

Contactors

IK INSTALLATION CONTACTORS

IKA20, IKD20, IK21, IKA25, IKD25, IK40, IKA40, IK63, IKA63



- Installation contactors are built in consumer units in dwellings, business premises, hotels, hospitals, shopping centres, sport centres, production halls, warehouses and public places
- They are used for remote switching and automatic control of electric devices and equipment, such as:
 - single-phase and three-phase motors
 - different pumps
 - air-conditioning
 - electric heating
 - lighting
- Basic contactor types are: IKA20-xx, IKD20-xx, IK21-xx, IKA25-xx, IKD25-xx, IK40-xx, IKA40-xx, IK63-xx, IKA63-xx
- IKD20, IKD25, IK40 and IK63 with a varistor for overvoltage protection and a rectifier enable dc and ac voltage control
- They excel in silent operation
- IKA20, IK21, IKA25, IKA40 and IKA63 are ac driven contactors only
- Contacts can be used as main or auxiliary
- Contactors are designed for assembling to 35 mm mounting rail in accordance with the EN 60715 standard
- Sealing terminal covers enable direct protection against contact with live parts
- IKV ventilation module is available for preventing exceeded heating when contactors are used side-by-side
- All contactors have degree of protection IP20

TECHNICAL DATA FOR IKA20, IKD20, IK21, IKA25 and IKD25

| | Type | | | IKA20 | IKD20 | IKA25 | IKD25 |
|--------------|---|------------------------------|----------|---|---------|---------------|--------|
| GENERAL | Standards | | | IEC/EN 61095 , IEC/EN 60947-4-1, IEC/EN 60947-5-1 | | | |
| | Approvals | | | KEMA, NF, GOST | | | |
| | Module width | | | 1 | 2 | | |
| | Mechanical endurance | op. c. | | 3 x 10 ⁶ | | | |
| | Ambient temperature | °C | | -5 ... +55 | | | |
| | Storage temperature | °C | | -30 ... +80 | | | |
| | No. of contactors (side-by-side) | ≤ 40 °C | | max. 3 | max. 3 | no limitation | max. 3 |
| | | 40 - 55 °C | | max. 2 | max. 2 | | max. 2 |
| | Contact reliability | | | 17 V; ≥ 50 mA | | | |
| | Min. distance of open contacts | mm | | 3.6 | | | |
| | Power dissipation per pole | W | 1.7 | 1.7 | 2.2 | 2.2 | |
| | Overload current withstand capability | A | 72 | 72 | 68 | 68 | |
| | Max. back-up fuse for short-circuit protection gL | I_v | A | 20 | 20 | 25 | 25 |
| | Coordination type 2 | | | 300 | | | |
| | DC-1 | | | 600 | | | |
| | Max. operating frequency | AC-1/AC-3/AC-5b/AC-6b/ AC-15 | op. c./h | 3000 | | | |
| | no load | | | | | | |
| | Weight | kg | 0.13 | 0.13 | 0.24 | 0.24 | |
| MAIN CIRCUIT | Rated insulation voltage | U_i | V | 230 | 230 | 440 | 440 |
| | Rated impulse withstand voltage | U_{imp} | kV | | 4 | | |
| | Thermal current | I_{th} | A | 20 | 20 | 25 | 25 |
| | Rated operational voltage | U_e | V | 230 | 230 | 400 | 400 |
| | Rated frequency | f | Hz | | 50/60 | | |
| | Rated operational current AC-1/AC-7a | I_e | A | 20 | 20 | 25 | 25 |
| | Operational power single-phase | 230 V | | 4 | 4 | 5.4 | 5.4 |
| | AC-1/AC-7a three-phase | 230 V | P_e | - | - | 9 | 9 |
| | three-phase | 400 V | | - | - | 16 | 16 |
| | Electrical endurance AC-1/AC-7a | | op. c. | | 200.000 | | |

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| TECHNICAL DATA FOR IKA20, IKD20, IKA25 and IKD25 | | | | | | | | |
|--|---|---|-------|--------|----------------------------|----------------------------|------------------------------|------------------------------|
| MAIN CIRCUIT | Type | | | IKA20 | IKD20 | IKA25 | IKD25 | |
| | Rated operational current | AC-3/AC-7b | I_e | A | NO: 9 NC: 6 | NO: 9 NC: 6 | 8.5 | 8.5 |
| | Operational power | single-phase motor AC-3/AC-7b | 230 V | P_e | NO: 1.3 NC: 0.75 | NO: 1.3 NC: 0.75 | 1.3 1) | 1.3 1) |
| | | three-phase motor | 230 V | | - | - | 2.2 | 2.2 |
| | | three-phase motor | 400 V | | - | - | 4 | 4 |
| | Electrical endurance | AC-3/AC-7b | | op. c. | 300.000 | 300.000 | 500.000 | 500.000 |
| | Switching of capacitors | AC-6b | 230 V | C | μF | 30 | 30 | 36 |
| | Electrical endurance | AC-6b | | op. c. | 100.000 | | | |
| | DC-1 (L/R ≤ 1 ms) Electrical endurance: | | | | | | | |
| | 1 pole | $U_e = 24 \text{ V DC}$ $U_e = 48 \text{ V DC}$ $U_e = 60 \text{ V DC}$ $U_e = 110 \text{ V DC}$ $U_e = 220 \text{ V DC}$ | | A | 20 15 10 6 0.6 | 20 15 10 6 0.6 | 25 20 15 6 0.6 | 25 20 15 6 0.6 |
| 2 poles connected in series | $U_e = 24 \text{ V DC}$ $U_e = 48 \text{ V DC}$ $U_e = 60 \text{ V DC}$ $U_e = 110 \text{ V DC}$ $U_e = 220 \text{ V DC}$ | | | A | 20 18 15 10 6 | 20 18 15 10 6 | 25 25 20 10 6 | 25 25 20 10 6 |
| 3 poles connected in series | $U_e = 24 \text{ V DC}$ $U_e = 48 \text{ V DC}$ $U_e = 60 \text{ V DC}$ $U_e = 110 \text{ V DC}$ $U_e = 220 \text{ V DC}$ | | | A | - - - - - | - - - - - | 25 25 25 20 15 | 25 25 25 20 15 |
| 4 poles connected in series | $U_e = 24 \text{ V DC}$ $U_e = 48 \text{ V DC}$ $U_e = 60 \text{ V DC}$ $U_e = 110 \text{ V DC}$ $U_e = 220 \text{ V DC}$ | | | A | - - - - - | - - - - - | 25 25 25 20 15 | 25 25 25 20 15 |
| Electrical endurance | DC-1 | | op.c. | | 100.000 | 100.000 | 100.000 | 100.000 |
| DC-3 (L/R ≤ 2 ms) Electrical endurance: | | | | | | | | |
| 1 pole | $U_e = 24 \text{ V DC}$ $U_e = 48 \text{ V DC}$ $U_e = 60 \text{ V DC}$ $U_e = 110 \text{ V DC}$ $U_e = 220 \text{ V DC}$ | | | A | 10 5 2 1 0.1 | 10 5 2 1 0.1 | 15 8 4 1.3 0.2 | 15 8 4 1.3 0.2 |
| 2 poles connected in series | $U_e = 24 \text{ V DC}$ $U_e = 48 \text{ V DC}$ $U_e = 60 \text{ V DC}$ $U_e = 110 \text{ V DC}$ $U_e = 220 \text{ V DC}$ | | | A | 20 10 8 4 0.4 | 20 10 8 4 0.4 | 25 16 12 5.5 0.6 | 25 16 12 5.5 0.6 |

