

## Contactors - Series K3-90A00.. to K3-115A00..

Type	Wiring diagrams	Dimensions in mm
AC-operated		
K3-90A00..		
K3-115A00..		
DC-operated		
K3-90A00=..		
K3-115A00=..		



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

#### Main contacts

Type	AC1 $I_e (=I_{th})$ open at 40°C A	AC2, AC3 380-440V kW	AC2, AC3 500-690V kW	Fuse „Type1“ gL (gG) A max.
K3-90A00..	160	45	55	250
K3-115A00..	200	55	55	250

#### Aux. contacts HN10, HN01

Type	AC1 $I_e (=I_{th})$ open at 40°C A	AC15 220-240V A	AC15 380-440V A	Fuse „Type1“ gL (gG) A max.
K3-90A00.. + HN..	10	3	2	20
K3-115A00.. + 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 <sup>2</sup>	mm <sup>2</sup>	AWG	AWG				
Contacts	0,5-95 + 10-120	0,5-70 + 25-95	18-10	-	1	M8	4mm-Inbus	4-6.5 Nm 35-57 lb. inch
Spule / 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	165-220VA	250W
sealed	2.5-5VA	5W

## Maximum ambient temperature

Main Contacts					
Type	operation		with thermal overload relay	enclosed	Storage
	open	enclosed	open	°C	°C
K3-90A00..	°C	°C	°C	°C	°C
K3-115A00..	-40 to +60 (+90) <sup>1)</sup>	-40 to +40	-25 to +60	-25 to +40	-50 to +90

<sup>1)</sup> With reduced control voltage range 0.9 up to 1.0 x U<sub>s</sub> and with reduced rated current I<sub>e</sub> /AC1 according to I<sub>e</sub> /AC3

## Frequency of operations z

Contactors without thermal overload relay

Type	Switching without load	AC3, I <sub>e</sub>	AC4, I <sub>e</sub>	DC3, I <sub>e</sub>
	1/h	1/h	1/h	1/h
K3-90A00..	3,000	300	120	300
K3-115A00..	3,000	300	120	300

## Switching time at control voltage U<sub>s</sub> ±10%<sup>2) 3)</sup>

Type	AC operated			DC operated		
	make time	release time	arc duration	make time	release time	arc duration
K3-90A00..	ms	ms	ms	ms	ms	ms
K3-115A00..	20-35	35-50	10-15	20-35	35-50	10-15

<sup>2)</sup> Total breaking time = release time + arc duration

<sup>3)</sup> 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)

<sup>4)</sup> 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
<b>K3-90A00..</b>	1,000	1,100	950	850
<b>K3-115A00..</b>	1,000	1,200	1,100	1,000

<sup>1)</sup> 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 <sup>6</sup>	S x 10 <sup>6</sup>
<b>K3-90A00..</b>	5	5
<b>K3-115A00..</b>	5	5

## Current heat losses

Type	Power loss per pole at $I_{AC3}$ 400V W	contact resistance per pole mOhm
	W	mOhm
<b>K3-90A00..</b>	4,8	0,6
<b>K3-115A00..</b>	7,9	0,5

## resistance to shock acc. to IEC 68-2-27

Shock time 20ms sine-wave

Type	No	NC
	g	g
<b>K3-90A00..</b>	7	5
<b>K3-115A00..</b>	7	5

## 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.



<b>Main Contacts (cULus)</b>			<b>K3-90</b>	<b>K3-115</b>
Rated operational current "General Use"	A		160	200
<b>Motor DOL 3-phase</b> at 60Hz				
Rated operational power	110-120V	hp	15	20
	200V	hp	25	35
	220-240V	hp	35	40
	277V	hp	-	-
	380-415V	hp	50	60
	440-480V	hp	65	75
550-600V	hp	85	100	
<b>Motor DOL 1-phase</b> at 60Hz				
Rated operational power of AC motors at 60Hz (1ph)	110-120V	hp	8	10
	200V	hp	15	20
	220-240V	hp	20	25
	277V	hp	20	25
	380-415V	hp	30	40
	440-480V	hp	40	50
550-600V	hp	50	60	
<b>Motor DOL 3-phase</b> according to <b>ASME A17.5</b>				
Rated operational current	600V	A	-	-
Rated operational power of 3-phase motors for elevators (500.000 operations)	110-120V	hp	-	-
	200V	hp	-	-
	220-240V	hp	-	-
	440-480V	hp	-	-
	550-600V	hp	-	-
Rated current 2 series contacts	600V	A	-	-
Fuse Class RK5 / Short-circuit current	A/kA		300/10	300/10
Fuse Class T / Short-circuit current	A/kA		300/100 <sup>3)</sup>	300/100 <sup>3)</sup>
Rated voltage	V		600	600
<b>Auxiliary Contacts (cULus)</b>			-	-

3) Class T and Class RK1