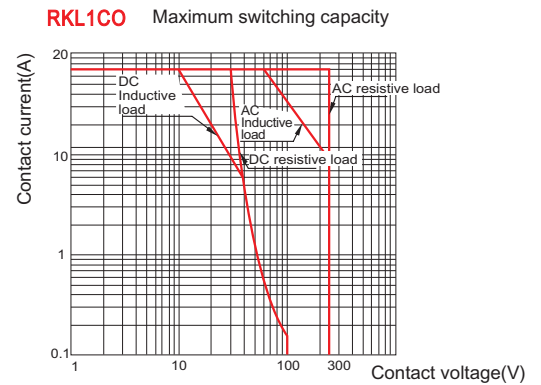
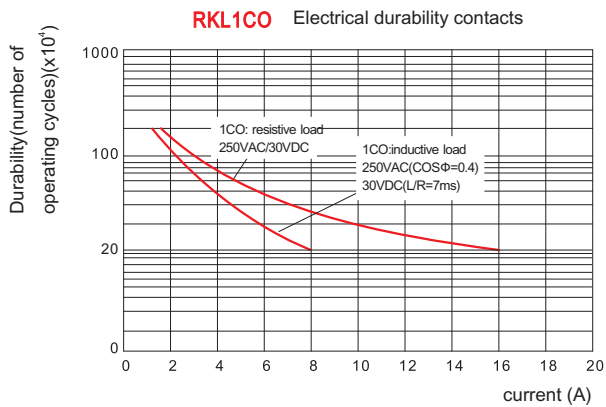
Nominal voltage V.DC	6	12	24	48	110	220	
Coil resistance Ω	40	100	400	1600	8400	33000	
Nominal voltage V.AC	6	24	36	48	115	230	380
Coil resistance Ω	6.5	102	230	410	2500	10000	26000

RKL4

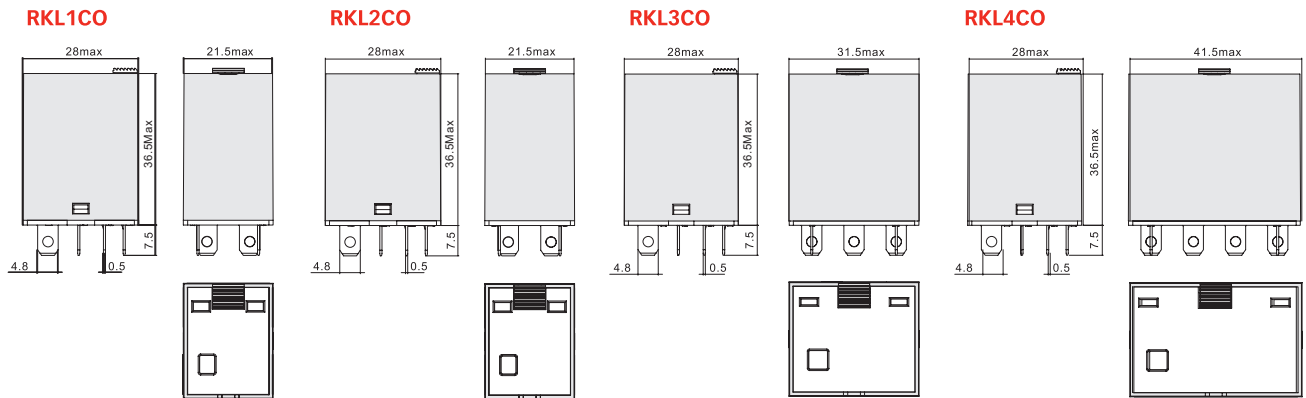
Nominal voltage V.DC	6	12	24	48	110	220	
Coil resistance Ω	24	96	360	1500	6800	29000	
Nominal voltage V.AC	6	24	36	48	115	230	380
Coil resistance Ω	5	80	180	320	1680	8000	20000

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

Contact Specification

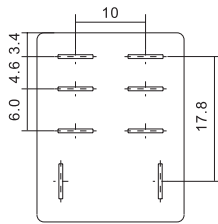


Dimensions (mm)

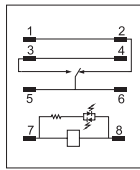


Wiring Diagrams

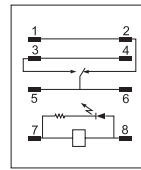
RKL1CO



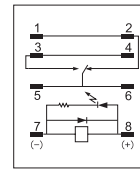
DC



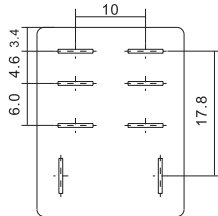
AC



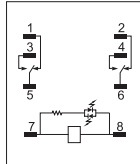
DC-D



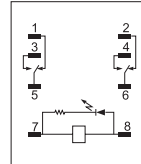
RKL2CO



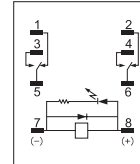
DC



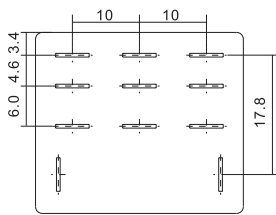
AC



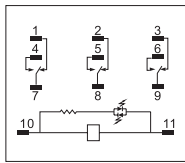
DC-D



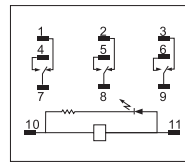
RKL3CO



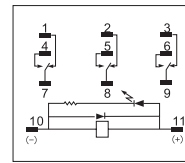
DC



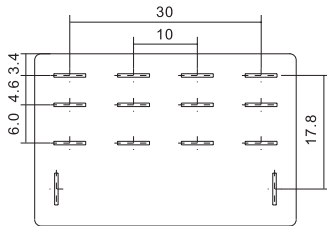
AC



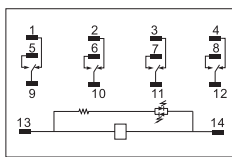
DC-D



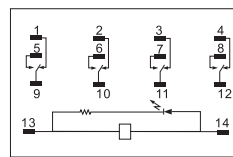
RKL4CO



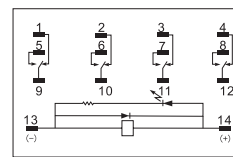
DC



AC



DC-D



Characteristics



STB08-E



STB14-E

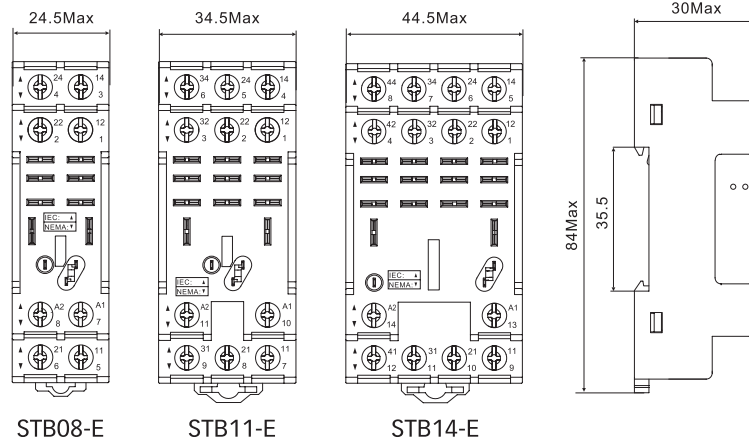


Type			STB08-E	STB11-E	STB14-E
Nominal load	Current	A	16		
	Voltage	V	300		
Dielectric strength	Between coil and contact	V/min	4000		
	Between contacts	V/min	2500		
Max. tightening torque		Nm	1.0		
Wire size		AWG/mm ²	20-14/0.5-2.5		
Ambient temperature		°C	-40~+85		
Unit weight		g	46	62	78

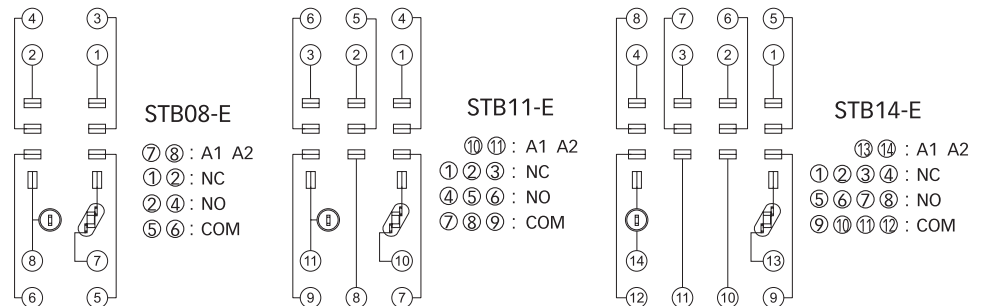
Accessories

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

Dimensions (mm)



Connection Diagrams

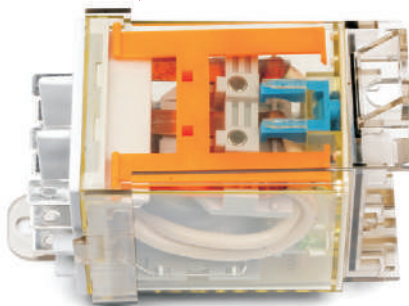


- 2 poles, 3 poles contact load 16A
- With non-polarity LED integrated in relay
- With lockable test button and inspection window
- Identification of coils through test button color (AC red/DC blue)
- Conformity with RoHs Directive



REH-DA Mounting Adaptor

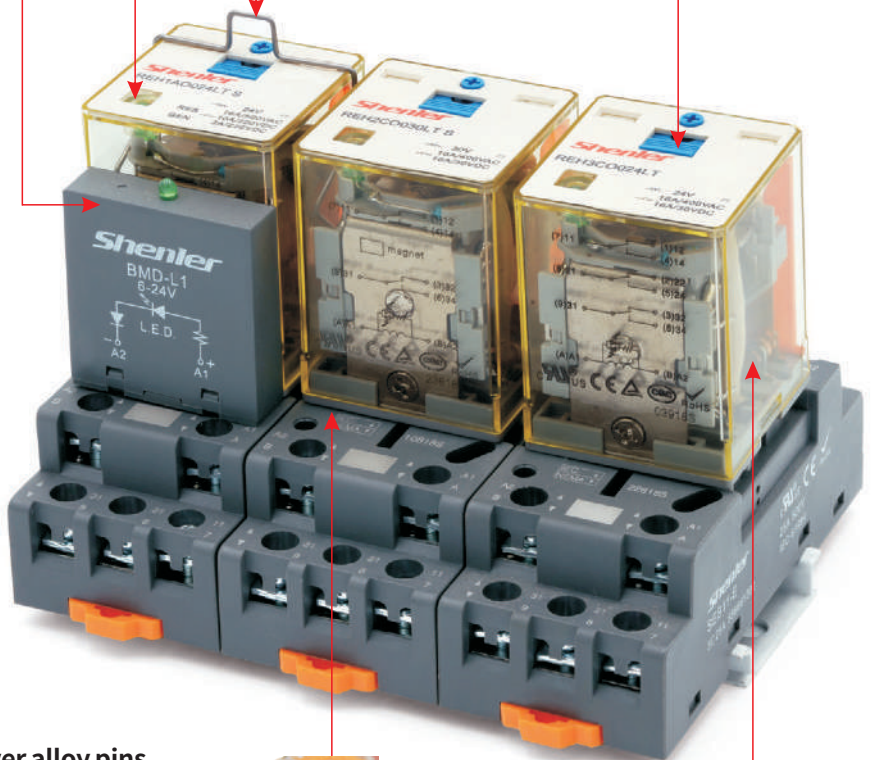
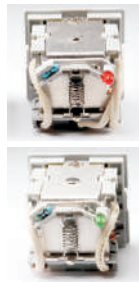
To meet with different mounting way, extra cover is available for both bracket mount and top flange integrated.



LED

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

BMD module



Metal clip

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

Test button

On-site test is available with test button.

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

REH □ □ □ □

Other options

- LT: LED + test button
- LTD: LED + test button + diode (A1-, A2+)
- LTD1: LED + Test button + diode (A1+, A2-)

Coil voltage code

Code	006	012	024	048	110	220	
Voltage (V DC)	6	12	24	48	110	220	
Code	506	524	548	615	730	880	900
Voltage (V AC)	6	24	48	115	230	380	400

Terminal arrangement

O: plug in

Contact form

- 2C: 2CO
- 3C: 3CO

Series name

Characteristics

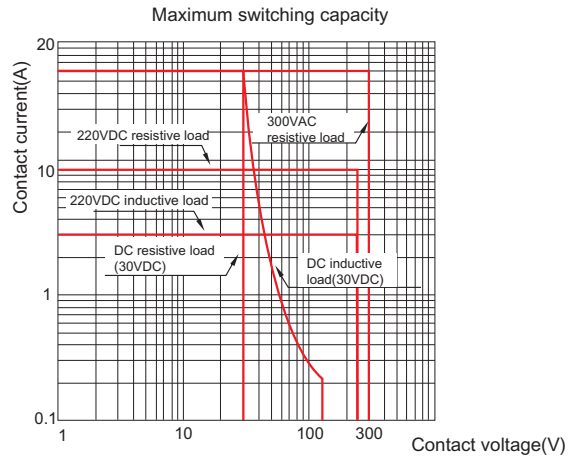
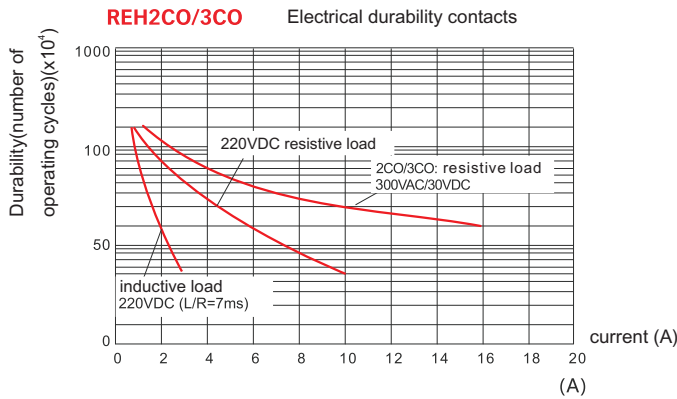
Configuration	2C,3C	2COLTS
Load	Resistive	16A/300VAC 30VDC
	Resistive	—
	inductive	—
Motor load	1/2HP, 120VAC; 1HP, 240VAC	
Contact	Max. switching capacity (resistive)	4800VA, 480W
	Max. switching capacity (inductive)	2500VA, 90W
Initial contact resistance	≤50mΩ	
Material	Ag alloy	
Electric durability(110%rated voltage, 55°C)	≥60 x 10 ⁴ Cycles (600 Ops/h)	
Electric durability (Normal temperature)	≥5000 x 10 ⁴ Cycles (18000 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	≥1000MΩ (500VDC)	
Coil operating power	DC(W)	approx. 1.5
	AC(VA)	approx. 2.5
Operate time&Release time (at nominal voltage)	≤20ms	
Initial breakdown voltage	Between open contacts	1500VAC/1min (leakage current 1mA)
	Between poles	4000VAC/1min (leakage current 1mA)
	Between contacts and coil	4000VAC/1min (leakage current 1mA)
Insulation characteristics	Rated voltage	300VAC
	Pollution level	3
IEC 60664 UL840	Overvoltage level	III
Impulse withstand voltage (waveform: 1.2/50μs)	6000V	
Protection level	IP20	
Storage temperature/ humidity	-55~+85°C/ ≤85%RH (18 months)	
Working temperature/ humidity	-40~+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. 90g	

Coil Specifications (23°C)

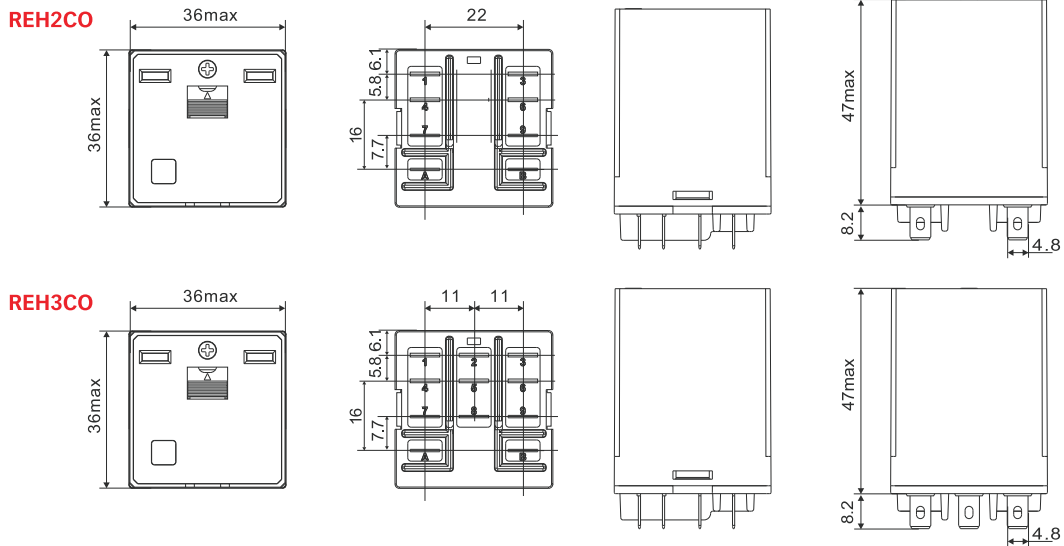
Nominal voltage V.DC	6	12	24	48	110	220	
Coil resistance Ω	24	96	385	1540	8070	32270	
Nominal voltage V.AC	6	24	48	115	230	380	400
Coil resistance Ω	8	100	350	2200	8000	26000	27000

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

Contact Specification

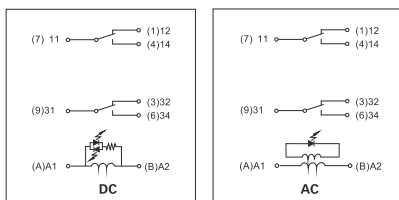


Dimensions (mm)

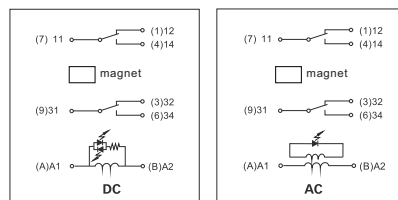


Wiring Diagrams

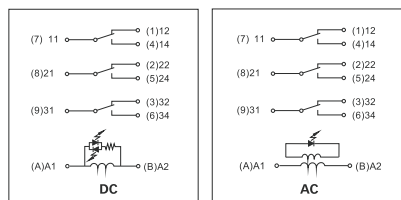
REH2CO



REH2COLTS



REH3CO



Selection manual of industrial control relay

REH Magnetic Blow-out Power Relay



Series Name

+

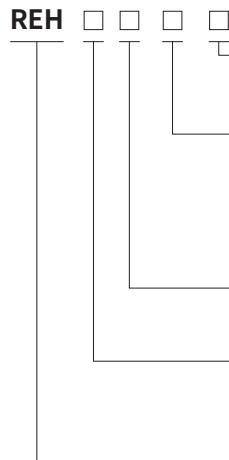


Socket

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Relay module



Other options

LT S: LED +test button + magnet

Coil voltage code

Code	012	024	048	110	220	
Voltage (V DC)	12	24	48	110	220	
Code	524	548	615	730	880	900
Voltage (V AC)	24	48	115	230	380	400