1) Data for single-phase power are valid for versions -22, -20 and -02

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TECHNICAL DATA FOR IKA20, IKD20, IK21, IKA25 and IKD25

| MAIN CIRCUIT | Type | | | IKA20 | IKD20 | IKA25 | IKD25 |
|---|---|---|---------------------|---------|---------|----------|---------|
| | DC-3 (L/R ≤ 2 ms) Rated operational current: 3 poles connected in series | $U_e = 24 \text{ V DC}$ $U_e = 48 \text{ V DC}$ $U_e = 60 \text{ V DC}$ $U_e = 110 \text{ V DC}$ $U_e = 220 \text{ V DC}$ | I _e A | - | - | 25 | 25 |
| | | | | - | - | 25 | 25 |
| | | | | - | - | 25 | 25 |
| | | | | - | - | 15 | 15 |
| | | | | - | - | 3 | 3 |
| | 4 poles connected in series | $U_e = 24 \text{ V DC}$ $U_e = 48 \text{ V DC}$ $U_e = 60 \text{ V DC}$ $U_e = 110 \text{ V DC}$ $U_e = 220 \text{ V DC}$ | | - | - | 25 | 25 |
| | | | | - | - | 25 | 25 |
| | | | | - | - | 20 | 20 |
| | | | | - | - | 8 | 8 |
| Electrical endurance | DC-3 | | op. c. | 100.000 | 100.000 | 100.000 | 100.000 |
| DC-5 (L/R ≤ 7,5 ms) Rated operational current: | | | | | | | |
| 1 pole | $U_e = 24 \text{ V DC}$ $U_e = 48 \text{ V DC}$ $U_e = 60 \text{ V DC}$ $U_e = 110 \text{ V DC}$ $U_e = 220 \text{ V DC}$ | I _e A | 10 | 10 | 15 | 15 | |
| | | | 4 | 4 | 5 | 5 | |
| | | | 1 | 1 | 3 | 3 | |
| | | | 0.3 | 0.3 | 0.5 | 0.5 | |
| | | | 0.06 | 0.06 | 0.1 | 0.1 | |
| 2 poles connected in series | $U_e = 24 \text{ V DC}$ $U_e = 48 \text{ V DC}$ $U_e = 60 \text{ V DC}$ $U_e = 110 \text{ V DC}$ $U_e = 220 \text{ V DC}$ | | 20 | 20 | 25 | 25 | |
| | | | 8 | 8 | 15 | 15 | |
| | | | 6 | 6 | 10 | 10 | |
| | | | 2 | 2 | 4 | 4 | |
| | | | 0.2 | 0.2 | 0.4 | 0.4 | |
| 3 poles connected in series | $U_e = 24 \text{ V DC}$ $U_e = 48 \text{ V DC}$ $U_e = 60 \text{ V DC}$ $U_e = 110 \text{ V DC}$ $U_e = 220 \text{ V DC}$ | I _e A | - | - | 25 | 25 | |
| | | | - | - | 25 | 25 | |
| | | | - | - | 20 | 20 | |
| | | | - | - | 12 | 12 | |
| | | | - | - | 2 | 2 | |
| 4 poles connected in series | $U_e = 24 \text{ V DC}$ $U_e = 48 \text{ V DC}$ $U_e = 60 \text{ V DC}$ $U_e = 110 \text{ V DC}$ $U_e = 220 \text{ V DC}$ | | - | - | 25 | 25 | |
| | | | - | - | 25 | 25 | |
| | | | - | - | 25 | 25 | |
| | | | - | - | 15 | 15 | |
| | | | - | - | 5 | 5 | |
| Electrical endurance | DC-5 | | op. c. | 100.000 | 100.000 | 100.000 | 100.000 |
| Terminal capacity | rigid flexible | S | mm ² | | | 1 ... 10 | |
| | | | | | | 1 ... 6 | |
| Screw | | | | | | M3.5 | |
| Screw head | | | | | | PZ1 | |
| Tightening torque | | | Nm | | | 1.2 | |

Contactors

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IKA20, IKD20, IK21, IKA25, IKD25, IK40, IKA40, IK63, IKA63

| TECHNICAL DATA FOR IKA20, IKD20, IKA25 and IKD25 | | | | | | | | |
|--|--|------------------------------|----------------|-----------------|------------------------|--------------------|------------------|--------------------|
| AUXILIARY CIRCUIT | Type | | | IKA20 | IKD20 | IKA25 | IKD25 | |
| | Rated operational voltage | U_e | V | 230 | 230 | 400 | 400 | |
| | Rated insulation voltage | U_i | V | 230 | 230 | 440 | 440 | |
| | Rated impulse withstand voltage | U_{imp} | kV | | 4 | | | |
| | Thermal current | I_{th} | A | 20 | 20 | 25 | 25 | |
| | AC-15 | | | | | | | |
| | Rated operational current | single-phase single-phase | 230 V 400 V | I_e | A | 6 - | 6 4 | |
| | Electrical endurance | AC-15 | | op. c. | 300.000 | 300.000 | 500.000 | |
| CONTROL CIRCUIT | Range of control voltage | U_c | % | 85 ... 110 | | | | |
| | Kind of voltages | | | AC | AC, DC | AC | AC, DC | |
| | Control voltage | U_c | V | 12 ... 230 | | | | |
| | Frequency (AC) | f | Hz | 50/60 2) | | | | |
| | Surge immunity test (1.2/50 μ s), acc. to IEC/EN 61000-4-5 | | kV | 2 | | | | |
| | Coil consumption | switch-on operation | | VA/W | 12/10 2.8/1.2 | 2.1/2.1 2.1/2.1 | 33/25 5.5/1.6 | 2.6/2.6 3) |
| | Make/break delays | make break | | ms | 15 – 25 10 – 30 | 15 – 45 20 – 50 | 10 – 30 | 15 – 45 20 – 70 |
| | Terminal capacity | rigid flexible | S | mm ² | 1 ... 2.5 1 ... 2.5 | | | |
| | Screw | | | | M 3.5 | | | |
| | Screw head | | | | PZ1 | | | |
| | Tightening torque | | | Nm | 0.6 | | | |

2) IKD20 and IKD25 can be controlled by ac voltage with frequency from 40 Hz to 400 Hz

3) Coil consumption for version -04 is 3.8 VA/3.8 W

Contactors

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IKA20, IKD20, IK21, IKA25, IKD25, IK40, IKA40, IK63, IKA63

