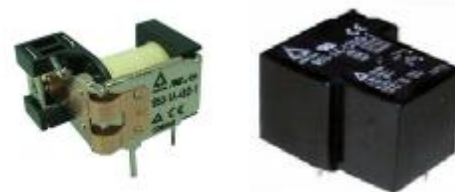




# 953G Series Relay

## FEATURES

- UL, CE ,TUV & CQC safety approval.
- Single contact 953 series relay offers 30A switching capacity for various kinds of applications.
- Up to 30A switching in SPDT-NO and 20A switching in SPDT-NC arrangement.
- Meets UL 508 & UL 873 spacing.
- Nominal power 930mW.
- Operating power 520mW.
- Standard type is open type without dust cover, additionally; dust cover and sealed cover types are available to meet customers' various requirement.



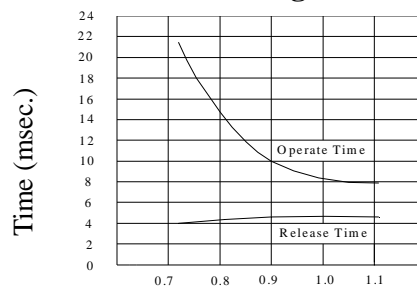
UL FILE NO: E162117/E188367  
 TUV FILE NO: R 3-02158203  
 CQC FILE NO: CQC02001001783  
 CE DECLARATION OF CONFORMITY

## CONTACT RATINGS

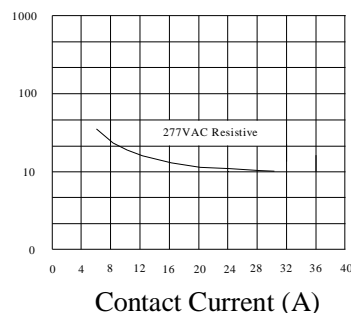
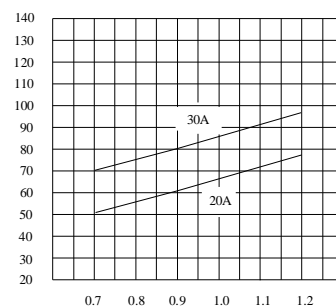
- Contact Arrangement.....1 Form A (SPST-NO)  
 .....1 Form B (SPST-NC)  
 .....1 Form C (SPDT)
- Max. Switching Power
  - 1 Form A.....7500VA 600W
  - 1 Form B .....5000VA 300W
  - 1 Form C.....7500VA 600W
- Max. Switching Voltage.....277VAC 30VDC
- Max. Switching Current
  - 1 Form A.....30A
  - 1 Form B.....20A
  - 1 Form C.....30A
- Contact Resistance..... $\leq 50m\Omega$
- Resistive Load
  - 1 Form A.....30A/250VAC 20A/277VAC 20A/30VDC
  - 1 Form B.....20A/240VAC 15A/277VAC 10A/30VDC
  - 1 Form C.....NO: 30A/240VAC 20A/277VAC 20A/30VDC  
 .....NC: 20A/240VAC 15A/277VAC 10A/30VDC
- Contact Material .....Ag Alloy

## 953G Referential Data

### Timing



### Coil Temperature Rise



## CHARACTERISTICS

- Electrical Life..... $1 \times 10^5$
- Mechanical Life..... $1 \times 10^7$
- Initial Insulation Resistance.....Min. 500M $\Omega$  500VDC
- Contact Resistance (Initial)..... $\leq 50m\Omega$
- Operate Time ..... $\leq 15ms$
- Release Time ..... $\leq 15ms$
- Initial Dielectric Strength.....50/60Hz 1500VAC 1 min.  
(between open contacts)  
.....50/60Hz 2500VAC 1 min.  
(between contacts and coil) (For 1 Common Terminal Relays)  
.....50/60Hz 2000VAC 1 min.  
(between contacts and coil) (For 2 Common Terminal Relays)
- Vibration Resistance.....Malfunction: 10 to 55Hz at Double Amplitude of 1.5mm  
.....Destructive: 10 to 55Hz at Double Amplitude of 1.5mm
- Shock Resistance.....Malfunction: 10G (11ms) / Destructive: 100G (6ms)
- Ambient Temperature..... $-55^{\circ}C \sim +85^{\circ}C$
- Relative Humidity.....85% at  $40^{\circ}C$
- Unit Weight.....Approx. 25g

