

DATA SHEET

Contactor Relays

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

Contactor Relays

AC Operated



Ratings		Therm. Rated Current I_{th} A	Contacts Built-in		Distinc. Number acc. to	Additional Contact Blocks	Type	Coil voltage ¹⁾	
AC15	230V		NO	NC				24	110
A	A	A			EN50011			24V 50/60Hz	110V 50Hz
	400V							220-240V 50Hz	110-120V 60Hz
								380-415V 50Hz	230-264V 60Hz
									400-440V 60Hz
									Pack Weight pcs. kg/pc.

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 A	Contacts ²⁾		Type	Pack pcs.	Weight kg/pc.
AC15	230V		NO	NC			
A	A	A			EM LB		

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

Contactor Relays

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

DC Operated

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

3W Coil power, for high switching capacity ³⁾

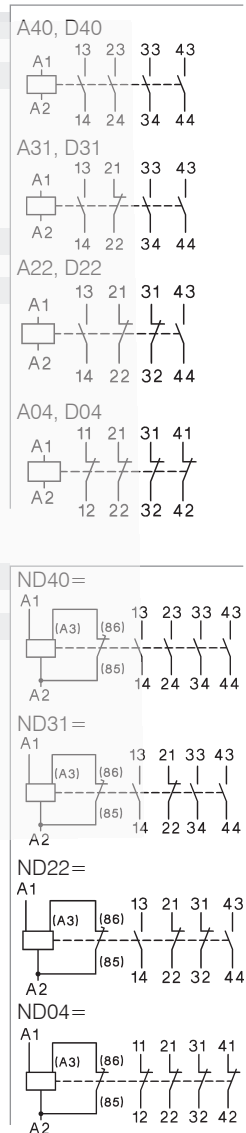
KG3-07A40 ...	4	-	40E	max. 4	1	0,53
KG3-07A31 ...	3	1	31E	HN..	1	0,53
KG3-07A22 ...	2	2	22E	or	1	0,53
KG3-07A04 ...	-	4	04E	HA..		0,53

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



- 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)

Contactor 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_i ¹⁾			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			10000	10000	10000	10000
Mechanical life			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 per pole	24-60V	A	3,5	3,5	8	3,5
	110V	A	0,5	0,5	1	0,5
	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	mm²	0,75 - 6			
	flexible	mm²	1 - 4			
	flexible with multicore cable end	mm²	0,75 - 4			
Magnet coil	solid	mm²	0,75 - 2,5			
	flexible	mm²	0,75 - 2,5			
	flexible with multicore cable end	mm²	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

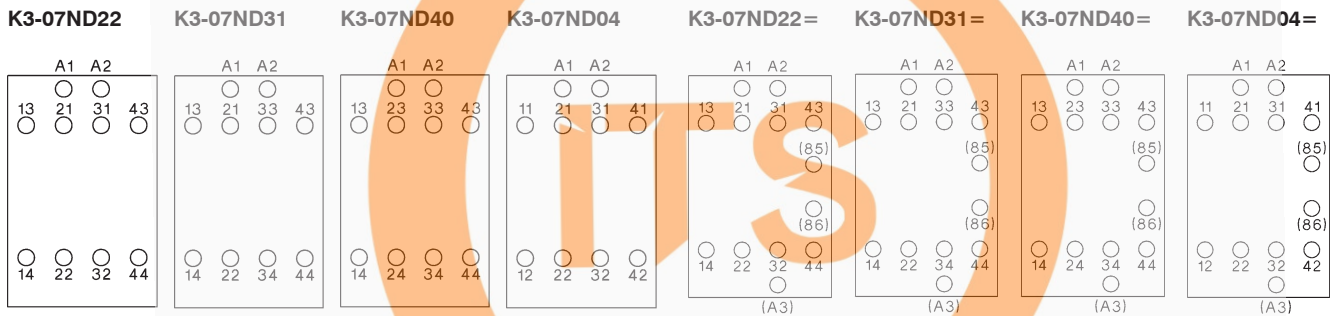
- 1) Suitable at 690V for: earthed-neutral systems, overvoltage category I to IV, pollution degree 3 (standard-industry): $U_{mp} = 8kV$. Data for other conditions on request.
- 2) With reduced control voltage range 0,9 up to $1,0 \times U_s$ and with reduced thermal rated current I_n according to $I_g/AC15$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

Contactors Relays

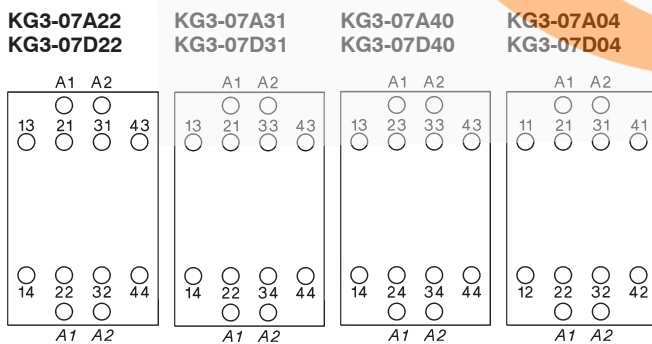
Position of Terminals

AC operated

DC operated with double wound coil



DC solenoid operated



Contactor Relays

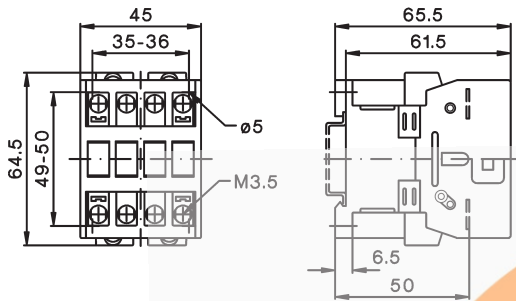
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Contactor Relays

Dimensions

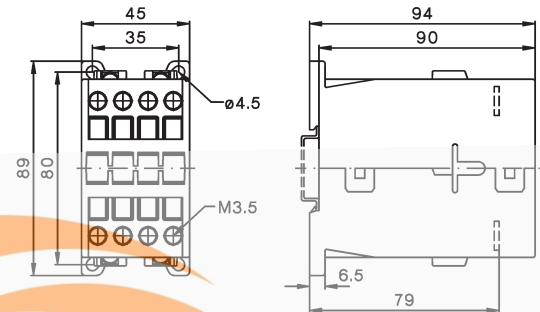
AC operated

K3-07ND..



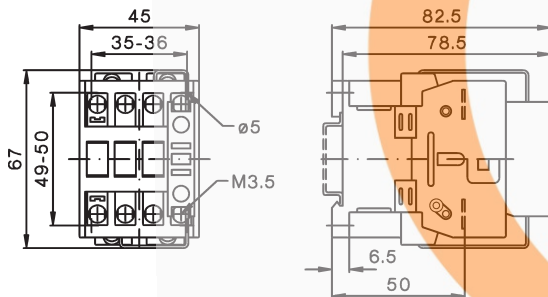
DC solenoid operated

KG3-07..



DC operated with double winding coil

K3-07ND.. =



Auxiliary contact blocks

HN10, HN01

HA10, HA01