TECHNICAL DATA FOR IK21, IK40, IK63, IKA40 and IKA63

| GENERAL | Type | | | IK21 | IKA40 | IK40 | IKA63 | IK63 | | | | | |
|--------------|---|---|-------|---|--------------------|----------------------|-----------------|----------------------|--|--|--|--|--|
| | Standards | | | IEC/EN 61095, IEC/EN 60947-4-1, IEC 60947-5-1 | | | | | | | | | |
| | Approvals | | | GOST | KEMA, GOST | KEMA, NF, GOST | KEMA, GOST | KEMA, NF, GOST | | | | | |
| | Module width | | | 2 | 3 | | | | | | | | |
| | Mechanical endurance | op. c. | | 3 x 10 ⁶ | | | | | | | | | |
| | Ambient temperature | °C | | -5 ... +55 | | | | | | | | | |
| | Storage temperature | °C | | -30 ... +80 | | | | | | | | | |
| | No. of contactors (side-by-side) | ≤ 40 °C | | no limitation | no limitation | max. 3 max. 2 | no limitation | max. 3 max. 2 | | | | | |
| | | 40 - 55 °C | | | | max. 3 max. 2 | | | | | | | |
| | Contact reliability | | | 17 V; ≥ 50 mA | | | | | | | | | |
| MAIN CIRCUIT | Min. distance of open contacts | mm | | 3.6 | | | | | | | | | |
| | Power dissipation per pole | W | 2 | 4 | | 8 | | | | | | | |
| | Overload current withstand capability | A | 40 | 176 | | 240 | | | | | | | |
| | Max. back-up fuse for short-circuit protection gL | I_V | A | 20 | 63 | | 80 | | | | | | |
| | Coordination type 2 | | | | | | | | | | | | |
| | Max. operating frequency | DC-1 AC-1/AC-3/AC-5b/AC-6b AC-15 no load | c./h | 300 600 1200 3000 | | | | | | | | | |
| | Weight | | kg | 0.17 | 0.35 | 0.42 | 0.35 | 0.42 | | | | | |
| | Rated insulation voltage | U_I | V | 415 | 440 | | 440 | | | | | | |
| | Rated impulse withstand voltage | U_{imp} | kV | 4 | | | | | | | | | |
| | Thermal current | I_{th} | A | 20 | 40 | | 63 | | | | | | |
| MAIN CIRCUIT | Rated operational voltage | U_e | V | 400 | | | | | | | | | |
| | Rated frequency | f | Hz | 50/60 | | | | | | | | | |
| | Rated operational current | AC-1/AC-7a | I_e | A | 20 | 40 | 63 | | | | | | |
| | Operational power | single-phase AC-1/AC-7a | 230 V | P_e | 4 | 8.7 | 13.3 | | | | | | |
| | | three-phase | 230 V | | 7.5 | 16 | 24 | | | | | | |
| | | three-phase | 400 V | | 13 | 26 | 40 | | | | | | |
| | Electrical endurance | AC-1/AC-7a | | op. c. | 200.000 | 100.000 | 100.000 | | | | | | |
| | Rated operational current | AC-3/AC-7b | I_e | A | 5 | 22 | 30 | | | | | | |
| | Operational power | single-phase AC-3/AC-7b | 230 V | P_e | 0.37 ¹⁾ | 3.7 ¹⁾ | 5 ¹⁾ | | | | | | |
| | | three-phase | 230 V | | 1.1 | 5.5 | 8.5 | | | | | | |
| | | three-phase | 400 V | | 2.2 | 11 | 15 | | | | | | |
| MAIN CIRCUIT | Electrical endurance | AC-3/AC-7b | | op. c. | 300.000 | 150.000 | 150.000 | | | | | | |
| | Switching of capacitors | AC-6b | C | μF | 36 | 220 | 330 | | | | | | |
| | Electrical endurance | AC-6b | | op. c. | 100.000 | | | | | | | | |
| | DC-1 (L/R ≤ 1 ms) Rated operational current: | | | | | | | | | | | | |
| | 1 pole | $U_e = 24$ V DC $U_e = 48$ V DC $U_e = 60$ V DC $U_e = 110$ V DC $U_e = 220$ V DC | | A | 20 | 40 | 63 | | | | | | |
| | | | | | 12 | 24 | 26 | | | | | | |
| | | | | | 6 | 18 | 20 | | | | | | |
| | | | | | 2 | 4 | 4 | | | | | | |
| | | | | | 0.5 | 1.2 | 1.2 | | | | | | |
| | 2 poles connected in series | $U_e = 24$ V DC $U_e = 48$ V DC $U_e = 60$ V DC $U_e = 110$ V DC $U_e = 220$ V DC | | A | 20 | 40 | 63 | | | | | | |
| | | | | | 15 | 38 | 42 | | | | | | |
| | | | | | 10 | 32 | 34 | | | | | | |
| | | | | | 4 | 10 | 10 | | | | | | |
| | | | | | 1.5 | 8 | 8 | | | | | | |

