

Contactor for 3ph three-phase capacitors, 20kVAR

Part no. DILK20-11(*V60HZ)
Article no. 294020
Catalog No. -

Delivery program

| | | | |
|--|--|------|--|
| Product range | | | DILK Contactors for capacitors |
| Application | | | Contactors for power factor correction |
| Three-phase capacitors 50 - 60 Hz | | | |
| Open | | | |
| 230 V | | kVAr | 11 |
| 400 V | | kVAr | 20 |
| 525 V | | kVAr | 25 |
| 690 V | | kVAr | 33.3 |
| Contact sequence | | | |
| Actuating voltage | | | *V 60 Hz |

Technical data

| | | | |
|---|-------------------------------------|-----------------|-------------------------------|
| General | | | |
| Standards | | | IEC/EN 60947 |
| Ambient temperature | | | |
| Open | | °C | -25 - +60 |
| Enclosed | | °C | - 25 - 40 |
| Mounting position | | | |
| Degree of Protection | | | IP00 |
| Protection against direct contact when actuated from front (EN 50274) | | | Finger and back-of-hand proof |
| Weight basic unit | | | |
| AC operated | | kg | 0.55 |
| Terminal capacity main cable | | | |
| Solid | | mm ² | 1 x (0.75 - 16) |
| Flexible with ferrule | | mm ² | 1 x (0.75 - 16) |
| Stranded | | mm ² | 1 x 16 |
| Solid or stranded | | AWG | 18 - 6 |
| Flat conductor | Lamellenzahl x Breite x Dicke | mm | - |

| | | | |
|--|--|------|------|
| Rated power of three-phase capacitors | | | |
| 230 V | | kVAr | 11 |
| 400 V | | kVAr | 20 |
| 525 V | | kVAr | 25 |
| 690 V | | kVAr | 33.3 |
| Rated operational current I_g of three-phase capacitors | | | |
| Open | | | |

| | | | |
|--|------------|---------------|------|
| 230 V | I_e | A | 29 |
| 400 V | I_e | A | 29 |
| 525 V | I_e | A | 29 |
| 690 V | I_e | A | 29 |
| of three-phase capacitors enclosed | I_e | | |
| 230 V | I_e | A | 26 |
| 400 V | I_e | A | 26 |
| 525 V | I_e | A | 26 |
| 690 V | I_e | A | 26 |
| Making capacity (i-peak value) without damping | | $\times I_e$ | 180 |
| Component lifespan | Operations | $\times 10^6$ | 0.15 |
| Maximum operating frequency | | Ops./h | |
| Max. operating frequency | | Ops/h | 120 |

Magnet systems

| | | | |
|--|----------|--------------|------------|
| Voltage tolerance | | | |
| AC operated | Pick-up | $\times U_c$ | 0.8 - 1.1 |
| Drop-out voltage AC operated | Drop-out | $\times U_c$ | 0.3 - 0.6 |
| Power consumption of the coil in a cold state and $1.0 \times U_c$ | | | |
| 50 Hz | Pick-up | VA | 58 |
| 50 Hz | Sealing | VA | 7.6 |
| 50 Hz | Sealing | W | 2.3 |
| 60 Hz | Pick-up | VA | 71 |
| 60 Hz | Sealing | VA | 9.3 |
| 60 Hz | Sealing | W | 2.8 |
| 50/60 Hz | Pick-up | VA | 65 59 |
| 50/60 Hz | Sealing | VA | 9.6 7 |
| 50/60 Hz | Sealing | W | 2.7 2.2 |
| Duty factor | | % DF | 100 |
| Changeover time at 100 % U_c (recommended value) | | | |
| Main contacts | | | |
| AC operated | | | |
| Closing delay | | ms | 16 - 22 |
| Opening delay | | ms | 8 - 14 |
| Arcing time | | ms | 10 |

Electromagnetic compatibility (EMC)

| | | | |
|-----------------------|--|--|-------------------------|
| Emitted interference | | | according to EN 60947-1 |
| Interference immunity | | | according to EN 60947-1 |

Additional technical data

| | | | |
|--------------------|-----|--|-----|
| like the contactor | DIL | | M25 |
|--------------------|-----|--|-----|

