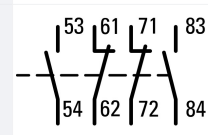




**Auxiliary contact module, 4 pole, I<sub>th</sub>= 16 A, 2 N/O, 2 NC, Front fixing, Screw terminals, DILM40 - DILM170, XHIA**

**Part no. DILM150-XHIA22**  
**Catalog No. 283464**  
**Alternate Catalog No. XTCEXFAG22**  
**EL-Nummer 4110363**  
**(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   |
| <b>Rated operational current</b>              |                 |   |  |   |
| 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   |
| <b>Contacts</b>                               |                 |   |  |   |
| N/O = Normally open                           |                 |   |  | 2 N/O   |
| N/C = Normally closed                         |                 |   |  | 2 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**

|                                       |            |                   |  |  |
|---------------------------------------|------------|-------------------|--|--|
| <b>General</b>                        |            |                   |  |  |
| Standards                             |            |                   |  | IEC/EN 60947, VDE 0660, UL, CSA  |
| Component lifespan                    |            |                   |  |  |
| at U <sub>e</sub> = 230 V, AC-15, 3 A | Operations | x 10 <sup>6</sup> |  | 1.3  |
| Climatic proofing                     |            |                   |  | Damp heat, constant, to IEC 60068-2-78<br>Damp heat, cyclic, to IEC 60068-2-30 |

|   |  |                 |                                      |
|---|--|-----------------|--------------------------------------|
| Ambient temperature   |  |                 |                                      |
| Open  |  | °C              | -25 - +60                            |
| Enclosed  |  | °C              | - 25 - 40                            |
| Ambient temperature, storage  |  | °C              | - 40 - 80                            |
| Mechanical shock resistance (IEC/EN 60068-2-27)                       |  |                 |                                      |
| Half-sinusoidal shock, 10 ms  |  |                 |                                      |
| Basic unit with auxiliary contact module                              |  | g               |                                      |
| N/O contact   |  | g               | 7                                    |
| N/C contact   |  | g               | 5                                    |
| Degree of Protection  |  |                 | IP20                                 |
| Protection against direct contact when actuated from front (EN 50274) |  |                 | Finger and back-of-hand proof        |
| Weight  |  | kg              | 0.055                                |
| Terminal capacities   |  |                 |                                      |
| Screw terminals   |  |                 |                                      |
| Solid   |  | mm <sup>2</sup> | 1 x (0.75 - 2.5)<br>2 x (0.75 - 2.5) |
| Flexible with ferrule   |  | mm <sup>2</sup> | 1 x (0.75 - 2.5)<br>2 x (0.75 - 2.5) |
| Solid or stranded   |  | AWG             | 18 – 14                              |
| Pozidriv screwdriver  |  | Size            | 2                                    |
| Standard screwdriver  |  | mm              | 0.8 x 5.5<br>1 x 6                   |
| Max. tightening torque  |  | Nm              | 1.2                                  |

## 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   |
| Rated impulse withstand voltage   | $U_{imp}$    | V AC      |  | 6000   |
| 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   |              |           |  |  |
| 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  |              |           |  |  |
| Switch-on and switch-off conditions based on DC-13, time constant as specified.                 |              |           |  |  |
| DC L/R $\leq$ 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 | $\lambda$ |  | $<10^{-8}$ , < one failure at 100 million operations<br>(at $U_e = 24$ V DC, $U_{min} = 17$ V, $I_{min} = 5.4$ mA) |
| Short-circuit rating without welding  |              |           |  |  |
| Short-circuit protection maximum fuse   |              |           |  |  |
| 500 V   |              | A gG/gL   |  | 16   |
| Current heat loss at $I_{th}$   |              |           |  |  |
| AC operated   |              | W         |  | 3.7  |

|   |    |     |
|---|----|-----|
| DC operated   | W  | 3.7 |
| Current heat loss per auxiliary circuit at I <sub>0</sub> (AC-15/230 V) | CO | 0.5 |

### 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  |                   |    |  |
| 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 (ecl@ss10.0.1-27-37-13-02 [AKN342013]) |  |   |
| Number of contacts as change-over contact  |  | 0 |

|   |   |                  |
|---|---|------------------|
| Number of contacts as normally open contact   |   | 2                |
| Number of contacts as normally closed contact |   | 2                |
| 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="https://es-assets.eaton.com/DOCUMENTATION/AWA_INSTRUCTIONS/IL03407034Z2020_04.pdf">https://es-assets.eaton.com/DOCUMENTATION/AWA_INSTRUCTIONS/IL03407034Z2020_04.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 Cable 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>   |
| 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>   |