

Contactors Accessories

For Series K3 & KG3 Series Contactors

Auxiliary Contact Blocks for contactors K(G)3-07.. to K3-115.., type HN.. for low level switching ¹⁾



Rated Operational Current			Contacts				Type	Pack pcs.	Weight kg/pc.
AC15 230V A	AC15 400V A	AC1 690V A	NO	NC	EM	LB			
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
6	3	25	1	-	-	-	HA10	10	0,03
6	3	25	-	1	-	-	HA01	10	0,03

Auxiliary Contact Blocks for contactors K3-.., for low level switching ¹⁾



Rated Operational Current			mounting: 1 HB.. on left side and 1 HB.. on right side	Contacts		Type	Pack pcs.	Weight kg/pc.
AC15 230V A	AC15 400V A	AC1 690V A		NO	NC			
3	2	10	for K3-10 to K3-22	1	1	HB11-1	10	0,02
3	2	10	for K3-24 to K3-115	1	1	HB11	10	0,02
3	2	10	for K3-24 to K3-115	-	2	HB02	10	0,02

Auxiliary Contact Blocks for contactors K3-116.. to K3-1200.., for low level switching ¹⁾



Rated Operational Current			For contactors	Contacts		Type	Pack pcs.	Weight kg/pc.
AC15 230V A	AC15 400V A	AC1 690V A		NO	NC			
3	2	10	K3-116 to K3-316 top	1	1	HKT11	1	0,04
3	2	10	K3-116 to K3-316 top	2	2	HKT22	1	0,05
3	2	10	K3-116 to K3-316 outside	1	1	HKA11	1	0,05
6	3	16	K3-200 to K3-860 ²⁾	2 ²⁾	2	HKF22	1	0,12
6	3	16	K3-1000, K3-1200 inside	1	1	HKB11	1	0,17

Snap-on Momentary Contacts for K(G)3-07.. to K3-115.. for low level switching¹⁾



Rated Operational Current			Specification	Contacts		Type	Pack pcs.	Weight kg/pc.
AC15 230V A	AC15 400V A	AC1 690V A		NO	NC			
3	2	10	manual operated	1	-	HTN10	10	0,02
3	2	10	manual operated	-	1	HTN01	10	0,02

Terminal Blocks for contactors K(G)3-07.. to K3-115.. and K2-..



Specification	Thermal Current I _{th} A	Type	Pack pcs.	Weight kg/pc.
2 terminals interconnected	26	K2-DK	10	0,02
2 terminals insulated	26	K2-SK	10	0,02

1) Contacts suitable for electronic circuits, according to IEC60947-5-4 for rated voltage 24V DC (test ratings 17V DC, 5mA) Mirror contacts acc. IEC60947-4-1 Annex F. Technical data see page 80

Contactors Accessories

For Series K3 & KG3 Series Contactors

Electronic Timer

for mounting on DIN-rail, Control voltage 24-240V AC/DC, 1 changeover contact
 OFF-delay without auxiliary voltage
 Replace Pneumatic Timer K2-TP.. and K2-TA



5 Functions in one device	4 Time ranges in one device	Rated Current AC1 250V A	Type	Pack pcs.	Weight kg/pc.
ON-delay, OFF-delay, Single shot trailing edge, Single shot leading edge, Single shot leading and trailing edge	0,1 - 1, 1 - 10, 6 - 60 a. 18 - 180	5	K3-T180 240	1	0,085

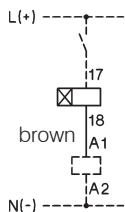
Electronic Timer On-delay for contactors K(G)3-07.. to K3-115.. and K2-..

Timer will be connected with the contactor coil, can be snapped onto the contactor and occupies 2 add-on spaces. Contactor switches On-delay.

