





Reliable and safe relay solutions Exquisite industrial control technology

Intermediate relay/solid state relay

2023.03

Superb and reliable family products

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STATISTICS.

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MQR480-24C

Mibbo

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Build the overall solution of control devices Provide technical customization services

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Mibbo

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RG22/RG23 Series Medium power relay





RoHS

Feature

New products with test bar Contact material: Ag;2 poles(7A)、4 poles(5A)

- Easy identify the AC or DC coil according
- to the indicator color Mechanical indicator as a standard feature.
- Easy to indicate the operation status.
- 12-110VDC、12-220VAC wide range control voltage Compliance to RoHS

Save about 60% wiring manhour.

	AC	RG22-2A012L	RG22-2A024L	RG22-2A048L	RG22-2A110L	RG22-2A220L	
		RG22-4A012L	RG22-4A024L	RG22-4A048L	RG22-4A110L	RG22-4A220L	
	DC	RG22-2D012L	RG22-2D024L	RG22-2D048L	RG22-2D110L		
Model No	DC	RG22-4D012L	RG22-4D024L	RG22-4D048L	RG22-4D110L		
rioderito.	AC	RG23-2A012L	RG23-2A024L	RG23-2A048L	RG23-2A110L	RG23-2A220L	
		RG23-2A012L	RG23-2A024L	RG23-2A048L	RG23-2A110L	RG23-2A220L	
	DC	RG23-2D012L	RG23-2D024L	RG23-2D048L	RG23-2D110L		
		RG23-4D012L	RG23-4D024L	RG23-4D048L	RG23-4D110L	-	

Specification

a ... (1)

COIL							-			
		Rated Cu	rrent(mA)	Coil	Coil Indu	ctance(H)	(2)	Poloaso ⁽³⁾		Power
Nominal Voltage		50Hz	60Hz	Resistance (Ω)	OFF	ON	Voltage	Voltage	Max. Voltage	Dissipation (VA, W)
	12	106.5	91	46	0.17	0.33				
	24	53.8	46	180	0.69	1.3]			
AC	48	25.7	21.1	788	3.22	5.66				About
	100/110	11.7/12.9	10.0/11.0	3750	14.54	24.6	AC:≤80%, DC:≤80%			
	110/120	9.9/.10.8	8.4/9.2	4430	19.2	32.1		AC. > 20%		
	200/220	6.2/6.8	5.3/5.8	12950	54.75	94.07		$\begin{array}{c c} AC : \leq 80\%, \\ DC : \leq 80\% \\ (Rated Voltage) \end{array} \qquad \begin{array}{c} AC : \leq 30\%, \\ DC : \geq 10\% \\ (Rated Voltage) \end{array}$	100%	0.9~1.1
	220/240	5.2/6.2	4.3/5.0	15920	83.5	136.4	(Rated Voltage)			60Hz
	6	151		39.8	0.17	0.33]			
	12	7	75	636	0.73	1.37				
DC	24	37	7.7	636	3.2	5.72	1			
	48	18	3.8	2560	10.6	21			İ l	
	100/110	9.0	/9.9	11100	45.6	86.2]			

Notes: 1. The value in this table is measured at a coil temperature of 23°C with tolerances of +15%/-20% for the AC rated current and +15% for the DC coil resistance. 2. There is variation between products, but actual values are 80% max. The Relay will operate if 80% or higher of the rated voltage is applied. However, to achieve the specified characteristics, apply the rated voltage to the coil. 3. There is variation between products, but actual values are 80% minimum for AC and 10% minimum for DC. To ensure release, use a value that is lower than the specified value.

Contacts Data⁽¹⁾

		2 poles			4 poles		
	Resisti	Resistive Load Inductive Load (cos0=0.4, L/R=7ms)			ive Load	Inductive Load (cosØ=0.4, L/R=7ms)	
Contact Material			А	g			
Rated Load	7A 250VAC/ 7A 30VDC	5A 220VAC/ 5A 24VDC	2A 220VAC/ 2A 24VDC	5A 250VAC/ 5A 30VDC	3A 220VAC/ 3A 24VDC	0.8A 220VAC/ 1.5A 24VDC	
Electrical Endurance (2)	120,000	500,	000	300,000	300,000	200,000	
Mechanical Endurance ⁽³⁾			≥50,	000,000			
Rated Current		7 A		5 A			
Max. Contact Voltage			AC250V	, DC125V			
Max. Contact Current		7 A		5 A			
Max. Switching Capacity	1750VA 210W		440VA 47W	1250VA 150W		176VA 36W	
Min. Load (references) ⁽⁴⁾			DC5V	7 1 m A			

Notes 1. The value in the table is based on the ambient temperature of + 2 3°C

The value in the table is based on the ambient temperature of + 2 3°C.
 Rated load operating frequency 2400 operation/h, at + 2 3°C ambient temperature and duty ratio is 33%
 Rated load operating frequency 1800 operation/h, at + 2 3°C ambient temperature and duty ratio is 33%
 These values are guides for the switchhable limits for minute load levels, such as in electronic circuits. Actual characteristics may be different. These values value suff depend on the switchhap frequency, atmosphere, and expected reliability level. Confirm applicability in the actual application conditions.

6.8 12.7 6.8

Installation dimension, wiring diagram



Installation dimension(bottom view)

RG22-4D/4A□L RG23-4D/4A□L



RG22-2D/2A□L

RG23-2D/2A□L



Main Unit Data

Release Time⁽²⁾

Max. Operation Frequency

Dielectric Strength

Vibration

Shock Resistance

Weight

Resistance

Ambient Humidity

Contact Resistance⁽¹⁾ Operation Time⁽²⁾

Isulation Resistance(3)

Mechanical

Rated Load

Between Contacts o the same polarity

Between Contacts o different polarity

and Contacts

Destruction

Malfunction

Destruction

Malfunction

Notes: The value above is original value 1. Measurement conditions: 1 A at 5 VDC using the voltage drop method. 2. Measurement conditions: With rated operating power applied, not including contact bounce time. 3. Measurement conditions: For 500 VDC applied to the same location as for dielectric strength measurement.

Ambient Operating Temperature

1. The Tolerance is +-0.2 when the dimension <1mm, =-0.3 when dimension between 1-5mm, and =-0.4 when the dimension >5mm 2. THe tolerance is =-0.1mm about the mounting hole

note: AC control products with LED need not consider the polarity Wiring Diagram(bottom view)

 $\leq 100 \, \mathrm{m}$

 $\leq 20\,\mathrm{m\,s}$ ≤20ms

18000 operations/h

2400 operations/h

 $\geq 1000 \text{m} \Omega$ (500VDC)

1000VAC 50/60Hz 1min

2000VAC 50/60Hz 1min

2000VAC 50/60Hz 1min

200m/s² (about 20g)

 $5\%\!\sim\!85\% RH$

Unit:mm

 $35 g \sim$

10~55~10Hz Double Amplitude: 1.0mm

10~55~10Hz Double Amplitude: 1.0mm 1000m/s² (about 100g)

-40°C~+70°C (No Icing or Condensation)

Using Push-In socket RL-□S.