1) Data for single-phase power are valid for versions -22, -20 and -02

Contactors

IK INSTALLATION CONTACTORS

IKA20, IKD20, IK21, IKA25, IKD25, IK40, IKA40, IK63, IKA63

TECHNICAL DATA FOR IK21, IK40, IK63, IKA40 and IKA63

| Type | | IK21 | IKA40 | IK40 | IKA63 | IK63 |
|---|-----------------------------|--------|---------|------|-------|------|
| DC-1 (L/R ≤ 1 ms) Electrical endurance: 3 poles connected in series | $U_e = 24 \text{ V DC}$ | A | 20 | 40 | 63 | |
| | $U_e = 48 \text{ V DC}$ | | 20 | 40 | 63 | |
| | $U_e = 60 \text{ V DC}$ | | 20 | 40 | 60 | |
| | $U_e = 110 \text{ V DC}$ | | 6 | 30 | 35 | |
| | $U_e = 220 \text{ V DC}$ | | 2.5 | 20 | 30 | |
| | 4 poles connected in series | | 20 | 40 | 63 | |
| | $U_e = 24 \text{ V DC}$ | | 20 | 40 | 63 | |
| | $U_e = 48 \text{ V DC}$ | | 20 | 40 | 63 | |
| | $U_e = 60 \text{ V DC}$ | | 20 | 40 | 63 | |
| | $U_e = 110 \text{ V DC}$ | | 6 | 40 | 63 | |
| | $U_e = 220 \text{ V DC}$ | | 3.5 | 40 | 63 | |
| Electrical endurance | DC-1 | op. c. | 100.000 | | | |
| DC-3 (L/R ≤ 2 ms) Electrical endurance: 1 pole | $U_e = 24 \text{ V DC}$ | A | 10 | 22 | 25 | |
| | $U_e = 48 \text{ V DC}$ | | 5 | 10 | 11 | |
| | $U_e = 60 \text{ V DC}$ | | 2 | 5 | 5 | |
| | $U_e = 110 \text{ V DC}$ | | 1 | 1.5 | 1.5 | |
| | $U_e = 220 \text{ V DC}$ | | 0.1 | 0.3 | 0.3 | |
| | 2 poles connected in series | | 20 | 40 | 45 | |
| | $U_e = 24 \text{ V DC}$ | | 10 | 20 | 22 | |
| | $U_e = 48 \text{ V DC}$ | | 8 | 16 | 18 | |
| | $U_e = 60 \text{ V DC}$ | | 4 | 5 | 5 | |
| | $U_e = 110 \text{ V DC}$ | | 0.4 | 1 | 1 | |
| 3 poles connected in series | $U_e = 24 \text{ V DC}$ | A | 20 | 40 | 63 | |
| | $U_e = 48 \text{ V DC}$ | | 20 | 40 | 45 | |
| | $U_e = 60 \text{ V DC}$ | | 15 | 32 | 35 | |
| | $U_e = 110 \text{ V DC}$ | | 6 | 15 | 18 | |
| | $U_e = 220 \text{ V DC}$ | | 2.5 | 4 | 5 | |
| | 4 poles connected in series | | 20 | 40 | 63 | |
| | $U_e = 24 \text{ V DC}$ | | 20 | 40 | 63 | |
| | $U_e = 48 \text{ V DC}$ | | 15 | 40 | 63 | |
| | $U_e = 60 \text{ V DC}$ | | 6 | 40 | 63 | |
| | $U_e = 110 \text{ V DC}$ | | 3.5 | 10 | 10 | |
| Electrical endurance | DC-3 | op. c. | 100.000 | | | |
| DC-5 (L/R ≤ 7,5 ms) Electrical endurance: 1 pole | $U_e = 24 \text{ V DC}$ | A | 10 | 20 | 25 | |
| | $U_e = 48 \text{ V DC}$ | | 4 | 8 | 10 | |
| | $U_e = 60 \text{ V DC}$ | | 1 | 4 | 5 | |
| | $U_e = 110 \text{ V DC}$ | | 0.3 | 1 | 1 | |
| | $U_e = 220 \text{ V DC}$ | | 0.06 | 0.2 | 0.2 | |
| | 2 poles connected in series | | 20 | 40 | 45 | |
| | $U_e = 24 \text{ V DC}$ | | 8 | 18 | 20 | |
| | $U_e = 48 \text{ V DC}$ | | 6 | 14 | 15 | |
| | $U_e = 60 \text{ V DC}$ | | 2 | 5 | 5 | |
| | $U_e = 110 \text{ V DC}$ | | 0.2 | 0.8 | 0.8 | |

MAIN CIRCUIT

Contactors

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TECHNICAL DATA FOR IK21, IK40, IK63, IKA40 and IKA63

| | Tip | | | IK21 | IKA40 | IK40 | IKA63 | IK63 | | |
|-------------------|---|------------------------------|----------------|-----------------|------------------------|--------------------------|---------|---------|--|--|
| MAIN CIRCUIT | DC-5 ($L/R \leq 7,5 \text{ ms}$) Electrical endurance: | | | | | | | | | |
| | 3 poles connected in series | $U_e = 24 \text{ V DC}$ | | 20 | 40 | | 63 | | | |
| | | $U_e = 48 \text{ V DC}$ | | 20 | 40 | | 44 | | | |
| | | $U_e = 60 \text{ V DC}$ | | 15 | 28 | | 30 | | | |
| | | $U_e = 110 \text{ V DC}$ | | 5 | 12 | | 15 | | | |
| | | $U_e = 220 \text{ V DC}$ | | 1.5 | 3 | | 4 | | | |
| | 4 poles connected in series | $U_e = 24 \text{ V DC}$ | | 20 | 40 | | 63 | | | |
| | | $U_e = 48 \text{ V DC}$ | | 20 | 40 | | 63 | | | |
| | | $U_e = 60 \text{ V DC}$ | | 15 | 40 | | 60 | | | |
| | | $U_e = 110 \text{ V DC}$ | | 5 | 35 | | 45 | | | |
| | | $U_e = 220 \text{ V DC}$ | | 3 | 8 | | 10 | | | |
| AUXILIARY CIRCUIT | Electrical endurance | DC-5 | op. c. | 100.000 | | | | | | |
| | Terminal capacity | rigid flexible | S | mm ² | 1 ... 2.5 1 ... 2.5 | 1.5 ... 25 1.5 ... 16 | | | | |
| | Screw | | | | M3.5 | M5 | | | | |
| | Head screw | | | | | PZ2 | | | | |
| | Tightening torque | | | Nm | 1.2 | 3.5 | | | | |
| | Rated operational voltage | U_e | V | | 400 | | | | | |
| CONTROL CIRCUIT | Rated insulation voltage | U_i | V | | 415 | 440 | | | | |
| | Rated impulse withstand voltage | U_{imp} | kV | | 4 | | | | | |
| | Thermal current | I_{th} | A | | 20 | 40 | 63 | | | |
| | AC-15 | | | | 6 | | | | | |
| | Rated operational current | single-phase single-phase | 230 V 400 V | I_e | A | 4 | | | | |
| | Electrical endurance | AC-15 | | op. c. | 300.000 | 150.000 | 150.000 | | | |
| | Range at control voltage | U_c | % | | 85 ... 110 | | | | | |
| | Kind of voltages | | | | AC | AC | AC. DC | AC | | |
| | Control voltage | U_c | V | | 12 ... 230 | | | | | |
| | Frequency (AC) | f | Hz | | 50/60 ²⁾ | | | | | |
| CONTROL CIRCUIT | Surge immunity test (1.2/50 μs), acc. to IEC/EN 61000-4-5 | | | kV | 2 | | | | | |
| | Coil consumption | switch-on operation | | VA/W | 30/25 | 15.4/6 | 5/5 | 15.4/6 | | |
| | | | | | 5/1.5 | 7.7/3 | 5/5 | 7.7/3 | | |
| | Make/break delays | make break | | ms | 7 – 20 | 10 – 20 | 15 – 20 | 10 – 20 | | |
| | | | | | 10 – 20 | 10 – 15 | 35 – 45 | 10 – 15 | | |
| | Terminal capacity | rigid flexible | S | mm ² | 1 ... 2.5 | | | | | |
| | | | | | 1 ... 2.5 | | | | | |
| | Screw | | | | M3.5 | M3 | | | | |
| | Screw head | | | | PZ2 | PZ1 | | | | |
| | Tightening torque | | | Nm | 0.6 | | | | | |

²⁾ IK40 and IK63 can be controlled by ac voltage with frequency from 40 Hz to 400 Hz

