



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

**Part no.** DILM150-XHI11  
**Catalog No.** 277946  
**Eaton Catalog No.** XTCEXFBG11  
**EL-Nummer** 0004130493  
**(Norway)**

## Delivery program

|                                               |          |   |                                                                                                                                                                                                                                                                                                   |
|-----------------------------------------------|----------|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Accessories                                   |          |   | Auxiliary contact modules                                                                                                                                                                                                                                                                         |
| Description                                   |          |   | with interlocked opposing contacts                                                                                                                                                                                                                                                                |
| Function                                      |          |   | for standard applications                                                                                                                                                                                                                                                                         |
| Number of poles                               |          |   | 2 pole                                                                                                                                                                                                                                                                                            |
| Connection technique                          |          |   | Screw terminals                                                                                                                                                                                                                                                                                   |
| <b>Rated operational current</b>              |          |   |                                                                                                                                                                                                                                                                                                   |
| 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                                                                                                                                                                                                                                                                                                 |
| <b>Contacts</b>                               |          |   |                                                                                                                                                                                                                                                                                                   |
| N/O = Normally open                           |          |   | 1 N/O                                                                                                                                                                                                                                                                                             |
| N/C = Normally closed                         |          |   | 1 NC                                                                                                                                                                                                                                                                                              |
| Mounting type                                 |          |   | Front fixing                                                                                                                                                                                                                                                                                      |
| Contact sequence                              |          |   |                                                                                                                                                                                                                                                                                                   |
| For use with                                  |          |   | DILM40...<br>DILM50...<br>DILM65...<br>DILM72...<br>DILM80...<br>DILM95...<br>DILM115...<br>DILM150...<br>DILM170...<br>DILMP63...<br>DILMP80...<br>DILMP125...<br>DILMP160...<br>DILMP200...<br>DILMF40...<br>DILMF50...<br>DILMF65...<br>DILMF80...<br>DILMF95...<br>DILMF115...<br>DILMF150... |
| Type                                          |          |   | Front mounting auxiliary contact                                                                                                                                                                                                                                                                  |
| Instructions                                  |          |   | Interlocked opposing contacts according to IEC/EN 60947-5-1 Appendix L, inside the auxiliary contact module<br>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 <sub>i</sub>  | V AC              | 690                                                                                                                                              |
| Rated operational voltage                     | U <sub>e</sub>  | 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                     |                 | A                 |                                                                                                                                                  |
| Conventional free air thermal current, 1 pole |                 |                   |                                                                                                                                                  |
| Open                                          |                 |                   |                                                                                                                                                  |
| at 60 °C                                      | I <sub>th</sub> | A                 | 16                                                                                                                                               |
| AC-15                                         |                 |                   |                                                                                                                                                  |
| 220 V 230 V 240 V                             | I <sub>e</sub>  | A                 | 6                                                                                                                                                |
| 380 V 400 V 415 V                             | I <sub>e</sub>  | A                 | 4                                                                                                                                                |
| 500 V                                         | I <sub>e</sub>  | A                 | 1.5                                                                                                                                              |
| DC current                                    |                 |                   |                                                                                                                                                  |
| DC L/R ≤ 15 ms                                |                 |                   |                                                                                                                                                  |
| Contacts in series:                           |                 | A                 |                                                                                                                                                  |
| 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 <sup>-8</sup> , < one failure at 100 million operations<br>(at U <sub>e</sub> = 24 V DC, U <sub>min</sub> = 17 V, I <sub>min</sub> = 5.4 mA) |
| Component lifespan                            |                 |                   |                                                                                                                                                  |
| at U <sub>e</sub> = 230 V, AC-15, 3 A         | Operations      | x 10 <sup>6</sup> | 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 <sub>n</sub>    | A  | 4                                                                  |
| Heat dissipation per pole, current-dependent                                                                           | P <sub>vid</sub>  | W  | 0.23                                                               |
| Equipment heat dissipation, current-dependent                                                                          | P <sub>vid</sub>  | W  | 0                                                                  |
| Static heat dissipation, non-current-dependent                                                                         | P <sub>vs</sub>   | W  | 0                                                                  |
| Heat dissipation capacity                                                                                              | P <sub>diss</sub> | 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 7.0

|                                                                                                                                                                                                                |   |                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|------------------|
| 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 (ecI@ss10.0.1-27-37-13-02 [AKN342013]) |   |                  |
| Number of contacts as change-over contact                                                                                                                                                                      |   | 0                |
| Number of contacts as normally open contact                                                                                                                                                                    |   | 1                |
| Number of contacts as normally closed contact                                                                                                                                                                  |   | 1                |
| Number of fault-signal switches                                                                                                                                                                                |   | 0                |
| Rated operation current Ie 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)

|                                                                                              |                                                                                                                                                                                                                 |
|----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>IL03407034Z (AWA2100-2251) Auxiliary contact</b>                                          |                                                                                                                                                                                                                 |
| IL03407034Z (AWA2100-2251) Auxiliary contact                                                 | <a href="ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03407034Z2018_05.pdf">ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03407034Z2018_05.pdf</a>                                           |
| Motor starters and "Special Purpose Ratings" for the North American market                   | <a href="http://www.eaton.eu/ecm/groups/public/@pub/@europe/@electrical/documents/content/pct_3258146.pdf">http://www.eaton.eu/ecm/groups/public/@pub/@europe/@electrical/documents/content/pct_3258146.pdf</a> |
| Switchgear of Power Factor Correction Systems                                                | <a href="http://www.moeller.net/binary/ver_techpapers/ver934en.pdf">http://www.moeller.net/binary/ver_techpapers/ver934en.pdf</a>                                                                               |
| X-Start - Modern Switching Installations Efficiently Fitted and Wired Securely               | <a href="http://www.moeller.net/binary/ver_techpapers/ver938en.pdf">http://www.moeller.net/binary/ver_techpapers/ver938en.pdf</a>                                                                               |
| Mirror Contacts for Highly-Reliable Information Relating to Safety-Related Control Functions | <a href="http://www.moeller.net/binary/ver_techpapers/ver944en.pdf">http://www.moeller.net/binary/ver_techpapers/ver944en.pdf</a>                                                                               |
| Effect of the Cabel Capacitance of Long Control Cables on the Actuation of Contactors        | <a href="http://www.moeller.net/binary/ver_techpapers/ver949en.pdf">http://www.moeller.net/binary/ver_techpapers/ver949en.pdf</a>                                                                               |
| Switchgear for Luminaires                                                                    | <a href="http://www.moeller.net/binary/ver_techpapers/ver955en.pdf">http://www.moeller.net/binary/ver_techpapers/ver955en.pdf</a>                                                                               |

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