RG Series Socket





Feature

- * Dielectric strength: 2000VAC, insulation resistance : 1000M\Omega $\,$
- Installation: Screw or Din-rail
- Finger protection (optional)
- Accessories: Clips/Marker/Function module
 Environment friendly(Rohs compliant)

Characteristics

Туре	Nominal Voltage	Nominal Current	Ambient Temperature	Dielectric Strength Min.	Screw Torque	Wire Strip Length
RL-G08E	300VAC	10A	-40°C~70°C	2000VAC	0.8N.m	7mm
RL-G08F	300VAC	10A	-40°C~70°C	2000VAC	0. 8N. m	7mm
RL-G14E	300VAC	10A	-40°C~70°C	2000VAC	0.8N.m	7mm
RL-G14F	300VAC	10A	-40°C~70°C	2000VAC	0. 8N. m	7mm

Outline Dimensions, Wiring Diagram and PC Board Layout

Outline Dimensions, Wiring Diagram and PC Board Layout Unit:mm							
Socket	Outline Dim	ensions	Wiring Diagram	PC Board Layout	Accessory Available		
RL-G08E		14.2x5 → 6 → 1 → 1 → 1 → 1 → 1 → 1 → 1 → 1	(Top View)	2-04.5	Metallic Retainer (be used in sets)		
RL-G08F Screw terminal Din-rail installation With finger protection For 2 poles relay		24.225	(Top View)	2.04.5	Metallic Retainer (be used in sets)		
RL-G08U Screw terminal Din-rail installation With finger protection For 2 poles relay				_	Metallic Retainer (be used in sets)		
RL-G08N Screw terminal Din-rail installation With finger protection For 2 poles relay	42.4max 23.9 0 0 0 0 0 0 0 0 0 0 0 0 0	27.2max 19.65 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.		_	Metallic Retainer (be used in sets)		
RL-G08S Tension terminal Din-rail installation For 2 poles relay				-	Metallic Retainer (be used in sets)		

Outline Dimensions, Wiring Diagram and PCBoard Layout Unit:mm							
Socket	Outline Di	mensions	Wiring Diagram	PC Board Layout	Accessory Available		
RL-G14E For the second		2.4.2X5 6 14-M3 x 8 1 1 1 1 1 1 1 1 1 1 1 1 1	(Top View)	2-04.5	Metallic Retainer (be used in sets)		
RL-G14F Screw terminal Panel or Din-rail installation With finger protection For 4 poles relay		2.4.2x5	© Q O © O © O © O © O © O © O © O ©	2-04.5	Metallic Retainer (be used in sets)		
RL-G14U Screw terminal Din-rail installation With finger protection For 4 poles relay			000000 000000 000000 (Top View)	_	Metallic Retainer (be used in sets)		
RL-G14N Screw terminal Din-rail installation With finger protection For 4 poles relay	42.4max 23.9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		(Top View)	_	Metallic Retainer (be used in sets)		
RL-G14S Tension terminal Din-rail installation For 4 poles relay				_	Metallic Retainer (be used in sets)		
Cross connector					Unit:mm		

RLJ-GK (For $RL-\Box \Box U$, $RL-\Box \Box N$, $RL-\Box \Box S$)



Notices

- 1. Please choose suitable relay sockets according to the actual mounting environment, relay contact poles and terminal layout. If there is any query on selection. Please contact Mibbo for the technical service.
- contact Mibbo for the technical service. 2.Sockets which can be mounted with markets is furnished with a market. As foe other related component, they should be selected separately. Please do give clear indication of the types of relay sockets and related component you choose while packing order. 3.The above is only an example of typical socket and related component type which is suitable to RG relay .If you have any special requirements, please contact us. 4.Main outline dimension(L.W.H)≥50mm, tolerance should be ±1mm, outline dimension >20mm and <50mm, tolerance should be ±0.5mm, outline dimension ≤20mm, tolerance should be ±0.2mm
- tolerance should be ±0.3mm.

RH Series High Power Relay



Contact Data		Coil Data	25℃					
Contact Arrang	ement	1D, 1A	2D, 2A	Nominal Voltage VDC	Pick-up Voltage VDC	Drop-out Voltage VDC	Max. Voltage ⁽²⁾	Coil Resistance
Contact Resista	ance		$\leq 100 \text{m} \Omega$ (1A 6VDC)	12	<9.6	>1 2	13.2	$160 \times (1 \pm 10\%)$
Contact Materia	al	Silver Plate	ed(Gold Plated Available)	$\frac{12}{94}$	<19.0 ≤19.2	≥ 1.2 ≥ 2.4	26.4	$650 \times (1 \pm 10\%)$
Rated Load		15A 250VAC/30VDC	10A 250VAC/30VDC	48	<19.2 <38.4	>1.9	52.8	$2600 \times (1 \pm 15\%)$
Max Operating	Voltage		250VAC/30VDC	110	<50.4 <88.0	>1.0	121	$11000 \times (1 \pm 15\%)$
Max Operating	Current	15A	15A 10A		<00.0	>11.0	121	11000× (1±13%)
Max Operating	Power	3750VA/450W	3750VA/450W 2500VA/300W		25°C	1		
Mechanical End	durance		1×10 ⁷ 次	Nominal Voltage VAC	Pick-up Voltage VAC	Drop-out Voltage VAC	Max. Voltage ⁽²⁾ VAC	Coil Resistance
		1D/1A:1×10 ^s ops(15A 250VAC/30VD	C,Resistive load,Room temp,1s on 9s off)	12	≤9.6	≥3.6	13.2	46× (1±10%)
Electrical Elluu	liance	2D/2A:1×10 ⁵ ops(10A250VAC/30VDC,Resistive load,Room temp,1s on 9s off)			≤19.2	≥7.2	26.4	184× (1±10%)
Characteristics			48	≤38.4	≥14.4	52.8	735× (1±10%)	
Insulation Resi	Insulation Resistance 500MQ (500VDC)		500MΩ (500VDC)	110	≤96.0	≥36.0	132	4550× (1±15%)
Between Coil and Contacts			230	≤176.0	≥72.0	264	14400× (1±15%)	
Dielectric Between Contacts of Strength the same polarity		Notes:1) U	nder ambient te	emperature, app	lying more that	1 80% of rating voltage		
Betw	ween Contacts of erent polarity		product performance.please apply rated voltage to coil.					
Operation Time	At nomi.volt.)		≤25ms (DC control)	2) Maximum voltage refers to the maximum voltage which relay coil could				
Release Time (At	t nomi.volt.)		≤25ms (DC control)	endure in a short period of time. 3) The above values are all initial value.				
Temperature Rise(No-L	.oad, At nomi.volt.)		≪60K		Cha	aracterist	tic Curve	es
Shock Resistance Fu	inctional		98m/s ²					
De	estructive		980m/s ²	Maximum	Switching Pow	er(1D/1A)	Maximum	Switching Power(2D/2A)
Vibration Resis	stance	10	Hz~55Hz 1mm~Double Amplitude	10		AC 阻性负载	A 10	AC 职性负载
Humidity			5%~85%RH	ent -			t (
Ambient Temperature -40°C~70°C		un Hill			LTel			
Terminal Unit Weight Construction		Plug in	U 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			ِ ٿِ ت	DC RIPES R	
			About37g	ž ^{os} g				
			Dust proof					
COIL		1	*		HF13F/1Z		0	HF13F/2Z
Coil Power		DC:about(0.9~	1.1)W; AC:about(1.2~1.8)VA	5 10 C	ontact Voltage		5	Contact Voltage