Contactors

IK INSTALLATION CONTACTORS

IKA20, IKD20, IK21, IKA25, IKD25, IK40, IKA40, IK63, IKA63

| SWITCHING OF LAMPS | | | | | | | |
|---|-----------|-------------|--------------|--|--------------|-------------|-------------|
| Type | Power (W) | Current (A) | C (μ F) | Max. number of lamps per pole at 230 V 50 Hz | | | |
| | | | | IKA20, IKD20, IK21 | IKA25, IKD25 | IKA40, IK40 | IKA63, IK63 |
| Incandescent lamps and tungsten halogen lamps | 15 | 0.07 | — | 130 | 130 | 260 | 330 |
| | 25 | 0.11 | — | 80 | 80 | 160 | 200 |
| | 40 | 0.18 | — | 50 | 50 | 100 | 125 |
| | 60 | 0.26 | — | 33 | 66 | 65 | 85 |
| | 75 | 0.33 | — | 26 | 26 | 53 | 66 |
| | 100 | 0.44 | — | 20 | 20 | 40 | 50 |
| | 150 | 0.65 | — | 13 | 13 | 26 | 33 |
| | 200 | 0.87 | — | 10 | 10 | 20 | 25 |
| | 300 | 1.30 | — | 6 | 6 | 13 | 16 |
| | 500 | 2.17 | — | 3 | 3 | 8 | 10 |
| | 1000 | 4.35 | — | 1 | 1 | 4 | 5 |
| Energy saving lamps | 3 | 0.03 | — | 50 | 60 | 150 | 200 |
| | 5 | 0.04 | — | 45 | 55 | 135 | 180 |
| | 7 | 0.055 | — | 40 | 50 | 120 | 160 |
| | 8 | 0.065 | — | 35 | 45 | 110 | 150 |
| | 9 | 0.075 | — | 30 | 40 | 100 | 140 |
| | 10 | 0.08 | — | 30 | 40 | 100 | 140 |
| | 11 | 0.09 | — | 30 | 40 | 100 | 140 |
| | 12 | 0.1 | — | 25 | 35 | 95 | 120 |
| | 14 | 0.11 | — | 25 | 35 | 90 | 120 |
| | 15 | 0.12 | — | 20 | 30 | 85 | 115 |
| | 16 | 0.13 | — | 20 | 30 | 80 | 105 |
| | 18 | 0.145 | — | 18 | 26 | 70 | 95 |
| | 20 | 0.16 | — | 17 | 22 | 65 | 85 |
| | 21 | 0.17 | — | 15 | 20 | 60 | 80 |
| | 23 | 0.185 | — | 15 | 20 | 60 | 70 |
| | 24 | 0.195 | — | 15 | 20 | 55 | 70 |
| | 30 | 0.16 | — | 15 | 20 | 55 | 70 |
| Compact fluorescent lamps - series correction | 10 | 0.19 | 1,4 | 50 | 60 | 105 | 165 |
| | 13 | 0.18 | 1,4 | 50 | 60 | 105 | 165 |
| | 18 | 0.23 | 1,7 | 40 | 50 | 85 | 135 |
| | 26 | 0.33 | 2,5 | 30 | 35 | 60 | 95 |
| | 18 | 0.38 | 2,7 | 25 | 30 | 50 | 80 |
| | 24 | 0.35 | 2,7 | 25 | 30 | 50 | 80 |
| | 36 | 0.44 | 3,4 | 20 | 25 | 45 | 70 |
| Compact fluorescent lamps - parallel correction | 5 | 0.18 | 2,2 | 13 | 16 | 100 | 150 |
| | 7 | 0.18 | 2,1 | 14 | 17 | 104 | 157 |
| | 9 | 0.17 | 2,0 | 15 | 18 | 110 | 165 |
| | 10 | 0.19 | 2,2 | 13 | 16 | 100 | 150 |
| | 11 | 0.16 | 1,7 | 17 | 21 | 125 | 194 |
| | 13 | 0.18 | 1,8 | 16 | 20 | 120 | 183 |
| | 18 | 0.23 | 2,3 | 13 | 15 | 95 | 143 |
| | 26 | 0.33 | 3,3 | 9 | 11 | 66 | 100 |
| | 18 | 0.38 | 4,2 | 7 | 8 | 52 | 78 |
| | 24 | 0.35 | 3,6 | 8 | 10 | 61 | 91 |
| | 36 | 0.44 | 4,4 | 6 | 8 | 50 | 75 |

Contactors

IK INSTALLATION CONTACTORS

IKA20, IKD20, IK21, IKA25, IKD25, IK40, IKA40, IK63, IKA63

| SWITCHING OF LAMPS | | | | | | | |
|--|-----------|-------------|--------|--|--------------|-------------|-------------|
| Type | Power (W) | Current (A) | C (μF) | Max. number of lamps per pole at 230 V 50 Hz | | | |
| | | | | IKA20, IKD20, IK21 | IKA25, IKD25 | IKA40, IK40 | IKA63, IK63 |
| Compact fluorescent lamps with electronic control gear (ECG) | 5 | 0.05 | – | 45 | 63 | 180 | 250 |
| | 7 | 0.05 | – | 45 | 63 | 180 | 250 |
| | 9 | 0.07 | – | 32 | 45 | 128 | 180 |
| | 10 | 0.07 | – | 32 | 45 | 128 | 180 |
| | 11 | 0.07 | – | 32 | 45 | 128 | 180 |
| | 13 | 0.07 | – | 32 | 45 | 128 | 180 |
| | 18 | 0.22 | – | 10 | 14 | 40 | 57 |
| | 24 | 0.22 | – | 10 | 14 | 40 | 57 |
| | 26 | 0.22 | – | 10 | 14 | 40 | 57 |
| | 32 | 0.22 | – | 10 | 14 | 40 | 57 |
| | 36 | 0.22 | – | 10 | 14 | 40 | 57 |
| | 40 | 0.22 | – | 10 | 14 | 40 | 57 |
| | 42 | 0.22 | – | 10 | 14 | 40 | 57 |
| | 55 | 0.28 | – | 8 | 11 | 32 | 45 |
| | 57 | 0.28 | – | 8 | 11 | 32 | 45 |
| | 70 | 0.35 | – | 6 | 9 | 25 | 36 |
| | 80 | 0.41 | – | 5 | 8 | 22 | 30 |
| | 120 | 0.58 | – | 4 | 5 | 15 | 22 |
| | 2 x 9 | 0.11 | – | 2 x 16 | 2 x 22 | 2 x 90 | 2 x 125 |
| | 2 x 10 | 0.11 | – | 2 x 16 | 2 x 22 | 2 x 90 | 2 x 125 |
| | 2 x 11 | 0.11 | – | 2 x 16 | 2 x 22 | 2 x 90 | 2 x 125 |
| | 2 x 13 | 0.11 | – | 2 x 16 | 2 x 22 | 2 x 90 | 2 x 125 |
| | 2 x 18 | 0.30 | – | 2 x 5 | 2 x 7 | 2 x 20 | 2 x 28 |
| | 2 x 24 | 0.31 | – | 2 x 5 | 2 x 7 | 2 x 20 | 2 x 28 |
| | 2 x 26 | 0.31 | – | 2 x 5 | 2 x 7 | 2 x 20 | 2 x 28 |
| | 2 x 32 | 0.31 | – | 2 x 5 | 2 x 7 | 2 x 20 | 2 x 28 |
| | 2 x 36 | 0.31 | – | 2 x 5 | 2 x 7 | 2 x 20 | 2 x 28 |
| | 2 x 40 | 0.40 | – | 2 x 4 | 2 x 6 | 2 x 18 | 2 x 26 |
| | 2 x 42 | 0.40 | – | 2 x 4 | 2 x 6 | 2 x 18 | 2 x 26 |
| | 2 x 55 | 0.55 | – | 2 x 3 | 2 x 5 | 2 x 16 | 2 x 22 |
| | 2 x 57 | 0.55 | – | 2 x 3 | 2 x 5 | 2 x 16 | 2 x 22 |
| Fluorescent lamps - uncorrected or series correction | 11 | 0.16 | 1.3 | 55 | 70 | 125 | 200 |
| | 18 | 0.37 | 2.7 | 22 | 24 | 90 | 140 |
| | 24 | 0.35 | 2.5 | 22 | 24 | 90 | 140 |
| | 36 | 0.43 | 3.4 | 17 | 20 | 65 | 95 |
| | 58 | 0.67 | 5.3 | 14 | 17 | 45 | 70 |
| | 65 | 0.67 | 5.3 | 14 | 17 | 35 | 50 |
| | 85 | 0.80 | 5.3 | 12 | 15 | 25 | 40 |
| Fluorescent lamps - lead-lag circuit | 2 x 11 | 0.07 | – | 2 x 50 | 2 x 60 | 2 x 140 | 2 x 200 |
| | 2 x 18 | 0.11 | – | 2 x 30 | 2 x 40 | 2 x 100 | 2 x 150 |
| | 2 x 24 | 0.14 | – | 2 x 24 | 2 x 31 | 2 x 78 | 2 x 118 |
| | 2 x 36 | 0.22 | – | 2 x 17 | 2 x 24 | 2 x 65 | 2 x 95 |
| | 2 x 58 | 0.35 | – | 2 x 10 | 2 x 14 | 2 x 40 | 2 x 60 |
| | 2 x 65 | 0.35 | – | 2 x 9 | 2 x 13 | 2 x 30 | 2 x 45 |
| | 2 x 85 | 0.47 | – | 2 x 6 | 2 x 10 | 2 x 20 | 2 x 30 |