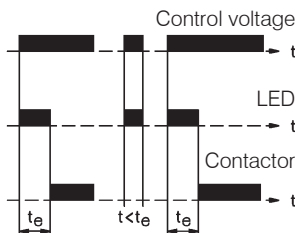


Operational Voltage V	Time Range s	Rated Current AC15 A	Type	Pack pcs.	Weight kg/pc.
24 - 60V AC/DC	1 - 30	0,75	K2-TE30 60	1	0,08
100 - 250V AC/DC	1 - 30	0,75	K2-TE30 250	1	0,08
24 - 60V AC/DC	10 - 180	0,75	K2-TE180 60	1	0,08
100 - 250V AC/DC	10 - 180	0,75	K2-TE180 250	1	0,08
24 - 60V AC/DC	30 - 600	0,75	K2-TE600 60	1	0,08
100 - 250V AC/DC	30 - 600	0,75	K2-TE600 250	1	0,08

Wiring Diagram



Timing Chart



Operation Range

Time repeat accuracy
 Recovery time (typical)

0,8 - 1,1 x U_s
 ≤1%
 50ms

Voltage Drop after the time delay t_e
 (Control voltage 24V: use contactor with 20V-coil)
 Max. inrush current (peak value)

<3V
 25A <10ms

Duty Cycle

Ambient temperature
 Short circuit protection

100%
 -40° - +60°C
 2A

Fuse Holders for contactors K(G)3-07.. to K3-115.. and K2-..



Specifications	Rated Voltage	Type	Pack pcs.	Weight kg/pc.
Fuse holder for fuse 5x20mm (max. 6,3A) Fuses are not included.	250V AC	K2-F	1	0,02

Rectifier with Fuse Holder for contactors K(G)3-07.. to K3-115.. and K2-..

Specifications	Rated Voltage	Type	Pack pcs.	Weight kg/pc.
with built-in rectifier 1A	250V AC	K2-RF1	1	0,03
with built-in rectifier 3A	250V AC	K2-RF3	1	0,03

Contactors Accessories

For Series K3 & KG3 Series Contactors

Latch for contactors K(G)3-07.. to K3-74.. and K2-..



with NC aux. contact
duty cycle 10%, max. 30 sec. AC / max. 20 sec. DC
power consumption max. 35VA

For Contactors

K3-07 to K3-22, K2-07 to K2-16

K3-24 to K3-40, K2-23 to K2-37, KG3-10 to KG3-40

K3-50 to K3-74, K2-45 to K2-60

Technical data see page 74

Latch / Magnetic latch for Contactors K3-151 to K3-1200 on request

Type	Coil voltage	Pack pcs.	Weight kg/pc.
24	22-26V 50/60Hz		
110	100-120V 50/60Hz		
230	210 -250V 50/60Hz		
400	360-440V 50/60Hz		
↓			
K2-L22 . . .		1	0,08
K2-L40 . . .		1	0,08
K2-L74 . . .		1	0,08

Indicator Units for contactors K(G)3-07.. to K3-115.. and K2-..



Specifications	Voltage Range	Type	Pack pcs.	Weight kg/pc.
Coil Current Indicator , green (LED)	24 - 660V AC/DC	K2-ING	10	0,02
Coil Current Indicator , red (LED)	24 - 660V AC/DC	K2-INR	10	0,02
To connect in series with the contactor coil. In case of coil interruption the indication goes out. Voltage drop appr. 2 volts				
Voltage Indicator , clear (glow-disc. I.)	220 - 415V AC/DC	K2-UN	10	0,02
Voltage Indicator , red (LED)	24 - 120V AC/DC	K2-UNR	10	0,02
To connect parallel to the contactor coil. In case of applied voltage the indication also lights at coil interruption.				