Terminal arrangement

O: plug in

Contact form

Code	1A	1B	2A	2B	2FO	3A
Contact form	1NO	1NC	2NO	2NC	1NO&1NC	3NO

Series name

- ◆ Good performance in DC motor load
- ◆ With non-polarity LED and lockable test button.
- ◆ High capacity load (16A@400VAC) for well replacement of contactor
- ◆ With blow-out magnet
- ◆ Identification of coil through test button color (AC red /DC blue)

Characteristics

Configuration	1A,1B	2A,2B,2FO	3A
Load	Resistive	16A/500VAC	16A/250VAC
	Resistive	10A/220VDC 16A/30VDC	
	inductive	10A/250VAC(cosφ0.4); 3A/220VDC(L/R=7ms)	
Contact	Switching capacity	Resistive	8000VA
	Resistive	Resistive	4000VA
		Resistive	4800VA
inductive	2500VA(cosφ0.4);660W(L/R=7ms)		
Initial contact resistance	≤50mΩ		
Material	Ag alloy		
Electrical durability(110%rated voltage, 55°C)	≥60 x 10 ⁴ Cycles (600 Ops/h)		≥20 x 10 ⁴ Cycles(600 Ops/h)
Mechanical durability	≥5000 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	≥1000MΩ (500VDC)		
Coil operating power	DC (W)	approx. 1.5	
	AC (VA)	approx. 2.5	
Operate time&Release time (at nominal voltage)	≤20ms		
Initial breakdown voltage	Between open contacts	1500VAC/1min (leakage current 1mA)	
	Between poles	4000VAC/1min (leakage current 1mA)	
	Between contacts and coil	4000VAC/1min (leakage current 1mA)	
Insulation characteristics	Rated voltage	400VAC	250VAC
	Pollution level	2	3
IEC 60664 UL840	Overvoltage level	II	III
Protection level	IP20		
Storage temperature/ humidity	-20~+85°C/ ≤85%RH (18 months)		
Working temperature/ humidity	-40~+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. 90g		

Selection manual of industrial control relay

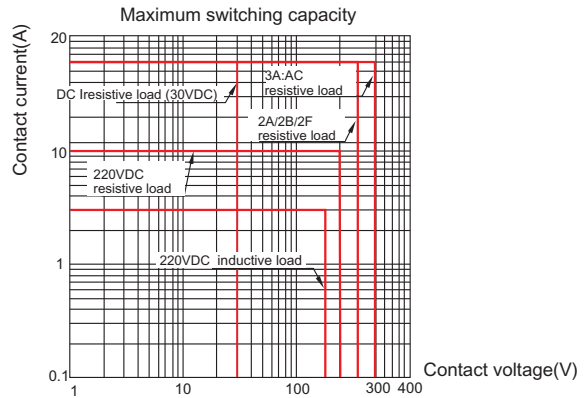
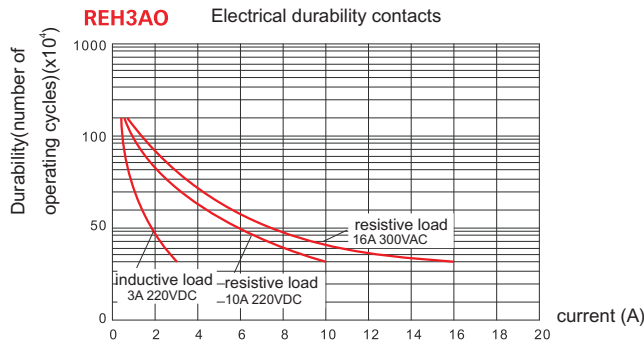
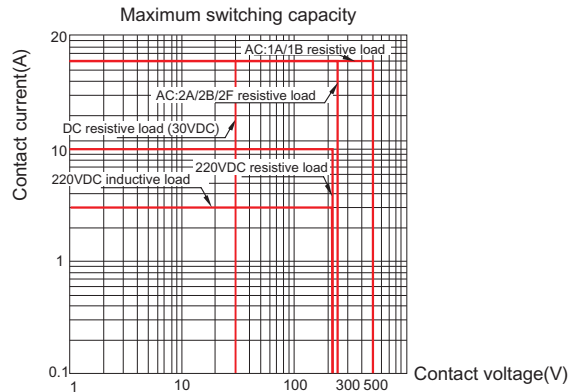
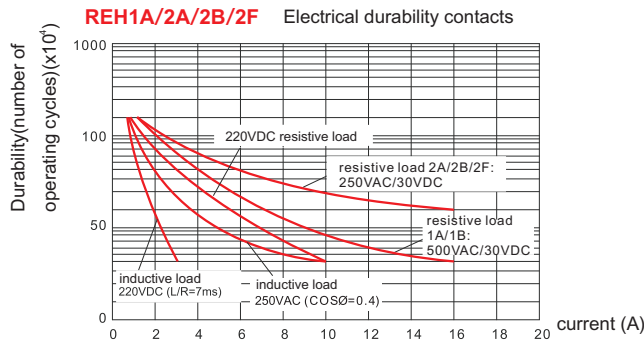
REH Magnetic Blow-out Power Relay

Coil Specifications (23°C)

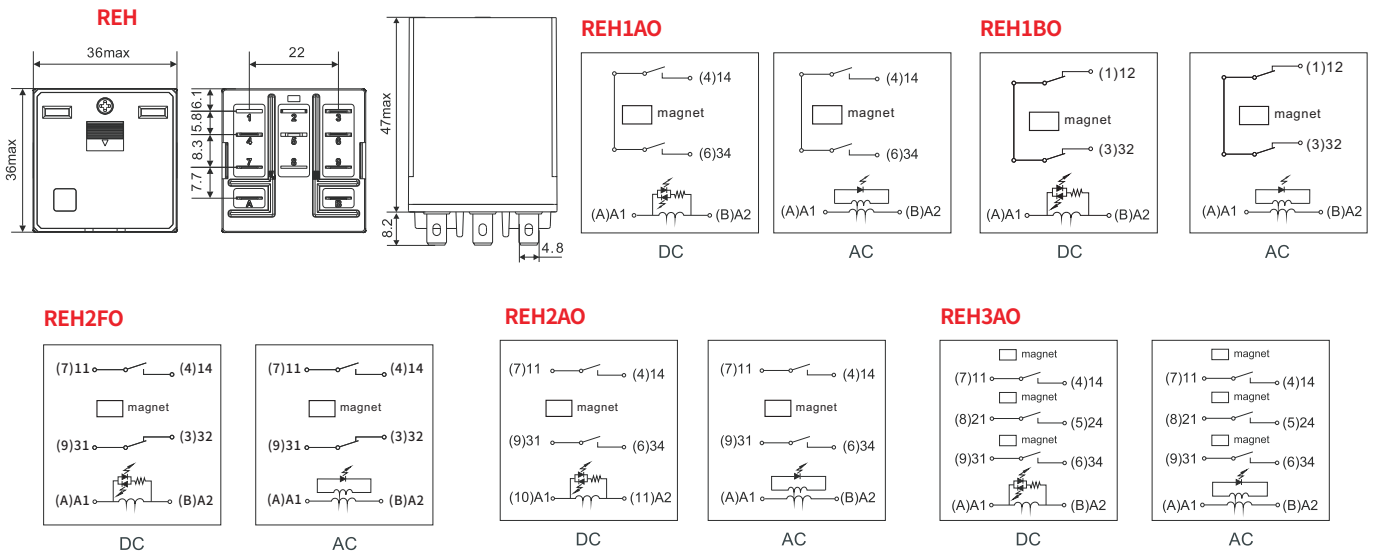
Nominal voltage V.DC	12	24	48	110	220	
Coil resistance Ω	96	385	1540	8070	32270	
Nominal voltage V.AC	24	48	115	230	380	400
Coil resistance Ω	100	350	2200	8000	26000	27000

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) & Wiring Diagrams



Characteristics





SEB11-E

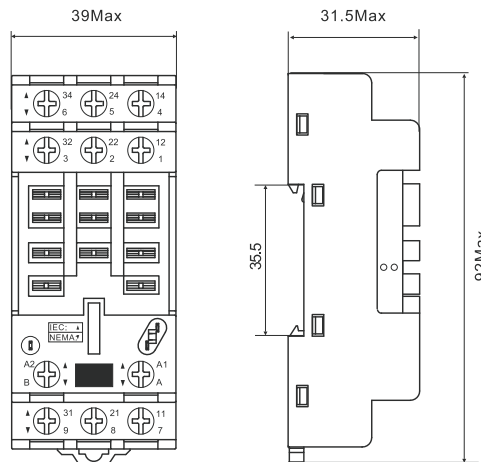


Type			SEB11-E
Nominal load	Current	A	25
	Voltage	V	500
Dielectric strength	Between coil and contact	V/min	4000
	Between contacts	V/min	2500
Max. tightening torque	Nm	1.2	
Wire size	AWG/mm ²	20-12/0.5-3.3	
Ambient temperature	°C	-40~+75	
Unit weight	g	64	

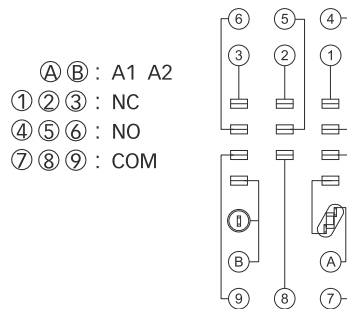
Accessories

Socket	Metal clip	Module
SEB11-E	 SE52M	 BMD

Dimensions (mm)




Connection Diagrams



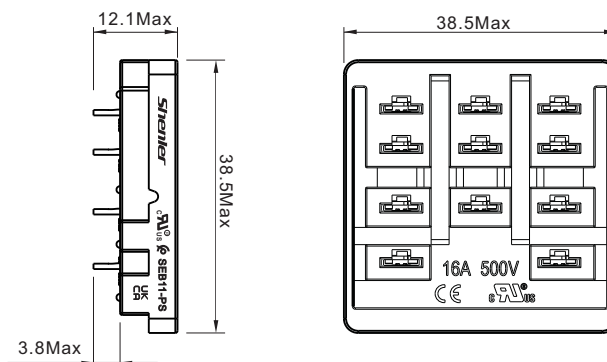
Characteristics

SEB11-PS



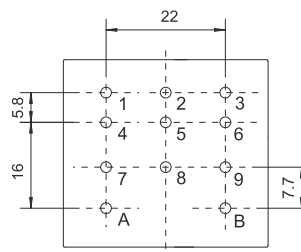
Type			SEB11-PS
Nominal load	Current	A	15
	Voltage	V	300
Dielectric strength		V/min	2500
Ambient temperature		°C	-40~+75
Unit weight		g	11.9
Accessories			
Socket	Metal clip		
SEB11-PS	 SE48M		

Dimensions (mm)



Connection Diagrams

- Ⓐ Ⓑ : A1 A2
- ① ② ③ : NC
- ④ ⑤ ⑥ : NO
- ⑦ ⑧ ⑨ : COM



Selection manual of industrial control relay

RUB
General Purpose Relay

- ◆ 2 poles, 3 poles contact load 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

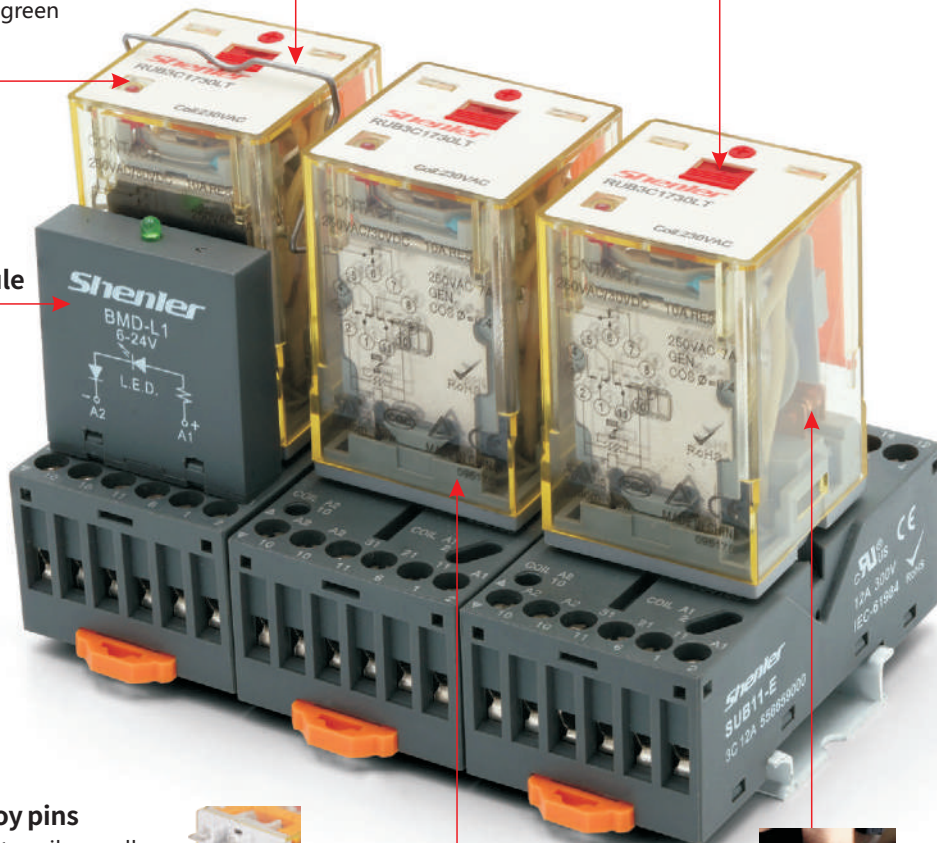
Metal clip

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

Test button

On-site test is available with test button.

BMD 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

RUB □ □ □ □

Other options

- LT: LED + test button
- LTD: LED + test button + diode
RUB2C1 (2-,7+); RUB2C2 (1-,8+); RUB3C1 (2-,10+);
RUB3C5 (2-10+); RUB3C2 (1-,11+)
- LTD1: LED + Test button + diode
RUB2C1 (2+,7-); RUB2C2 (1+,8-); RUB3C1 (2+,10-);
RUB3C5 (2+,10-); RUB3C2 (1+,11-)

Coil voltage code

Code	006	012	024	048	110	220	
Voltage (V DC)	6	12	24	48	110	220	
Code	506	512	524	536	548	615	730
Voltage (V AC)	6	12	24	36	48	115	230

Wiring type

- 1: 1
- 2: 2-1
- 5: 5-1 (3C only)

Contact form

- 2C: 2C0
- 3C: 3C0

Series name

Characteristics

Configuration	2C,3C	
Rated current / Rated voltage	10A/250VAC 30VDC (resistive RES); 7A/250VAC 30VDC (perceptual GEN)	
Contact	Max. switching capacity (resistive)	2500VA, 300W
	Initial contact resistance	≤50mΩ
	Material	Ag alloy
	Electrical durability	≥10 ⁵ Cycles(1800 Ops/h)
	Mechanical durability	≥2000 x 10 ⁴ Cycles (18000 Ops/h)
	Pick-up voltage (23°C) (Rated voltage)	≤80%
Drop-out voltage (23°C) (Rated voltage)	DC:≥10%, AC:≥30% 50/60Hz	
Maximum voltage (23°C) (Rated voltage)	110%	
Insulation resistance	≥100MΩ (500VDC)	
Coil operating power	DC(W)	approx. 1.5
	AC(VA)	approx. 2.7
Operate time	≤30ms	
Release time (at nominal voltage)	≤20ms	
Initial breakdown voltage	Between open contacts	1000VAC/1min (leakage current 1mA)
	Between poles	2500VAC/1min (leakage current 1mA)
	Between contacts and coil	2500VAC/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	-10~+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:1.5mm
Mounting	plug in
Unit weight	approx. 85g

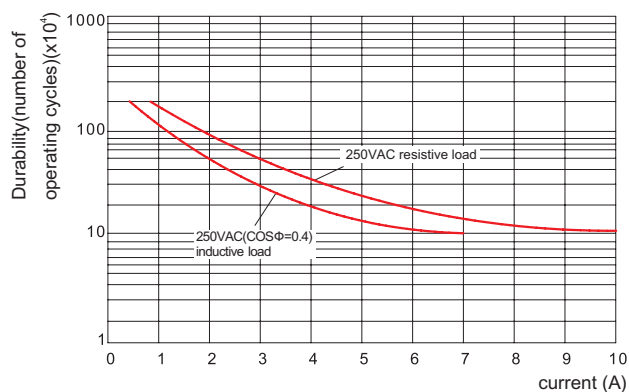
Coil Specifications (23°C)

Nominal voltage V.DC	6	12	24	48	110	220	
Coil resistance Ω	23.7	96	430	1640	7360	29500	
Nominal voltage V.AC	6	12	24	36	48	115	230
Coil resistance Ω	3.9	17	62.5	144	305	1250	5900

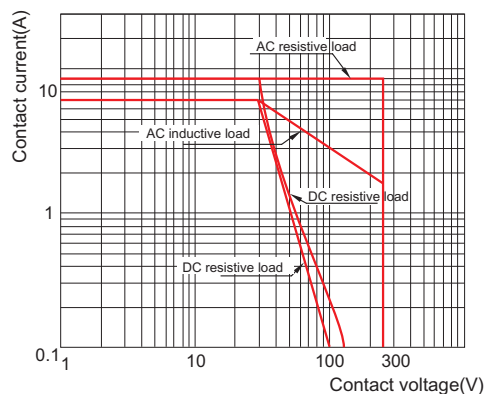
Coil resistance: under coil voltage 110V are measured with tolerance of ±10%Ω, above 110V with tolerance of ±15%Ω.