## ORDERING INFORMATION

953 - 1C - 12 D G F - 1

1 2 3 4 5 6 7

Common Terminals Type.....1 = 1 Common Terminal  
(No Common Terminal between Coil Terminals)  
.....2 = 2 Common Terminals  
(One Common Terminal between Coil Terminals)

Type of Insulation.....Nil = Class A  
.....F = Class F

Enclosure ..... Nil = Open Type (Without Dust Cover)  
.....G = Sealed Type (With Dust Cover)

Coil Type..... D: DC  
..... A: AC

Coil Voltage.....DC: 5~48V  
.....AC: 6~277V

Contact Arrangement..... 1A = 1 Form A (SPST-NO)  
..... 1B = 1 Form B (SPST-NC)  
..... 1C = 1 Form C (SPDT)

Model Number.....953

## COIL RATINGS (at 20°C)

COIL TYPE	Coil Nominal Voltage (V)	Coil Resistance ( $\Omega \pm 10\%$ )	Pick-Up Voltage (V) $\leq$	Drop-Out Voltage (V) $\geq$	Nominal Current (mA)
DC Standard Coils	5	27	3.75	0.5	185
	6	40	4.5	0.6	150
	9	97	6.75	0.9	93
	12	155	9	1.2	77
	18	380	13.5	1.8	47
	24	660	18	2.4	36
	36	1440	27	3.6	25
	48	2560	36	4.8	19
AC	6	10	5.1	0.6	
	12	43	10.2	1.2	
	24	160	20.4	2.4	
	110	3160	93.5	11	
	220	13490	187	22	
	277	19900	235.4	27.7	

\* Max Continuous Voltage at 20°C: 110% of Coil Nominal Voltage.

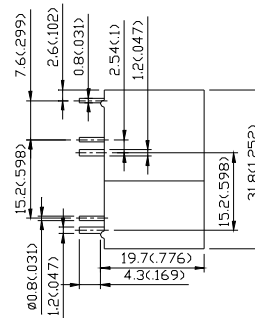
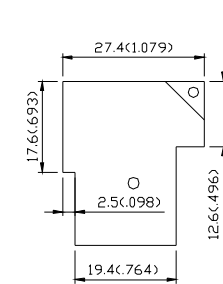
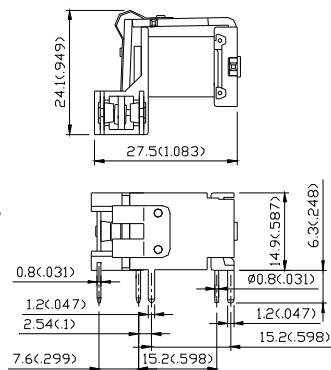
## OUTLINE DIMENSIONS

### Dimensions

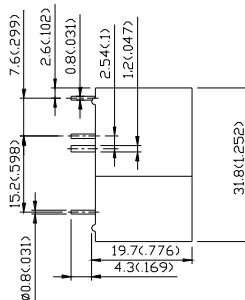
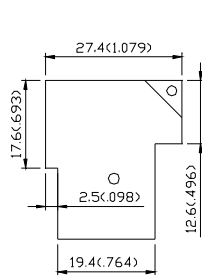
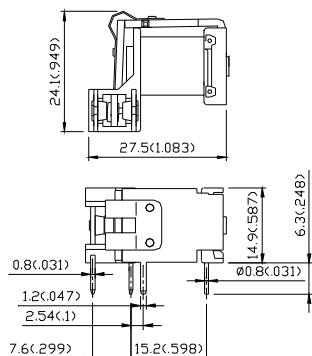
#### Open Type