Contactors

IK INSTALLATION CONTACTORS

IKA20, IKD20, IK21, IKA25, IKD25, IK40, IKA40, IK63, IKA63

| SWITCHING OF LAMPS | | | | | | | |
|--|-----------|-------------|--------------|--|--------------|-------------|-------------|
| Type | Power (W) | Current (A) | C (μ F) | Max. number of lamps per pole at 230 V 50 Hz | | | |
| | | | | IKA20, IKD20, IK21 | IKA25, IKD25 | IKA40, IK40 | IKA63, IK63 |
| Fluorescent lamps - parallel correction | 11 | 0.16 | 3.5 | 9 | 10 | 62 | 94 |
| | 18 | 0.37 | 4.5 | 7 | 8 | 48 | 73 |
| | 24 | 0.35 | 4.5 | 7 | 8 | 48 | 73 |
| | 36 | 0.34 | 4.5 | 7 | 8 | 48 | 73 |
| | 58 | 0.67 | 7.0 | 4 | 5 | 31 | 47 |
| | 65 | 0.67 | 7.0 | 4 | 5 | 31 | 47 |
| | 85 | 0.80 | 8.0 | 3 | 4 | 27 | 41 |
| | 18 | 0.09 | – | 25 | 35 | 100 | 140 |
| Fluorescent lamps with electronic control gear (ECG) | 36 | 0.16 | – | 15 | 20 | 52 | 75 |
| | 58 | 0.25 | – | 14 | 19 | 50 | 72 |
| | 2 x 18 | 0.17 | – | 2 x 12 | 2 x 17 | 2 x 50 | 2 x 70 |
| | 2 x 36 | 0.32 | – | 2 x 7 | 2 x 10 | 2 x 26 | 2 x 38 |
| | 2 x 58 | 0.49 | – | 2 x 7 | 2 x 9 | 2 x 25 | 2 x 36 |
| High-pressure mercury-vapour lamps - uncorrected | 50 | 0.61 | – | 14 | 18 | 38 | 55 |
| | 80 | 0.80 | – | 10 | 13 | 29 | 42 |
| | 125 | 1.15 | – | 7 | 9 | 20 | 29 |
| | 250 | 2.15 | – | 4 | 5 | 10 | 15 |
| | 400 | 3.25 | – | 2 | 3 | 7 | 10 |
| | 700 | 5.40 | – | 1 | 2 | 4 | 6 |
| | 1000 | 7.50 | – | 1 | 1 | 3 | 4 |
| High-pressure mercury-vapour lamps - parallel correction | 50 | 0.28 | 7 | 4 | 5 | 31 | 47 |
| | 80 | 0.41 | 8 | 4 | 5 | 27 | 41 |
| | 125 | 0.65 | 10 | 3 | 4 | 22 | 33 |
| | 250 | 1.22 | 18 | 1 | 2 | 12 | 18 |
| | 400 | 1.95 | 25 | 1 | 1 | 9 | 13 |
| | 700 | 3.45 | 45 | – | – | 5 | 7 |
| | 1000 | 4.80 | 60 | – | – | 4 | 5 |
| Metal halide lamps - uncorrected | 35 | 0.35 | – | 18 | 22 | 43 | 60 |
| | 70 | 1.00 | – | 10 | 12 | 23 | 32 |
| | 150 | 1.80 | – | 5 | 7 | 12 | 18 |
| | 250 | 3.00 | – | 3 | 4 | 7 | 10 |
| | 400 | 3.50 | – | 3 | 3 | 6 | 9 |
| | 1000 | 9.50 | – | 1 | 1 | 2 | 3 |
| | 2000 | 16.50 | – | – | – | 1 | 1 |
| Metal halide lamps - parallel correction | 35 | 0.25 | 6 | 5 | 6 | 36 | 50 |
| | 70 | 0.45 | 12 | 2 | 3 | 18 | 25 |
| | 150 | 0.75 | 20 | 1 | 1 | 11 | 15 |
| | 250 | 1.50 | 33 | – | 1 | 6 | 9 |
| | 400 | 2.50 | 35 | – | 1 | 6 | 8 |
| | 1000 | 5.80 | 95 | – | – | 2 | 3 |
| | 2000 | 11.50 | 148 | – | – | 1 | 2 |

