

# 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 <sup>1)</sup>		Pack pcs.	Weight kg/pc.
		Built-in					24			
AC15							24V 50/60Hz			
230V	400V						110V 50Hz	110-120V 60Hz		
A	A	A	NO NC	EN50011	Type		220-240V 50Hz	230-264V 60Hz		
							380-415V 50Hz	400-440V 60Hz		

#### 4-pole, contacts suitable for electronic circuits according to EN947-5-4<sup>2)</sup>

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 <sup>3)</sup>

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



#### 1-pole, contacts suitable for electronic circuits according to EN947-5-4<sup>2)</sup>

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](http://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

# Contactors Relays

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

DC Operated

Type	Coil voltage <sup>1)</sup>		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 <sup>3)</sup>

KG3-07A40 ...	4	-	40E	max. 4	1	0,53	A40, D40
KG3-07A31 ...	3	1	31E	HN..	1	0,53	A1 13 23 33 43 A2 14 24 34 44
KG3-07A22 ...	2	2	22E	or	1	0,53	
KG3-07A04 ...	-	4	04E	HA..		0,53	A31, D31

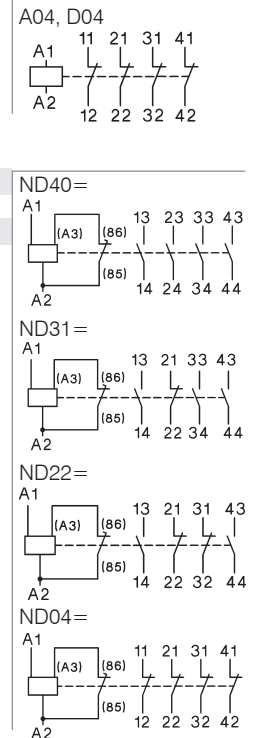
### 3W Coil power, for electronic circuits <sup>2)3)</sup>

KG3-07D40 ...	4	-	40E	max. 4		0,53	A1 13 21 33 43 A2 14 22 34 44
KG3-07D31 ...	3	1	31E	HN..	1	0,53	
KG3-07D22 ...	2	2	22E		1	0,53	A22, D22
KG3-07D04 ...	-	4	04E		1	0,53	A1 13 21 31 43 A2 14 22 32 44



### with double winding coil, for electronic circuits <sup>2)</sup>

K3-07ND40= ...	4	-	40E	max. 3	1	0,25	ND40= A1 (A3) (86) 13 23 33 43 A2 (85) 14 24 34 44
K3-07ND31= ...	3	1	31E	HN..	1	0,25	
K3-07ND22= ...	2	2	22E	max. 2	1	0,25	ND31= A1 (A3) (86) 13 21 33 43 A2 (85) 14 22 34 44
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)

## Contactors Relays

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

		Type	K3-07ND	K3-07ND=	KG3-07A	KG3-07D
<b>Rated insulation voltage <math>U_i</math><sup>1)</sup></b>		V AC	690	690	690	690
<b>Thermal rated current <math>I_{th}</math> to 690V</b>						
Ambient temperature	40°C	A	10	10	20	10
	60°C	A	6	6	16	6
<b>Frequency of operations z</b>		1/h	10000	10000	10000	10000
<b>Mechanical life</b>		S x 10 <sup>6</sup>	10	10	10	50
<b>Utilization category AC15</b>						
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
<b>Utilization category DC13</b>						
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
<b>Power consumption of coils</b>						
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
<b>Operation range of coils</b>						
in multiples of control voltage $U_s$			0,85 - 1,1	0,8 - 1,1	0,8 - 1,1	0,8 - 1,1
<b>Switching time</b> 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 <sup>3)</sup>	20 - 30 <sup>3)</sup>
<b>Maximum ambient temperature</b>						
Operation	open	°C	-40 to +60 (+90) <sup>2)</sup>			
	enclosed	°C	-40 to +40			
Storage		°C	-40 to +90			
<b>Short circuit protection</b>						
short-circuit current 1kA, contact welding not accepted						
max. fuse size	gL (gG)	A	20	20	25	20
<b>Cable cross-section</b>						
Connector	solid	mm <sup>2</sup>	0,75 - 6			
	flexible	mm <sup>2</sup>	1 - 4			
	flexible with multicore cable end	mm <sup>2</sup>	0,75 - 4			
Magnet coil	solid	mm <sup>2</sup>	0,75 - 2,5			
	flexible	mm <sup>2</sup>	0,75 - 2,5			
	flexible with multicore cable end	mm <sup>2</sup>	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
<b>Auxiliary Contacts</b>	heavy pilot duty	A600	A600	A600	A600

