

FEATURES

- Subminiature “sugar cube” relay with universal terminal footprint.
- UL class-F coil insulation model available (UL class-B coil insulation for standard model).
- High switching capacity: 10A.
- Withstands impulse of up to 4500V.
- 400-mW and 360-mW coil power consumption types available.
- Pre-soldered terminals.



UL FILE NO: E171095

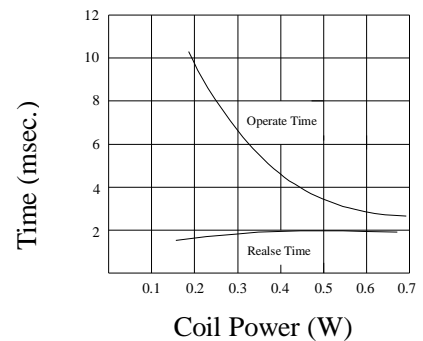
CONTACT RATINGS

- Contact Arrangement.....1 Form A (SPST-NO)
.....1 Form C (SPDT)
- Max. Switching Power.....2500VA 240W
- Max. Switching Voltage.....277VAC 30VDC
- Max. Switching Current.....12A
- Contact Resistance..... $\leq 100m\Omega$
- Resistive Load.....12A 120VAC 10A 125VAC 8A 30VDC
- Motor Load1/6HP 120VAC 1/3HP 125VAC 1/8HP 120VAC
- General Use.....10A 250VAC 6A 277VAC
- Horse Power Load
1 Form AFLA:15A / LRA:25A/ 120VAC
- Pilot Duty
1 Form A.....1.5A/30VAC
- TV Rating
1 Form ATV-5 (120VAC)
1 Form C.....TV-3 (125VAC)
- Contact Material.....Ag Alloy
- Min. Permissible Load.....100 mA at 5VDC

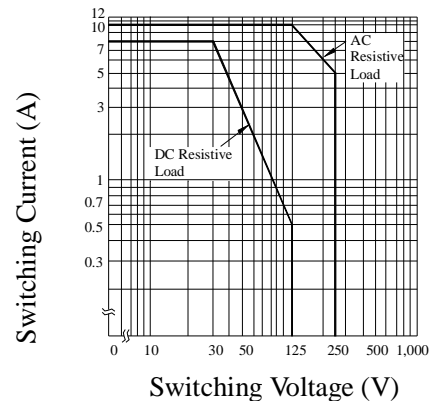
CHARACTERISTICS

- Electrical Life
..... 1×10^5 (at 1800 operations/hr) (12A 120VAC 3×10^4)
- Mechanical Life..... 1×10^7 (at 18000 operations/hr)
- Initial Insulation Resistance.....Min. 100M Ω 500VDC
- Contact Resistance (Initial)..... $\leq 100m\Omega$
- Operate Time..... $\leq 10ms$
- Release Time..... $\leq 5ms$
- Initial Dielectric Strength
.....50/60Hz 750VAC 1 min. (between open contacts)
.....50/60Hz 2000VAC 1 min. (between contacts and coil)

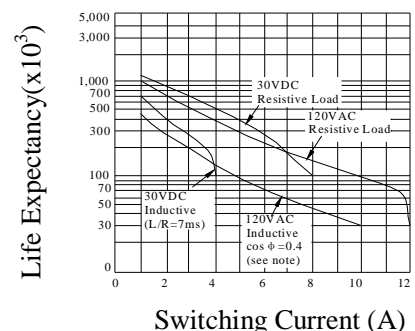
Y21 Referential Data Timing



Maximum Switching Power



Life Expectancy



Note: Same curve as for 250VAC resistive load

- Vibration ResistanceMalfunction: 10 to 55Hz at Double Amplitude of 1.5mm
.....Destructive: 10 to 55Hz at Double Amplitude of 1.5mm
- Impulse Withstand Strength
.....4500VAC (1.2×50μs) (between coil and contacts)
- Shock Resistance
.....Malfunction: 10G (11ms) / Destructive: 100G (6ms)
- Ambient Temperature.....-40℃ to +85℃
- Ambient Humidity.....35% to 85%
- Unit Weight.....Approx. 12g