Design verification as per IEC/EN 61439

| | | | |
|--|------------|----|--|
| Technical data for design verification | | | |
| Rated operational current for specified heat dissipation | I_n | A | 29 |
| Heat dissipation per pole, current-dependent | P_{vid} | W | 1.8 |
| Equipment heat dissipation, current-dependent | P_{vid} | W | 5.4 |
| Static heat dissipation, non-current-dependent | P_{vs} | W | 2.1 |
| Heat dissipation capacity | P_{diss} | W | 0 |
| Operating ambient temperature min. | | °C | -25 |
| Operating ambient temperature max. | | °C | 60 |
| IEC/EN 61439 design verification | | | |
| 10.2 Strength of materials and parts | | | |
| 10.2.2 Corrosion resistance | | | Meets the product standard's requirements. |

| | | |
|--|--|--|
| 10.2.3.1 Verification of thermal stability of enclosures | | Meets the product standard's requirements. |
| 10.2.3.2 Verification of resistance of insulating materials to normal heat | | Meets the product standard's requirements. |
| 10.2.3.3 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects | | Meets the product standard's requirements. |
| 10.2.4 Resistance to ultra-violet (UV) radiation | | Meets the product standard's requirements. |
| 10.2.5 Lifting | | Does not apply, since the entire switchgear needs to be evaluated. |
| 10.2.6 Mechanical impact | | Does not apply, since the entire switchgear needs to be evaluated. |
| 10.2.7 Inscriptions | | Meets the product standard's requirements. |
| 10.3 Degree of protection of ASSEMBLIES | | Does not apply, since the entire switchgear needs to be evaluated. |
| 10.4 Clearances and creepage distances | | Meets the product standard's requirements. |
| 10.5 Protection against electric shock | | Does not apply, since the entire switchgear needs to be evaluated. |
| 10.6 Incorporation of switching devices and components | | Does not apply, since the entire switchgear needs to be evaluated. |
| 10.7 Internal electrical circuits and connections | | Is the panel builder's responsibility. |
| 10.8 Connections for external conductors | | Is the panel builder's responsibility. |
| 10.9 Insulation properties | | |
| 10.9.2 Power-frequency electric strength | | Is the panel builder's responsibility. |
| 10.9.3 Impulse withstand voltage | | Is the panel builder's responsibility. |
| 10.9.4 Testing of enclosures made of insulating material | | Is the panel builder's responsibility. |
| 10.10 Temperature rise | | The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices. |
| 10.11 Short-circuit rating | | Is the panel builder's responsibility. The specifications for the switchgear must be observed. |
| 10.12 Electromagnetic compatibility | | Is the panel builder's responsibility. The specifications for the switchgear must be observed. |
| 10.13 Mechanical function | | The device meets the requirements, provided the information in the instruction leaflet (IL) is observed. |