Outline Dimensions, Wiring Diagram and PC Board Layout

Unit: mm





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

RH Series Socket





Feature

The dielectric strength can reach 2000VAC and the insulation resitance is $1000 \text{m}\Omega$

- Screw mounting ang DIN rail mounting
- With finger protection device
 - Components available:Metallic Retainer Envronmental friendly products (RoHS compliant)

Characteristics

Туре	Nominal Voltage	Nominal Current	Ambient Temperature	Dielectric Strength Min.	Screw Torque	Wire Strip Length
RL-H08E	300VAC	16A	-40°C~70°C	2000VAC	1.0N.m	7mm
RL-H08F	300VAC	16A	-40°C~70°C	2000VAC	1.0N.m	7mm

Outline Dimensions, Wiring Diagram and PC

Unit:mm



1.2+0 œ Remark: Retainer has to be used in sets, plesse pay special attention while placing the order. 35.6 +0.

Notices

1.Please choose suitable relay sockets according to the actual mounting environment, relay icontact poles and terminal layout. If there is any query on selection. Please contact Mibbo for the technical service.

2. Sockets which can be mounted with markets is furnished with a market. As foe other related component, they should be selected separately. Please do give clear indication of the types of relay sockets and related component you choose while packing order. 3. The above is only an example of typical socket and related component type which is suitable to RG relay. If you have any special requirements, please contact us. 4. Main outline dimension(L.W.H)≥50mm, tolerance should be ±1 mm, outline dimension >20mm and <50mm, tolerance should be±0.5mm, outline dimension ≤20mm, tolerance should be ±0.3mm.

RM Series Thin type relay



Specification

Coil											
Nominal Voltage		Rated Current(mA)		Coil	Coil Indu	ctance(H)	0	Poloaso(a)		Power	
		50Hz	60Hz	(Ω)	0FF	ON	Voltage	Voltage	Max. Voltage	Dissipation (VA, W)	
	12	93	75	65	0. 19	0. 39					
10	24	43.5	37.4	253	0.81	1.55	_ ≪80% (Rated Voltage)	≪80% ≪30 (Rated Voltage) (Rated	≪30%	100%	~0.040H=
AC	110	11	10.6	4655	13.34	26. 84			(Rated Voltage) (Rat	(Rated Voltage)	100%
	220	5.5	5.3	20200	51.3	102. 0					
	12	43	3. 2	278	0. 98	2. 35					
DC	24	21.6		1113	3.60	8. 25	≤75%	≤15% 100%	~0. 0. 53Hz		
DC	48	11	. 4	4220	15. 2	29.82	(Rated Voltage) (Rat	(Rated Voltage)			
	110	5. 2		19096	67.2	93. 2					

Notes: 1. The value in this table is measured at a coil temperature of 23°C with tolerances of +15%/-20% for the AC rated current and +15% for the DC coil resistance. 2. There is variation between products, but actual values are 80% max. The Relay will operate if 80% or higher of the rated voltage is applied. However, to achieve the specified characteristics, apply the rated voltage to the coil. 3. There is variation between products, but actual values are 80% minimum for AC and 10% minimum for DC. To ensure release, use a value that is lower than the specified value.

Contacts I	Data ⁽¹⁾
------------	---------------------

	1 p	oles	2 p	oles					
	Resistive Load	Inductive Load	Resistive Load	Inductive Load					
Contact Material		AgN	i 10						
Rated Load	AC250V 12A AC250V 7.5A 24VDC 12A 24VDC 7.5A		AC250V 8A 24VDC 8A	AC250V 3A 24VDC 3A					
Electrical Endurance ⁽²⁾		≥1x10 ⁵							
Mechanical Endurance		≥1x10 ⁷							
Rated Current	1	2A	8A						
Max. Contact Voltage	AC440,	DC125V	AC380, DC125V						
Max. Contact Current	1	6A	10A						
Max. Switching Capacity	2500VA/300W	AC1,875VA/DC150W	AC1, 250VA/DC150W	AC1, 500VA /DC90W					
Min. Load (references) ⁽⁴⁾	100mA a	t 5VDC	10mA at 5VDC						
Notes:									

1. The value in the table is based on the ambient temperature of + 2 3°C

2. Rated load operating frequency 2400 operation/h, at + 2 3°C ambient temperature and duty ratio is 33%

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Rate load operating requency 1800 operation/in, at #2 °C aminorin temperature and duty ratio is 33%
 Rates values are guides for the switchable limits for minute load levels, such as in electronic circuits. Actual characteristics may be different. These values will depend on the switching frequency, atmosphere, and expected reliability level. Confirm applicability in the actual system under actual application conditions.

Main Unit Data

		1 poles	2 poles
Contact Resistar	ice ⁽¹⁾	:	≤50mΩ (1A 6VDC)
Operation Time	2)		≤20ms
Release Time ⁽²⁾			≪10ms
Max. Operation	Mechanical	1800	0 operations/h
Frequency	Rated Load	180	0 operations/h
Dielectric Strength	Between Contacts of the same polarity	1000VA	C 50/60Hz 1min
	Between Contacts of different polarity	3000VA	C 50/60Hz 1min
0	Between Coil and Contacts	5000VA	C 50/60Hz 1min
Vibration	Destruction	10~55~10Hz Double	Amplitude: 1.0mm
Resistance	Malfunction	10~55~10Hz Double	Amplitude: 1.0mm
Shock	Destruction	10)00m/s²(约100g)
Resistance	Malfunction		200m/s²(约20g)
Ambient Operating Temperature		-40℃~+70℃(No Icin	ng or Condensation)
Ambient Humidity			5%~85%RH
Weight			~20g

Notes: The value above is original value 1. Measurement conditions: 1 At 5 VDC using the voltage drop method. 2. Measurement conditions: With rated operating power applied, not including contact bounce

12.6

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Measurement conditions: with rated operating power applied, not including contact bounce time.
 Measurement conditions: For 500 VDC applied to the same location as for dielectric strength measurement.

