



Auxiliary contact module, 3N/O+1N/C, surface mounting, screw connection

Part no. DILA-XHI31
Article no. 276427
Catalog No. XTCEXFAC31



Delivery program

| | | | |
|---|----------------|---|--|
| Product range | | | Accessories |
| Accessories | | | Auxiliary contact modules |
| Description | | | with interlocked opposing contacts |
| Function | | | for standard applications |
| Number of poles | | | 4 pole |
| Connection technique | | | Screw terminals |
| Rated operational current | | | |
| Conventional free air thermal current, 1 pole | | | |
| Open | | | |
| at 60 °C | $I_{th} = I_e$ | A | 16 |
| AC-15 | | | |
| 220 V 230 V 240 V | I_e | A | 4 |
| 380 V 400 V 415 V | I_e | A | 4 |
| Contacts | | | |
| N/O = Normally open | | | 3 N/O |
| N/C = Normally closed | | | 1 NC |
| Mounting type | | | Front fixing |
| Contact sequence | | | |
| For use with | | | DILA... DILM(C)7... DILM(C)9... DILM(C)12... DILM(C)15... DILM(C)17... DILM(C)25... DILM(C)32... DILM38... DILMP20... DILMP32... DILMP45... DILL... |
| Instructions | | | Interlocked opposing contacts according to IEC/EN 60947-5-1 appendix L, inside the auxiliary contact modules, also for the integrated auxiliary contacts of the DILM 7 - DILM32 Auxiliary contacts used as mirror contacts according to IEC/EN 60947-4-1 Appendix F (not N/C late open) |
| Code number and version of combination | | | |
| Distinctive number | | | 71E |
| | | | 62 |
| | | | 53 |

Technical data

Electrical specifications for standard auxiliary contacts

| | | | |
|---|-----------|------|----------------|
| Interlocked opposing contacts within an auxiliary contact module (to IEC 60947-5-1 Annex L) | | | Yes |
| N/C contact (not late-break contact) suitable as a mirror contact (to IEC/EN 60947-4-1 Annex F) | | | DILM7 - DILM32 |
| Rated impulse withstand voltage | U_{imp} | kV | 6 |
| Overvoltage category/pollution degree | | | III/3 |
| Rated insulation voltage | U_i | V AC | 690 |
| Rated operational voltage | U_e | V AC | 500 |
| Safe isolation to EN 61140 | | | |

| | | | |
|--|----------------------------------|-------------------|--|
| between coil and auxiliary contacts | | V AC | 400 |
| between the auxiliary contacts | | V AC | 400 |
| Rated operational current | | A | |
| Conventional free air thermal current, 1 pole | | | |
| Open | | | |
| at 60 °C | I _{th} = I _e | A | 16 |
| AC-15 | | | |
| 220 V 230 V 240 V | I _e | A | 4 |
| 380 V 400 V 415 V | I _e | A | 4 |
| 500 V | I _e | A | 1.5 |
| DC current | | | |
| DC L/R  15 ms | | | |
| Contacts in series: | | A | |
| 1 | 24 V | A | 10 |
| 1 | 60 V | A | 6 |
| 2 | 60 V | A | 10 |
| 1 | 110 V | A | 3 |
| 3 | 110 V | A | 6 |
| 1 | 220 V | A | 1 |
| 3 | 220 V | A | 5 |
| DC L/R  50 ms | | | |
| 3 | 24 V | A | 2.5 |
| 3 | 60 V | A | 1 |
| 3 | 110 V | A | 0.5 |
| 3 | 220 V | A | 0.25 |
| DC-13 (6xP) | | | |
| 24 V | I _e | A | 2.5 |
| 60 V | I _e | A | 1 |
| 110 V | I _e | A | 0.5 |
| 220 V | I _e | A | 0.25 |
| Control circuit reliability | Failure rate | λ | <10 ⁻⁸ , < one failure at 100 million operations (at U _e = 24 V DC, U _{min} = 17 V, I _{min} = 5.4 mA) |
| Component lifespan | | | |
| at U _e = 230 V, AC-15, 3 A | Operations | x 10 ⁶ | 1.3 |
| Short-circuit rating without welding | | | |
| max. fuse | | A gG/gL | 10 |

Terminal capacity control circuit cables

| | | | |
|-----------------------|--|-----------------|--------------------------------------|
| Solid | | mm ² | 1 x (0.75 - 2.5) 2 x (0.75 - 2.5) |
| Flexible with ferrule | | mm ² | 1 x (0,75 - 1.5) 2 x (0,75 - 1.5) |
| Solid or stranded | | AWG | 18 - 14 |

Tool

| | | | |
|------------------------|--|----|-----------|
| Control circuit cables | | | |
| Standard screwdriver | | mm | 0.6 x 3.5 |