Contact Specification

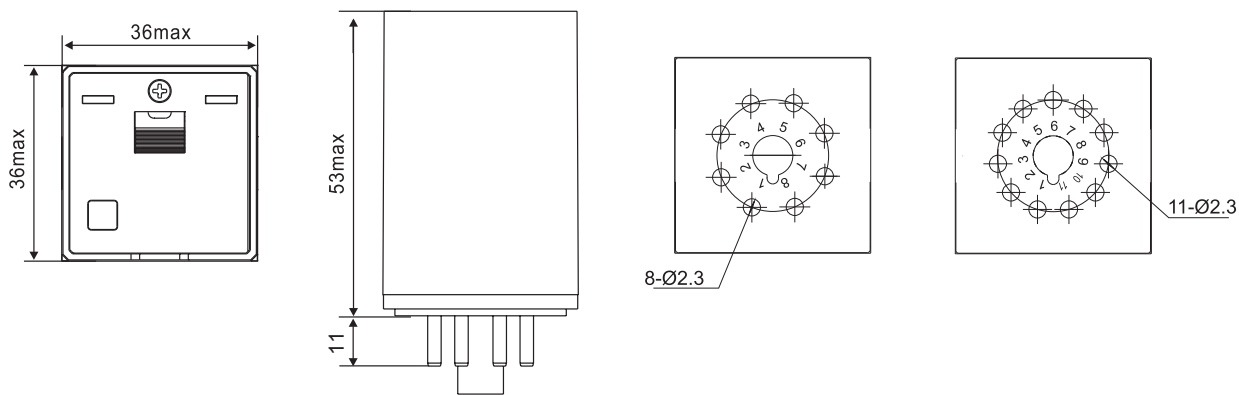
RUB2C/3C Electrical durability contacts



Maximum switching capacity

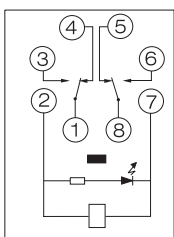


Dimensions (mm)



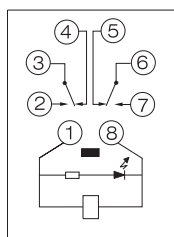
Wiring Diagrams

RUB2C1



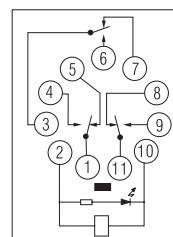
⑦ ② : A1, A2
① ⑧ : COM
③ ⑥ : NO
④ ⑤ : NC

RUB2C2



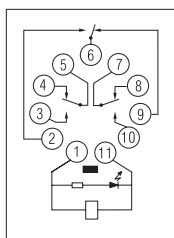
⑧ ① : A1, A2
③ ⑥ : COM
② ⑦ : NO
④ ⑤ : NC

RUB3C1



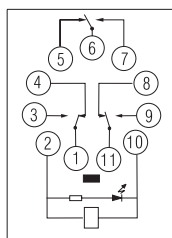
⑩ ② : A1, A2
① ③ ⑪ : COM
④ ⑥ ⑨ : NO
⑤ ⑦ ⑧ : NC

RUB3C2



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

RUB3C5



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

Characteristics



SUB08-E






SUB11-E

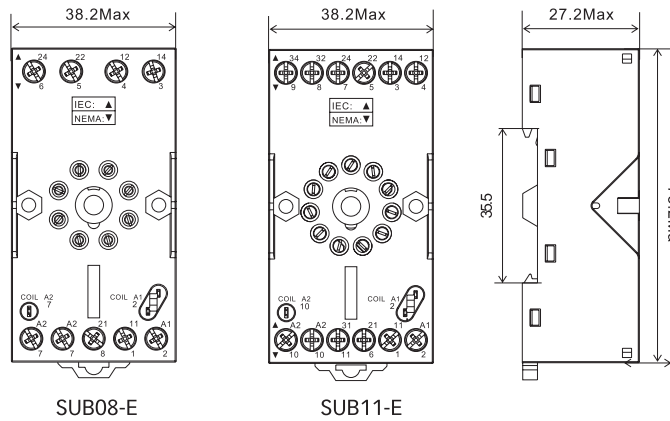


Type		SUB08-E	SUB11-E
Nominal load	Current	A	12
	Voltage	V	300
Dielectric strength	V/min	2500	
Max. tightening torque	Nm	1.0	
Wire size	AWG/mm ²	20-14/0.5-2.5	
Ambient temperature	°C	-40~+85	
Unit weight	g	50	55

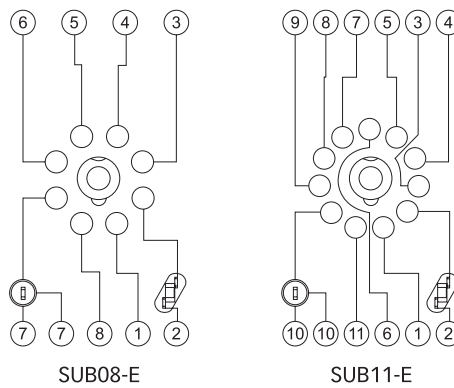
Accessories

Socket	Metal clip	ID tag	Module
SUB08-E	 SU60M	 SU3P	 BMD
SUB11-E			

Dimensions (mm)



Connection Diagrams



Characteristics



SUB08-A

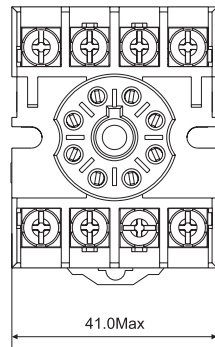


SUB11-A

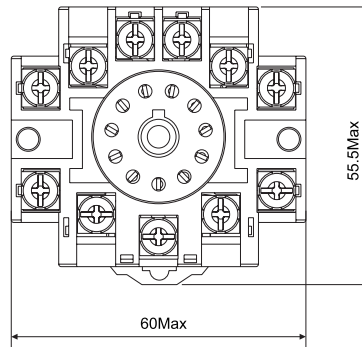


Type		SUB08-A	SUB11-A
Nominal load	Current	A	12
	Voltage	V	300
Dielectric strength	V/min	2500	
Max. tightening torque	Nm	1.0	
Wire size	AWG/mm ²	20-14/0.5-2.5	
Ambient temperature	°C	-40~+85	
Unit weight	g	37	50

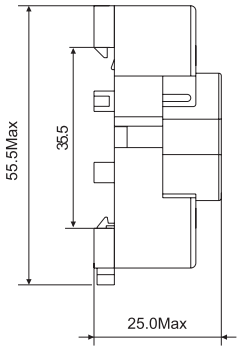
Dimensions (mm)



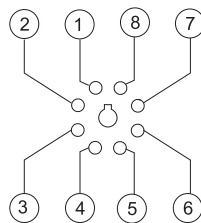
SUB08-A



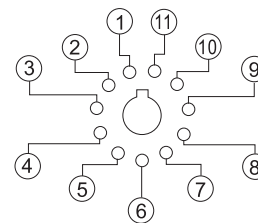
SUB11-A



Connection Diagrams



SUB08-A



SUB11-A

Selection manual of industrial control relay

RGF
Power Relay

- 1 pole 30A ; 2 poles 25A/40A
- Top-mounted 1/4" quick-connect terminals
- Locating slot for DIN rail mounting
- With finger protection cover
- Conformity with RoHs directive
- With safety module monitor

Fire-resistant materials
The shell is made of flame retardant material, with high strength, high temperature resistance, corrosion resistance and more safety



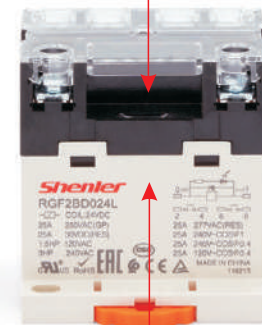
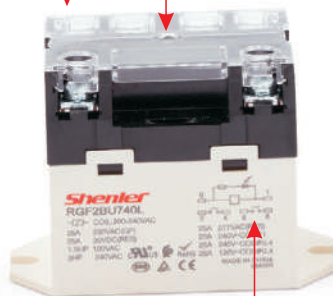
LED
Visible LED indicates the working status of the relay at any time, AC red, DC green

Screw terminal & Flange

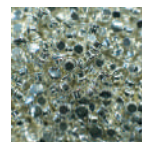
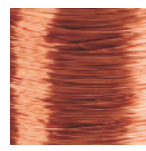
Screw terminal & DIN rail

Plug in & DIN rail

Plug in & Flange



Top copper coil material
Standard turns and electromagnetic coils make the pick-up more reliable and enduring, which can reach more than 20 million cycles.



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





RGF1BD



RGF1BU



RGF10U



RGF20D

RGF □ □ □ □

Other options

- L: with LED (only for BU and BD type)
- F: with auxiliary module
- S: with 40A/250VAC contact load (for 2 poles only)

Coil voltage code

Code	006	012	024	048	110	220		
Voltage (V DC)	6	12	24	48	110	220		
Code	506	512	524	548	615	740	880	900
Voltage (V AC)	6	12	24	48	100-120	200-240	380	400

Terminal & Mounting arrangement

- O: plug in
- OD: plug in & DIN rail
- OU: plug in & flange
- P: PCB
- BU: screw terminal & flange
- BD: screw terminal & DIN rail

Contact form

- 1: 1A (NO)
- 2: 2A (NO)

Series name

Characteristics		1A	2A	2A-S
Configuration		1A	2A	2A-S
Load	Resistive	30A 277VAC/30VDC	25A 277VAC/30VDC	40A 250VAC/30VDC
	Motor load	1.5 HP, 120VAC; 3HP, 240VAC		
Max. switching capacity (resistive)		8310 VA, 900W	6925VA, 750W	10000VA, 1200W
Initial contact resistance		≤50mΩ		
Contact	Configuration	1CO		
	Auxiliary module	Load (Resistive)	250VAC, 3A	
		Switching capacity (resistive)	750VA	
		Contact resistance	≤50mΩ	
Material	Ag alloy			
Electrical durability		≥10 ⁵ Cycles (1800 Ops/h)	≥5x10 ⁴ Cycles (360 Ops/h)	
Mechanical durability		≥5000 x 10 ⁴ Cycles (1800 Ops/h)		
Pick-up voltage (23°C) (Rated voltage)		DC: ≤80% , AC: ≤80% 50/60Hz		
Drop-out voltage (23°C) (Rated voltage)		DC: ≥15% , AC: ≥15% 50/60Hz		
Maximum voltage (23°C) (Rated voltage)		110%		
Insulation resistance		≥1000MΩ (500VDC)		
Coil operating power	DC(W)	approx. 1.9		
	AC(VA)	approx. 2.5		
Operate time & Release time (at nominal voltage)		≤30ms		
Initial breakdown voltage	Between open contacts	2000VAC/1min (leakage current 1mA)		
	Between poles	2000VAC/1min (leakage current 1mA)		
	Between contacts and coil	4000VAC/1min (leakage current 1mA)		
Insulation characteristics	Rated voltage	277VAC		
	Pollution level	3		
IEC 60664 UL840	Overvoltage level	III		
Impulse withstand voltage (waveform: 1.2/50μs)		6000V		
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:1.5mm
Mounting	plug in type; screw type; PCB type; DIN rail mounting type
Unit weight	plug in type about 90g; screw type around 120g; screw type +DIN rail mountingwith auxiliary module about 135g

Coil Specifications (23°C)

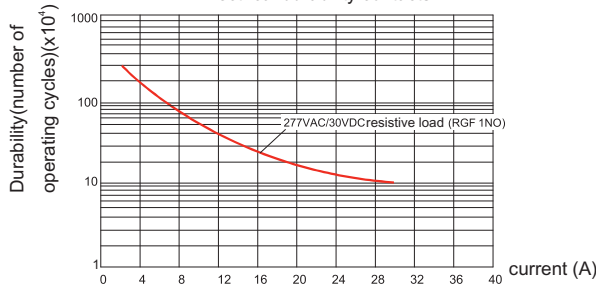
Nominal voltage V.DC	6	12	24	48	110	220		
Coil resistance Ω	18.9	75	303	1220	6360	25474		
Nominal voltage V.AC	6	12	24	48	100-120	200-240	380	400
Coil resistance Ω	14	55	275	1100	5200	21000	62650	62650

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

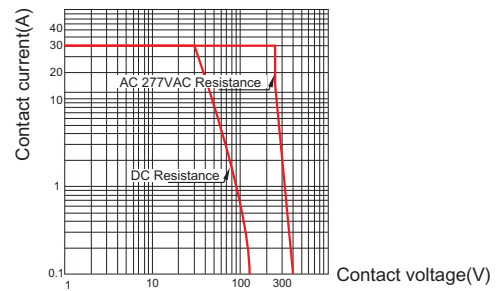
Contact Specification

RGF 1NO

Electrical durability contacts

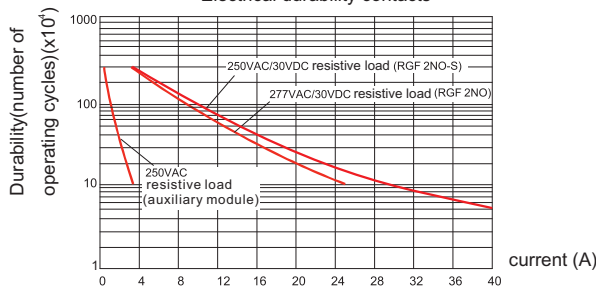


Maximum switching capacity

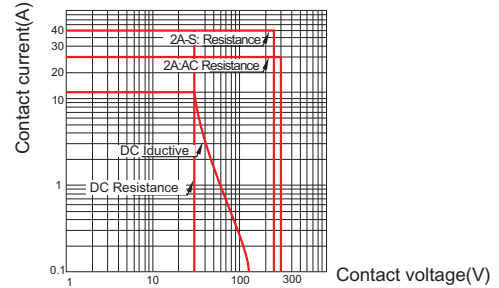


RGF 2NO

Electrical durability contacts

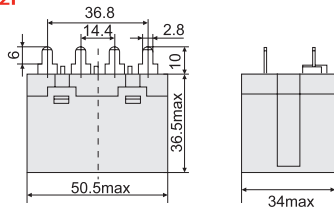


Maximum switching capacity

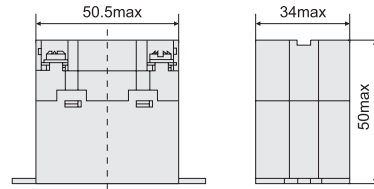


Dimensions (mm)

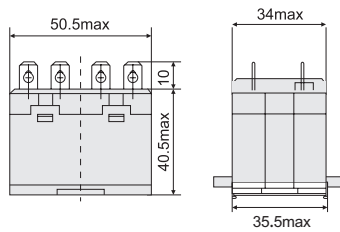
RGF1P/2P



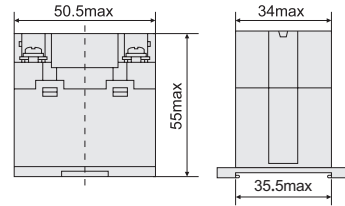
RGF1BU/2BU



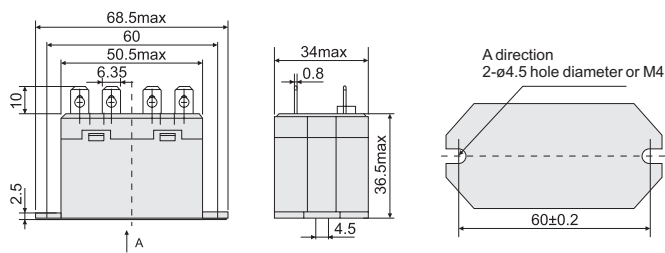
RGF10D/20D



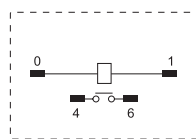
RGF1BD/2BD



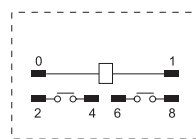
RGF10U/20U



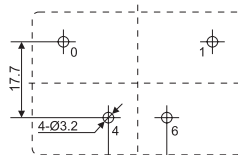
Wiring Diagrams



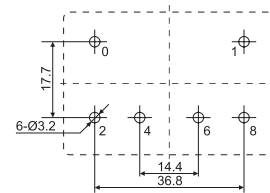
RGF1



RGF2

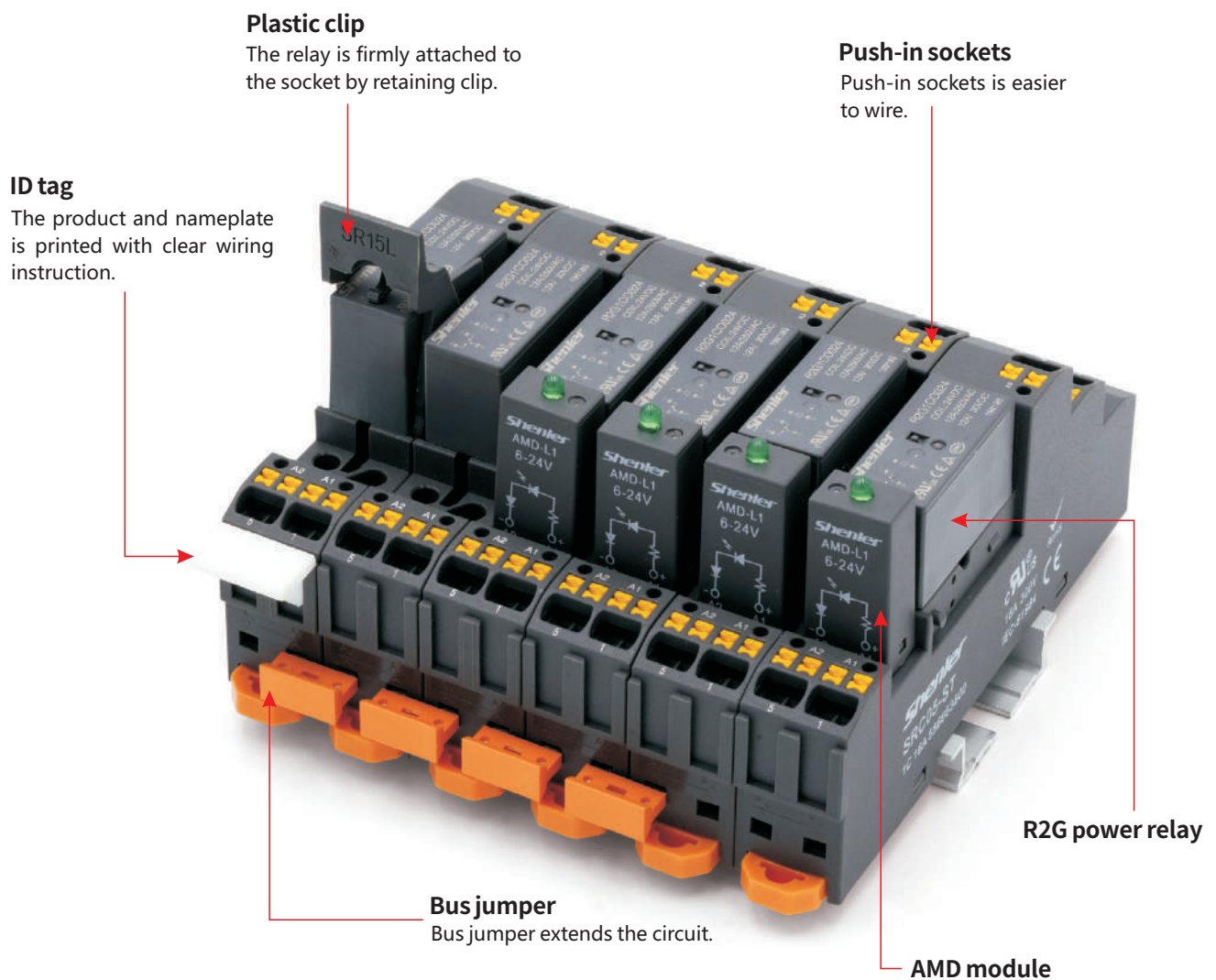


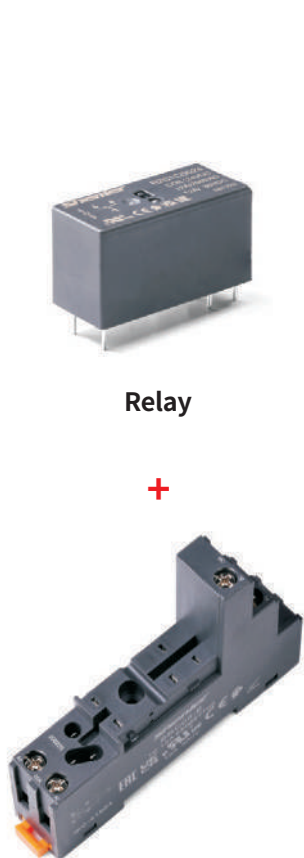
RGF1P



RGF2P

- Available for 1 and 2 poles, a variety of high capacity models
- High sensitive of consumed power 400mW
- With up to 8mm of insulation distance between coil and contacts
- High insulation with 10kv of shock resistant voltage
- Meet with the ambient temperature 85°C