Unit:mm

RM32-1D/1A 🗆











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7 Milobo

RM Series Socket





- Feature
 - Dielectric strength reaches 2500VAC and
 - the insulation resistance is $1000 \text{M}\Omega$
 - Screw or Din rail installation optional
- Accessories: Plastic clip, Marker, Cross connector
- Environment friendly(Rohs Compliant)

■Characteristics

Туре	Nominal Voltage	Nominal Current	Ambient Temperature	Dielectric Strength Min.	Screw Torque	Wire Strip Length
RL-M	300VAC	16A	-45°C~85°C	2500VAC	1. 0N. m	7mm

Outline Dimensions, Wiring Diagram and PC Board Layout

Outline Dimensions, Wiring Diagram and PC B	oard Layout	Unit:mm
Socket	Outline Dimensions	Wiring Diagram
RL-M05A		_
RL-M05E		
RL-M05F Screw terminals Din rail installation With finger protection For 1 pole relays	xeptic 62 29. 2Max	I I
RL-M05U Screw terminals Din rail installation With finger protection For 1 pole relays	G2max G	
RL-M05S		
RL-M08A PCB installation For 2 poles relays		-

Outline Dimensions, Wiring Diagram and PC Board Layout

I Outline Dimensions, Wiring Diagram and PC Board Layout Unit:mm			
Socket	Outline Dimensions	Wiring Diagram	
RL-M08E		$ \begin{array}{c} $	
RL-M08F Screw terminals Din rail installation With finger protection For 2 poles relays	Xewer Contraction of the second secon		
RL-M08U Screw terminals Din rail installation With finger protection For 2 poles relays	62max 62max 5.8max 6 6 6 6 6 6 6 6 6 6 6 6 6		
RL-M08S	43Max 43Max 0 0 102Max 102Max 102Max 102Max 102Max		
Socket accessories			

Marker

Model: RLB-M1 For socket RL-M□U

Cross connector

Model: RLJ-MK For RL-M05F/RL-M05E/ RL-M08F/RL-M08E

Function Module



For more information, please contact business department.

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RLJ-MK

RM03 Series PCB mounted miniature relay





Feature

- Slim size(width:20mm)
- Dielectric strength:5kV/8mm
- Rated load:5A/10A
- Low coil consumption
- PCB mounted, well-sealed

			1		
AC	RM03-1A012	RM03-1A024	RM03-1A048	RM03-1A110	RM03-1A220
	RM03-2A012	RM03-2A024	RM03-2A048	RM03-2A110	RM03-2A220
DO	RM03-1D012	RM03-1D024	RM03-1D048	RM03-1D110	-
DC	RM03-2D012	RM03-2D024	RM03-2D048	RM03-2D110	-

Specification

Model No.

Contact Data		
Contact Material		AgSnO
Contact Arrangement	1D,1A : 1Pole	2D,2A : 2Pole
Contact Resistance		≪100mΩ (1A 6VDC)
Rated Current	10A	5A
Max Switching Current	12A	8A
Rated Voltage		250VAC/30VDC
Max Switching Power		2880VA/360W
Min Operation Current		10mA at 5VDC
Electrical Endurance	1x10 ⁵ ops(10A 250VAC/30ADC, Resistive load,Room temp, 1s on 1s off)	1x10 ⁵ ops(5A 250VAC/30ADC, Resistive load,Room temp, 1s on 1s off)
Mechanical Endurance		$1*10^{7}$
Characteristics		
Operation Time At nomi.volt		≪20ms
Release Time At nomi.volt.		≪10ms
Ambient Temperature		-40°C~85°C
Protection Level		5%~85%RH
Protection Level		IP67
Welding Temperature		260°C MAX
Welding Time		5S MAX
Unit Weight		About 14g

etween Open Cor	tacts		100	OVAC	1Min
etween Coil & Co	ntact		500	OVAC	1Min
unctional				9	8m/s
estructive				98	0m/s
esistance			>100M G	2 (50	OVDC)
Coil Data (23°C)					
oil Resistance Ω ±10%	Pick-up Voltag VAC	e Max. Voltage VAC	Drop-out Voltage VAC	rated c (M	apacity lw)
270	9.6	15.6	0.6		540
1050	19.2	31.2	1.2		540
4250	38.4	62.4	2.4		540
6670	48.0	90.0	3.0		540
22400	88.0	143.0	5.5		540
	etween Open Con etween Coil & Co unctional estructive sistance 3°) oil Resistance $\Omega \pm 105$ 270 1050 4250 6670 22400	atween Open Contacts atween Coil & Contact unctional estructive sistance 3° C) oll Resistance 270 9.6 1050 19.2 4250 38.4 6670 48.0 22400	atween Open Contacts atween Coil & Contact unctional estructive sistance 3°C) oll Resistance 270 9.6 1050 19.2 4250 38.4 6670 48.0 90.0 22400	atween Open Contacts 100 atween Coil & Contact 500 unctional sistance estructive >100M C 3°C) 3°C) oll Resistance Pick-up Voltage Max. Voltage 270 9.6 15.6 0.6 1050 19.2 31.2 1.2 4250 38.4 62.4 2.4 6670 48.0 90.0 3.0 22400 88.0 143.0 5.5	$\begin{array}{c c c c c c c c c c c c c c c c c c c $

Notes:1) Under ambient temperature, applying more than 80% of rating voltage to coil, relays will take action accordingly. But in order to meet the stated product performance.please apply rated voltage to coil.

2) Maximum voltage refers to the maximum voltage which relay coil could endure in a short period of time.
 3) The above values are all initial value.

Outline Dimensions, Wiring Diagram

Unit: mm



Feature

CE ROHS

- Dielectric strength reaches 2500VAC and the insulation resistance is $1000M\Omega$
- · Screw or Din rail installation optional
- · Accessories: Metallic clip
- · Environment friendly(Rohs Compliant)

Characteristics

Т

Relay socket

Туре	Nominal Voltage	Nominal Current	Ambient Temperature	Dielectric Strength Min.
RL-M0305AA	300VAC	10A	-25~+85°C	1500VAC
RL-M0308AA	300VAC	10A	-25~+85°C	1500VAC

Outline Dimensions, Wiring Diagram and PC

Τ

RM03 Series socket

1

Relay type 05: For 1 pole relay 08: For 2 poles relay

Т

Finger protection

Socket	Outline Dimensions	Socket	Outline Dimensions
RL-M0305AA		RL-M0308AA	
	7.5 13max		<u> </u>

Unit:mm



Screw terminal Push-in Connector

RN-U0220E RN-U0220S

RN-U012S

RN-U024S

RN-U048S

RN-U060S

RN-U0110S

Kits Order Number

RN-U012E

RN-U024E

RN-U048E

RN-U060E

RN-U0110E



- 1 Form NO and 1 Form C configurations
- 4.0kV dielectric strength (between coil and contacts)
- Operation time:8 ms max.
- · Miniature in size, save space
- Screw mounting or Push-in Plug available



Feature Sensitive response, High switching (Turn ON Max. 50µs,Turn OFF Max. 300µs) No operation noise, quiet and reliable Maintenance-free, long lifetime. Optoelectronic isolation, dielectric: 2500VAC Compliance to EMC, suitable for application in harsh environment.Application in the interface circuit with PLC SAN 3 24D 024 Т Control Volta 12D:DC12V 24D:DC24V I/O SSR Rated Current 3: 3A Load Voltage 24:DC24V 2Z:48-280VAC Socket Type

