

Contactors Relays

Series K3-07.. & KG3-07..

Contactors Relays

AC Operated



| Ratings | | Therm. Rated Current | Contacts | | Distinc. Number acc. to | Additional Contact Blocks | Type | Coil voltage ¹⁾ | | Pack pcs. | Weight kg/pc. |
|---------|------|----------------------|----------|---------|-------------------------|---------------------------|-------------|----------------------------|-----------|-----------|---------------|
| AC15 | 400V | | Built-in | NO NC | | | | 24 | 110V 50Hz | | |
| 230V | A | A | NO NC | EN50011 | Type | | 24V 50/60Hz | 230-264V 60Hz | | | |
| A | A | A | | | | | 110V 50Hz | 400-440V 60Hz | | | |

4-pole, contacts suitable for electronic circuits according to EN947-5-4²⁾

| 4 | 2 | 10 | 4 | - | 40E | max. 4 | K3-07ND40 ... | 1 | 0,22 |
|---|---|----|---|---|-----|--------|---------------|---|------|
| 4 | 2 | 10 | 3 | 1 | 31E | HN.. | K3-07ND31 ... | 1 | 0,22 |
| 4 | 2 | 10 | 2 | 2 | 22E | max. 2 | K3-07ND22 ... | 1 | 0,22 |
| 4 | 2 | 10 | - | 4 | 04E | HB.. | K3-07ND04 ... | 1 | 0,22 |

Auxiliary Contact Blocks ³⁾

| Ratings | | Thermal Rated Current | Contacts ²⁾ | | | | Type | Pack pcs. | Weight kg/pc. |
|---------|------|-----------------------|------------------------|----|----|----|------|-----------|---------------|
| AC15 | 400V | | NO | NC | EM | LB | | | |
| 230V | A | A | | | | | | | |
| A | A | A | | | | | | | |



1-pole, contacts suitable for electronic circuits according to EN947-5-4²⁾

| 3 | 2 | 10 | 1 | - | - | - | HN10 | 10 | 0,02 |
|---|---|----|---|---|---|---|-------|----|------|
| 3 | 2 | 10 | - | 1 | - | - | HN01 | 10 | 0,02 |
| 3 | 2 | 10 | - | - | 1 | - | HN10U | 10 | 0,02 |
| 3 | 2 | 10 | - | - | - | 1 | HN01U | 10 | 0,02 |

1-pole, for high switching capacity

| 6 | 3 | 25 | 1 | - | - | - | HA10 | 10 | 0,03 |
|---|---|----|---|---|---|---|------|----|------|
| 6 | 3 | 25 | - | 1 | - | - | HA01 | 10 | 0,03 |

For additional accessories please refer to the full catalog at www.bnj-usa.com or our Contactor Accessories datasheet.

1)) Other coil voltages see page

2)) Contacts suitable for electronic circuits, according to EN947-5-4 for rated voltage 24V (test ratings 17V DC, 5mA) Mirror contacts acc. IEC60947-4-1 Annex F.

3)) Technical Data see page 62

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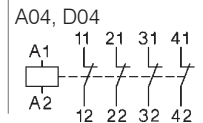
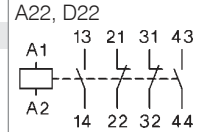
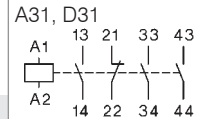
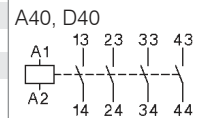
DC Operated

| Type | Coil voltage ¹⁾ | | Contacts | | | Pack pcs. | Weight kg/pc. | Wiring Diagrams |
|------|----------------------------|---------|----------|-------------------------|---------------------------|-----------|---------------|-----------------|
| | 24 | 48 | Built-in | Distinc. Number acc. to | Additional Contact Blocks | | | |
| | 24V DC | 48V DC | | | | | | |
| | 110V DC | 220V DC | NO | NC | EN50011 | | | |