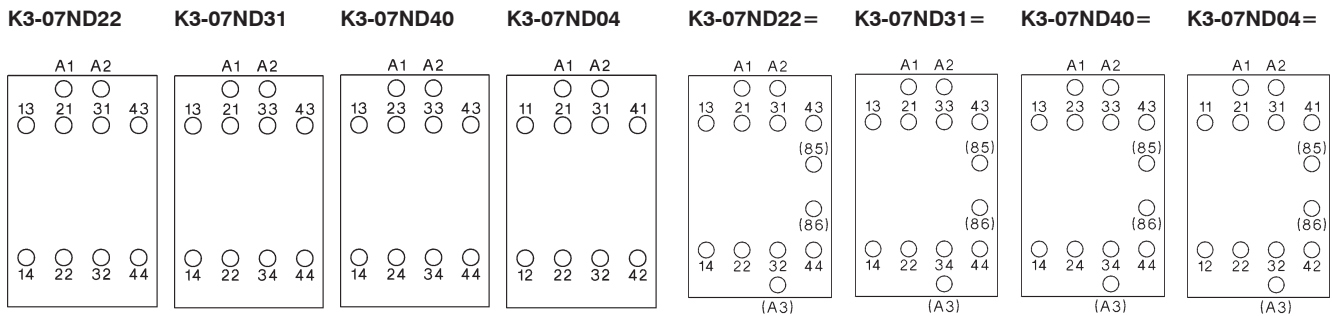
- 1) Suitable at 690V for: earthed-neutral systems, overvoltage category I to IV, pollution degree 3 (standard-industry):  $U_{mp} = 8kV$ . Data for other conditions on request.
- 2) With reduced control voltage range 0,9 up to 1,0 x  $U_s$  and with reduced thermal rated current  $I_n$  according to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

## Contactors Relays

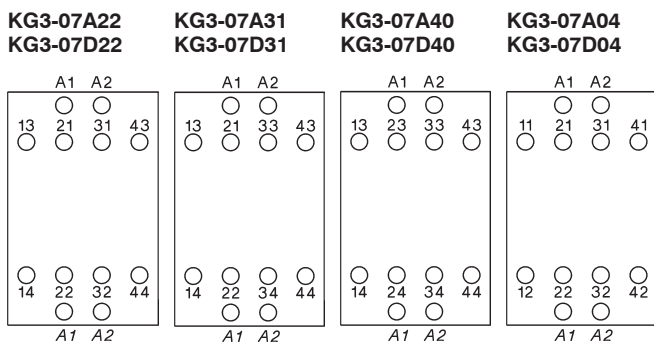
### Position of Terminals

AC operated

DC operated with double wound coil



DC solenoid operated



# Contactors Relays

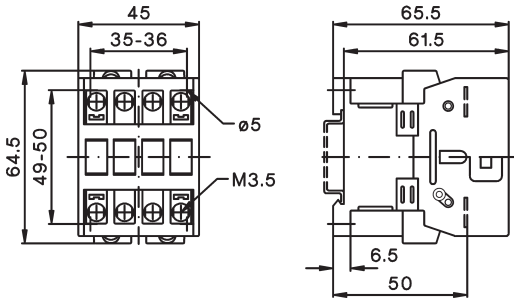
Series K3-07.. & KG3-07..

## Contactors Relays

### Dimensions

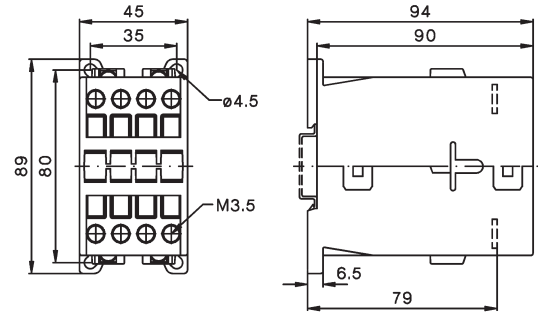
AC operated

K3-07ND..



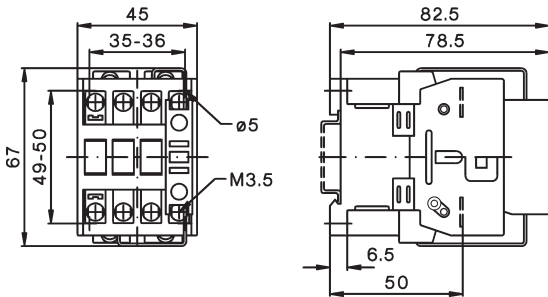
DC solenoid operated

KG3-07..



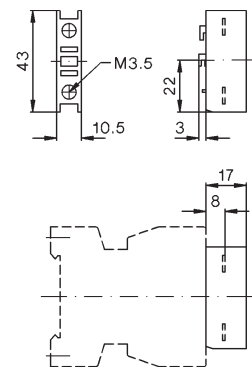
DC operated with double winding coil

K3-07ND.. =



### Auxiliary contact blocks

HN10, HN01



HA10, HA01