	U220:AC/DC 220V			
		Kits		
	Specification	Order Number		
Control Voltage	Load(Resistive)	Screw terminal	Push-in Connector	Load Current
AC/DC:12V		SAN-312D24E	SAN-31224S	3 A
AC/DC:24V		SAN-324D24E	SAN-32424S	3 A
AC/DC:48V	6A 2EOVAC/20VDC	SAN-212D2ZE	SAN-212D2ZS	2 A
AC/DC:60V	0A 250VAC/ 50VDC	SAN-224D2ZE	SAN-224D2ZS	2 A

6.3

C

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More technical information, please refer to data sheet of the products

More technical information, please refer to data sheet of the products



AC/DC:110V

AC/DC: 220V







Screw terminal connection

Load Voltage

AC:48-280V

AC:48-280V

Unit:mm

DC24V

DC24V

Specification

Control Voltage

DC12V

DC24V

DC12V

DC24V





COII

Wiring Diagram

14 NO

-<mark>11</mark>сом

. -1121 NC







- 4 channel,8 channel single contact relay(5A)
- LED indicator for power on
- DC24V, NO
- Mechanical endurance: 2*10 ops
- Outline Dimensions: 68x 32 x 39mm



Specification

1				
Model	RN12-1D024N04	RN12-1D024N08		
Input Control Type	N	PN Input		
Number of Relays	4	8		
Coil Voltage		DC 24V		
Contact Type		ON		
Max. Contact Operating Current		3A		
Electric Endurance of Contact	5x10 ⁵ 0	5x10 ⁵ Operations Min.		
Mechanical Endurance of Contact	2x10^8 Operations	Min. (1200 time per hour)		
Dimension	32*67.5*39mm	64*68*40mm		
Installation	T35 Din-rail or	T35 Din-rail or M3 screw installation		
Humidity Range	5%~85%RH(No ic	5%~85%RH(No icing or condensation)		
Temperate Range	-10°C	C~+50°C		

Notice: 1. Please confirm the type of load and the dimension before placing order 2. Please contact with Mibbo support engineer about the contact protection3.Please choose Mibbo cable when connecting to PLC.

Dimension & Wiring Diagram

Unit:mm

Unit:mm



RN12-1D024N08

Dimension





Wiring Diagram





- 4 channel single contact relay(5A)
- LED indicator for power on
- DC24V, NO
- Mechanical endurance: 5*10 ops
- Outline Dimensions(L*W*H): 83x 48 x 38mm



Contact 1: 1 pole per relay

Control Power D: DC

Control Voltage Control Input Numbers of Relay 024:24VDC N:NPN

Specification

4 Channels Module	
Model	RN13-1D024N04
Input Control Type	NPN Input
No. of Relays	4
Coil Voltage	DC 24V
Contact Type	ON
Max. Contact Operating Current	5A
Electric Endurance of Contact	10x10^5 Operations Min.
Mechanical Endurance of Contact	5x10^8 Operations Min. (1200 time per hour)
Dimension	48*83*37.2mm
Installation	T35 Din-rail
Humidity Range	5%~85%RH(No icing or condensation)
Temperate Range	−10°C~+50°C

Notice: 1. Please confirm the type of load and the dimension before placing order 2. Please contact with Mibbo support engineer about the contact protection3.Please choose Mibbo cable when connecting to PLC.

Dimension & Wiring Diagram

Unit:mm





Wiring Diagram





NPN/PNP bi-polar compatibility
 Simple pluggable design, easy to install and replace
 Quick-plug terminals, quick wiring, save time
 The number of relays can be selected according to customer needs
 With indicator light working status indication
 TS35 DIN fast assembly



S E:Screw mounting S:Quick-plug termina

4:4PCS 6:6PCS

Specification

Input coil parameter

input oon parame									
Set of transformations (DC24V)	RN22-1D02S	RN22-1D04S	RN22-1D06S	RN22-1D08S	RN22-1D10S	RN22-1D12S	RN22-1D16S	RN22-1D20S	RN22-1D24S
	RN22-1D02E	RN22-1D04E	RN22-1D06E	RN22-1D08E	RN22-1D10E	RN22-1D12E	RN22-1D16E	RN22-1D20E	RN22-1D24E
Two-group conversion	RN22-2D02S	RN22-2D04S	RN22-2D06S	RN22-2D08S	RN22-2D10S	RN22-2D12S	RN22-2D16S	RN22-2D20S	RN22-2D24S
(DC24V)	RN22-2D02E	RN22-2D04E	RN22-2D06E	RN22-2D08E	RN22-2D10E	RN22-2D12E	RN22-2D16E	RN22-2D20E	RN22-2D24E
Set of transformations	RN22-1A02S	RN22-1A04S	RN22-1A06S	RN22-1A08S	RN22-1A10S	RN22-1A12S	RN22-1A16S	RN22-1A20S	RN22-1A24S
(AC220V)	RN22-1A02E	RN22-1A04E	RN22-1A06E	RN22-1A08E	RN22-1A10E	RN22-1A12E	RN22-1A16E	RN22-1A20E	RN22-1A24E
Two-group conversion	RN22-2A02S	RN22-2A04S	RN22-2A06S	RN22-2A08S	RN22-2A10S	RN22-2A12S	RN22-2A16S	RN22-2A20S	RN22-2A24S
(AC220V)	RN22-2A02E	RN22-2A04E	RN22-2A06E	RN22-2A08E	RN22-2A10E	RN22-2A12E	RN22-2A16E	RN22-2A20E	RN22-2A24E

Input coil parameter					
Control power supply	DC24V	AC220V			
Control mode	NPN/PN	P compatibility			
Individual rated power consumption	~0.53W ~0.9VA				
Operating voltage	<rated td="" voltage75%<=""><td><rated td="" voltage80%<=""></rated></td></rated>	<rated td="" voltage80%<=""></rated>			
Release voltage	Rated voltage10%	Rated voltage30%			
Action time	≤20mS				
Release time	≪10mS				
Contact parameter					
Contact form	1poles 2poles				
Contact resistance	≤10	lOmΩ			
Contact material	AgN	i10			
Contact load	12A 250Vac/30Vdc	8A 250Vac/30Vdc			
Mechanical life	1*10 ⁷				
Electrical life	1*10 ⁵ (12A 250Vac/30Vdc, Resistive load, room temperature,1s on and 1s off)	1*10 ⁵ (8A 250Vac/30Vdc, Resistive load, room temperature, 1s on and 1s off)			
Protection circuit	Varistor protection (Set of transformations)				

Input coil parameter							
Maximum	machinery	18000time/H					
switching frequency	Rated load	1800time/H					
Insulation resistanc	e	≥100MΩ (500Vdc)					
	Between the same pole contacts	1000VAC 50/60Hz 1min					
Withstand voltage	Between polar contacts	3000VAC 50/60Hz 1min					
	Between coil and contact	3000VAC 50/60Hz 1min					
vibration		10~55~10Hz Double amplitude: 1.0mm					
impact		1000m/s					
Service temperature	e range	-40°C~+70°C(ice-free)					
Service humidity ra	nge	5% \sim 85%RH(Condensation free)					
Stripping length		8~9mm					
Input terminal type		Quick-insert, screw and MIL linker are optional					
Output terminal type	e	Quick-insert type and screw type are optional					
Line diameter		0. 2∼1. 5mm /28∼16AW0					
Installation mode		Rail mounting					

Note:

Please confirm the load type and size before ordering, and select the appropriate product.
 For contact protection solutions, consult Mibbo technical engineers.