3W Coil power, for high switching capacity ³⁾

| | | | | | | | |
|---------------|---|---|-----|--------|---|------|----------|
| KG3-07A40 ... | 4 | - | 40E | max. 4 | 1 | 0,53 | A40, D40 |
| KG3-07A31 ... | 3 | 1 | 31E | HN.. | 1 | 0,53 | A31, D31 |
| KG3-07A22 ... | 2 | 2 | 22E | or | 1 | 0,53 | |
| KG3-07A04 ... | - | 4 | 04E | HA.. | | 0,53 | A04, D04 |

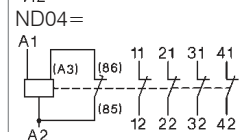
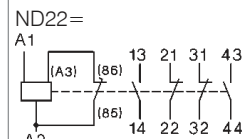
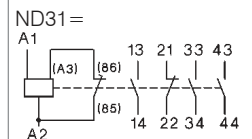
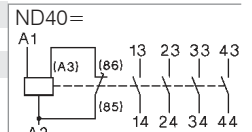


3W Coil power, for electronic circuits ²⁾³⁾

| | | | | | | | |
|---------------|---|---|-----|--------|---|------|--|
| KG3-07D40 ... | 4 | - | 40E | max. 4 | | 0,53 | |
| KG3-07D31 ... | 3 | 1 | 31E | HN.. | 1 | 0,53 | |
| KG3-07D22 ... | 2 | 2 | 22E | | 1 | 0,53 | |
| KG3-07D04 ... | - | 4 | 04E | | 1 | 0,53 | |

with double winding coil, for electronic circuits ²⁾

| | | | | | | | |
|----------------|---|---|-----|--------|---|------|-------|
| K3-07ND40= ... | 4 | - | 40E | max. 3 | 1 | 0,25 | ND40= |
| K3-07ND31= ... | 3 | 1 | 31E | HN.. | 1 | 0,25 | ND31= |
| K3-07ND22= ... | 2 | 2 | 22E | max. 2 | 1 | 0,25 | |
| K3-07ND04= ... | - | 4 | 04E | HB.. | 1 | 0,25 | ND04= |



- 1)) Other coil voltages on request
- 2)) Contacts suitable for electronic circuits, according to EN947-5-4 for rated voltage 24V (test ratings 17V DC, 5mA) Mirror contacts acc. IEC60947-4-1 Annex F.
- 3)) with integrated coil suppressor (transient Voltage Suppressor Diode)