Relay

+



Socket

=



Relay module

R2G □ □ □ □ □ □

Encapsulation Way

Blank: Sealed
S: Flux proof

Coil Consumption

Blank: Standard (400mW)
T: Sensitive (250mW)

Material Level

Blank: B class
F: F class

Coil voltage code

Code	005	006	009	012	048	060	110
Voltage (V DC)	6	6	9	12	48	60	110
Code	524	615	730				
Voltage (V AC)	24	115	230				

Terminal arrangement

O: 3.5mm contact pin pitch 1 pole 12A
U: 5.0mm contact pin pitch 1 pole 12A
H: 5.0mm contact pin pitch 1 pole 16A, 2 poles 8A

Contact form

1, 2 (A: NO, B: NC, C: CO)

Series name

Characteristics

		1C/1A	2C/2A
Configuration	Resistive load (AC-1)	12A, 16A/250VAC, 30VDC	8A/250VAC, 30VDC
	Motor load (AC-15)	1/2HP, 240VAC; 3/4HP, 120VAC	1/3HP, 240VAC, 1/4HP, 120VAC
Max. switching capacity (resistive)		3000VA, 360W; 4000VA, 480W	2000VA, 240W
Min. switching capacity		170mW(17V/10mA)	
Contact	Initial contact resistance	≤100mΩ	
	Material	Ag alloy	
Electrical durability (110% rated voltage, 85°C)	3.5mm: 1NO 12A; 1NC 6A ≥10 ⁵ Cycles(85°C)	5.0mm: 2NO 8A; 2NC 4A ≥10 ⁵ Cycles(85°C)	
	5.0mm: 1NO 16A; 1NC 8A ≥10 ⁵ Cycles(85°C)	-	
Electrical Durability (Normal temperature)	3.5mm: 1NO 12A; 1NC 12A ≥5x10 ⁵ Cycles(23°C)	5.0mm: 2NO 8A; 2NC 8A ≥5x10 ⁵ Cycles(23°C)	
	5.0mm: 1NO 16A; 1NC 16A ≥3x10 ⁵ Cycles(23°C)	-	
Mechanical durability		Dc≥5000x10 ⁴ Cycles (18000 Ops/h); Ac≥3000x10 ⁴ Cycles (18000 Ops/h)	
Pick-up voltage (23°C) (Rated voltage)		DC≤70%	
Drop-out voltage (23°C) (Rated voltage)		DC:≥10%	
Maximum voltage (23°C) (Rated voltage)		130%	
Insulation resistance		≥1000MΩ (500VDC)	
Coil operating power	DC(W)	approx. 0.43	
	AC(VA)	approx. 1	
Operate time		≤10ms	
Release time (at nominal voltage)		≤5ms	
Initial breakdown voltage	Between open contacts	1000VAC/1min (leakage current 1mA)	1000VAC/1min (leakage current 1mA)
	Between poles	-	2500VAC/1min (leakage current 1mA)
	Between contacts and coil	5000VAC/1min (leakage current 1mA)	5000VAC/1min (leakage current 1mA)
Insulation characteristics	Rated voltage	250VAC	
	Pollution level	3	
IEC 60664 UL840	Overvoltage level	III	

Protection level	IP20
Storage temperature/ humidity	-55~+85°C/ 5%~68%RH (18 months)
Working temperature/ humidity	-40~+85°C/ 5%~85%RH (No condensation)
Air pressure	86~106KPa
Shock resistance	10G (half-sine shock pulse: 11ms)
Vibration resistance	10~55Hz double-amplitude:1.5mm
Mounting	PCB
Unit weight	approx. 13g

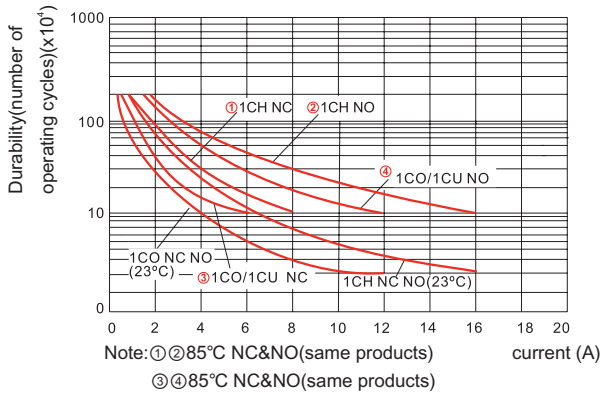
Coil Specifications (23°C)

Nominal voltage V.DC	5	6	9	12	24	48	60	110
Coil resistance Ω	62.5	90	200	360	1440	5220	8570	28800
Nominal voltage V.AC	24	115	230					
Coil resistance Ω	350	8100	23800					

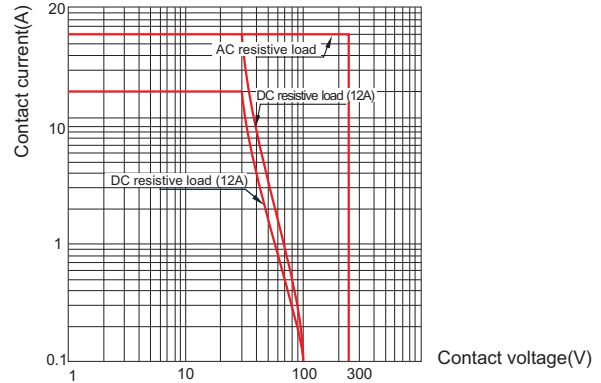
Coil resistance: under coil voltage 110V are measured with tolerance of ±10%Ω, above 110V with tolerance of ±15%Ω.

Contact Specification

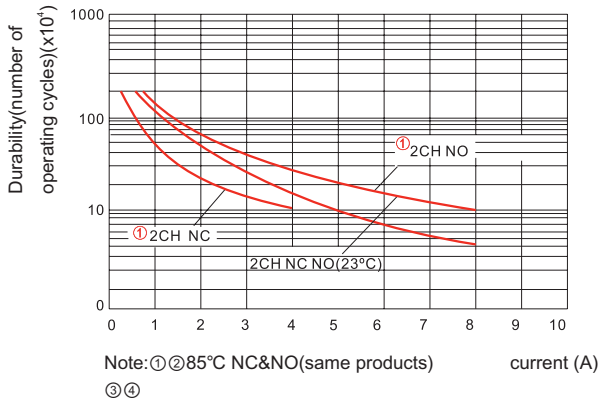
R2G-1 Electrical durability contacts



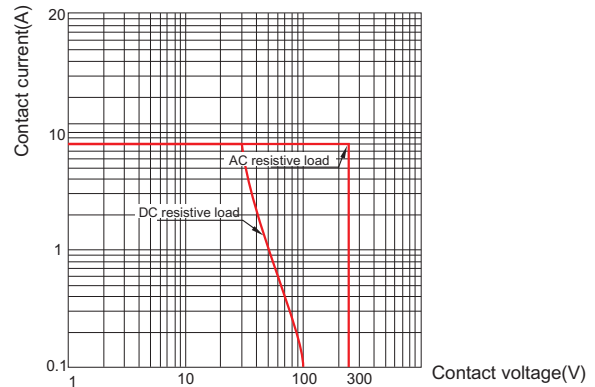
Maximum switching capacity



R2G-2 Electrical durability contacts

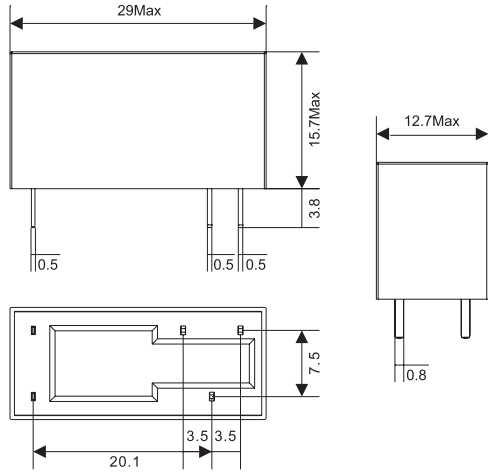


Maximum switching capacity

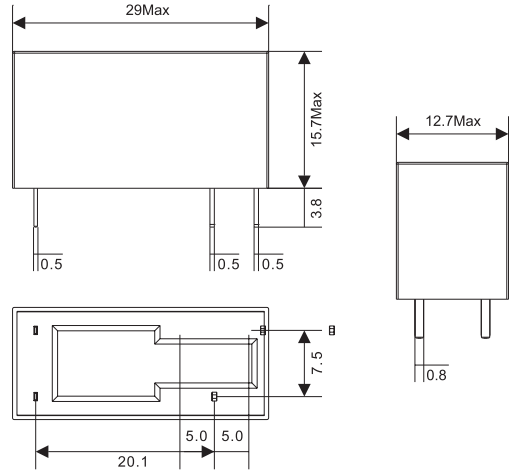


Dimensions (mm)

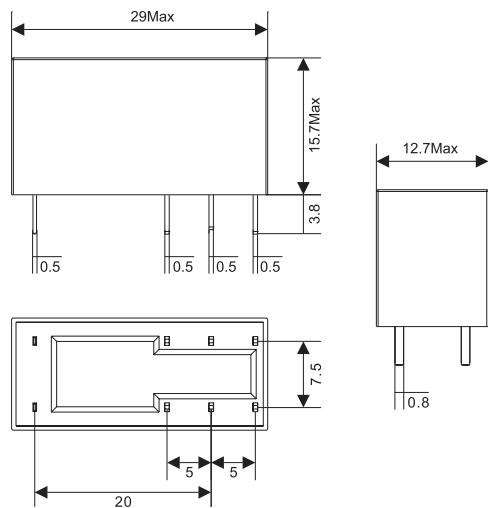
R2G1CO 3.5mm



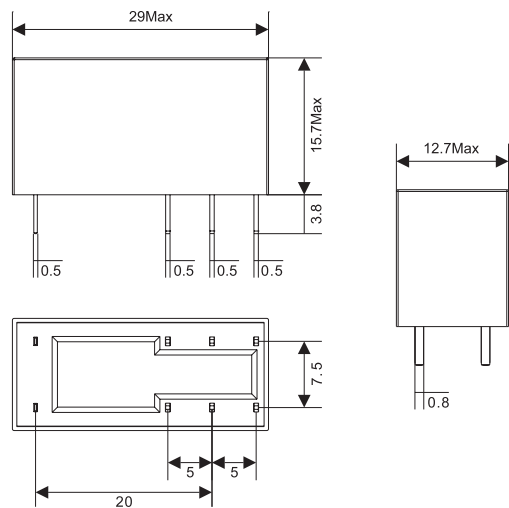
R2G1CU 5.0mm



R2G1CH 5.0mm



R2G2CH 5.0mm



Wiring Diagrams

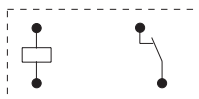
R2G1AO/1AU



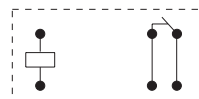
R2G1AH



R2G1BO/1BU



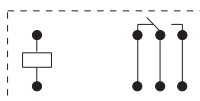
R2G1BH



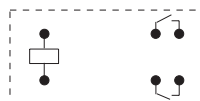
R2G1CO/1CU



R2G1CH



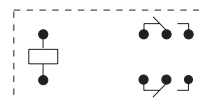
R2G2AH



R2G2BH



R2G2CH



Characteristics



SRC05-ST



SRC08-ST

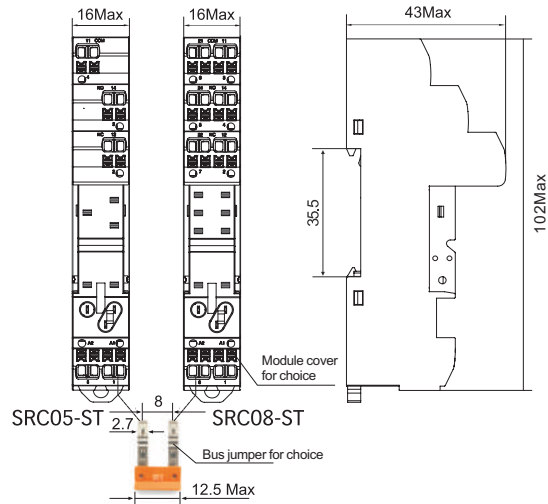


Type		SRC05-ST	SRC08-ST
Nominal load	Current	A	16
	Voltage	V	300
Dielectric strength	Between coil and contact	V/min	4000
	Between contacts	V/min	2500
Max. tightening torque	Nm	-	
Wire size	AWG/mm ²	20-14/0.5-2.5	
Ambient temperature	°C	-40~+85	
Unit weight	g	37	42

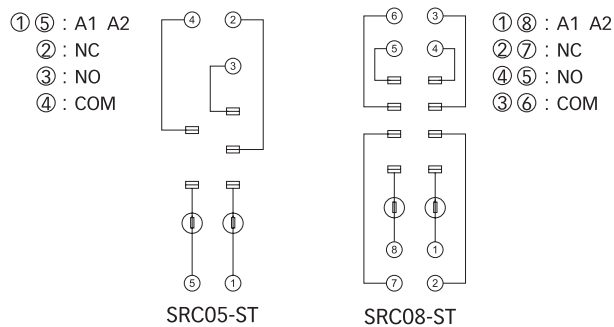
Accessories			
Socket	ID tag	Bus Jumper	Module
SRC05-ST			
SRC08-ST	SR2P	ST01CC	AMD

Clip selection table			
Relay H (mm)	15	20	25
Clip Type			
	SR15L	SR20F	SR25C

Dimensions (mm)



Connection Diagrams



Characteristics



SRC05-E



SRC08-E



Type		SRC05-E	SRC08-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	33	37

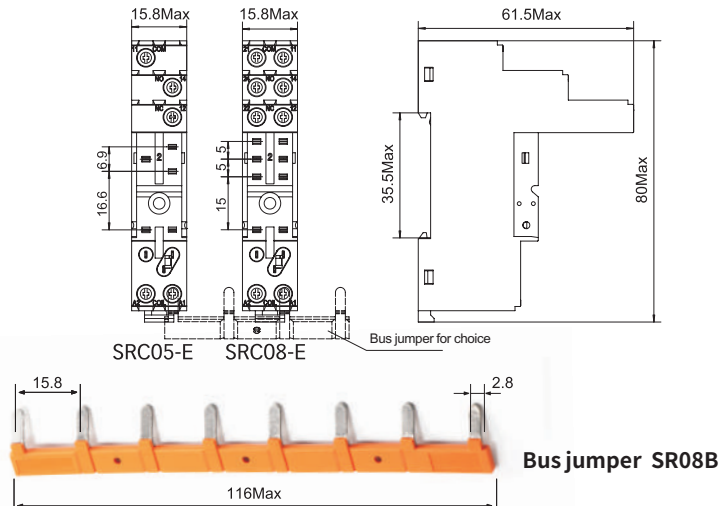
Accessories

Socket	ID tag	Bus Jumper	Module
SRC05-E			
SRC08-E	SR2P	SR08B	AMD

Clip selection table

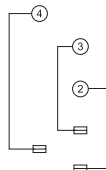
Relay H (mm)	15	20	25
Clip Type			
	SR15L	SR20F	SR25C

Dimensions (mm)

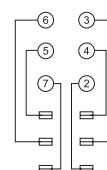


Connection Diagrams

- ① ⑤ : A1 A2
- ② : NC
- ③ : NO
- ④ : COM



SRC05-E



SRC08-E

- ① ⑧ : A1 A2
- ② ⑦ : NC
- ④ ⑤ : NO
- ③ ⑥ : COM

Characteristics



SRB05-E



SRB08-E



Type		SRB05-E	SRB08-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	33	37

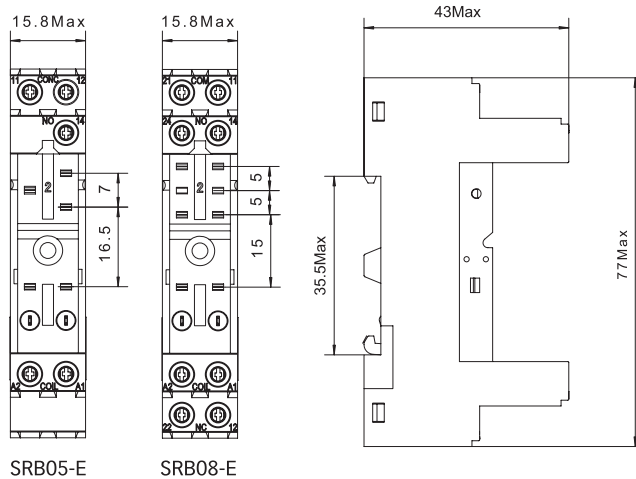
Accessories

Socket	ID tag	Module
SRB05-E	SR2P	AMD
SRB08-E		

Clip selection table

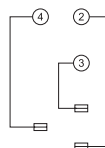
Relay H (mm)	15	20	25
Clip Type	SR15L	SR20F	SR25C

Dimensions (mm)



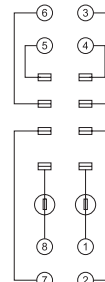
Connection Diagrams

- ① ⑤ : A1 A2
- ② : NC
- ③ : NO
- ④ : COM



SRB05-E

- ① ⑧ : A1 A2
- ② ⑦ : NC
- ④ ⑤ : NO
- ③ ⑥ : COM



SRB08-E

Characteristics

SRC05-P





SRC08-P

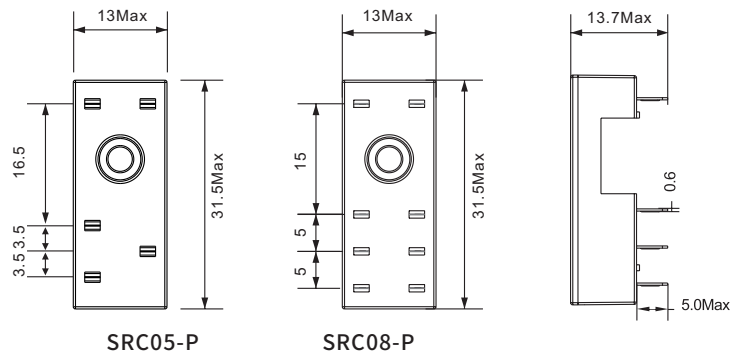


Type		SRC05-P	SRC08-P
Nominal load	Current	A	12
	Voltage	V	300
Dielectric strength	Between coil and contact	V/min	4000
	Between contacts	V/min	2500
Max. tightening torque	Nm	-	
Wire size	AWG/mm ²	-	
Ambient temperature	°C	-40~+85	
Unit weight	g	10	10

Accessories

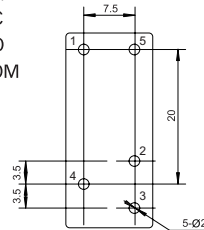
Socket	Metal clip
SRC05-P	 SR15M
SRC08-P	 SR1520M

Dimensions (mm)



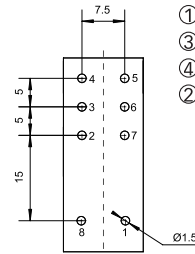
Connection Diagrams

- ① ⑤ : A1, A2
- ② : NC
- ③ : NO
- ④ : COM



SRC05-P
BOTTOM VIEW

- ① ⑧ : A1, A2
- ③ ⑥ : COM
- ④ ⑤ : NO
- ② ⑦ : NC



SRC08-P
BOTTOM VIEW

- ◆ Ultra thin, small size, fast switching response
- ◆ no contact, no spark, long service life
- ◆ NO DC, AC output
- ◆ MOSFET output for DC, TRIAC output for AC.
- ◆ Imported optocoupler isolation
- ◆ Wide supply DC voltage range
- ◆ Shenler industrial control relay is widely used in the output signal and safety drive of PLC, CNC system, robot, intelligent manufacturing and other control systems. It is one of the best choices to realize the automatic assembly line of various equipment and products such as remote control, production and processing, packaging, transportation, detection and storage.