Dimensional drawing, wiring diagram

Unit:mm

Circuit diagram



2poles



Relay bit L width 2位 43. mm 4位 83mm 6位 117.5mm 8位 155.5mm 10位 191mm 12位 226mm 16位 298mm 20位 372mm



- 10A,25A,40A
- LED indicator for power on
- Load voltage: 38-480VAC
- With cover
- Dielectric strength 4000VACrms
- Good heat dissipation,
- copper base plate available
- CE\RoHS

Description

SSR solid state relay is widely used in various industries and suitable for resistive, inductive and capacitive load. Output voltage range: 38-480VAC, output current: 10A, 25A and 40A

Model Coding T SR 10 D C Thermal Dissipation SSR Series Load Current Control Type Load Voltage Load Voltage 10:10Amps 25:25Amps D:DC Control 3-32VDC A:AC Output H:38-480VAC Non:Aluminium heat sink C:Copper heat sink (Available) 40:40Amps Model No. SSR-10DAH□ SSR-25DAH SSR-40DAH□ Specification Input Control Voltage Range 3-32VDC Min.Turn-On Voltage 3VDC Min.Turn-Off Voltage 1VDC Max.Inout Current 25mA Output Rated Load Current 10A 25A 40A Output Voltage Range 38 - 480 VAC Max.Turn-On Time Zero cross 1/2AC Cycle + 1ms Max.Turn-Off Time 1/2AC Cycle + 1ms 135A 400A Max.Surge Current [@10ms] 275A Max.I t for fusing [@10ms] 140A²S $275A^2S$ 410A2S Max.Transient Voltage 800Vpk Max. Off-state Leakage Current (at rated voltage) $5\,\mathrm{mA}$ Max. On-state Voltage Drop.(at rated voltage) 1.6Vrms Min.Off-state Dv/dt 200 V/µs General **Dielectric Strength** I/P-Base: 2.5KVrms I/P-O/P: 4KVrms 0/P-Base: 2.5KVrms Operating Temperature -30 °C ~+80 °C Storage Temperature -30 °C ~+100 °C Weight 93g (SSR-□DAHC: 146g) Accessory(Optional) Din-rail mounting accessory DIN-01 Heat Transfer Pad SH-D1 Heat sink(optional) SH-01 SH-03 of heat sink temperature and temperature rise need to be considered when using heat sink. If the temperature please use a larger heat sink or forced cooling with a fan The ambient temperature and temperature Remark(1) over 70°C.

Applications

Suitable for Lenpure, Plastic Machinery, Incubator, Oil Filling Machine, Air Conditioning, Elevator, Lighting, Fountain Controller etc.



SA Series AC/DC Input, single-phase output SSR



90:90Amps

Feature

- Load current:10A-90A
- Load voltage: 380VAC,480VAC,600VAC
- DC/AC input available
- · Zero cross turn-on/Random turn-on available
- LED indicator for power on
- SCR output, high reliability
- Built-in RC、MOV and TVS protection available
- Dielectric strength 4000VACrms
- Good heat dissipation,DBC base plate available
- UL\CE\RoHS

Description

SA series solid state relays are widely used in various industries and suitable for resistive, inductive and capacitive load. Output voltage range: 48-440VAC, 48-530VAC, 48-660VAC. Output current: 10A, 25A, 40A, 50A, 75A and 90A.

Model Coding



	SA-10□3□□	SA-25□3□□	SA-40[]3[] []	SA-50[]3[] []	SA-75🛛 3 🗆 🗆	SA-90[]3[] []
Model No.	SA-10□4□□	SA-25🛛 4 🗆 🗆	SA-400400	SA-50🛛4🗆 🗆	SA-75🛛 4 🗆 🗆	SA-90□4□ □
	SA-10□6□ □	SA-25□6□ □	SA-40060	SA-50□6□ □	SA-75□6□ □	SA-90□6□ □

Specification

Input									
Control Voltage Range		4-32VDC							
Min.Turn-On Voltage		4 V D C							
Min.Turn-Off Voltage				1 V D C					
Max.Inout Current				25mA					
Output									
Rated Load Current		10A	25A	40A	50A	75A	90A		
Output Voltage Range		SA-□A <u>3</u>	<u>8</u> :48-440VAC /	SA-□A <u>4</u> :48-530	VAC / SA-□A <u>6</u>	:48-660VAC			
Mau Tura On Time	Random			1 m s					
Max. Turn-On Time	Zero cross		1/2AC Cycle+1ms						
Max.Turn-Off Time				1/2AC Cycle+1	ms				
Max.Surge Current [@1	0ms]	150A	400A	440A	860A	1280A	1550A		
Max.I t for fusing [@10m	ıs]	$350{ m A}^2{ m S}$	900A ² S	970A ² S	3698A ² S	8192A ² S	12012A ² S		
Max.Transient Voltage		SA-□A <u>3</u> :800Vpk \ SA-□A <u>4</u> :1200Vpk \ SA-□A <u>6</u> :1600Vpk							
Max. Off-state Leakage Cu	urrent (at rated voltage)	5mA							
Max. On-state Voltage D	Prop.(at rated voltage)	1.6Vrms							
Min.Off-state Dv/dt		500 V/ µs							
General									
Dielectric Strength		Input to output: 4KVrms Input to base: 4KVrms output to base: 2.5KVrms							
Operating Temperature		-30 °C ~+80 °C							
Storage Temperature		-30 °C ~+100 °C							
Weight		88g							
Accessory(Optional)									
Din-rail mounting accessory		D I N-01	DIN-01						
Heat Transfer Pad		SH-D1							
Protective Cover				SP-D11					
Heat sink(optional)		SH-01	SH-01	SH-03	SH-05	SH-07	SH-08		
Remark①		The ambient temperatu is over 70℃, please	ure and temperature rise use a larger heat sink o	need to be considered who or forced cooling with a	en using heat sink. If th fan	ne temperature of heat si	nk		

Applications

Suitable for Lenpure, Plastic Machinery, Incubator, Oil Filling Machine, Air Conditioning, Elevator, Lighting, Fountain Controller etc.



16





■ Feature

• 10A,15A,25A

- LED indicator for power on
- Load voltage: 38-440VAC
- Triac output,Built-in RC protection
- With cover
- Dielectric strength 4000VACrms
- Small in size, save space
- CE\RoHS

Description

SAE series solid state relays are mini size and triac structure and widely used in various industries and suitable for resistive, inductive and capacitive load. Output voltage range: 48-440VAC. Output current: 10A, 15A, 25A.