Snap-On Adapter



For Type	Specification	Type	Pack pcs.	Weight kg/pc.
K2-DK, K2-SK, K2-TE, K2-TA K2-IM, K2-F, K2-RF K2-IN., K2-UN.	for snap-on mounting of accessories on 35mm DIN-rail acc. DIN EN 50022	K2-SM	10	0,009

Reversing Starter Connector






For Reversing Starter Types	Type	Pack pcs.	Weight kg/pc.
K3NWU10, K3NWU18	K3NW-VB10	1	
K3WU24, K3WU32	K3W-VB24	1	0,025

Contactor Accessories


For Series K3 & KG3 Series Contactors

Mechanical Interlocks


	Interlocks contactor with Type	contactor Type	Mounting	Type	Pack pcs.	Weight kg/pc.
	K3-07 to K3-40 KG3-07 to KG3-22 KG3-24 to KG3-40 K2-07 to K2-37	K3-07 to K3-40 KG3-07 to KG3-22 KG3-24 to KG3-40 K2-07 to K2-37	horizontal	LG10889 ¹⁾	10	0,006
	K3-24 to K3-74 K2-23 to K2-60	K3-50 to K3-74 K2-45 to K2-60	horizontal	LG10890 ¹⁾	1	0,010
	K3-90, K3-115	K3-90, K3-115	horizontal	LG11478 ¹⁾	1	0,010
	K65 to K110	K65 to K110	horizontal	LG8511	1	0,076
	K3-116 to K3-316	K3-116 to K3-316	horizontal	LG11223H	1	0,06
	K3-315 to K3-550	K3-315 to K3-550	horizontal	LG10400H	1	0,8
	K3-315 to K3-550	K3-315 to K3-550	vertical	LG10400V	1	
	K3-450, K3-550	K3-700, K3-860	horizontal	LG10399H	1	
	K3-450, K3-550	K3-700, K3-860	vertical	LG10399V	1	
K3-700, K3-860	K3-700, K3-860	horizontal	LG10402H	1	1,5	
	K3-700, K3-860	K3-700, K3-860	vertical	LG10402V	1	0,9
	K3-700, K3-860	K3-1000, K3-1200	horizontal	LG10401H	1	1,9
	K3-700, K3-860	K3-1000, K3-1200	vertical	LG10401V	1	1,6
	K3-1000, K3-1200	K3-1000, K3-1200	horizontal	LG10403H	1	1,8
	K3-1000, K3-1200	K3-1000, K3-1200	vertical	LG10403V	1	1,5

1) clamps for mounting inc

Terminal Covers for terminal protection according to DIN 57106, VBG 4

	For Contactors	Specification	Type	Pack pcs.	Weight kg/pc.
	K65 to K110 (spare part)	for 6 terminals	LG9333	1	0,045
	K3-151, K3-176	3-pole for 3 terminals	LG10404	1	0,12
	K3-116 to K3-176	4-pole for 4 terminals	LG104044	1	0,14
	K3-210, K3-260, K3-316	for 3 terminals	LG11457	1	0,14
	K3-200	for 3 terminals	LG10405	1	0,18
	K3-315, K3-450	for 3 terminals	LG10406	1	0,28
	K3-550	for 3 terminals	LG10407	1	0,34
	K3-700	for 3 terminals	LG10408	1	0,39
	K3-860	for 3 terminals	LG10409	1	0,49

Additional Terminals

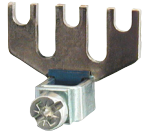
	For Contactors	Cable Cross-sections to clamp mm ² solid or stranded	flexible	flex. with multi- core cable end	Type	Pack pcs.	Weight kg/pc.
	Additional Terminal Single Pole, with fingertouch protection						
	K(G)3-10 to K(G)3-22	0,75 - 10	0,75 - 6	0,75 - 6	LG9339N	6	0,009
	K2-09 to K2-16						
	K3-151 to K3-176		16 - 120 + 16 - 95		LG11224	1	0,10