Design verification as per IEC/EN 61439

| | | | |
|--|-------------------|----|------|
| Technical data for design verification | | | |
| Rated operational current for specified heat dissipation | I _n | A | 4 |
| Heat dissipation per pole, current-dependent | P _{vid} | W | 0.16 |
| Equipment heat dissipation, current-dependent | P _{vid} | W | 0 |
| Static heat dissipation, non-current-dependent | P _{vs} | W | 0 |
| 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. |

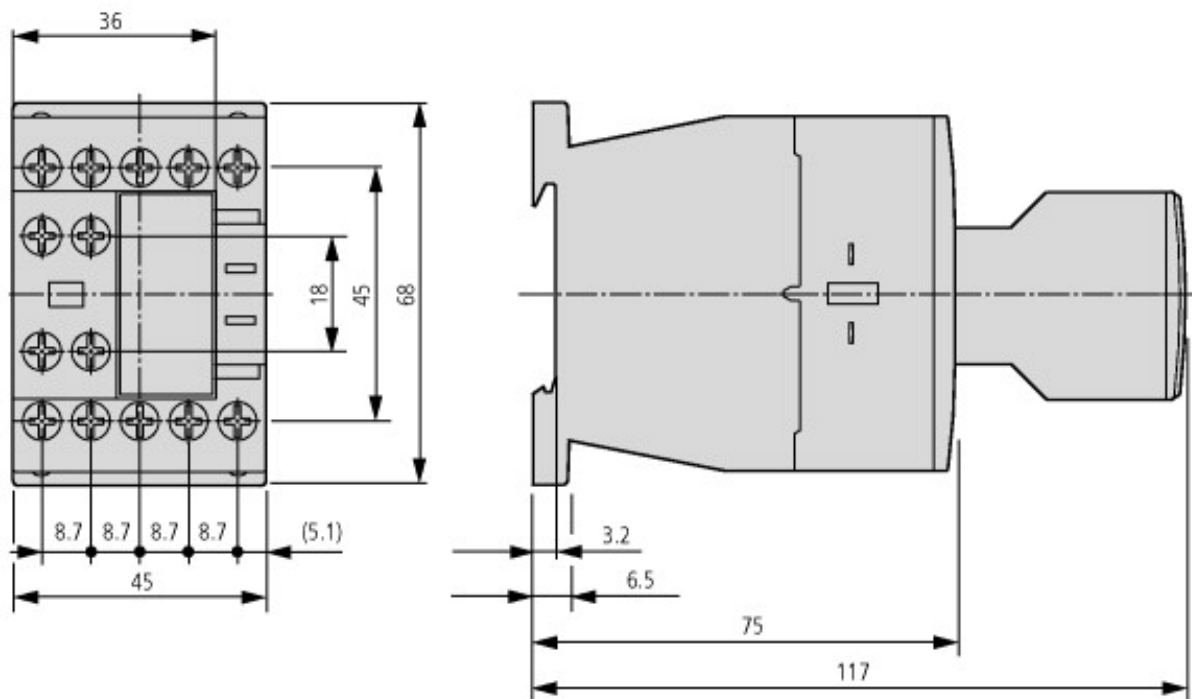
Technical data ETIM 6.0

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|---|---|------------------|
| Low-voltage industrial components (EG000017) / Auxiliary contact block (EC000041) | | |
| Electric engineering, automation, process control engineering / Low-voltage switch technology / Component for low-voltage switching technology / Auxiliary switch block (ec1@ss8.1-27-37-13-02 [AKN342010]) | | |
| Number of contacts as change-over contact | | 0 |
| Number of contacts as normally open contact | | 3 |
| Number of contacts as normally closed contact | | 1 |
| Rated operation current I _e at AC-15, 230 V | A | 4 |
| Type of electric connection | | Screw connection |
| Model | | Top mounting |
| Mounting method | | Front fastening |