3

Model Coding





Load Voltage D:DC Control 3:48-440VAC 4-32VDC



Zero cross function Z:Zero cross turn-on R:Random turn-on

Model No.	SAE-10D3□	SAE-15D3	SAE-25D3□

Specification

Input								
Control Voltage Range		4-32VDC						
Min.Turn-On Voltage		4 VDC						
Min.Turn-Off Voltage				1 V D C				
Max.Inout Current			25mA					
Output								
Rated Load Current		1 O A		15A	25A			
Output Voltage Range				48-440VAC				
Max Turn-On Time	Random			1 m s				
	Zero cross	1/2AC Cycle + 1ms						
Max.Turn-Off Time		1/2AC Cycle + 1ms						
Max.surge current		1 O O A		160A	2 5 0 A			
Max.Transient Voltage		800Vpk						
Max.Off-state Leakage Cu	urrent (at rated voltage)	5mA						
Max. On-state Voltage Dro	op.(at rated voltage)	1.6Vrms						
Min.Off-state Dv/dt		200 V/ µs						
General								
Dielectric Strength		Input to output: 4KVrms Input to base: 4KVrms output to base: 2.5KVrms						
Operating Temperature		-30°C ~+80°C						
Storage Temperature		-30°C ~+100°C						
Weight		35g						
Accessory(Optional)								
Protective Cover		SP-D12						
Heat sink(optional)		SH-01						
Remark①		The ambient temperature and temperature rise need to be considered when using heat sink. If the temperature of heat sink is over 70°C, please use a larger heat sink or forced cooling with a fan						

Applications

Suitable for Lenpure, Plastic Machinery, Incubator, Oil Filling Machine, Air Conditioning, Elevator, Lighting, Fountain Controller etc.





- Load current:7-80A
- DC control: 4-32VDC
- Load voltage: 50VDC,100VDC,400VDC,1200VDC
- LED indicator for power on
- Dielectric strength 4000VACrms
- CE\RoHS

Description

CE

RoHS

SD series solid state relays are panel mounted and DC output. Input voltage range: 4-32VDC. There is opto-electric isolation between the input and output and the dielectric strength is 4000VAC

Model Coding



Model No.	SD-7D50			SD-25D50		SD-50D50	SD-80D50
		SD-10D1H	SD-20D1H		SD-40D1H		SD-80D1H
	SD-7D4H		SD-20D4H		—		
		—		SD-25D1K	—	SD-50D1K	—

Specification

Innut							
Control Voltage Range	4-39VDC						
Min Turn-On Voltage							
Max Inout Current							
	28 mA @32VDC						
Output							
Rated Load Current	7A 10A 20A 25A 40A 50A 80A						
Output Voltage Range	SD-□D <u>50</u> :0-50VDC; SD-□D <u>1H</u> :0-100VDC;SD-□D <u>4H</u> :10-400VDC; SD-□D <u>1K</u> :10-1200VDC;						
Max.surge current(@10mṡ)							
Max.Turn-On Time	100 µs						
Max.Turn-Off Time	500 µs						
Max.Off-state Leakage Current (at rated voltage)	0. 1 mA						
Max. On-state Voltage Drop.(at rated voltage)	1. 5VDC						
General							
Dielectric Strength	Input-output: 4KVrms Input-base: 4KVrms output-base: 2.5KVrms						
Operating Temperature	-30 °C ~+80 °C						
Storage Temperature	−30 °C ~+100 °C						
Weight	80g						
Accessory(Optional)							
Din-rail mounting accessory	D I N-01						
Heat Transfer Pad	SH-D1						
Protective Cover	SP-D11						
Heat sink(optional)	SH-01 SH-03 SH-05 SH-08						
Remark①	The ambient temperature and temperature rise need to be considered when using heat sink. If the temperature of heat sink is over 70C, please use a larger heat sink or forced cooling with a fan						

Applications

Dc heating, DC power supply, DC valve, DC motor, Solar Energy, etc.







Mildoo 18

SAT Series Three-phase AC Output SSR



Feature

- Load current: 25A,40A,60A
- Load voltage: 380VAC,480VAC
- Zero cross turn-on/Random turn-on available
- AC or DC input
- SCR output
- Built-in RC、MOV protection available
- Lost phase protection customizable
- CE\RoHS

Description

SAT is a three-phase AC output relay(Normally Open), offer (4~32)VDC/(90-280) VAC input voltage control, with outputs current at 25A,40A,60A, and (48~440)VAC, (48~530)VACoutput voltage. The output device is SCR,output.switching modes are divided into zero cross turn-on type and random turn-on type.

Model Coding

SAT -	25	D	3	Ζ	M			
SAT Series	Load Current 25:25Amps 40:40Amps 60:60Amps	Control Type D:DC Control 4-32VDC A:AC Control 90-280VAC	Load Voltage 3:48-440VAC 4:48-530VAC	Zero cross fun Z:Zero cross turr R:Random turn-	ction Protectio n-on Non:withour on M:MOV prot (Available)	n t section		
Model No		SAT-25D3	SAT-40D3	SAT-60D3	SAT-25A3	SAT-40A3	SAT-60A3	
		SAT-25D4	SAT-40D4	SAT-60D4	SAT-25A4□□	SAT-40A4 🗆 🗆	SAT-60A4	
Specification								
Input								
Control Voltage Range			4-32VDC			90-280VAC		
Min.Turn-On Voltage			4 V D C		90VAC			
Min.Turn-Off Voltage		1 VDC			1 O V A C			
Max.Inout Current		28 mA @32VDC			10 mA@280VAC			
Output								
Rated Load Current		25A	40A	60A	25A	40A	60A	
Output Voltage Range		SAT- $\Box D/A3:48-440VAC$ SAT- $\Box D/A4:48-530VAC$						
Max.Transient Voltage		SAT- $\Box D/A\underline{3}$:800Vpk SAT- $\Box D/A\underline{4}$:1200Vpk						
Max Turn On Time	Random	1 m s			20ms			
	Zero cross	1/2AC Cycle + 1ms			20ms			
Max.Turn-Off Time		1/2AC Cycle + 1ms			40ms			
Max.Off-state Leakage C	urrent (at rated voltage)) 5 m A			5 m A			
Max. On-state Voltage Dr	op.(at rated voltage)	1.6Vrms			1.6Vrms			
Min.Off-state Dv/dt			500 V/µs		500 V/μs			
General								
Dielectric Strength		Input to output: 4KVrms Input to base: 2.5KVrms output to base: 2.5KVrms						
Operating Temperature		-30°C ~+80°C						
Storage Temperature		-30 °C ~+100 °C						
Weight		350g						
Accessory(Optional)								
Heat Transfer Pad				SH	-D2			
Protective Cover				SP-	D31			
Heat sink(optional)		SH-03	SH-07	SH-08	SH-03	SH-07	SH-08	
Remark ^①		The ambient temperatu	re and temperature rise	need to be considered	when using heat sink. I fan	f the temperature of h	eat sinkis	

Applications

Three-phase Motor Control, Furnace Temperature Control System, Large Oven etc.

