

Contactors - Series K3-50A00.. to K3-74A00..

Type	Wiring diagrams	Dimensions in mm
AC-operated		
K3-50A00..		
K3-62A00..		
K3-74A00..		
DC-operated		
K3-50A00=..		
K3-62A00=..		
K3-74A00=..		



Technical Data acc. to IEC / EN 60947-4-1

Main contacts

Type	AC1 I _e (=I _m) open at 40°C	AC2, AC3 380-440V	AC2, AC3 500-690V	Fuse „Type1“ gL (gG)
Type	A	kW	kW	A max.
K3-50A00..	110	22	30	160
K3-62A00..	120	30	37	160
K3-74A00..	130	37	45	160

Aux. contacts HN10, HN01

Type	AC1 I _e (=I _m) open at 40°C	AC15 220-240V	AC15 380-440V	Fuse „Type1“ gL (gG)
Type	A	A	A	A max.
K3-50A00.. + HN..	10	3	2	20
K3-62A00.. + HN..	10	3	2	20
K3-74A00.. + HN..	10	3	2	20

Approvals

North America		Switzerland		Europe		Russia		China	
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Cable cross-sections

	solid	flexible	solid	flexible	Cables per clamp	Terminal screws	Screw driver	Tightening torque
	mm ²	mm ²	AWG	AWG				
Contacts	4-50	10-35	12-10	10-0	1	M6	Pozidriv Pz3	3.5-4.5 Nm 31-40 lb. inch
Coil	0.75-2.5	0.5-2.5	14-12	18-12	2	M3.5	Pozidriv Pz2	0.8-1.4 Nm 7-12 lb. inch

Coil

	AC-operated	DC-operated
Operation range	0.85-1.1	0.8-1.1
inrush	140-165VA	200W
sealed	13-18VA	6W

Maximum ambient temperature

Type	Main Contacts				
	Operation		with thermal overload relay	enclosed	Storage
	open	enclosed	open		
	°C	°C	°C	°C	°C
K3-50A00..					
K3-62A00..	-40 to + 60 (+90) ¹⁾	-40 to +40	-25 to +60	-25 to +40	-50 to +90
K3-74A00..					

¹⁾ With reduced control voltage range 0.9 up to 1.0 x Us and with reduced rated current I_e /AC1 according to I_e /AC3

Frequency of operations z

Contactors without thermal overload relay

Type	Switching without load	AC3, I _e	AC4, I _e	DC3, I _e
	1/h	1/h	1/h	1/h
K3-50A00..	7,000	400	120	400
K3-62A00..	7,000	400	120	400
K3-74A00..	7,000	400	120	400

Switching time at control voltage U_s ±10% ²⁾³⁾

Type	AC operated			DC operated		
	make time	release time	arc duration	make time	release time	arc duration
	ms	ms	ms	ms	ms	ms
K3-50A00..						
K3-62A00..	12-28	8-15	10-15	12-23	10-18	10-15
K3-74A00..						

²⁾ Total breaking time = release time + arc duration

³⁾ Values for delay of the release time of the make contact and the make time of the break contact will be increased, if magnet coils are protected against voltage peaks (varistor, RC-unit, diode-unit)

⁴⁾ with integrated suppressor

Main Contacts

Type	Rated insulation Voltage U_i ¹⁾ V~	Making capacity I_{eff} at $U_e = 690V\sim$ A	Breaking capacity I_{eff} 400V~ A	K3-24 to K3-1200 .. $\cos\phi = 0,35$ 500V~ A
				A
K3-50A00..	690	700	600	500
K3-62A00..	690	900	800	700
K3-74A00..	690	900	800	700

¹⁾ Suitable at 690V for earthed-neutral systems, overvoltage category I to IV, pollution degree 3 (standard industry): $U_{imp} = 8$ kV. Data for other conditions on request.