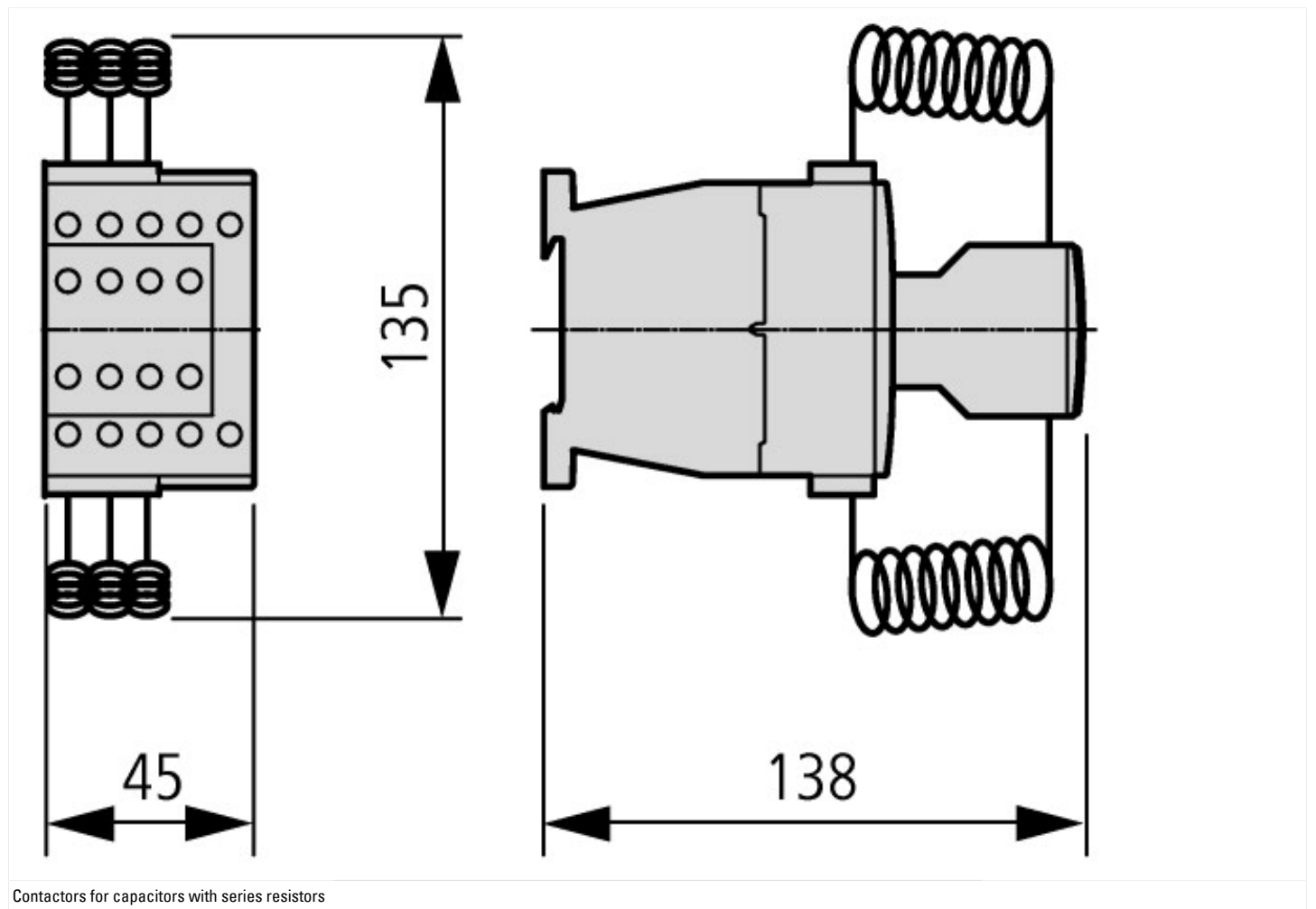
Technical data ETIM 6.0

| | | |
|--|------|------------------|
| Low-voltage industrial components (EG000017) / Capacitor contactor (EC001079) | | |
| Electric engineering, automation, process control engineering / Low-voltage switch technology / Contactor (LV) / Capacitor contactor (ecl@ss8.1-27-37-10-06 [AGZ569012]) | | |
| Rated control supply voltage U_s at AC 50HZ | V | 0 - 0 |
| Rated control supply voltage U_s at AC 60HZ | V | 24 - 600 |
| Rated control supply voltage U_s at DC | V | 0 - 0 |
| Voltage type for actuating | | AC |
| Number of auxiliary contacts as normally open contact | | 1 |
| Number of auxiliary contacts as normally closed contact | | 1 |
| Type of electrical connection of main circuit | | Screw connection |
| Number of main contacts as normally open contact | | 3 |
| Number of normally closed contacts as main contact | | 0 |
| Rated blind power at 400 V, 50 Hz | kvar | 20 |

