

953B 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 SPST-NO and 20A switching in SPDT-NC arrangement.
- Meets UL 508 & UL 873 spacing.
- Nominal power 930mW.
- Operating power 520mW.
- Both PCB terminal & Quick Connect Terminal for contacts.



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

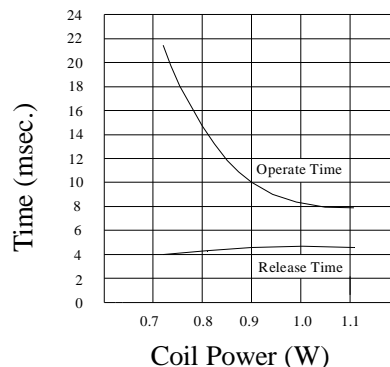
CONTACT RATINGS

- 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 B20A
 - 1 Form C.....30A
- Contact Resistance..... $\leq 50m\Omega$
- Resistive Load
 - 1 Form A.....30A/250VAC , 20A/277VAC , 20A/30VDC
 - 1 Form B20A/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

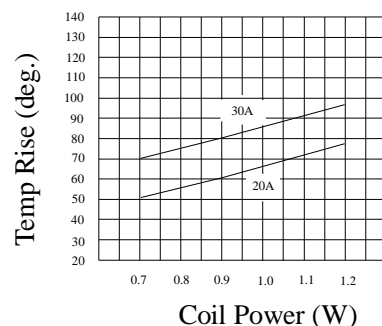
CHARACTERISTICS

- Electrical Life..... 1×10^5
- Mechanical Life..... 1×10^7
- Initial Insulation Resistance.....Min. 500M Ω 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)

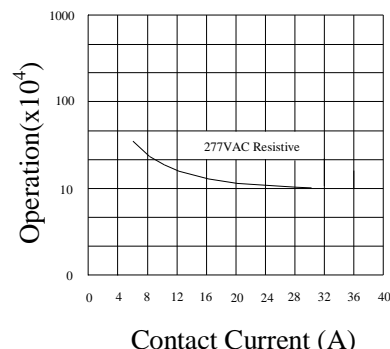
953B Referential Data Timing



Coil Temperature Rise



Life Curves



- 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°C ~ +85°C
- Relative Humidity..... 85% at 40°C
- Unit Weight..... Approx. 28g

ORDERING INFORMATION

953 - 1C - 12 D B F
 1 2 3 4 5 6

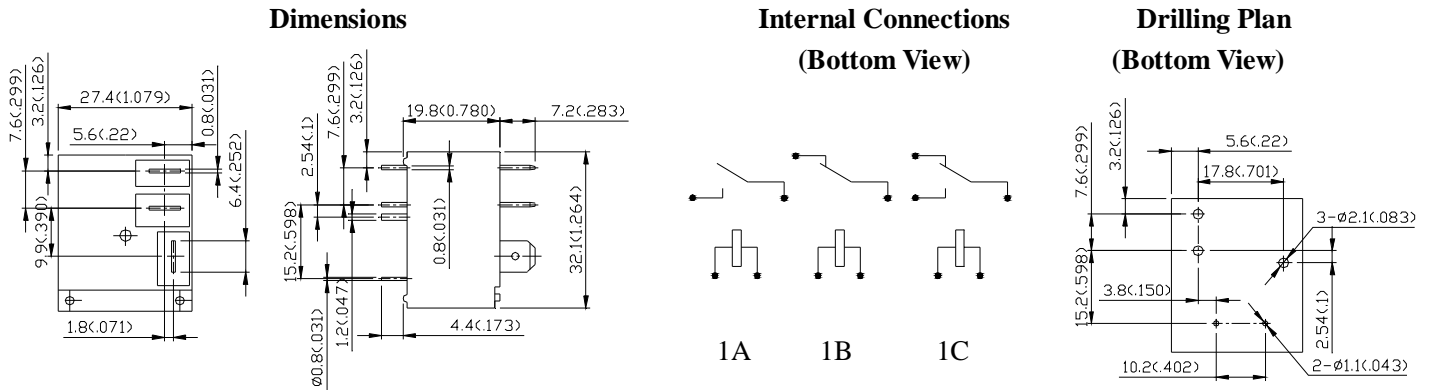
Type of Insulation..... Nil = Class A
F = Class F
 Enclosure Connect Type.....B = Double Connect II Type
 Coil Type..... D: DC ; A: AC.
 Coil Voltage..... DC: 5~48V ; AC: 6~277V
 Contact Arrangement.....1A = 1 Form A (SPST-NO) .
1B = 1 Form B (SPST-NC)
1C = 1 Form C (SPDT)
 Model Number.....953

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



REMARK: Tolerance of outline dimensions: $\pm 0.2(0.008)$.

UNIT: mm (inch)

SAFETY APPROVAL

I UL APPROVAL

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

I TUV APPROVAL

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

I CCEE APPROVAL

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

I 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