1) Inclusively mounting clamps

Contactor Accessories

For Series K3 & KG3 Series Contactors

Parallel Connectors



For Contactors	Cable Cross-sections to clamp mm ² solid or stranded	flexible	flex. with multi- core cable end	Type	Pack pcs.	Weight kg/pc.
Parallel Connectors, 3 Poles Parallel						
Current-carrying capacity: 2,5 x AC1-value of the contactor						
K(G)3-10 to K(G)3-22	terminal hole for screw M5			LG9241	50	0,004
K2-09 to K2-16						
K2-23 to K2-37	4 - 35	6 - 25	4 - 25	LG5587	10	0,022
Parallel Connectors, 4 Poles Parallel						
Current-carrying capacity: 3,2 x AC1-value of the contactor						
K(G)3-10 to K(G)3-22	terminal hole for screw M5			LG7360	10	0,006
K2-09 to K2-16						

Suppressor Units



Voltage Range V	Mounting		Type	Pack pcs.	Weight kg/pc.
RC-units for contactors K3-07 - K3-74					
12 - 48V AC/DC	to snap	1600nF / 22 Ohm	RC-K3N 24	10	0,01
48 - 127V AC/DC	on the	680nF / 270 Ohm	RC-K3N 110	10	0,01
110 - 230V AC/DC	contactor	220nF / 2200 Ohm	RC-K3N 230	10	0,01
230 - 415V AC/DC		120nF / 620 Ohm	RC-K3N 400	10	0,01
RC-units for contactors K3-07 - K3-74 and reversing contactors K3NWU10 - K3WU74					
12 - 48V AC/DC	to snap	1600nF / 22 Ohm	RC-K3NW 24	10	0,01
48 - 127V AC/DC	on the	680nF / 270 Ohm	RC-K3NW 110	10	0,01
110 - 230V AC/DC	contactor	220nF / 2200 Ohm	RC-K3NW 230	10	0,01
230 - 415V AC/DC		120nF / 620 Ohm	RC-K3NW 400	10	0,01

Mounting Parts



Description	For Type	Specification	Type	Pack pcs.	Weight kg/pc.
Clamp, no distance	K3-07 to K3-115 K2-07 to K2-37	To join contactors without distance, 2 pieces required	P426-1	50	0,001
Clamp, 7mm distance	K3-07 to K3-115 K2-07 to K2-37	To join contactors with 7mm distance, 2 pieces required	P418-1	10	0,002
Clamp, 12mm distance	K3-07 to K3-115 K2-07 to K2-37	To join contactors with 12mm distance, 2 pieces required	P807-1	10	0,002
Clamp asymmetric	K3-07 to K3-40 with K3-50 to K3-74	o join contactors with 12mm distance, 2 pieces required	P785-1	10	0,002
Retention clamp	K3-10 to K3-74	o close contactors	P725		



Marking System for contactors K3-07.. to K3-115.., K2-.. and aux. contact blocks HN and HA



Description	Specification	Type	Pack pcs.	Weight kg/100pc
Marking Plate	2-section without marking, divisible	P487-1	100	0,025
Marking Plate	3-section without marking, divisible	P971-1	100	0,038
Marking Plate	4-section without marking, divisible	P245-1	100	0,050
Marking Plate	marked, choice of K1...K32	P245-K..	100	0,013