Contactors

IK INSTALLATION CONTACTORS

IKA20, IKD20, IK21, IKA25, IKD25, IK40, IKA40, IK63, IKA63

| SWITCHING OF LAMPS | | | | | | | | |
|---|-----------|-------------|--------|--|--------------|-------------|-------------|--|
| Type | Power (W) | Current (A) | C (μF) | Max. number of lamps per pole at 230 V 50 Hz | | | | |
| | | | | IKA20, IKD20, IK21 | IKA25, IKD25 | IKA40, IK40 | IKA63, IK63 | |
| Metal halide lamps with electronic control gear (PCI) + 50-125x I_n lamp for 0,6 ms | 20 | 0.10 | — | 9 | 9 | 18 | 20 | |
| | 35 | 0.20 | — | 6 | 6 | 11 | 13 | |
| | 70 | 0.36 | — | 5 | 5 | 10 | 12 | |
| | 150 | 0.70 | — | 4 | 4 | 8 | 10 | |
| High-pressure sodium-vapour lamps - uncorrected | 150 | 1.8 | — | 5 | 6 | 17 | 22 | |
| | 250 | 3.0 | — | 3 | 4 | 10 | 13 | |
| | 400 | 4.7 | — | 2 | 2 | 6 | 8 | |
| | 1000 | 10.3 | — | — | 1 | 3 | 3 | |
| High-pressure sodium-vapour lamps - correction | 150 | 0.83 | 20 | 1 | 1 | 11 | 16 | |
| | 250 | 1.50 | 33 | — | 1 | 6 | 10 | |
| | 400 | 2.40 | 48 | — | — | 4 | 6 | |
| | 1000 | 6.30 | 106 | — | — | 2 | 3 | |
| High-pressure sodium-vapour lamps with electronic control gear (PCI) + 50-125 x I_n lamp for 0,6 ms | 20 | 0.10 | — | 9 | 9 | 18 | 20 | |
| | 35 | 0.20 | — | 6 | 6 | 11 | 13 | |
| | 70 | 0.36 | — | 5 | 5 | 10 | 12 | |
| | 150 | 0.70 | — | 4 | 4 | 8 | 10 | |
| Low-pressure sodium-vapour lamps - uncorrected | 18 | 0.35 | — | 22 | 27 | 71 | 90 | |
| | 35 | 1.50 | — | 7 | 9 | 23 | 30 | |
| | 55 | 1.50 | — | 7 | 9 | 23 | 30 | |
| | 90 | 2.40 | — | 4 | 5 | 14 | 19 | |
| | 135 | 3.50 | — | 3 | 4 | 10 | 13 | |
| Low-pressure sodium-vapour lamps - parallel correction | 18 | 0.35 | 5 | 6 | 7 | 44 | 66 | |
| | 35 | 0.31 | 20 | 1 | 1 | 11 | 16 | |
| | 55 | 0.42 | 20 | 1 | 1 | 11 | 16 | |
| | 90 | 0.63 | 26 | 1 | 1 | 8 | 12 | |
| | 135 | 0.94 | 45 | — | — | 4 | 7 | |
| Transformers for low-voltage tungsten halogen lamps | 180 | 1.16 | 40 | — | — | 5 | 8 | |
| | 20 | — | — | 40 | 52 | 110 | 174 | |
| | 50 | — | — | 20 | 24 | 50 | 80 | |
| | 75 | — | — | 13 | 16 | 35 | 54 | |
| | 100 | — | — | 10 | 12 | 27 | 43 | |
| | 150 | — | — | 7 | 9 | 19 | 29 | |
| | 200 | — | — | 5 | 6 | 14 | 23 | |
| | 300 | — | — | 3 | 4 | 9 | 14 | |

Contactors

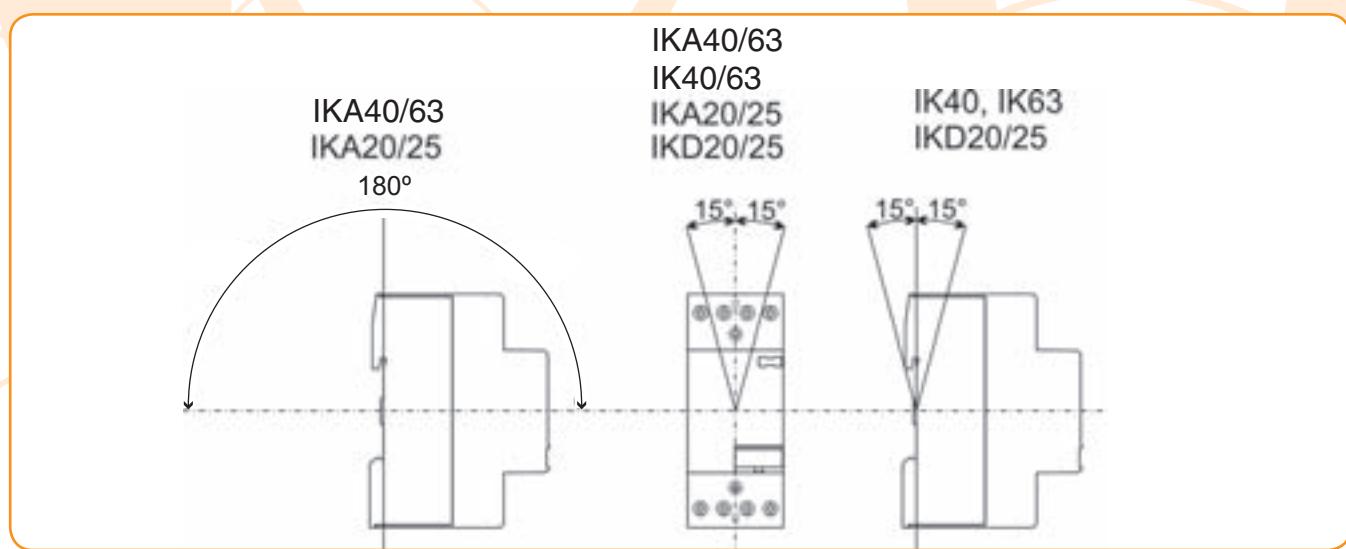
IK INSTALLATION CONTACTORS

IKA20, IKD20, IK21, IKA25, IKD25, IK40, IKA40, IK63, IKA63

| Type | Power (W) | Current (A) | C (μ F) | Max. number of lamps per pole at 230 V 50 Hz | | | |
|---|-----------|-------------|--------------|--|--------------|-------------|-------------|
| | | | | IKA20, IKD20, IK21 | IKA25, IKD25 | IKA40, IK40 | IKA63, IK63 |
| Fluorescent lamps T5 with electronic control gear (ECG) | 22 | 0.11 | FC | 22 | 30 | 80 | 110 |
| | 40 | 0.21 | | 12 | 15 | 40 | 60 |
| | 55 | 0.28 | | 8 | 12 | 30 | 45 |
| | 14 | 0.08 | HE | 30 | 40 | 105 | 150 |
| | 21 | 0.11 | | 22 | 30 | 80 | 115 |
| | 28 | 0.14 | | 18 | 22 | 60 | 90 |
| | 35 | 0.18 | | 14 | 18 | 48 | 70 |
| | 24 | 0.12 | HO | 20 | 26 | 70 | 100 |
| | 39 | 0.20 | | 12 | 16 | 42 | 62 |
| | 49 | 0.24 | | 10 | 14 | 35 | 52 |
| | 54 | 0.27 | | 9 | 13 | 32 | 47 |
| | 80 | 0.39 | | 6 | 8 | 22 | 32 |
| | 2 x 22 | 0.23 | 2 x FC | 2 x 11 | 2 x 15 | 2 x 40 | 2 x 55 |
| | 2 x 40 | 0.42 | | 2 x 6 | 2 x 7 | 2 x 20 | 2 x 30 |
| | 2 x 55 | 0.55 | | 2 x 4 | 2 x 6 | 2 x 15 | 2 x 22 |
| | 2 x 14 | 0.15 | 2 x HE | 2 x 15 | 2 x 20 | 2 x 52 | 2 x 75 |
| | 2 x 21 | 0.22 | | 2 x 11 | 2 x 15 | 2 x 40 | 2 x 57 |
| | 2 x 28 | 0.28 | | 2 x 9 | 2 x 11 | 2 x 20 | 2 x 45 |
| | 2 x 35 | 0.36 | | 2 x 7 | 2 x 9 | 2 x 24 | 2 x 35 |
| | 2 x 24 | 0.24 | 2 x HO | 2 x 10 | 2 x 13 | 2 x 35 | 2 x 50 |
| | 2 x 39 | 0.39 | | 2 x 6 | 2 x 8 | 2 x 21 | 2 x 31 |
| | 2 x 49 | 0.48 | | 2 x 5 | 2 x 7 | 2 x 17 | 2 x 26 |
| | 2 x 54 | 0.54 | | 2 x 4 | 2 x 6 | 2 x 16 | 2 x 23 |
| | 2 x 80 | 0.74 | | 2 x 3 | 2 x 4 | 2 x 11 | 2 x 16 |

