

Contactors - Series K3-24A00.. to K3-40A00..

| Type | Wiring diagrams | Dimensions in mm |
|--------------------|-----------------|------------------|
| AC-operated | | |
| K3-24A00.. | | |
| K3-32A00.. | | |
| K3-40A00.. | | |
| DC-operated | | |
| K3-24A00=.. | | |
| K3-32A00=.. | | |
| K3-40A00=.. | | |



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

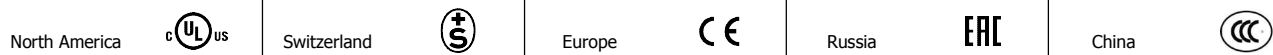
Main contacts

| Type | AC1 I _a (=I _{th}) open at 40°C A | AC2, AC3 380-440V kW | AC2, AC3 500-690V kW | Fuse „Type1“ gL (gG) A max. |
|-------------------|---|----------------------------|----------------------------|-----------------------------------|
| K3-24A00.. | 50 | 11 | 15 | 80 |
| K3-32A00.. | 65 | 15 | 18.5 | 80 |
| K3-40A00.. | 80 | 18.5 | 18.5 | 80 |

Aux. contacts HN10, HN01

| Type | AC1 I _a (=I _{th}) open at 40°C A | AC15 220-240V A | AC15 380-440V A | Fuse „Type1“ gL (gG) A max. |
|--------------------------|---|-----------------------|-----------------------|-----------------------------------|
| K3-24A00.. + HN.. | 10 | 3 | 2 | 20 |
| K3-32A00.. + HN.. | 10 | 3 | 2 | 20 |
| K3-40A00.. + HN.. | 10 | 3 | 2 | 20 |

Approvals



Cable cross-sections

| | solid | flexible | solid | flexible | Cables per clamp | Terminal screws | Screw driver | Tightening torque |
|----------|-----------------|-----------------|-------|----------|------------------|-----------------|--------------|-----------------------------|
| | mm ² | mm ² | AWG | AWG | | | | |
| Contacts | 1.5-25 | 2.5-16 | 16-10 | 14-4 | 1 | M5 | Pozidriv Pz2 | 2.5-3 Nm 22-26 lb. inch |
| Coil | 0.75-2.5 | 0.5-1.5 | 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 | 90-115VA | 140W |
| sealed | 9-13VA | 2W |

Maximum ambient temperature

| Main Contacts | | | | | |
|-------------------|---------------------------------|----------------|-----------------------------|------------|------------|
| Type | Operation | | with thermal overload relay | enclosed | Storage |
| | open °C | enclosed °C | open °C | °C | °C |
| K3-24A00.. | | | | | |
| K3-32A00.. | -40 to + 60 (+90) ¹⁾ | -40 to +40 | -25 to +60 | -25 to +40 | -50 to +90 |
| K3-40A00.. | | | | | |

¹⁾ With reduced control voltage range 0.9 up to 1.0 x U_s 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 |
| K3-24A00.. | 7,000 | 600 | 120 | 600 |
| K3-32A00.. | 7,000 | 600 | 120 | 600 |
| K3-40A00.. | 7,000 | 600 | 120 | 600 |

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

| Type | AC operated | | | DC operated | | |
|-------------------|-----------------|--------------------|--------------------|-----------------|--------------------|--------------------|
| | make time ms | release time ms | arc duration ms | make time ms | release time ms | arc duration ms |
| K3-24A00.. | | | | | | |
| K3-32A00.. | 10-25 | 8-15 | 10-15 | 10-20 | 10-15 | 10-15 |
| K3-40A00.. | | | | | | |

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) | Making capacity I_{eff} at $U_e = 690V\sim$ | Breaking capacity I_{eff} 400V \sim | K3-24 .. to K3-40 .. $\cos\phi = 0,35$ 500V \sim |
|------------|--------------------------------------|--|--|--|
| K3-24A00.. | 690 | 400 | 380 | 300 |
| K3-32A00.. | 690 | 500 | 400 | 370 |
| K3-40A00.. | 690 | 500 | 400 | 370 |

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 |
| K3-24A00.. | 10 | 10 |
| K3-32A00.. | 10 | 10 |
| K3-40A00.. | 10 | 10 |

Current heat losses

| Type | Power loss per pole bei $I_n/AC3$ 400V | contact resistance per pole |
|------------|---|-----------------------------|
| | W | mOhm |
| K3-24A00.. | 0.7 | 1.2 |
| K3-32A00.. | 1.3 | 1.2 |
| K3-40A00.. | 2 | 1.2 |

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

Shock time 20ms sine-wave

| Type | NO | NC |
|------------|----|----|
| | g | g |
| K3-24A00.. | 8 | 0 |
| K3-32A00.. | 8 | 0 |
| K3-40A00.. | 8 | 0 |

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 | 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 | - | - | - | - | - | - |