Contactors Relays

Data according to IEC 947-5-1, VDE 0660, EN 60947-5-1

| | | Type | K3-07ND | K3-07ND= | KG3-07A | KG3-07D |
|---|-----------------------------------|---------------------|--------------------------------|-----------|-----------------------|-----------------------|
| Rated insulation voltage U_i¹⁾ | | V AC | 690 | 690 | 690 | 690 |
| Thermal rated current I_{th} to 690V | | | | | | |
| Ambient temperature | 40°C | A | 10 | 10 | 20 | 10 |
| | 60°C | A | 6 | 6 | 16 | 6 |
| Frequency of operations z | | 1/h | 10000 | 10000 | 10000 | 10000 |
| Mechanical life | | S x 10 ⁶ | 10 | 10 | 10 | 50 |
| Utilization category AC15 | | | | | | |
| Rated operational current I_e | 220-240V | A | 4 | 4 | 12 | 4 |
| | 380-415V | A | 2 | 2 | 4 | 2 |
| | 440V | A | 1,6 | 1,6 | 4 | 1,6 |
| | 500V | A | 1,2 | 1,2 | 3 | 1,2 |
| | 660-690V | A | 0,6 | 0,6 | 1 | 0,6 |
| Utilization category DC13 | | | | | | |
| Rated operational current I_e | 24-60V | A | 3,5 | 3,5 | 8 | 3,5 |
| | 110V | A | 0,5 | 0,5 | 1 | 0,5 |
| per pole | 220V | A | 0,1 | 0,1 | 0,1 | 0,1 |
| Power consumption of coils | | | | | | |
| AC operated | inrush | VA | 30 - 45 | - | - | - |
| | sealed | VA | 7 - 10 | - | - | - |
| | | W | 2,6 - 3 | - | - | - |
| DC operated | inrush | W | - | 75 | 3 | 3 |
| | sealed | W | - | 2 | 3 | 3 |
| Operation range of coils | | | | | | |
| in multiples of control voltage U_s | | | 0,85 - 1,1 | 0,8 - 1,1 | 0,8 - 1,1 | 0,8 - 1,1 |
| Switching time at control voltage $U_s \pm 10\%$ | | | | | | |
| | make time | ms | 8 - 16 | 8 - 16 | 65 - 85 | 65 - 85 |
| | release time | ms | 5 - 13 | 5 - 13 | 20 - 30 ³⁾ | 20 - 30 ³⁾ |
| Maximum ambient temperature | | | | | | |
| Operation | open | °C | -40 to +60 (+90) ²⁾ | | | |
| | enclosed | °C | -40 to +40 | | | |
| Storage | | °C | -40 to +90 | | | |
| Short circuit protection | | | | | | |
| short-circuit current 1kA, contact welding not accepted | | | | | | |
| max. fuse size | gL (gG) | A | 20 | 20 | 25 | 20 |
| Cable cross-section | | | | | | |
| Connector | solid | mm ² | 0,75 - 6 | | | |
| | flexible | mm ² | 1 - 4 | | | |
| | flexible with multicore cable end | mm ² | 0,75 - 4 | | | |
| Magnet coil | solid | mm ² | 0,75 - 2,5 | | | |
| | flexible | mm ² | 0,75 - 2,5 | | | |
| | flexible with multicore cable end | mm ² | 0,5 - 1,5 | | | |
| Clamps per pole | | | 2 | | | |
| Connector | solid | AWG | 18 - 10 | | | |
| | flexible | AWG | 18 - 10 | | | |
| Clamps per pole | | | 2 | | | |
| Magnet coil | solid | AWG | 14 - 12 | | | |
| | flexible | AWG | 18 - 12 | | | |
| Clamps per pole | | | 2 | | | |

Contactors Relays

Series K3-07.. & KG3-07..



Data according to UL508

| | | | | | |
|---|------------------|------|------|------|------|
| Rated operational current "General Use" | A | 10 | 10 | 20 | 10 |
| Rated operational voltage max. | V AC | 600 | 600 | 600 | 600 |
| Auxiliary Contacts | heavy pilot duty | A600 | A600 | A600 | A600 |

- 1) Suitable at 690V for: earthed-neutral systems, overvoltage category I to IV, pollution degree 3 (standard-industry): $U_{mp} = 8kV$. Data for other conditions on request.
- 2) With reduced control voltage range 0,9 up to 1,0 x U_s and with reduced thermal rated current I_{th} according to $I_s/AC15$
- 3) with built-in coil suppressor