Mechanical life

Type	AC operated	DC operated with economy resistor
	S x 10 ⁶	S x 10 ⁶
K3-50A00..	10	10
K3-62A00..	10	10
K3-74A00..	10	10

Current heat losses

Type	VPower loss per pole bei $I_e/AC3$ 400V W	Contact resistance per pole mOhm
K3-50A00..	2,2	1
K3-62A00..	3,9	1
K3-74A00..	5,5	1

Resistance to shock acc. to IEC 68-2-27

Shock time 20ms sine-wave

Type	NO	NC
	g	g
K3-50A00..	8	-
K3-62A00..	8	-
K3-74A00..	8	-

Resistance to climatic conditions acc. to IEC60068

Open-type devices are climate-resistant in the constant climate according to IEC60068-2-78 (this is a climate with an ambient temperature of 40°C and an atmospheric humidity of 90 to 95%). Enclosed devices are climate-resistant in an alternating climate according to IEC 68-2-30 (this is a moist alternating climate with a 24-hour cycle between climates with an ambient temperature of 25°C, and an atmospheric humidity of 95 to 100% and an ambient temperature of 40°C, and an atmospheric humidity of 90 to 96% in the presence of condensation during rises in temperature).

Maximum operating altitude

Data are valid up to an altitude of 2000m above sea level.



Main Contacts (cULus)		Type	K(G)3-10	K(G)3-14	K(G)3-18	K(G)3-22	K(G)3-24	K(G)3-32	K(G)3-40	K3-50	K3-62	K3-74
Rated operational current "General Use"		A	25	25	30	30	50	65	80	110	120	130
Motor DOL 3-phase at 60Hz												
Rated operational power	110-120V	hp	1½	2	2	3	5	5	7½	10	10	10
	200V	hp	3	3	5	5	7½	10	10	15	20	25
	220-240V	hp	3	3	7½	7½	10	10	15	20	25	30
	277V	hp	3	5	7½	7½	7½	10	15	20	25	30
	380-415V	hp	5	5	10	10	10	15	20	25	30	40
	440-480V	hp	5	7½	10	15	15	20	25	30	40	50
	550-600V	hp	7½	10	15	20	20	25	30	40	50	50
Motor DOL 1-phase at 60Hz												
Rated operational power of AC motors at 60Hz (1ph)	110-120V	hp	½	¾	1	1½	1½	2	3	3	5	7½
	200V	hp	1	1,5	2	3	3	5	7½	7½	10	15
	220-240V	hp	1½	2	3	3	5	5	7½	10	15	15
	277V	hp	2	3	3	5	5	7½	10	10	15	15
	380-415V	hp	3	3	5	5	5	7½	10	15	20	20
	440-480V	hp	3	5	5	7½	7½	10	15	20	25	25
	550-600V	hp	3	5	7½	10	10	15	20	25	30	30
Motor DOL 3-phase according to ASME A17.5												
Rated operational current		600V A	-	-	-	-	15	22	-	27	37	-
Rated operational power of 3-phase motors for elevators (500.000 operations)	110-120V	hp	-	-	-	-	2	3	-	3	5	-
	200V	hp	-	-	-	-	3	5	-	7½	10	-
	220-240V	hp	-	-	-	-	5	7½	-	7½	10	-
	440-480V	hp	-	-	-	-	10	15	-	20	25	-
	550-600V	hp	-	-	-	10	10	20	-	25	30	-
Rated current 2 series contacts		600V A	-	-	-	-	22	27	-	44	52	66
Fuse Class RK5 / Short-circuit current		A/kA	50/5	50/5	70/5	90/5	90/5	125/5	175/5	200/5	250/5	300/5
Fuse Class T / Short-circuit current		A/kA	45/100	50/100	70/100	90/100	110/100	150/100	150/100	175/100	175/100	175/100
Rated voltage		V	600	600	600	600	600	600	600	600	600	600
Auxiliary Contacts (cULus)			A600	A600	A600	A600	-	-	-	-	-	-