#### Sealed Type

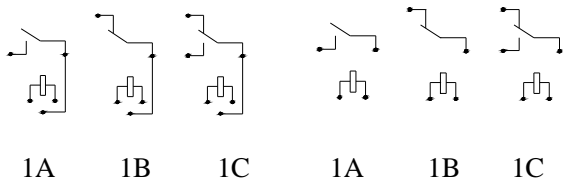
#### 2 Common Terminals



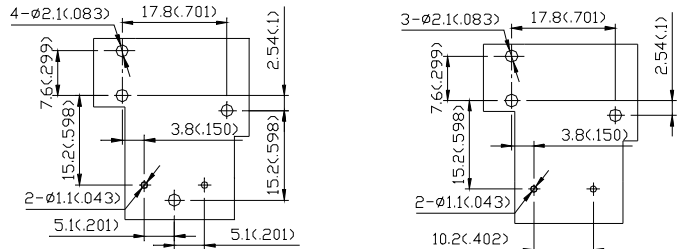
#### 1 Common Terminal



**Internal Connections (Bottom View)**



**Drilling Plan (Bottom View)**



2 Common Terminals      1 Common Terminal

2 Common Terminals      1 Common Terminal

REMARK: Tolerance of outline dimensions: ±0.2 (.008).

UNIT: mm (inch)

**SAFETY APPROVAL**

**I UL APPROVAL**

Contact Rating	1 Form A	1 Form B	1 Form C (SPDT)	
	(SPST-NO)	(SPST-NC)	NO	NC
Resistive Load	20A / 277VAC    20A/30VDC 19.8A / 277VAC    30A / 240VAC	15A / 277VAC 10A / 30VDC	20A / 277VAC 20A / 30VDC	15A / 277VAC 10A / 30VDC
General Purpose Load	10A / 277VAC	8A / 277VAC	10A / 277VAC	8A / 277VAC
Motor Load (Cos φ : 0.4 ~ 0.5)	2HP / 250VAC 1HP / 125VAC	1/2HP / 250VAC 1/4HP / 125VAC	2HP / 250VAC 1HP / 125VAC	1/2HP / 250VAC 1/4HP / 125VAC
Horse Power	FLA 10.3 LRA 61.8 / 277VAC FLA 11.2 LRA 67.2 / 240VAC FLA 12 / 250VAC FLA 16 LRA 96 / 240VAC FLA 16 LRA 96 / 120VAC FLA 16 / 125VAC	FLA 4.9 / 250VAC FLA 5.8 / 125VAC	FLA 12 / 250VAC FLA 16 / 125VAC	FLA 4.9 / 250VAC FLA 5.8 / 125VAC
Ballast	20A / 277VAC		20A / 277VAC	

**I TUV APPROVAL**

Contact Rating	1 Form A	1 Form B	1 Form C (SPDT)	
	(SPST-NO)	(SPST-NC)	NO	NC
Resistive Load	30A / 250VAC 20A / 30VDC	15A / 250VAC 15A / 30VDC	20A / 250VAC 20A / 30VDC	10A / 250VAC 10A / 30VDC
Inductive Load (Cos φ : 0.4, L/R: 7ms)	15A / 250VAC 15A / 30 VDC	8A / 250VAC 8A / 30VDC	10A / 250VAC 10A / 30VDC	8A / 250VAC 8A / 30VDC
Motor Load (Cos φ : 0.6)	2HP / 250VAC 1HP / 125VAC	1/2HP / 250VAC 1/4HP / 125VAC	2HP / 250VAC 1HP / 125VAC	1/2HP / 250VAC 1/4HP / 125VAC
Pilot Duty Load (Rate 6000 Operations)	720VA / 240VAC 800VA / 125VAC	360VA / 240VAC 290VA / 125VAC	470VA / 240VAC 470VA / 125VAC	360VA / 240VAC 290VA / 125VAC

**● CQC APPROVAL**

Contact Rating	1 Form A	1 Form B	1 Form C (SPDT)	
	(SPST-NO)	(SPST-NC)	NO	NC
Resistive Load	30A / 240VAC	20A / 240VAC	30A / 240VAC	20A / 240VAC

**● CE DECLARATION OF COFORMITY**

In conformity with the Low Voltage Directive 73/23/EEC

Test Report No.: E9967734E02 (TUV)

Test Specification:

EN61810-1 ; EN61810-5; EN60255-23