IK21 contactors operation position is optional.

Operation position for contactors IK20, IKD20, IKA25, IKD25, IK40, IKA40, IK63 and IKA63:

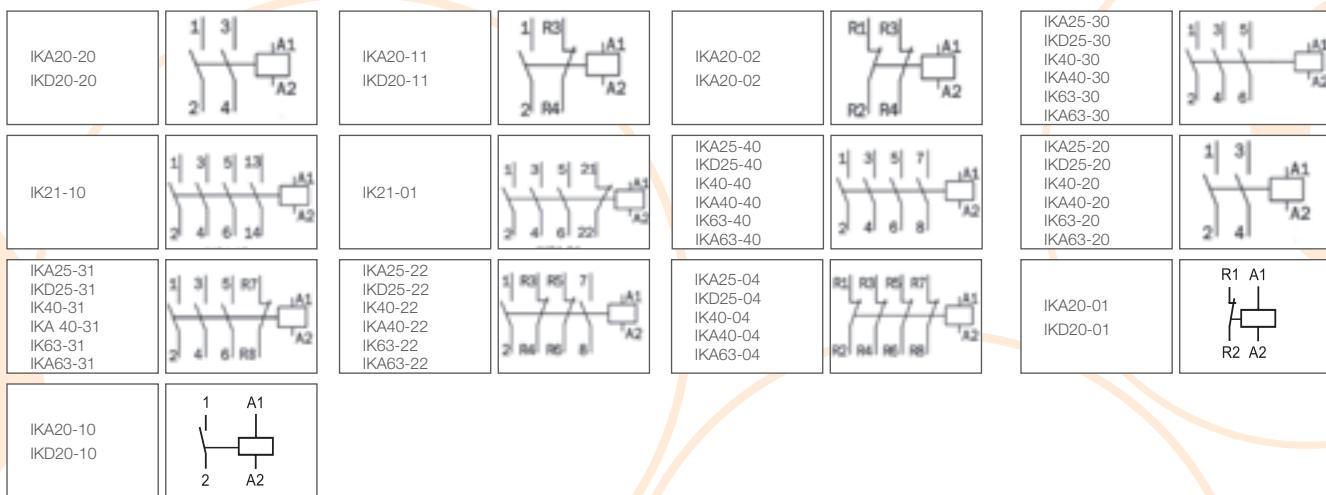


Contactors

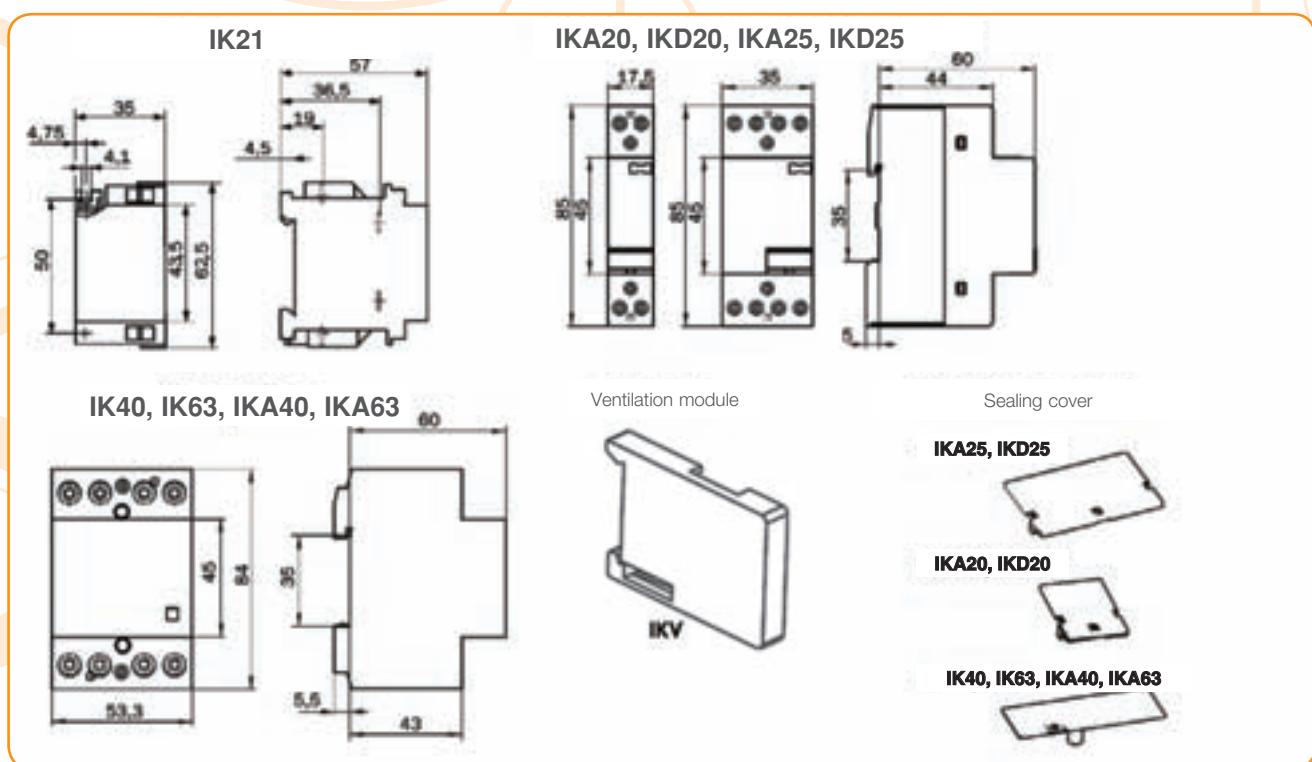
IK INSTALLATION CONTACTORS

IKA20, IKD20, IK21, IKA25, IKD25, IK40, IKA40, IK63, IKA63

CONTACT ARRANGEMENTS



DIMENSIONS



ORDERING DATA

The type designation and control voltage should be stated when ordering the contactors.