

High Power Sugar Cube Relay



RoHS

FI E352916

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H x W x D: 21,1 x 22 x 16,2 [mm]

» Features

- 1 form A (NO) contact
- 32A switching capability
- 1,67W or 2,8W coil power
- Contact gap ≥2,1mm
- Low coil holding voltage (36%) to save power
 Dielectric strength 4kV between coil and contact

» Application Examples

- PV inverter
- EV charger (wallbox, IC-CPD)
- HVAC (heating, ventilation, air conditioning)

100

2

NF32

» Ordering Information

<u>NF32</u>

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1. Type:



- 2. Contact configuration: 100 = 1NO (1 form A)
- 3. Contact material: $E = AgSnO_2$

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4. Contact rating: 32 = 32A

| 5. DC Coil volta | g |
|------------------|---|
| 6. Coil Power: | |

7. Protection:

L = 1670 mW $H = 2800 \text{mW} (9 \sim 24 \text{V only})$ V = Vented (flux-tight)

S = Sealed (washable)

» Contact Data

| Contact Arrangement | 1 form A (NO) | | |
|---------------------------------|------------------------------------|--|--|
| Contact Material | AgSnO ₂ | | |
| Contact Rating (Resistive Load) | 32A, 277VAC | | |
| Max. Switching Voltage | 400VAC | | |
| Max. Switching Current | 32A | | |
| Max. Switching Power | 8864VA | | |
| Initial Contact Resistance | ≤100mΩ (voltage drop test 6VDC/1A) | | |
| Electrical Endurance | 10 x 10 ³ | | |
| Mechanical Endurance | 500 x 10 ³ | | |

» Coil Rating

| Rated Coil Voltage [VDC] | Nominal Current [mA] | Coil Resistance [Ω] ± 10% | Max. Pull-in Voltage [VDC] | Min. Drop- out Voltage [VDC] | Coil Power [mW] |
|--------------------------------|----------------------------|---------------------------------|----------------------------------|------------------------------------|-----------------------|
| 5 | 334,0 | 15 | 4,00 | 0,25 | 1670 |
| 9 | 185,6 | 49 | 7,20 | 0,45 | 1670 |
| 12 | 139,2 | 86 | 9,60 | 0,60 | 1670 |
| 24 | 69,6 | 345 | 19,20 | 1,20 | 1670 |
| 48 | 34,8 | 1380 | 38,40 | 2,40 | 1670 |
| 9 | 311,1 | 29 | 7,20 | 0,45 | 2800 |
| 12 | 233,3 | 51 | 9,60 | 0,60 | 2800 |
| 24 | 116,7 | 206 | 19,20 | 1,20 | 2800 |







» Specification

| Insulation resistance | ≥1000MΩ (at 500VDC) |
|---|---|
| Initial Dielectric Strength | between open contact: 2000 Vrms, 50/60Hz for 1min between contact and coil: 4000 Vrms, 50/60Hz for 1min |
| Operate Time / Release Time | \leq 15ms / \leq 10ms (at nominal voltage) |
| Environmental Protection | RTII (flux-tight) or RTIII (washable) |
| Shock Resistance | Malfunction: 98m/s ² Destruction: 980m/s ² |
| Vibration Resistance | Malfunction: $10 \sim 55$ Hz, 1,0mm double amplitude |
| Ambient Operating Temperature (without icing or condensation) | -40 ~ +85°C |
| Ambient Operating Humidity | 5% ~ 85% RH |
| Weight | Approx. 16g |
| Packaging Unit | 25 pcs/tube, 40 tubes/box |

» Safety Approvals

| Approval | File No. | Rating(s) |
|----------|----------|--|
| UL | E352916 | 2,8W: 32A @ 277VAC @ 85°C 1,67W: 32A @ 277VAC @ 105°C |

» **Dimensions**



Remark: 1) The reference tolerance in outline dimension: outline dimension ≤ 1 mm, reference tolerance is ± 0.2 mm; outline dimension >1mm and \leq 5mm, reference tolerance is ±0.3mm; outline dimension >5mm, reference tolerance is ±0.5mm.

2) The reference tolerance for PC Board layout is ± 0.1 mm.

Disclaimer

All technical performance data apply to the relay as such, specific conditions of the individual application are not considered. Please always check the suitability of the relay for your intended purpose. We do not assume any responsibility or liability for not complying herewith. Any responsibility for the application of the product remains with the customer only. All specified values apply at room temperature, unless otherwise stated. All specifications are subject to change without notification. All rights are reserved.

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