



Auxiliary contact module, 3N/O+1N/C

Part no. **DILM150-XHI31**
 Catalog No. **277949**
 Eaton Catalog No. **XTCEXFBG31**
 EL-Nummer **0004130498**
 (Norway)

Delivery program

| | | | | |
|---|----------|---|--|---|
| 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} | A | | 16 |
| AC-15 | | | | |
| 220 V 230 V 240 V | I_e | A | | 6 |
| 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 | | | | DILM40... DILM50... DILM65... DILM72... DILM80... DILM95... DILM115... DILM150... DILM170... DILMP63... DILMP80... DILMP125... DILMP160... DILMP200... DILMF40... DILMF50... DILMF65... DILMF80... DILMF95... DILMF115... DILMF150... |
| Type | | | | Front mounting auxiliary contact |
| Instructions | | | | Interlocked opposing contacts according to IEC/EN 60947-5-1 Appendix L, inside the auxiliary contact module Auxiliary contacts used as mirror contacts according to IEC/EN 60947-4-1 Appendix F (not N/C late open) |

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) | | | | DILM40 - DILM170 |
| 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 | 440 |
| between the auxiliary contacts | | V AC | 440 |
| Rated operational current | | | |
| Conventional free air thermal current, 1 pole | | | |
| Open | | | |
| at 60 °C | I _{th} | A | 16 |
| AC-15 | | | |
| 220 V 230 V 240 V | I _e | A | 6 |
| 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: | | | |
| 1 | 24 V | A | 10 |
| 1 | 60 V | A | 6 |
| 1 | 110 V | A | 3 |
| 1 | 220 V | A | 1 |
| 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 | 16 |

Rating data for approved types

| | | | |
|--------------------|--|---|------|
| Auxiliary contacts | | | |
| Pilot Duty | | | |
| AC operated | | | A600 |
| DC operated | | | P300 |
| General Use | | | |
| AC | | V | 600 |
| AC | | A | 15 |
| DC | | V | 250 |
| DC | | A | 1 |

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 | 0.23 |
| 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. |

| | | |
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| 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 7.0

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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 (ecl@ss10.0.1-27-37-13-02 [AKN342013]) | | |
| Number of contacts as change-over contact | | 0 |
| Number of contacts as normally open contact | | 3 |
| Number of contacts as normally closed contact | | 1 |
| Number of fault-signal switches | | 0 |
| Rated operation current I _e at AC-15, 230 V | A | 6 |
| Type of electric connection | | Screw connection |
| Model | | Top mounting |
| Mounting method | | Front fastening |
| Lamp holder | | None |

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 |

Additional product information (links)

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| IL03407034Z (AWA2100-2251) Auxiliary contact | |
| IL03407034Z (AWA2100-2251) Auxiliary contact | ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03407034Z2018_05.pdf |
| Motor starters and "Special Purpose Ratings" for the North American market | http://www.eaton.eu/ecm/groups/public/@pub/@europe/@electrical/documents/content/pct_3258146.pdf |
| 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 |
| Switchgear for Luminaires | http://www.moeller.net/binary/ver_techpapers/ver955en.pdf |
| 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 |