ORDERING INFORMATION

Y21 H 1C- 12 D S - F
1 2 3 4 5 6 7

Type of Insulation..... Nil = Class A
.....F = Class F
Enclosure..... Nil = General Type
.....S = Sealed Type
Coil Type..... D: DC
Coil Voltage.....3~48V
Contact Arrangement..... 1A = 1 Form A (SPST-NO)
..... 1C = 1 Form C (SPDT)
Coil Sensitivity.....Nil = Standard Type
.....H = High Sensitive Type
Model Number.....Y21

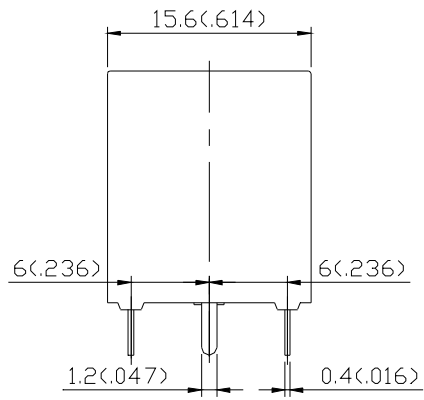
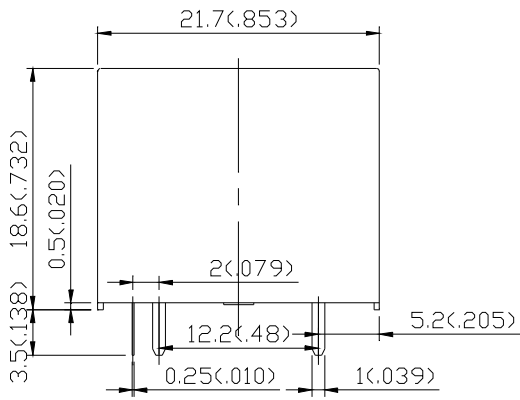
COIL RATINGS (at 20℃)

| COIL TYPE | Coil Nominal Voltage (V) | Coil Resistance (Ω ± 10%) | Pick-Up Voltage (V) ≤ | Drop-Out Voltage (V) ≥ | Nominal Current (mA) |
|----------------------------|--------------------------|---------------------------|-----------------------|------------------------|----------------------|
| DC Standard Coils | 3 | 22.5 | 2.25 | 0.3 | 133.3 |
| | 5 | 63 | 3.75 | 0.5 | 79.4 |
| | 6 | 90 | 4.5 | 0.6 | 66.7 |
| | 9 | 200 | 6.75 | 0.9 | 45 |
| | 12 | 360 | 9 | 1.2 | 33.3 |
| | 24 | 1440 | 18 | 2.4 | 16.7 |
| | 48 | 5760 | 36 | 4.8 | 8.33 |
| DC High Sensitive Coils | 3 | 25 | 2.25 | 0.3 | 120 |
| | 5 | 70 | 3.75 | 0.5 | 71 |
| | 6 | 100 | 4.5 | 0.6 | 60 |
| | 9 | 225 | 6.75 | 0.9 | 40 |
| | 12 | 400 | 9 | 1.2 | 30 |
| | 24 | 1600 | 18 | 2.4 | 15 |
| | 48 | 6400 | 36 | 4.8 | 7.5 |

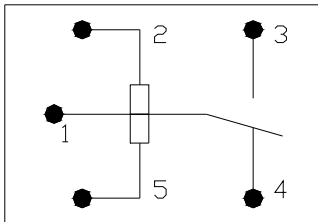
* Max Continuous Voltage at 20℃: 110% of Coil Nominal Voltage.

OUTLINE DIMENSIONS

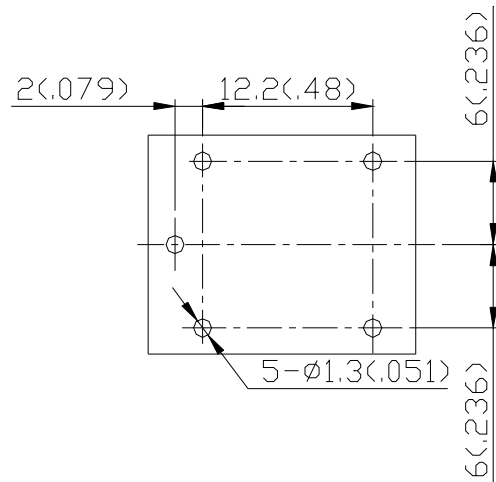
Dimensions



Internal Connections (Bottom View)



Drilling Plan (Bottom View)



REMARK: Tolerance of outline dimensions: $\pm 0.2(.008)$.

UNIT: mm (inch)