Clear LED indicator

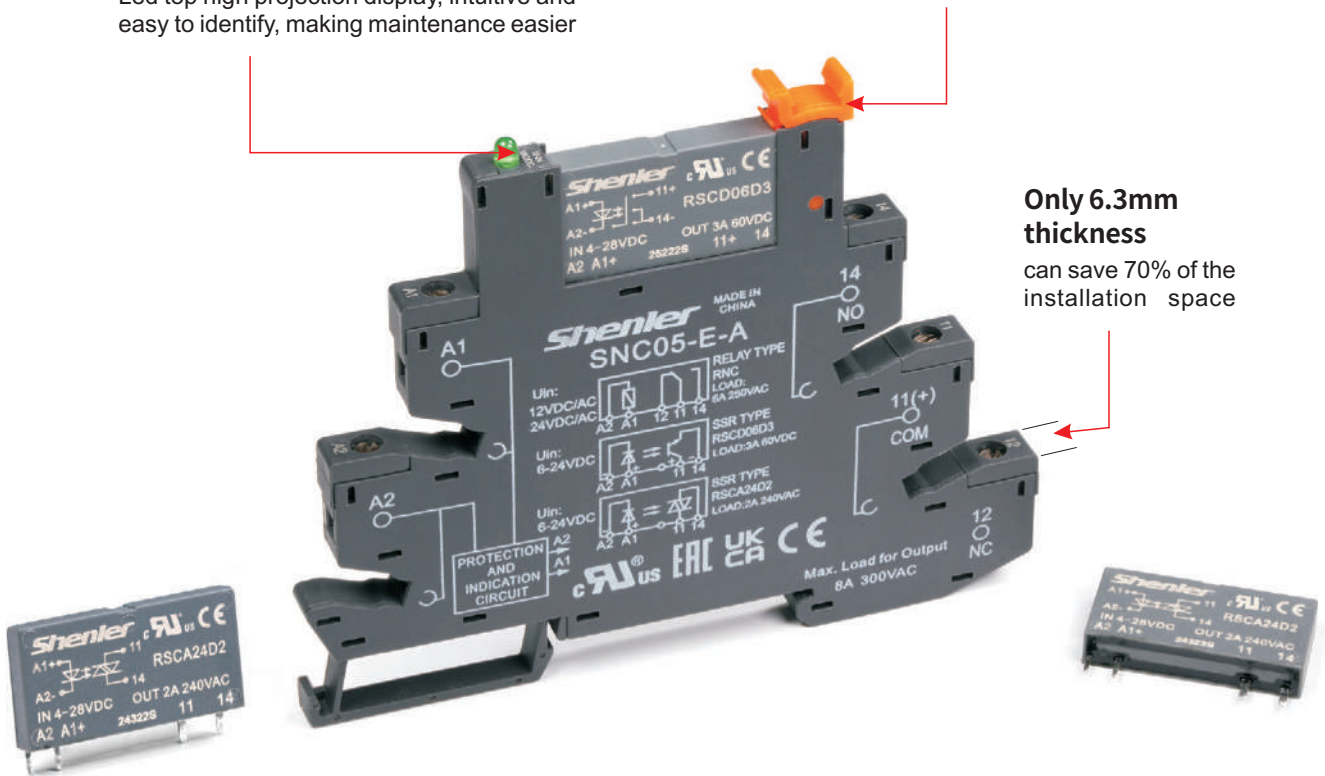
Led top high projection display, intuitive and easy to identify, making maintenance easier

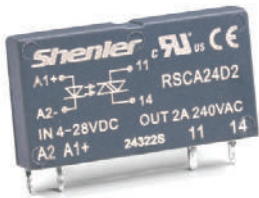
Release lever

Press the lever on the top to make it easy to assemble and replace relay and protect the relay pins from damage

Only 6.3mm thickness

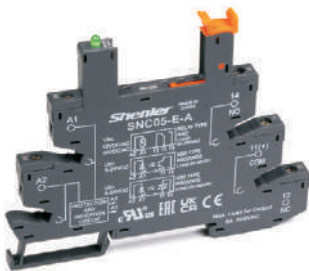
can save 70% of the installation space





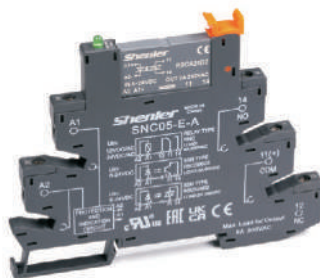
Relay

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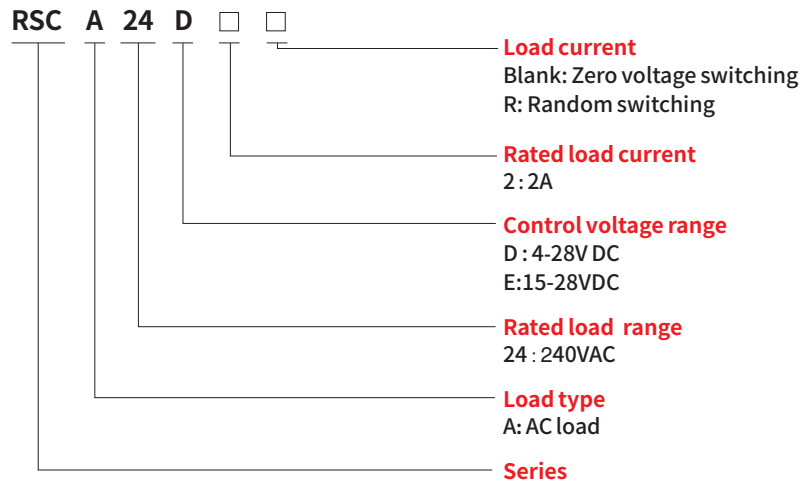


Socket

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Relay Module



Product performance

Input parameter(Ta=25°C)

Part No.	RSCA24D2	RSCA24D2R	RSCA24E2	RSCA24E2R
Control voltage range	4~28VDC		15~28VDC	
Must turn-on voltage	4VDC		15VDC	
Must turn-off voltage	1VDC		5VDC	
Control current range	20mA			

Output parameters(Ta=25°C)

Part No.	RSCA24D2	RSCA24E2	RSCA24D2R	RSCA24E2R
Rated load voltage	240VAC			
Load voltage range	24~280VAC			
Maximum transient voltage	600Vpk			
Load current range	0.02~2A			
Trigger type	Zero voltage switching		Random switching	
Maximum conduction time	½ cycle		1ms	
Maximum turn-off time	½ cycle		½ cycle	
Non-repetitive surge current (within 10ms)	≤50A			
Maximum off-state leakage current (at rated voltage)	≤1.5mA			
Maximum on-state voltage drop (at rated current)	≤1.3V			
Out-of-state voltage index rise rate dv/dt	200V/us			
Load current safety factor	40-60%			

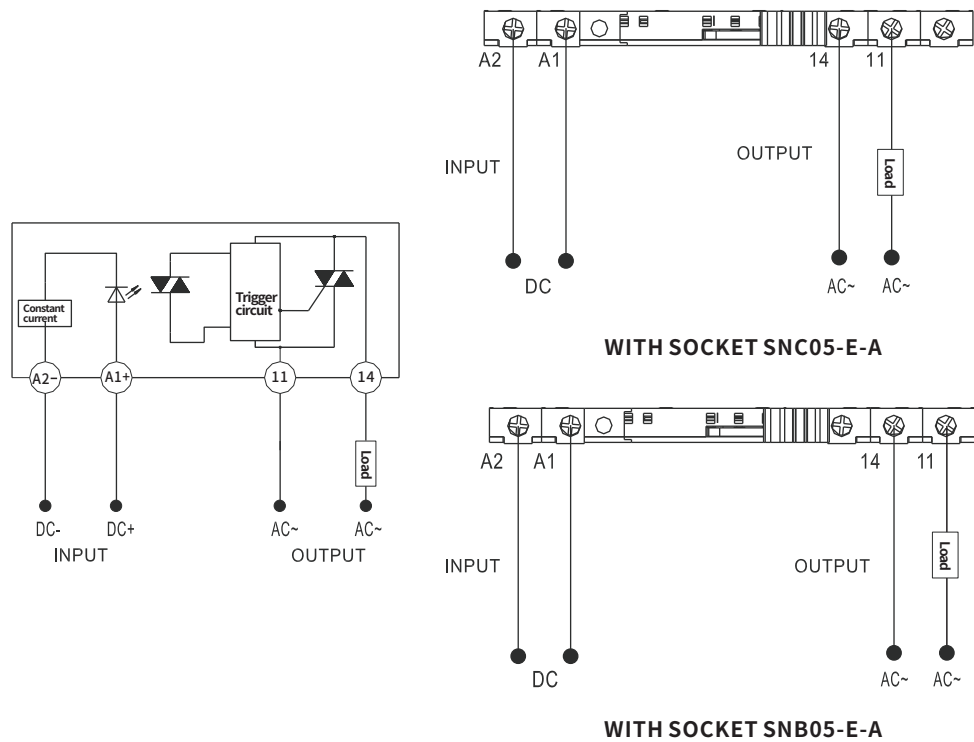
Other parameters(Ta=25°C)

Dielectric withstand voltage (Input / Output,50Hz/60Hz)	2500VAC
Insulation resistance(@500VDC)	1000MΩ
Operating temperature range	-30°C~+80°C
Storage temperature range	-30°C~+100°C
Weight	approx. 4g

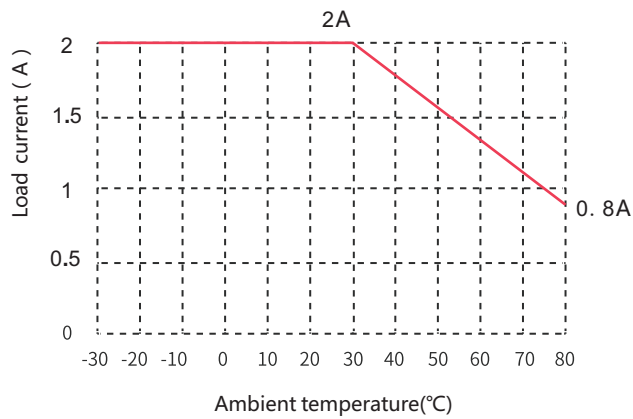
Note:

1. When welding and installing the printed substrate, please complete the welding within 8 seconds at 260°C welding temperature (no more than 2 seconds for each pin).
2. The positive and negative polarity of input and output shall not be connected wrongly, otherwise it is easy to damage the product.
3. The recommended installation torque for base wiring is 0.5N m.
4. When the ambient temperature of the product is high, please refer to the temperature curve for derating.

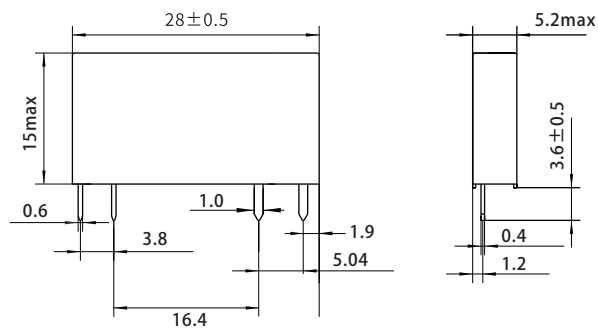
Wiring diagram



Contact Specification

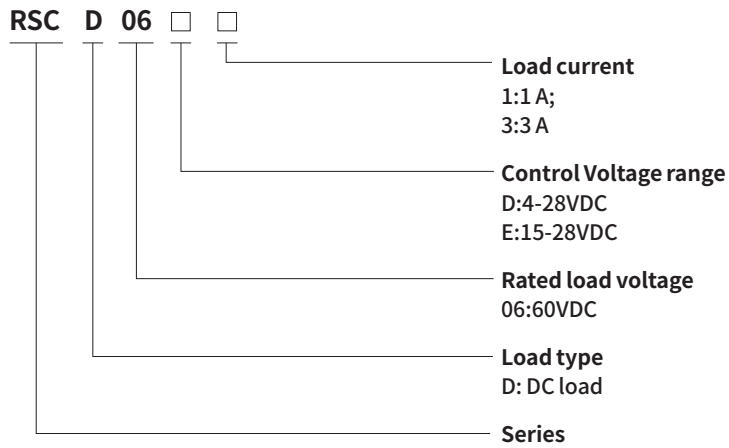


Dimension(mm)

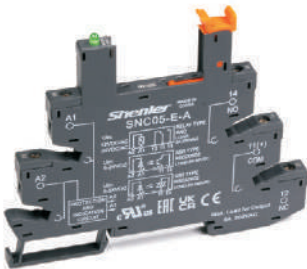




Relay

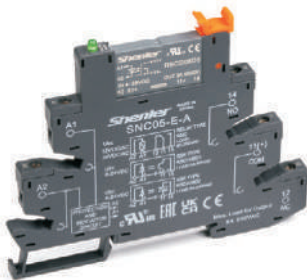


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Socket

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Relay Module

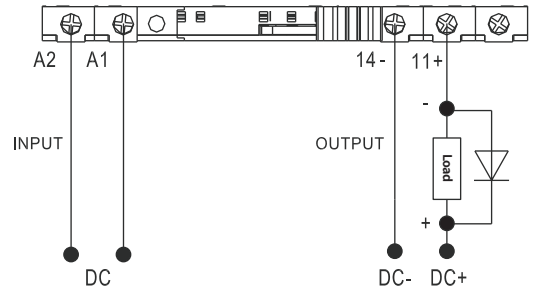
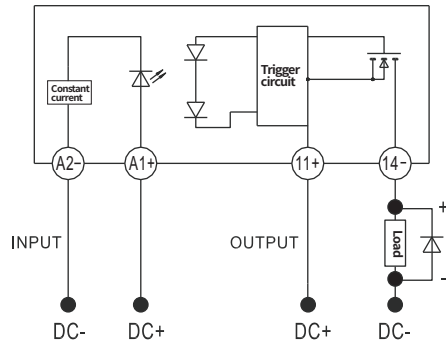
Product performance

Input parameter(Ta=25°C)				
Part No.	RSCD06D1	RSCD06D3	RSCD06E1	RSCD06E3
Control voltage range	4~28VDC		15~28VDC	
Must turn-on voltage	4VDC		15VDC	
Must turn-off voltage	1VDC		5VDC	
Control current range	20mA			
Output parameters(Ta=25°C)				
Part No.	RSCD06D1	RSCD06E1	RSCD06D3	RSCD06E3
Rated load voltage	60VDC			
Load voltage range	5~60VDC			
Peak withstand voltage	100VDC			
Load current range	0.002~1A		0.002~3A	
Non-repetitive surge current (within 10ms)	16A		30A	
Maximum on-state voltage drop (at rated current)	≤1.3V		≤0.1V	
Maximum off-state leakage current (at rated voltage)	≤0.1mA			
Maximum turn-on time	≤1ms			
Maximum turn-off time	≤1ms			
Load current safety factor	40~60%			
Other parameters(Ta=25°C)				
Dielectric withstand voltage (Input / Output,50Hz/60Hz)	2500VAC			
Insulation resistance(@500VDC)	1000MΩ			
Operating temperature range	-30°C~+80°C			
Storage temperature range	-30°C~+100°C			
Weight	4g			

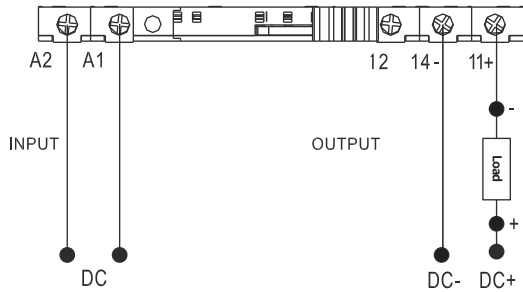
Note:

1. When welding and installing the printed substrate, please complete the welding within 8 seconds at 260°C welding temperature (no more than 2 seconds for each pin).
2. The positive and negative polarity of input and output shall not be connected wrongly, otherwise it is easy to damage the product.
3. The recommended installation torque for base wiring is 0.5N m.
4. When the ambient temperature of the product is high, please refer to the temperature curve for derating.
5. When connecting inductive load, be sure to reverse parallel the freewheeling diode at the load end (see the wiring diagram for the specific connection method)!