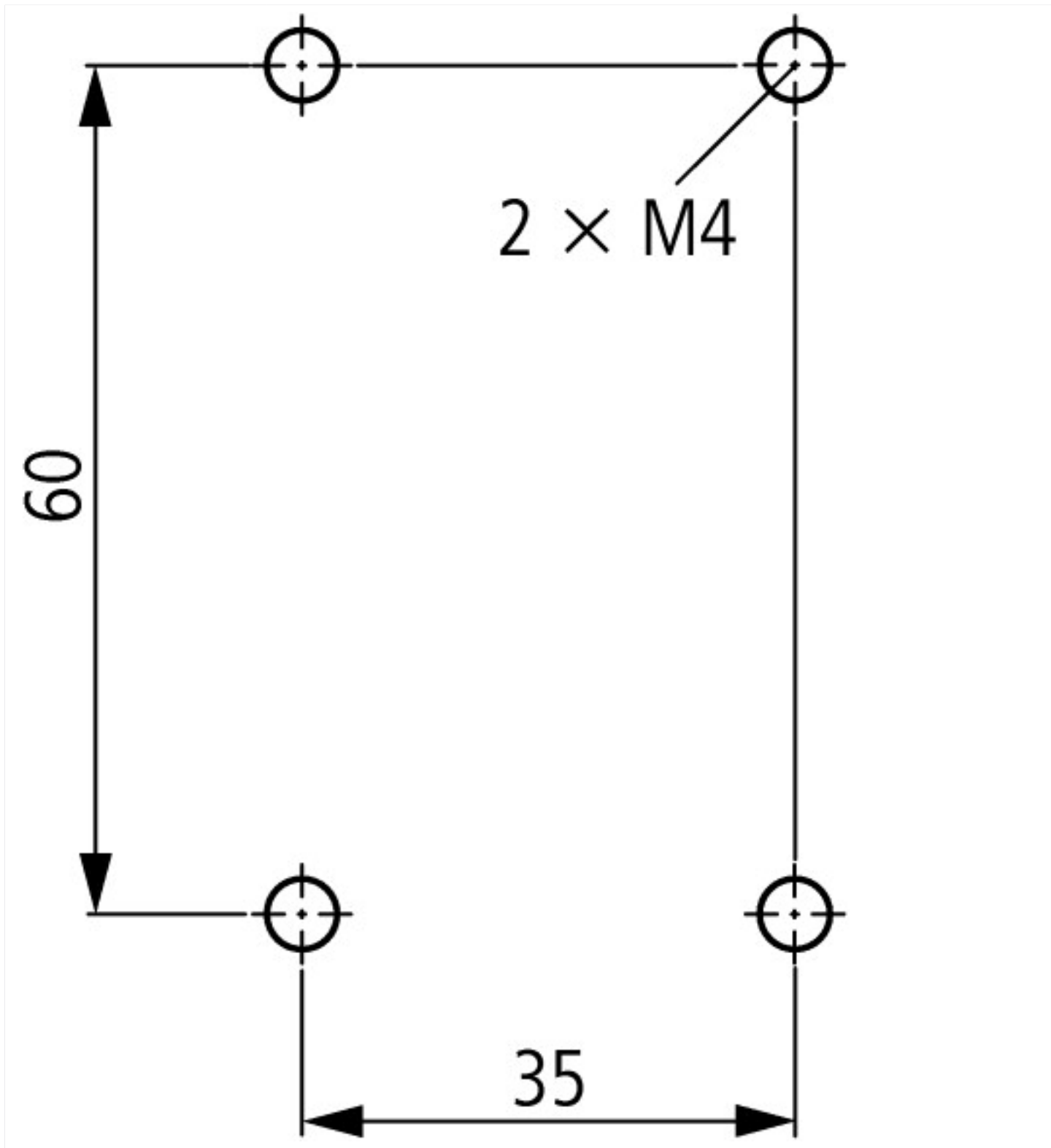
Approvals

| | | |
|--------------------------------------|--|---|
| Product Standards | | IEC/EN 60947-4-1; UL 508; CSA-C22.2 No. 14-05; CE marking |
| UL File No. | | E29184 |
| UL Category Control No. | | NKCR |
| CSA File No. | | 012528 |
| CSA Class No. | | 3211-03 |
| North America Certification | | UL listed, CSA certified |
| Specially designed for North America | | No |

Dimensions



Contactor with auxiliary contact module



Additional product information (links)

IL03407013Z (AWA2100-2126) Contactors

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|--|---|
| IL03407013Z (AWA2100-2126) Contactors | ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03407013Z2012_03.pdf |
| UL/CSA: Approved rating data | http://de.ecat.moeller.net/flip-cat/?edition=HPLTE&startpage=5.84 |
| Switchgear of Power Factor Correction Systems | http://www.moeller.net/binary/ver_techpapers/ver934en.pdf |
| X-Start - Modern Switching Installations Efficiently Fitted and Wired Securely | http://www.moeller.net/binary/ver_techpapers/ver938en.pdf |
| Mirror Contacts for Highly-Reliable Information Relating to Safety-Related Control Functions | http://www.moeller.net/binary/ver_techpapers/ver944en.pdf |
| Effect of the Cable Capacitance of Long Control Cables on the Actuation of Contactors | http://www.moeller.net/binary/ver_techpapers/ver949en.pdf |
| Motor starters and "Special Purpose Ratings" for the North American market | http://www.moeller.net/binary/ver_techpapers/ver953en.pdf |
| Switchgear for Luminaires | http://www.moeller.net/binary/ver_techpapers/ver955en.pdf |

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| Standard Compliant and Functionally Safe Engineering Design with Mechanical Auxiliary Contacts | http://www.moeller.net/binary/ver_techpapers/ver956en.pdf |
| The Interaction of Contactors with PLCs | http://www.moeller.net/binary/ver_techpapers/ver957en.pdf |
| Busbar Component Adapters for modern Industrial control panels | http://www.moeller.net/binary/ver_techpapers/ver960en.pdf |