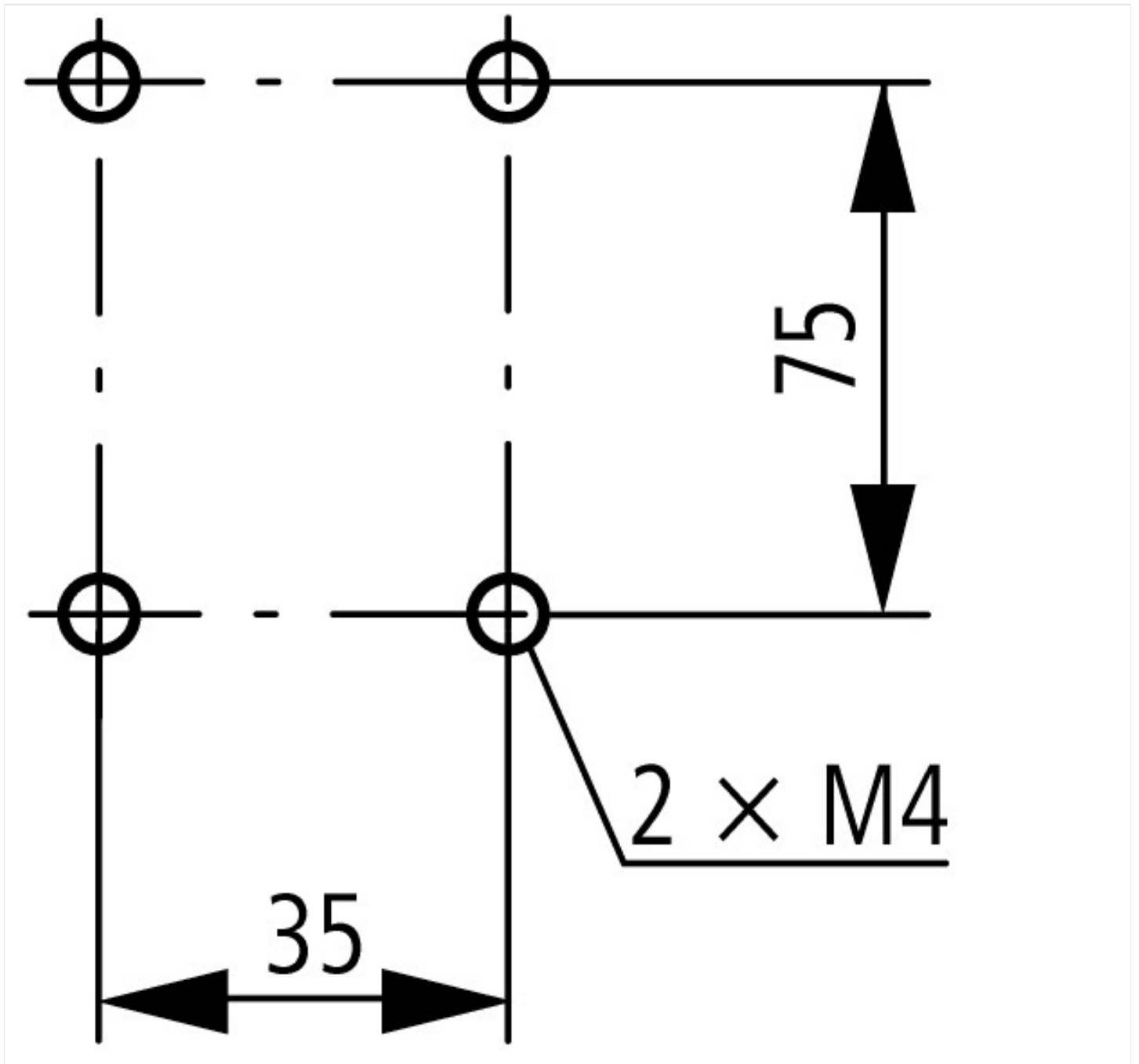
Approvals

| | | |
|--------------------------------------|--|---|
| Product Standards | | IEC/EN 60947-4-1; UL 508; CSA-C22.2 No. 14-05; CE marking |
| UL File No. | | E29096 |
| UL Category Control No. | | NLDX |
| CSA File No. | | 012528 |
| CSA Class No. | | 3211-04 |
| North America Certification | | UL listed, CSA certified |
| Specially designed for North America | | No |

Dimensions



Contactors for capacitors with series resistors



Additional product information (links)

IL03407038Z (AWA2100-2272) Contactor for capacitors

IL03407038Z (AWA2100-2272) Contactor for capacitors

ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03407038Z2010_10.pdf

UL/CSA: UL/CSA: Special Purpose Rating

<http://de.ecat.moeller.net/flip-cat/?edition=HPLTE&startpage=5.85>