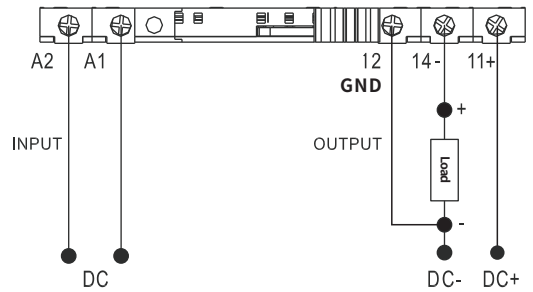
Wiring diagram



**WITH SOCKET SNC05-E-A
For Resistive Load**

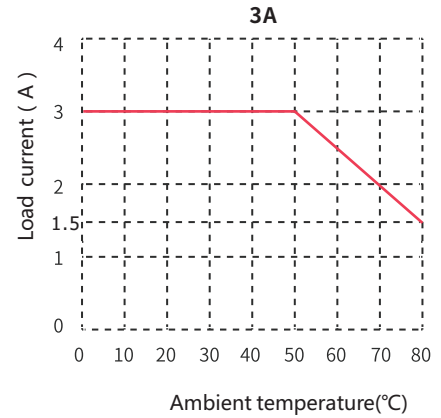
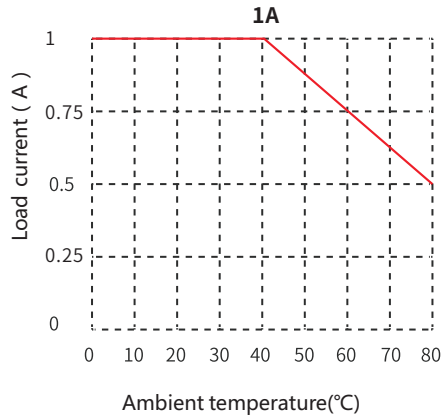


**WITH SOCKET SNB05-E-A
For Resistive Load**

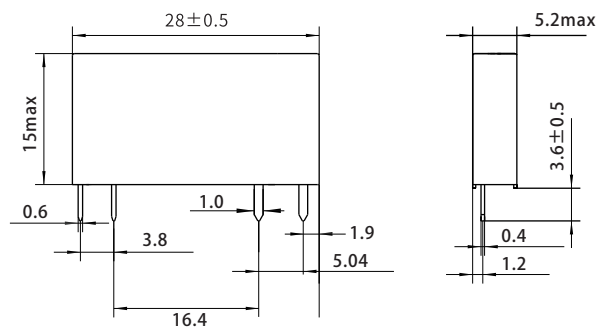


**WITH SOCKET SNB05-E-A D
For Inductive load**

Contact Specification



Dimension(mm)



SNB05-E-A

Solid state slim relay
PCB socket



Characteristics

Model No.	Input	Relay
★ SNB05-E-A	6~24VDC	4~28VDC
★ SNB05-E-A D	6~24VDC	4~28VDC

Characteristics

Nominal load	Current	A	8
	Voltage	V	300
Dielectric strength	Input/Output	V/min	2500
Max. tightening torque		Nm	0.5
Wire size		AWG/mm ²	20-16/0.5-1.5
Ambient temperature		°C	-40~+85
Unit weight		g	19.5



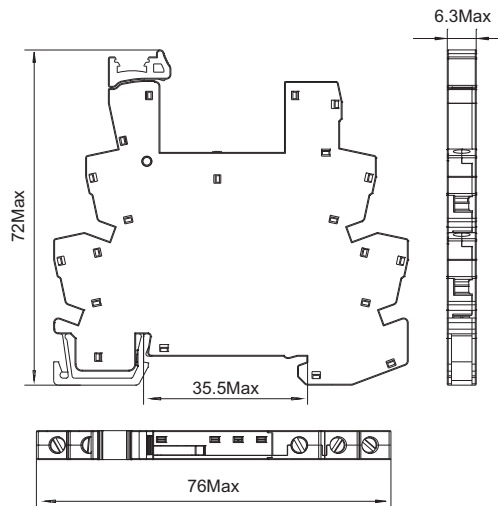
SNB05-E-A

Accessories

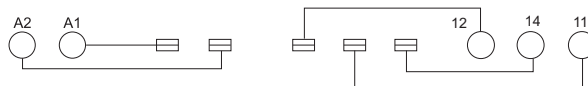
Bus jumper	Legend
 SN20A	 SN64P

★ Difference refer to wiring diagram

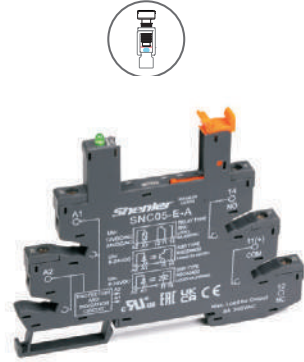
Dimensions (mm)



Connection Diagrams



Characteristics



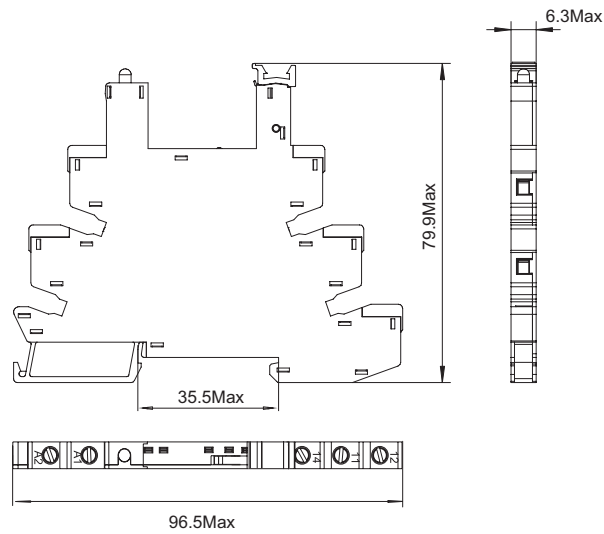
SNC05-E-A

Model No.	Input	Relay
SNC05-E-A	6~24VDC	4~28VDC

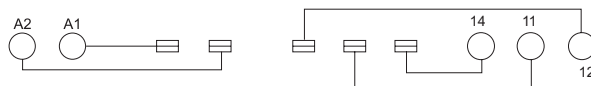
Characteristics			
Nominal load	Current	A	8
	Voltage	V	300
Dielectric strength	Input/Output	V/min	2500
Max. tightening torque		Nm	0.5
Wire size		AWG/mm ²	20-16/0.5-1.5
Ambient temperature		°C	-40~+85
Unit weight		g	24

Relay, accessories Selection Table		
Bus jumper	Legend	Partition plate
		
SN20B	SN64P	SN20S

Dimensions (mm)



Connection Diagrams



SNC05-P1

Solid state slim relay
PCB socket



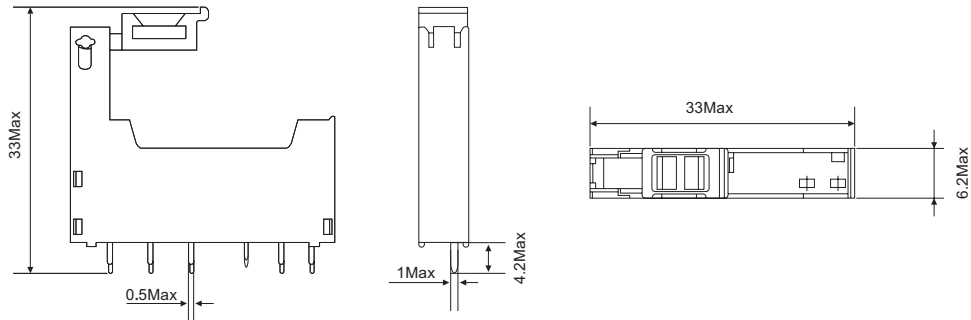
Product performance

SNC05-P1

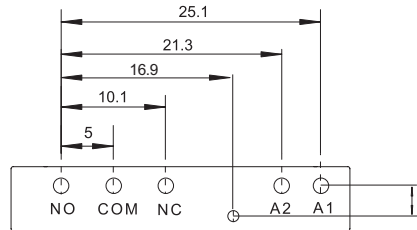


Nominal load	Current	A	6
	Voltage	V	300
Dielectric strength	Input/output	V/min	2500
Ambient temperature		°C	-40~+85
Unit weight		g	2.6

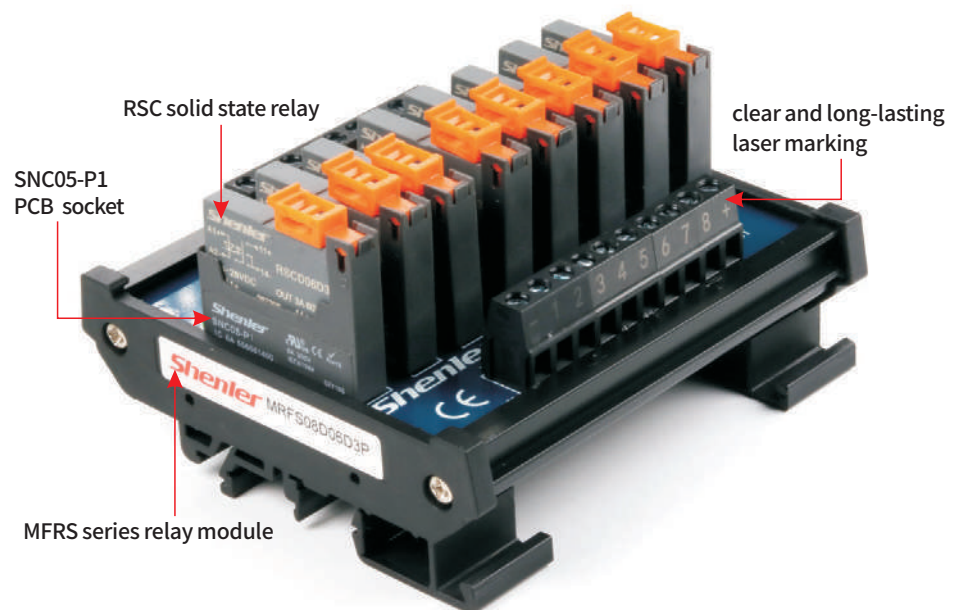
Dimension (mm)



Wiring Diagram



Physical drawing of product application



- ◆ 1 N/O SPST DC output
- ◆ No contact, no spark, long service life
- ◆ MOSFET output, fast switching response
- ◆ Imported optocoupler isolation
- ◆ Wide control voltage range, LED indicator
- ◆ Optional IP20 protective cover, panel mounting
- ◆ Widely used in DC heating, DC power supply, DC valve, DC motor, etc.



MOS tube

The relay adopts MOS tube with low internal resistance, which has low calorific value and long service life



Metal cooling base plate

The back adopts thickened metal plate; smooth surface helps fast cooling and avoid overheat.



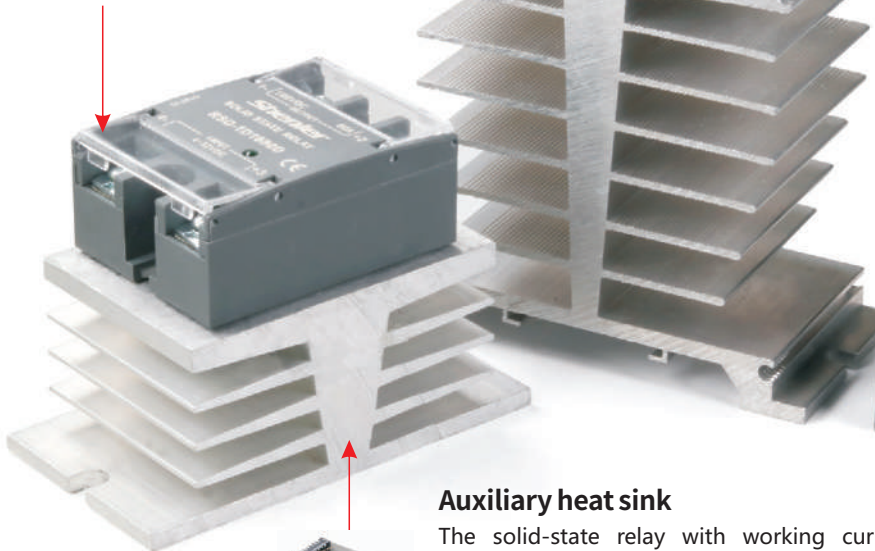
Transparent protective cover

High performance polycarbonate transparent cover, safe, dustproof, easy to open, and effectively reduce falling off or loss due to human factors



Optocoupler

The relay adopts imported optocoupler, which is safe and reliable



Auxiliary heat sink

The solid-state relay with working current of more than 10A must be installed with heat sink, and thermal conductive silicone grease is added between the relay and the heat sink (fan forced cooling is added for more than 60A)

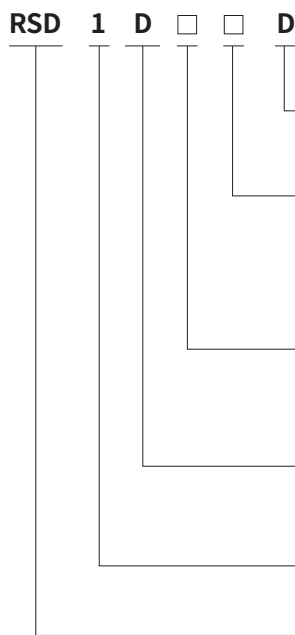


Working status indicator





Relay



Control type
D:4-32VDC DC control

Load current

Code	20	40	60	80	100
Current (A)	20	40	60	80	100
Note	For load voltage code 06 and 10 only				

Load voltage

Code		06	10	20
Voltage Range (VDC)		7-48	7-75	7-120

Load type
D: DC load

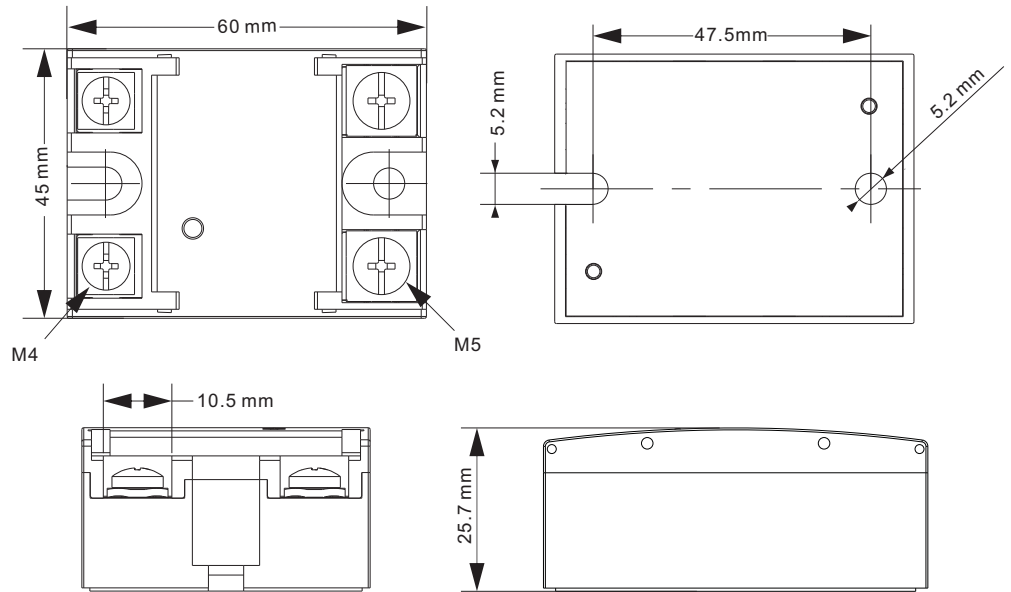
Single-phase

Series name

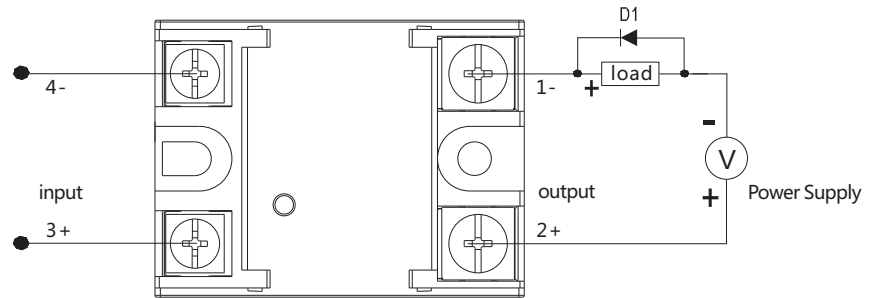
Product performance														
Input parameter (Ta=25°C)														
Control voltage range	4~32VDC													
Must ON voltage	4VDC													
Must OFF voltage	1VDC													
Control current range	6~20mA													
Output parameters (Ta=25°C)														
Part No.	RSD-1D06xxD					RSD-1D10xxD					RSD-1D20xxD			
Load voltage range(VDC)	7-48					7-75					7-120			
Maximum load current(A)	20	40	60	80	100	20	40	60	80	100	20	40	60	
Maximum surge current (Apk,@10ms)	110	160	200	260	300	90	140	180	220	280	80	160	200	
Maximum PWM(Hz) ★	900	700	700	500	500	900	600	600	400	400	800	600	400	
Maximum conduction voltage drop(V)	≤1										≤1.2			
Maximum off- state leakage current(mA)	≤0.3													
Minimum load current(mA)	≥2													
Maximum conduction time(ms)	1													
Maximum off time(ms)	1													
Other parameters (Ta=25°C)														
Dielectric withstand voltage (50/60Hz)	Between Input and Output										2500Vrms			
	Input/Output to base										2500Vrms			
Insulation resistance(@500VDC)	1000MΩ													
Operating temperature range	-30°C~+80°C													
Storage temperature range	-40°C~+100°C													
Operating ambient humidity range	5 ~ 85%RH (No condensation)													
Cooling mode	fan forced cooling is added for more than 60A													
Weight Approx	90g													

★ Note: For PWM rating, a voltage of at least 8 Vdc must be applied to the control input.

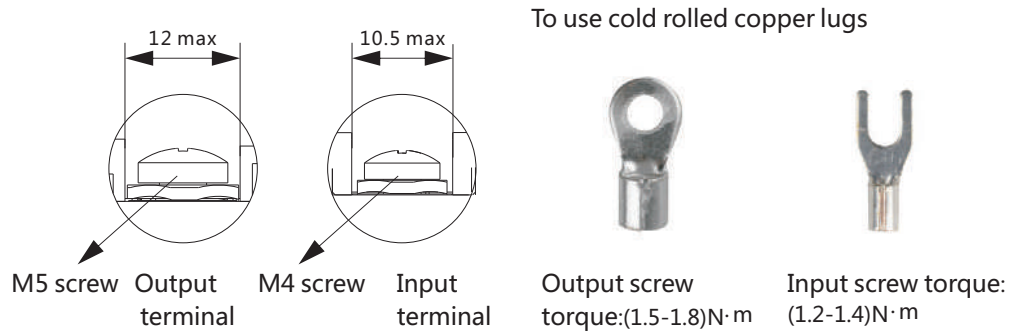
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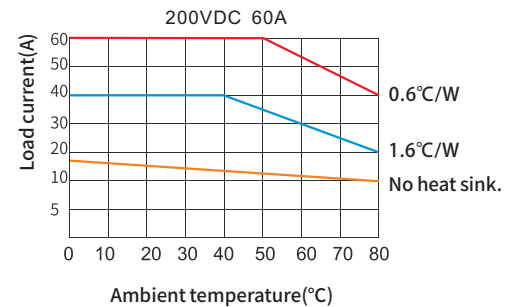
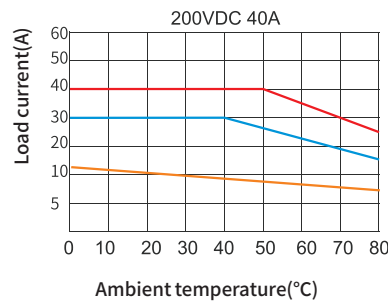
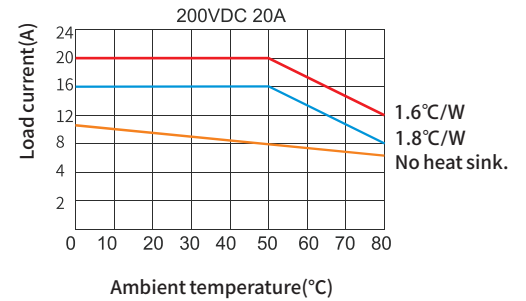
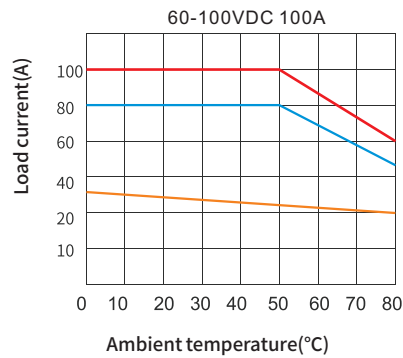
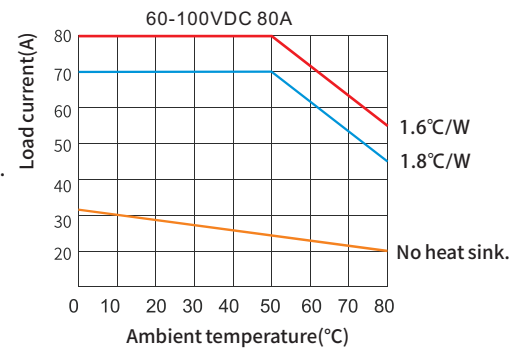
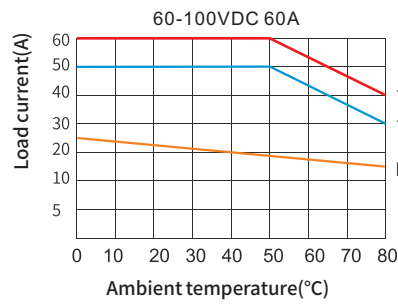
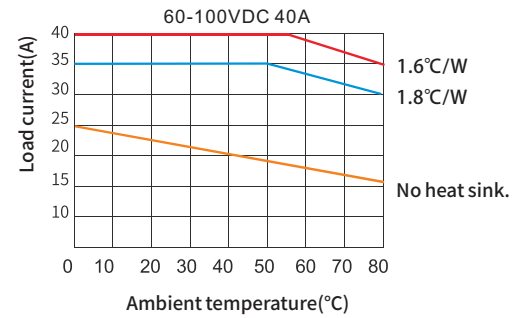
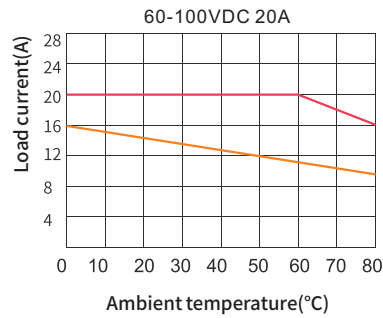
Wiring Diagrams



*When inductive load is used, suppression circuit must be added, as shown in the figure: reverse parallel freewheeling diode D1 at both ends of the load (D1 is a fast recovery diode)



Performance curve



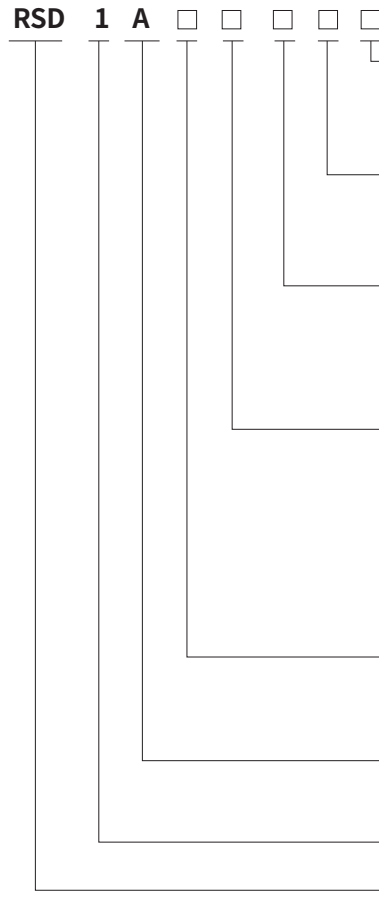
Current level selection

Considering the load surge current and relay overload capacity, to make the relay work with long life and high reliability, it is recommended to select the current magnification corresponding to the load type in the table below.