Contactor Accessories

For Series K3 & KG3 Series Contactors

Accessories

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

Type		HN	HTN	HA	HB	HKT HKA	HKF HKB	K2-DK K2-SK	K2-TP	K2-L ²⁾	
Rated insulation voltage U_i ¹⁾	V AC	690	690	690	690	690	690	690	690	690	
Thermal rated current I_{th} to bis 690V Ambient temperature	max. 40°C	10	10	25	10	10	16	26	10	10	
	max. 60°C	6	6	20	6	-	-	-	-	6	
Frequency of operations z	1/h	3000	-	3000	3000	-	-	-	1200	3000	
Mechanical life	S x 10 ⁶	10	10	10	10	-	-	-	1	10	
Power loss per pole at I _N /AC1	W	0,5	0,5	1,5	0,5	-	-	-	-	-	
Utilization category AC15											
Rated operational current I _e	220-240V A	3	3	6	3	3	3	-	4	3	
	380-400V A	2	2	3	2	2	2	-	3	2	
	440V A	1,6	1,6	2	1,6	1,5	1,5	-	2	1,6	
	500V A	1,2	1,2	2	1,2	1,5	1,5	-	2	1	
	660-690V A	0,6	0,6	1	0,6	1	1	-	2	0,5	
Utilization category DC13											
Rated operational current I _e	60V A	2	2	8	2	-	-	-	2,5	2	
	110V A	0,4	0,4	1	0,4	0,5	0,5	-	1,5	0,4	
	220V A	0,1	0,1	0,1	0,1	0,2	0,2	-	0,2	0,1	
Short circuit protection short-circuit current 1kA, contact welding not accepted max. fuse size		gL (gG) A	20	20	25	20	10	10	-	10	10
For contactors with thermal overload relay or auxiliary contacts the device with the smaller admissible control fuse (contactor or thermal overload relay) determines the fuse size.											
Cable cross-sections											
solid or stranded	mm ²	0,75-2,5	0,75-2,5	0,75-2,5	0,75-2,5	0,75-2,5	0,75-2,5	0,75-2,5	1-2,5	0,75-2,5	
	flexible	mm ²	0,75-2,5	0,75-2,5	0,75-2,5	0,75-2,5	0,75-2,5	0,75-2,5	0,75-2,5	0,75-2,5	
	flexible with multicore cable end	mm ²	0,5-1,5	0,5-1,5	0,5-1,5	0,5-1,5	0,5-1,5	0,5-1,5	0,75-2,5	0,5-1,5	
solid	AWG	14	14	14	14	14	14	14	14	14	
	flexible	AWG	18	18	18	18	18	18	18	18	
Cables per clamp			2	2	2	2	2	2	2	2	

Data according to CSA, UL and CUL

Type		HN	HTN	HA	HB..	HKA, HKT HKF	K2-DK K2-SK	K2-TP	K2-L ²⁾
Rated operational current "General Use"	A	10	10	16	10	10	-	10	-
Rated operational voltage	max. V AC	600	600	600	600	600	-	600	600
Auxiliary Contacts		A600	A600	A600	A600	A600	-	A600	Intermittent duty

1) Suitable for: earthed-neutral systems, overvoltage category I to IV, pollution degree 3 (standard-industry): U_{imp} = 8kV. Data for other conditions on request.

2) Command duration min. 30ms, 10% duty cycle, max. 30 sec.

Contactors Accessories

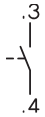
For Series K3 & KG3 Series Contactors

Contactors and Accessories

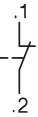
Wiring diagrams

Auxiliary contact blocks

HN10
HA10



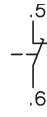
HN01
HA01



HN10U

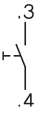


HN01U

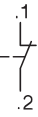


Snap-on momentary contact blocks

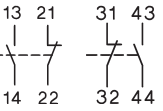
HTN10



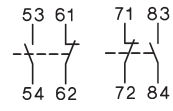
HTN01



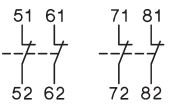
HKS11
HKA11



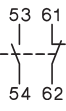
HB11-1
HB11



HB02

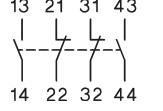


HKT11

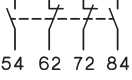


HB11, HB02:
Correct terminal marking
is given by mounting.

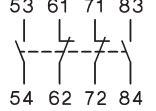
HKF22



53 61 71 83

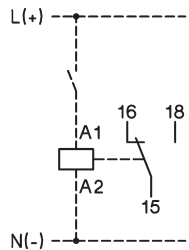


HKT22



Electronic timer

K3-T180 240

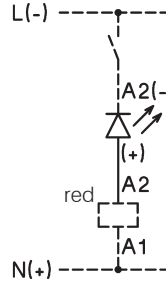


Indicator units

Coil current indicator

K2-ING

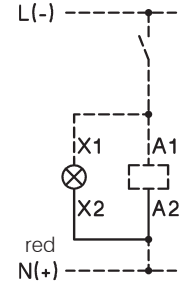
K2-INR



Voltage indicator

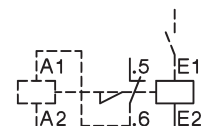
K2-UN

K2-UNR



Latch

K2-L..