Contactors Relays

Position of Terminals

AC operated

DC operated with double wound coil

K3-07ND22

K3-07ND31

K3-07ND40

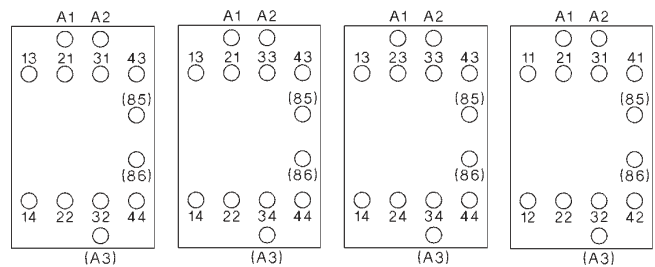
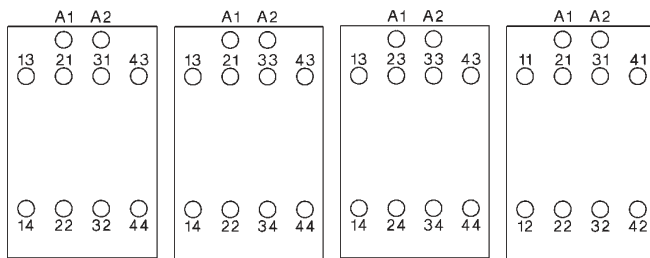
K3-07ND04

K3-07ND22=

K3-07ND31=

K3-07ND40=

K3-07ND04=



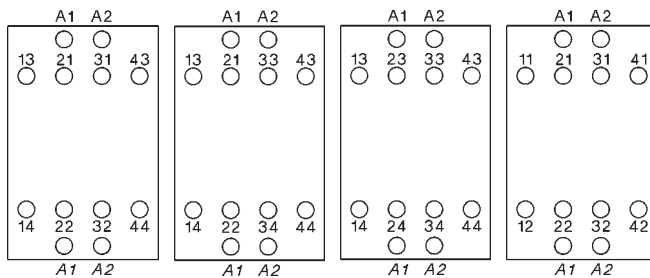
DC solenoid operated

KG3-07A22
KG3-07D22

KG3-07A31
KG3-07D31

KG3-07A40
KG3-07D40

KG3-07A04
KG3-07D04



Contactors Relays

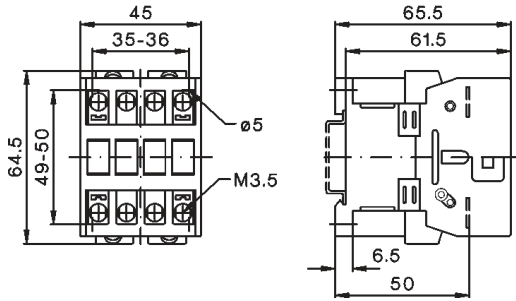
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Contactors Relays

Dimensions

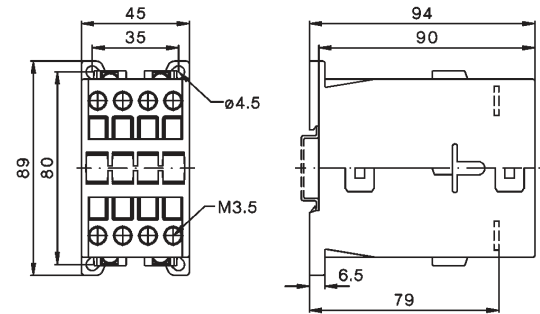
AC operated

K3-07ND..



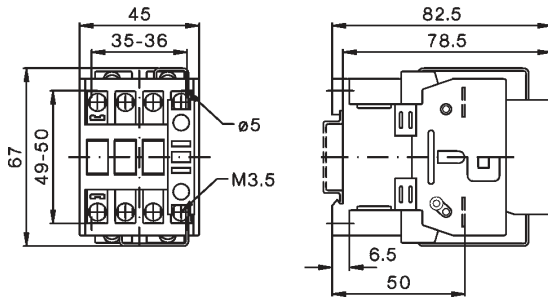
DC solenoid operated

KG3-07..



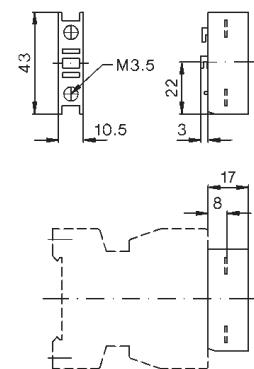
DC operated with double winding coil

K3-07ND.. =



Auxiliary contact blocks

HN10, HN01



HA10, HA01