Load type	Resistance	Electric heating wire	Incandescent lamp	ransformer / electromagnet	Motor
Power factor	1.0	0.7	0.5	0.4	0.2
Magnification	1.5multiple	2multiple	2.5multiple	4multiple	7multiple

Note

1. Please be sure to set fuse, air circuit breaker and other protective equipment on the power side to prevent short circuit.
2. When connecting inductive load, be sure to reverse parallel freewheeling diode at the load end (see "Terminal configuration and wiring diagram" for specific connection method)!
3. M5 screw and spring washer are used with 2N.m torque. After 3 hours of use, tighten it once with the same torque. To ensure the close contact and firm installation between the base plate of the solid-state relay (hereinafter referred to as the product) and the heat sink.
4. The product wiring shall be standard wire, and the cross-sectional area can be selected according to 5-8A per square millimeter. The terminal shall ensure that the wiring is firm. Loose wiring will lead to abnormal heating and damage to the product. In case of high temperature and high humidity environment, conductive compound shall also be coated on the connection part.
5. The input terminal is standard M4 screw, and the wiring tightening torque is (1.2-1.4) N.m. the output terminal is standard M5 screw, and the wiring tightening torque is (1.5-1.8) N.m.
6. Please do not connect the current above the rated specification. Otherwise, it may cause abnormal heating of the product.
7. Do not apply voltage exceeding the rated value on the input circuit and output circuit, and pay attention to the wrong connection of positive and negative polarity, otherwise the product will fail or burn.
8. Requirements for installatio: it shall be installed vertically on the chassis with good ventilation conditions, and make full use of the heat dissipation conditions of air convection. When two or more products are installed side by side, an appropriate large gap shall be reserved.
9. When the ambient temperature of the product is high, please refer to "Performance curve" to check the current temperature curve for derating. When it exceeds 60 °C, air cooling is needed to ensure that the temperature of the product bottom plate does not exceed 80 °C.
10. Before installation, maintenance and other operations, be sure to cut off the power supply in case of electric shock!



- Protection type:**
Blank: RC (standard)
T: TVS
- Switching mode:**
Blank: Zero voltage switching
R: Random switching
- Control voltage (input) range:**
D: 4-32V DC control
A: 90-280V AC control
E: 18-36VAC/DC control
- Maxim load current:**
10: 10A
15: 15A
25: 25A
40: 40A
60: 60A
80: 80A
- Rated load voltage:**
38: 380VAC
48: 480VAC
- Load type:**
A: AC
- 1: Single phase**
- Series**

Current level selection

Considering the load surge current and the overload capacity of the relay, so that the relay can work with long life and high reliability, it is recommended to select the current amplification factor corresponding to the load type in the following table.

Load type	Resistance	Electric heating wire	Incandescent lamp	Transformer /Electromagnet
Power factor	1.0	0.7	0.5	0.4
Magnification	1.5	2	2.5	4

Load type	Single phase motor	Three phase motor	Capacitor
Power factor	0.2	0.3	surge
Magnification	7	6	10

Voltage option

Load type	240V resistive or inductive load	380V resistive load	380V inductive load	Capacitor load
Voltage	380V		480V	

Product performance

Input parameter (Ta=25°C)

Part No.	RSD-1AxxxxD	RSD-1AxxxxDR	RSD-1AxxxxA	RSD-1AxxxxAR
Control voltage range	4~32VDC		90~280VAC	
Must ON voltage	4VDC		90VAC	
Must OFF voltage	1VDC		10VAC	
Control current range	6~25mA		6~20mA	
Maximum opening time	1/2cycle	1ms	20ms	
Maximum closing time	1/2cycle	10ms	30ms	

Part No.	RSD-1AxxxxE	RSD-1AxxxxER
Control voltage range	18-36VAC/DC	
Must ON voltage	18VAC/DC	
Must OFF voltage	4VAC/DC	
Control current range	6-20mA	
Maximum opening time	20ms	
Maximum closing time	30ms	

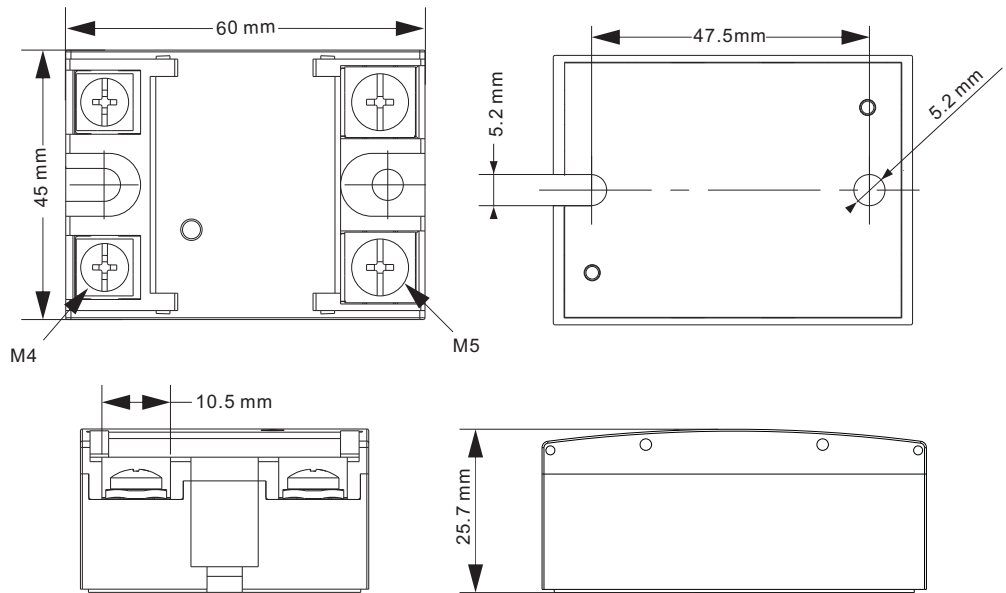
Input parameter (Ta=25°C)

Part No.	RSD-1A38xxxx	RSD-1A48xxxx				
Rated load voltage (47-63Hz)	380VAC	480VAC				
Load voltage range	24-440VAC	40-530VAC				
Transient Overvoltage	800Vpk	1200Vpk				
Critical rise rate of open-state voltage dv/dt	500V/ μ s					
Minimum load current	150mA					
Maximum open-state leakage current (at rated voltage)	10mA					
Maximum conduction voltage drop (at rated current)	1.5V					
Maximum load current	10A	15A	25A	40A	60A	80A
Maximum surge current [@ 10ms]	120A	160A	250A	500A	700A	1000A
Maximum I ² T value [@ 10ms]	80A ² s	112A ² s	312A ² s	800A ² s	1800A ² s	5000A ² s

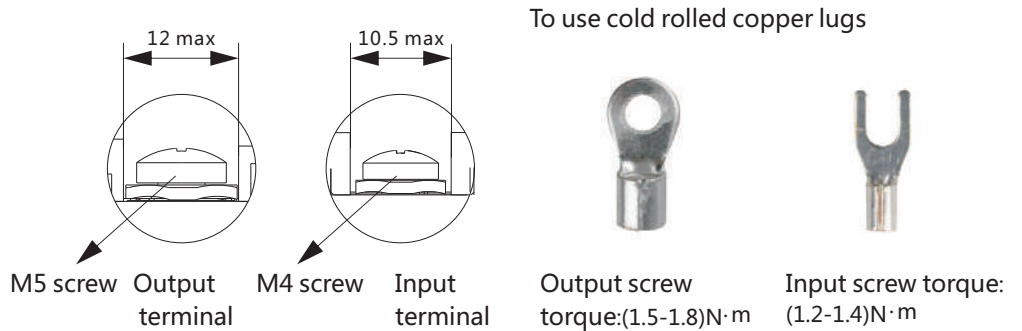
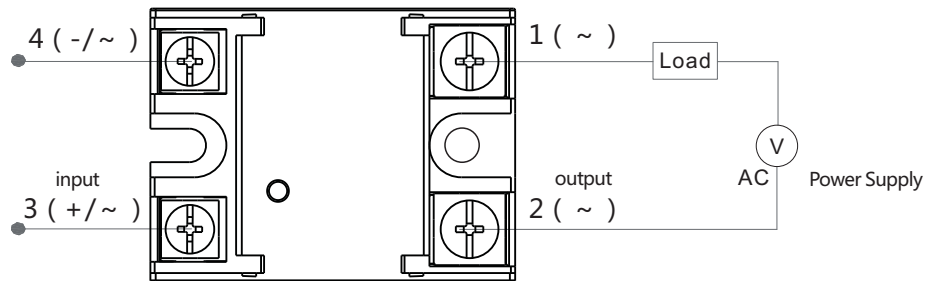
Other parameters (Ta=25 °C)

Dielectric withstand voltage (50/60Hz)	Input/Output	4000Vrms
	Input,output/base	2500Vrms
Insulation resistance(@500VDC)	1000M Ω	
Operating temperature range	-30°C~+80°C	
Storage temperature range	-40°C~+100°C	
Operating ambient humidity range	5 ~ 85%RH (No condensation)	
Cooling mode	fan forced cooling is added for more than 60A	
Weight Approx	100g	

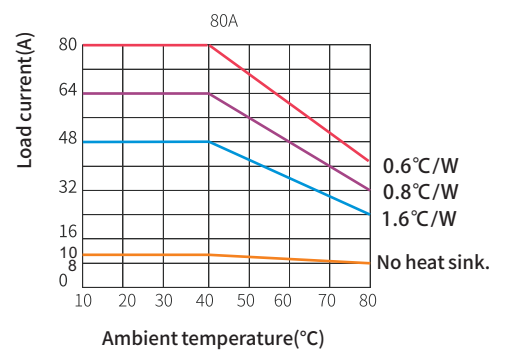
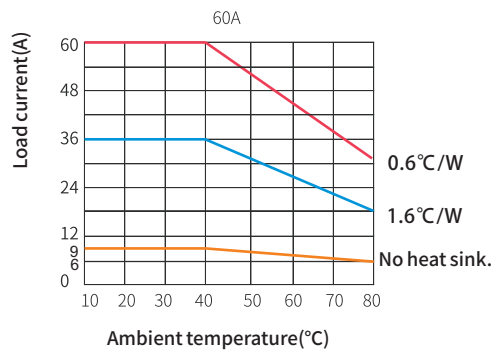
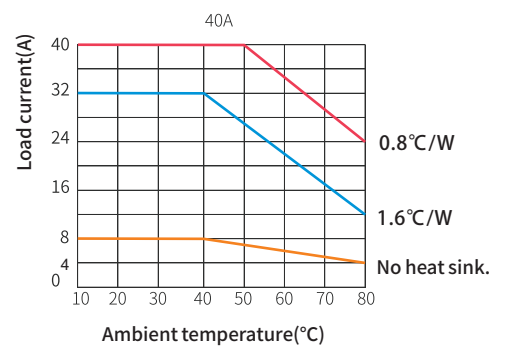
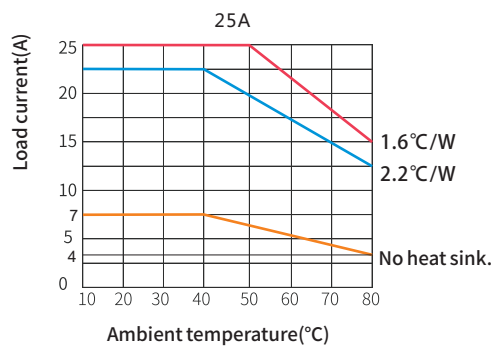
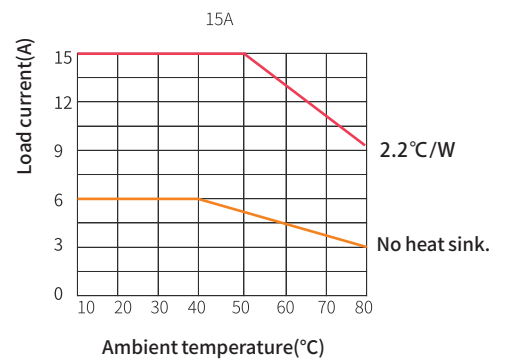
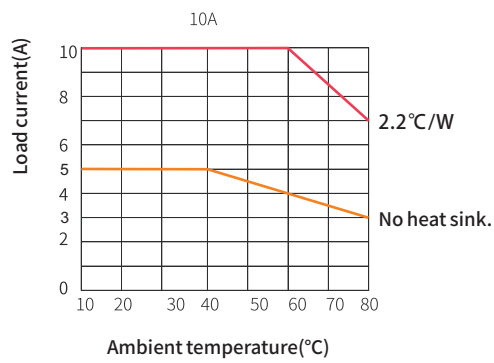
Dimensions (mm)



Wiring Diagrams



Performance curve



Matters needing attention

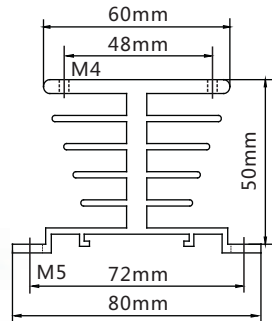
1. Please be sure to set fast fuse, air switch and other protective equipment on the power supply side to prevent short circuit. The principle of selecting the current level of the breaker is slightly greater than the load current. Resistive load and inductive load should be protected by fast fuse, and motor, power compensation capacitor and other loads should be protected by air switch.
2. When the solid-state relay (hereinafter referred to as SSR) works below $-20\text{ }^{\circ}\text{C}$, the minimum control voltage needs to be increased by 1V.
3. Selection of SSR: For AC load and most AC inductive load, zero-crossing SSR shall be selected; For 380V inductive load and capacitive load, it is recommended to use 480V zero-crossing trigger SSR; It is used as phase output control or optional when the frequency is high.
4. Overvoltage protection selection: built-in RC absorption circuit (standard configuration); Built-in transient voltage suppression diode TVS.
5. Installation between SSR and radiator: select the matching radiator (thermal resistance shall be as small as possible), and evenly coat the SSR base plate with thermal conductive silicone grease or Place the silicone pad, use M5 screws and spring washers, and tighten them with 2N. m torque. After 3 hours of use, tighten them with the same torque Times. To ensure that the SSR base plate is in close contact with the radiator and installed firmly.
6. The product wiring should use standard wire, the sectional area can be selected according to 5-8A per square millimeter, and the terminal should ensure that the wiring is firm and loose It will cause abnormal heating of the product and damage the product. In case of high temperature and high humidity environment, conductive paste should also be applied to the connection part.
7. Input terminal adopts M4 screw, wiring tightening torque is (1.2-1.4) N.m, output terminal adopts M5 screw, wiring tightening torque is (1.5-1.8) N.m
8. Please do not connect the current above the rated specification. Otherwise, abnormal heat of SSR may be caused.
9. Do not apply voltage exceeding the rated value on the input circuit and output circuit, otherwise it will cause SSR failure or burning.
10. Requirements for installation conditions: it should be installed vertically on the case with good ventilation conditions, and make full use of the heat dissipation conditions of air convection. When two or more SSRs are installed side by side, there should be an appropriate large gap.
11. The SSR needs to install a radiator. Refer to the product derating curve. Fan forced cooling is added for more than 60A, air cooling should also be used. In order to prevent the SSR from overheating and damage, a temperature control switch of $80\text{ }^{\circ}\text{C}$ can be installed on the radiator in series in the control circuit for protection.
12. Warning! During installation, maintenance and other operations, be sure to cut off the power supply before installation or maintenance. In case of electric shock!