Mounting Dimension





Characteristic Curves



19 Milobo

SAMS Series Three-phase Motor FDW-REV Control Module SSR



Feature

- Load current: 25A,40A,60A
- Load voltage: 380VAC,480VAC
- Three phase two control or three phase
- three control type available
- DC control: 4-32VDC
- Built-in RC、MOV protection available
- CE\RoHS

Description

CE

RoHS

SAT series is 3-phase AC output solid state relay. SCR output. Zero cross or random turn-on available. Control voltage: 4-32VDC/90-280VAC. Output rated voltage: 48-440VAC/48-530VAC. Output rated current: 25A/40A/60A.

Model Coding



Model No	SAMS-25D3	SAMS-40D3	SAMS-60D3	
	SAMS-25D4	SAMS-40D4	SAMS-60D4	

Specification							
Input							
Control Voltage Range		10-32VDC					
Min.Turn-On Voltage		1 0 V D C					
Min.Turn-Off Voltage		1 V D C					
Max.Inout Current		35mA					
Min Toggle interval		80 m s					
Output							
Rated Load Current	25A	40A	60A				
Output Voltage Range	SAMS-DI	D <u>3</u> □:48-440VAC / SAMS-□D <u>4</u> □:48	3-530VAC				
Max.Transient Voltage	SAMS	-□D <u>3</u> □:800Vpk / SAMS-□D <u>4</u> □:12	00Vpk				
Min.Load Current		100mA					
Max.Turn-Off Time	1/2AC Cycle + 1ms						
Max.Surge Current(@10ms)	250A	400A	800A				
Max.Off-state Leakage Current (at rated voltage)		5 m A					
Max. On-state Voltage Drop.(at rated voltage)	1.6Vrms						
Min.Off-state Dv/dt		500V/µs					
General							
Dielectric Strength	Input-output: 4KVrms	s Input-base: 2.5KVrms output-base	ase: 2.5KVrms				
Operating Temperature		$-30 \degree C \sim +80 \degree C$					
Storage Temperature	-30°C ~+100 °C						
Weight	340g						
Operating status indication	Green: forward Red:reversal						
Accessory(Optional)							
Heat Transfer Pad	SH-D2						
Protective Cover		SP-D31					
Heat sink(optional)	SH-03	SH-07	SH-08				
Remark(1)	The ambient temperature and temperature rise	e need to be considered when using heat sink.	If the temperature of heat sinkis				

Applications

Three-phase moter reversing control, such as electric actuator control, the transformer has load regulating device, etc.



ST Series Din-rail single-phase AC output



Description

ST series are heat sink integrated solid state relays. TS-35/7.5/15 Din-rail mounting or screw panel mounting

Model Coding

ST –	20		D		3		3		3					
ST Series Load Current		Control Type		Load Voltage		e Zero d	Zero cross function		nput Termir	nation				
10:10Amps 20:20Amps 30:30Amps 40:40Amps		D:4-32VDC LA:90-140VAC HA:180-280VAC E:AC/DC24V		2:48-280VAC 3:48-440VAC 4:48-530VAC		Z:Zero cross turn-or R:Random turn-on		-on n	B:ScrewTy S:SpringTy	vpe ype				
	ST-10D2	ST-10D4		ST-10LA2		10LA4	ST-10H	IA2	ST-10HA4		T-10E2] ST-1	ST-10E4	
	ST-20D2	ST-20D4		ST-20LA2	□	ST-20LA4		ST-20HA2			T-20E2□[] ST-2	ST-20E4	
	ST-30D2	ST-30D4		ST-30LA2[□	0LA4		1A200 ST-30HA4] ST-3	ST-30E4	
	ST-40D2	ST-40D4		ST-40LA2		10LA4□□ ST-40ŀ		IA2			□ ST-40E2□□		ST-40E4	
Model No.	ST-10D3	ST-10D6		ST-10LA3		10LA6 🗆 🗆	ST-10HA3		ST-10HA6		Γ-10E3□[] ST-1	ST-10E6	
	ST-20D3] ST-20D6□□		ST-20LA3		20LA6 🗆 🗆	ST-20HA3		ST-20HA6		T-20E3□[] ST-2	ST-20E6	
	ST-30D3] ST-30D6		ST-30LA3		30LA600 ST-30H		IA3 🗆 🗆	□ ST-30HA6□□		ST-30E3		ST-30E6	
	ST-40D3	ST-40D	600 :	ST-40LA3	□	40LA6🗆 🗆	ST-40H	IA3 🗆 🗆	ST-40HA6		Г-40Е3🗆 🛛] ST-4	0E6	
Specification														
Input														
Control Voltage Range		4-32VDC				90-140VDC			180-280VDC		19.2-28.8VDC/VAC			
Min.Turn-On Voltage		4VDC				90VAC			180VAC		19.2VDC/VAC			
Min.Turn-Off Voltage		1 V D C				10VAC			1 OVAC		2VDC/VAC			
Max.Inout Current		25 mA												
Output				1		1			1 1					
Rated Load Current		10A	20A	30A	40A	10A	20A	30A	40A	10A	20A	30A	40A	
Output Voltage Range		48-280VAC				48-440VAC			48-530VAC					
Max.Transient Voltage		600VPK				800VPK					120) V P K		
Max.Turn-On Time	Random	1ms(DC control)				-								
Zero cross		1/2AC Cycle + 1ms (DC c			ntrol)	-			400ms (AC control)					
Max.Turn-Off Time		1/2AU 0	Jycie +	Ims (DC co	ntrol)	1001 1	5001 1	7001 1	10001 1	1001 1	5004 1	5001 l	10001 1	
Max. Ut for fusing [@10m	onioj pel	100Apk	1250	2450	5000	160Apk	1250	2450	1000Apk	100APK	500Арк 1250	2450	5000	
Max Off-state eakage Current (at rated voltage)		120	1230	2430	5000	120	1200	2430	3000	120	1230	2400	1 3000	
Max On-state Voltage Drop (at rated voltage)														
Min.Off-state Dv/dt		1. (YL, III.S 500 V/ IIS												
General							000	· / P* 0						
Dielectric Strength		Input to output: 4KVrms Input to base: 2.5KVrms output to base: 2.5KVrms												
Operating Temperature		-30°C ~+80°C												
Storage Temperature		-30°C~+100°C												
Weight	约170g(10A) 约240g(20A、30A) 约400g(40A)													
Remark①		The ambient temperature and temperature rise need to be considered when using heat sink. If the temperature of heat sinkis over 70°C, please use a larger heat sink or forced cooling with a fan												

Applications

Plastic machinery, electric injection molding machines, packaging machines, various industrial heating occasions.





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Accessories

Model No.:SH-01



Model No.:DIN-01

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Model No.:SH-D2

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Heat Transfer Pad

Model No.:SH-D1 Thermal Resistance:0.48°C/25W





Model No.:SH-06

Weight:600g Thermal Resistance:0.8°C/W



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Model No.:SH-07

Weight:780g Thermal Resistance:0.45°C/W





Model No.:SH-08

Weight:2980g Thermal Resistance:0.3°C/W





PROTECTIVE COVER

Model No.:SP-D11	Model No.:SP-D12	Model No.:SP-D31





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