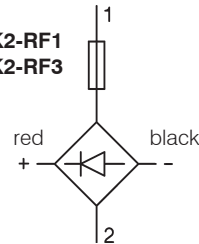
Fuse holder

K2-F



with rectifier

K2-RF1
K2-RF3



Colours mentioned in
wiring diagram refer
to the outgoing
connection wires of
the device.

Contactor Accessories

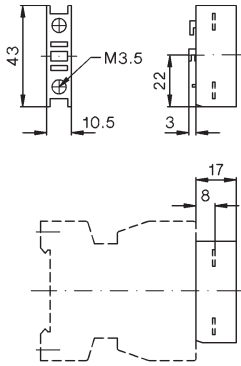
For Series K3 & KG3 Series Contactors

Dimensions Accessories

Aux. cont. blocks, terminal blocks

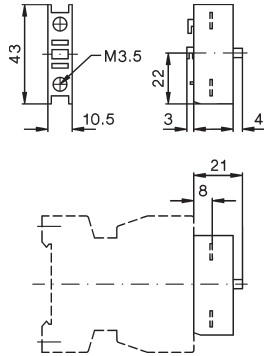
HN10, HN01

K2-SK, K2-DK



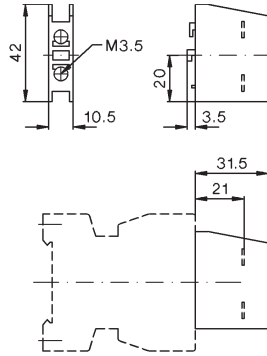
Snap-on momentary cont. blocks

HTN10, HTN01

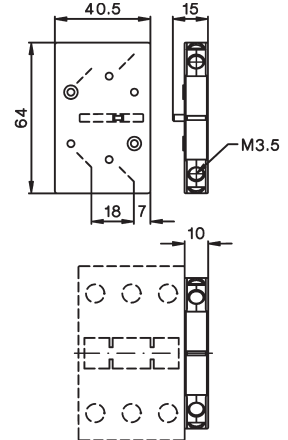


Auxiliary contact blocks

HA10, HA01

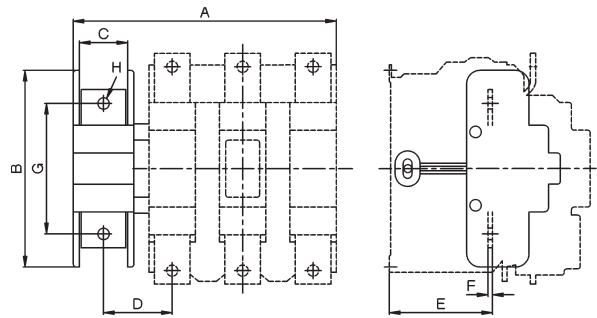


HB11-1,



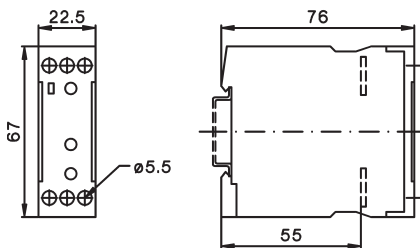
4. pole for contactors K3-200 to K3-12

Type	A	B	C	D	E	F	G	H
NP175	223	148	26	52	98	5	122	M8
NP350	223	148	26	52	98	5	122	M8
NP325	262	148	26	55	116	5	122	M10
NP500	294	220	53	72	138	5	152	M12
NP760	294	220	53	72	138	5	152	M12
NP501	348	220	53	73	145	5	152	M12
NP1000	348	220	53	73	145	8	152	M12
NP1001	410	220	53	110	157	8	152	M12



Electronic timer

K3-T180 240



Electronic timer on-delay

K2-TE..