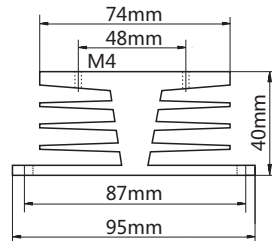
KSR-1 Series

Single phase heat sink

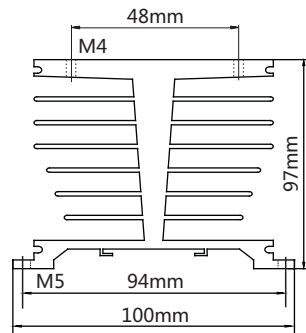
- Selection of heat sink: select the heat sink corresponding to thermal resistance according to "Performance curve" of solid-state relay. The smaller the thermal resistance value, the better the heat dissipation effect. >>>>>



Part No.	L x W x H	Weight≈	Thermal resistance
KSR-1A-50	50×80×50	70g	2.2°C/W

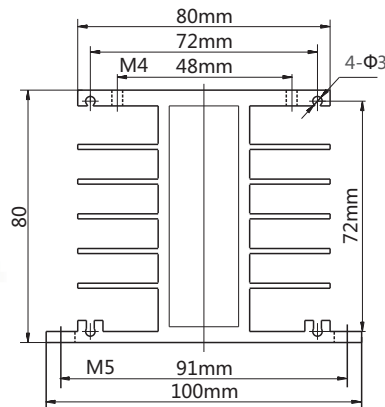


Part No.	L x W x H	Weight≈	Thermal resistance
KSR-1E-50	50×95×40	225g	1.8°C/W



Part No.	L x W x H	Weight≈	Thermal resistance
KSR-1T-50	50×100×97	324g	1.6°C/W
KSR-1TF-76	76×100×97	580g	0.6°C/W

Note: the length of KSR-1TF-76 with fan is 76mm



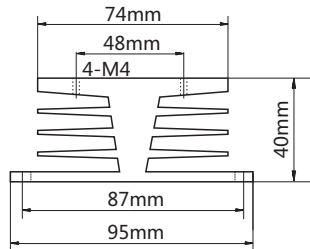
Part No.	L x W x H	Weight≈	Thermal resistance
KSR-1H-50	50×100×80	220g	1.8°C/W
KSR-1HF-76	76×100×80	480g	0.8°C/W

Note: the length of KSR-1TF-76 with fan is 76mm

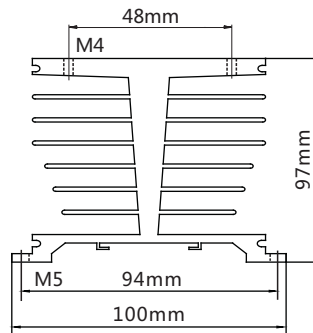
KSR-3 Series

Three phase heat sink

- Installation: Evenly coat the bottom plate of the solid-state relay with thermal grease or place a silicone pad, then install and tighten the screws.

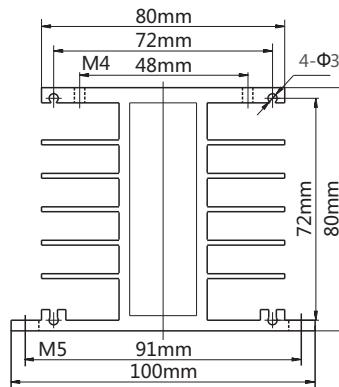


Part No.	L x W x H	Weight≈	Thermal resistance
KSR-3E-105	105×95×40	460g	1.1°C/W



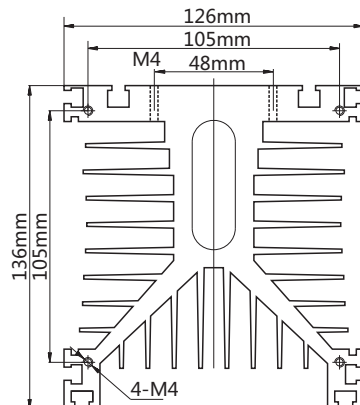
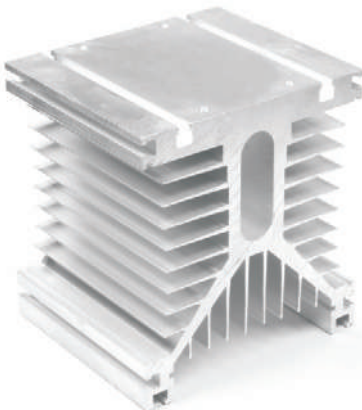
Part No.	L x W x H	Weight≈	Thermal resistance
KSR-3T-110	110×100×97	750g	0.8°C/W
KSR-3TF-136	136×100×97	1100g	0.35°C/W

Note: the length of KSR-3TF-136 with fan is 136mm.



Part No.	L x W x H	Weight≈	Thermal resistance
KSR-3H-110	110×100×80	460g	1°C/W
KSR-3H-150	150×100×80	630g	0.8°C/W
KSR-3HF-136	136×100×80	670g	0.5°C/W
KSR-3HF-176	176×100×80	840g	0.4°C/W

Note: the length of KSR-3HF-136 with fan is 136mm.
Note: the length of KSR-3HF-176 with fan is 176mm

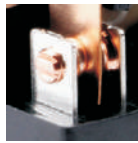


Part No.	L x W x H	Weight≈	Thermal resistance
KSR-3Y-110	110×126×136	1400g	0.5°C/W
KSR-3Y-150	150×126×136	1900g	0.4°C/W

The length of fan is 38mm.

- ◆ Built-in dedicated IC program control mini time relay
- ◆ Reset time include mindway reset time under 100ms
- ◆ Use ⊖ screwdriver to set time
- ◆ Meet IEC60947-5-1: 2016 (GB/T14048.5-2017)

Silver alloy contacts

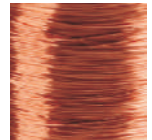


It can carry more current, with stronger conductivity and more sensitive response, and greatly extend electrical life, and works more stable.

Time dial
Various delay time is optional.

Top copper coil material

Standard turns and electromagnetic coils make the pick-up more reliable and enduring, which can reach more than 20 million cycles.



Metal clip

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



Silver alloy pins

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





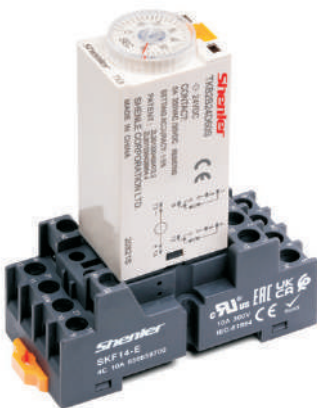
Relay

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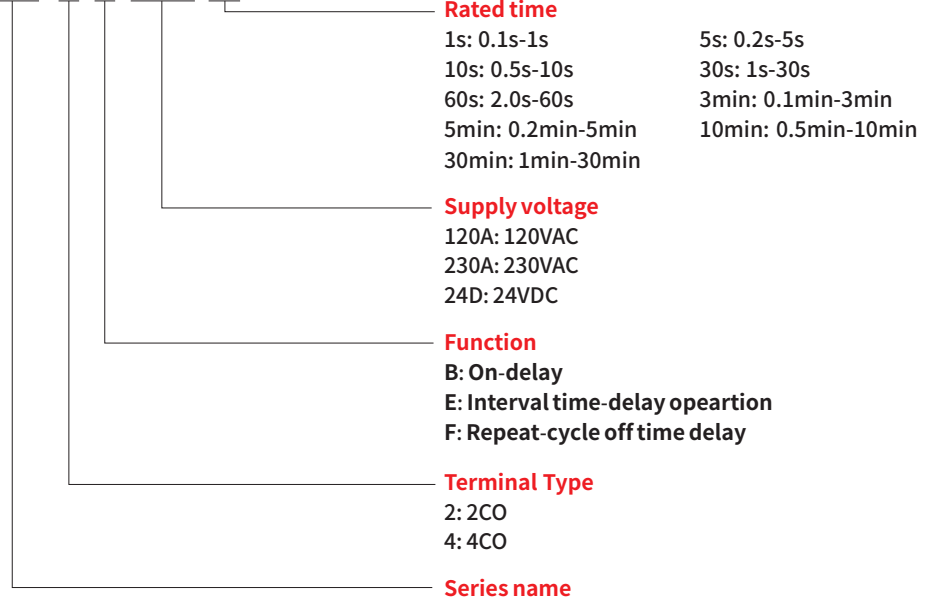
Socket

=



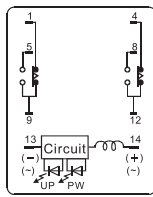
Relay module

TKB 2 B 230A 5S

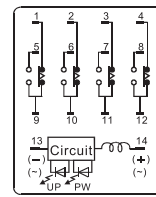


Characteristics		TKB2B	TKB2E	TKB4B	TKB4E
Configuration		TKB2B	TKB2E	TKB4B	TKB4E
Rated supply voltage		120VAC, 230VAC 50/60Hz; DC24V			
Operating voltage range		Rated voltage 85-110% (90%-110% is DC12V)			
Power consumption		3.5W			
Max.output load		5A, 250 VAC (p.f.=1)		3A, 250 VAC (p.f.=1)	
Min. output load		10 mA, 17 VDC			
Repetitive error		±2% (FS max.)			
Setting error		±5% (FS max.)			
Voltage error		±2% (FS max.)			
Temperature error		±2% (FS max.)			
Resetting time		Min.time: 0.2 sec			
Insulation resistance		100MΩ(DC500V)			
Dielectric strength		Between current-carrying and Non-current-carrying parts 2000V 50/60Hz min			
		Between control output terminals and operating circuit 1500V 50/60Hz min			
		Between contacts 1000V 50/60Hz min			
Vibration resistance	Destruction	10~55Hz with 0.75mm single amplitude each in 3directions for 2 hours each			
	Malfunction	10~55Hz with 0.5mm single amplitude each in 3 directions for 10 minutes each			
Shock resistance	Destruction	30G			
	Malfunction	10G			
Storage temperature		-55~+85°C/ 5%~68%RH (18 months)			
Ambient temperature		-10°C~55°C			
Ambient humidity		35~85%RH (No condensation)			
Life expectancy	Mechanical	> 10 ⁷ (under no load, at 1,800 operations/hour)			
	Electrical	> 10 ⁵			
Weight		approx. 60g			

wiring diagram



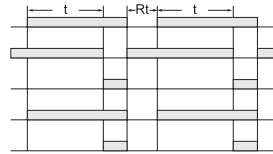
TKB2B TKB2E



TKB4B TKB4E

Timing charts

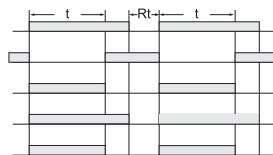
Power13-14
Time-limit contact (NC)9-1、12-4
Time-limit contact (NO)9-5、12-8
Power indicator
Output indicator



TKB2B

NOTE: t :set time, Rt: reset time

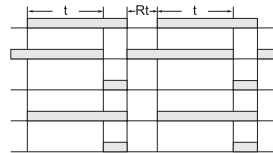
Power13-14
Time-limit contact (NC)9-1、12-4
Time-limit contact (NO)9-5、12-8
Power indicator
Output indicator



TKB2E

NOTE: t :set time, Rt: reset time

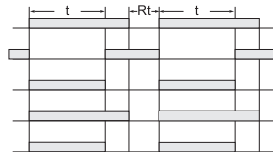
Power13-14
Time-limit contact (NC)9-1、10-2、11-3、12-4
Time-limit contact (NO)9-5、10-6、11-7、12-8
Power indicator
Output indicator



TKB4B

NOTE: t :set time, Rt: reset time

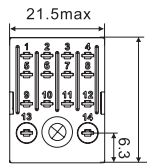
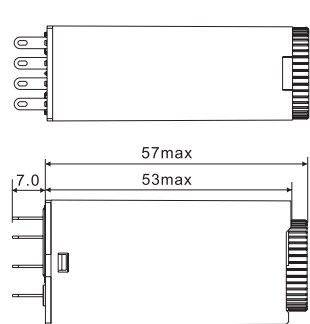
Power13-14
Time-limit contact (NC)9-1、10-2、11-3、12-4
Time-limit contact (NO)9-5、10-6、11-7、12-8
Power indicator
Output indicator



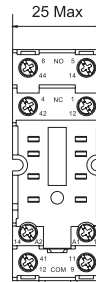
TKB4E

NOTE: t :set time, Rt: reset time

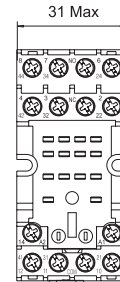
Dimensions(mm)



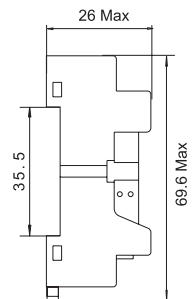
28max































SKF08-E



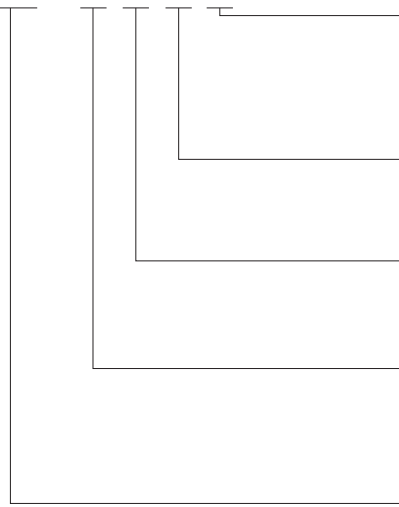
SKF14-E



SR15L	SR20T	SR20F	SR25C	SK28L	SK36F		
							
SRC/SRB	SRU	SRC/SRB	SRC/SRB	SKB/SKC	SKB/SKC		
SN20S	SR2P	SK2P	SU3P	SK4P	SN64P		
							
SNC05-E/S	SRC/SRB/SRU	SKF	SUB	SKC/SKB	SNC05-E/S SNB05-E/ST		
ST01CC	SN20A	SN20B	SR08B	SR08C	PFP	SY36S	SR15M
							
SKC08/14-ST SRU05/08-ST SRC05/08-ST	SNB-E SNB-ST	SNC05-E/S	SRU05/08-E, SRC05/08-E	SRT05/08-E/-A/-ES	DIN	SYF	SRC05/08-P
SR2025M	SR27M	SR32M	SK36M	ST36M3C	ST36M4C	SE52M	SU60M
							
SRC05/08-P	SRU-E/SRU-ST	SRU-E/SRU-ST	SKC/SKB/SKF STB08-E	STB11-E	STB14-E	SEB11-E/P/PS	SUB-E



AMD - □ □ □ □



- Voltage**
VAC:AC voltage
VDC:DC voltage
V:AC and DC voltage general
- LED**
N : red
blank: green
- Polarity**
blank : A1 - , A2 +
1: A1 + , A2 -
- Description**
L: LED LD: LED+D
LDD:LED+D+D ML: LED+varistor+D
M: Varistor D: diode RC: RC
- Series**

- ◆ For surge suppressor
- ◆ With LED
- ◆ Work with relay socket

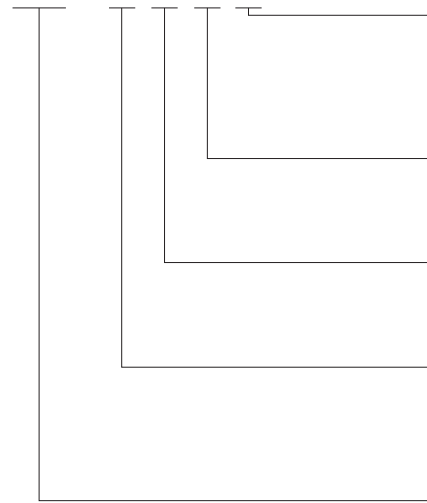
Parameters, Wiring diagrams and Dimensions (mm)

Part No.	Wiring Diagram	Voltage	Function	Part No.	Wiring Diagram	Voltage	Function	Dimensions (mm)
AMD-L1 AMD-L1N		6-24V 24-60V 110-240V	>LED indicator in AC/DC circuit (Polarity A2 -, A1 +)	AMD-ML1 AMD-ML1N		24V 60V 120V 240V	>Overvoltage protection in AC/DC circuit >LED indicator in AC/DC circuit (Polarity A2 -, A1 +)	
AMD-L AMD-LN		6-24V 24-60V 110-240V	>LED indicator in AC/DC circuit (Polarity A2 +, A1 -)	AMD-ML AMD-MLN		24V 60V 120V 240V	>Overvoltage protection in AC/DC circuit >LED indicator in AC/DC circuit (Polarity A2 +, A1 -)	
AMD-LDD1 AMD-LDD1N		6-24VDC 24-60VDC 110-240VDC	>Limit peak voltage in DC circuit >LED indicator in DC circuit (Polarity A2 -, A1 +)	AMD-L1D AMD-LD1N		6-24VDC 24-60VDC 110-240VDC	>Limit peak voltage in DC circuit >LED indicator in DC circuit (Polarity A2 -, A1 +)	
AMD-LDD AMD-LDDN		6-24VDC 24-60VDC 110-240VDC	>Limit peak voltage in DC circuit >LED indicator in DC circuit (Polarity A2 +, A1 -)	AMD-LD AMD-LDN		6-24VDC 24-60VDC 110-240VDC	>Limit peak voltage in DC circuit >LED indicator in DC circuit (Polarity A2 +, A1 -)	

Part No.	Wiring Diagram	Voltage	Function	Part No.	Wiring Diagram	Voltage	Function	Dimensions (mm)
AMD-M		24V 60V 120V 240V	>Overvoltage protection in AC/DC circuit	AMD-D		6-250VDC	>Limit peak voltage in DC circuit (Polarity A2 -, A1 +)	
AMD-RC		6-24VAC 24-60VAC 110-240VAC	>RC absorption in AC circuit	AMD-D1		6-250VDC	>Limit peak voltage in DC circuit (Polarity A2 +, A1 -)	



BMD - □ □ □ □



- Voltage**
- VAC: AC voltage
- VDC: DC voltage
- V: AC and DC voltage general
- LED**
- N : red
- blank: green
- Polarity**
- blank : A1 -, A2 +
- 1: A1 +, A2 -
- Description**
- L: LED
- LDD: LED+D+D
- M: Varistor
- LD: LED+D
- ML: LED+varistor+D
- D: diode
- RC: RC
- Series**

- ◆ For surge suppressor
- ◆ With LED
- ◆ Work with relay socket

Parameters, Wiring diagrams and Dimensions (mm)

Part No.	Wiring Diagram	Voltage	Function	Part No.	Wiring Diagram	Voltage	Function	Dimensions (mm)
BMD-L1 BMD-L1N		6-24V 24-60V 110-240V	>LED indicator in AC/DC circuit (Polarity A2 -, A1 +)	BMD-ML1 BMD-ML1N		24V 60V 120V 240V	>Overvoltage protection in AC/DC circuit >LED indicator in AC/DC circuit (Polarity A2 -, A1 +)	
BMD-L BMD-LN		6-24V 24-60V 110-240V	>LED indicator in AC/DC circuit (Polarity A2 +, A1 -)	BMD-ML BMD-MLN		24V 60V 120V 240V	>Overvoltage protection in AC/DC circuit >LED indicator in AC/DC circuit (Polarity A2 +, A1 -)	
BMD-LDD1 BMD-LDD1N		6-24VDC 24-60VDC 110-240VDC	>Limit peak voltage in DC circuit >LED indicator in DC circuit >LED reverse voltage protection in DC circuit (Polarity A2 -, A1 +)	BMD-LD1D BMD-LD1N		6-24VDC 24-60VDC 110-240VDC	>Limit peak voltage in DC circuit >LED indicator in DC circuit (Polarity A2 -, A1 +)	
BMD-LDD BMD-LDDN		6-24VDC 24-60VDC 110-240VDC	>Limit peak voltage in DC circuit >LED indicator in DC circuit >LED reverse voltage protection in DC circuit (Polarity A2 +, A1 -)	BMD-LD BMD-LDN		6-24VDC 24-60VDC 110-240VDC	>Limit peak voltage in DC circuit >LED indicator in DC circuit (Polarity A2 +, A1 -)	

Part No.	Wiring Diagram	Voltage	Function	Part No.	Wiring Diagram	Voltage	Function	Dimensions (mm)
BMD-M		24V 60V 120V 240V	>Overvoltage protection in AC/DC circuit	AMD-D		6-250VDC	>Limit peak voltage in DC circuit (Polarity A2 -, A1 +)	
BMD-RC		6-24VAC 24-60VAC 110-240VAC	> RC absorption in AC circuit	AMD-D1		6-250VDC	>Limit peak voltage in DC circuit (Polarity A2 +, A1 -)	

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