



**Auxiliary contact module, Front mounting auxiliary contact, 4 pole, 380 V  
400 V 415 V: 4 A, 4 NC, Front fixing, Screw terminals**

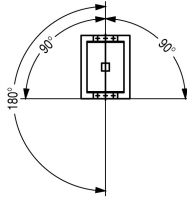
**Part no.** DILA-XHI04  
**Catalog No.** 276424  
**Alternate Catalog No.** XTCEXFAC04  
**EL-Nummer (Norway)** 4130215

## Delivery program

|                                               |          |   |                                                                                                                                                                                                                                                                                            |
|-----------------------------------------------|----------|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Accessories                                   |          |   | Auxiliary contact modules                                                                                                                                                                                                                                                                  |
| Description                                   |          |   | with interlocked opposing contacts<br>Switching elements according to EN 50005<br>Version E combinations correspond to EN 50011 and are to be preferred.<br>The DC operated contactor DILA(C)-22 must only be combined with 2-pole auxiliary 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                                      | $I_{th}$ | A | 16                                                                                                                                                                                                                                                                                         |
| AC-15                                         |          |   |                                                                                                                                                                                                                                                                                            |
| 220 V 230 V 240 V                             | $I_e$    | A | 4                                                                                                                                                                                                                                                                                          |
| 380 V 400 V 415 V                             | $I_e$    | A | 4                                                                                                                                                                                                                                                                                          |
| <b>Contacts</b>                               |          |   |                                                                                                                                                                                                                                                                                            |
| N/C = Normally closed                         |          |   | 4 NC                                                                                                                                                                                                                                                                                       |
| Mounting type                                 |          |   | Front fixing                                                                                                                                                                                                                                                                               |
| Contact sequence                              |          |   |                                                                                                                                                                                                                                                                                            |
| For use with                                  |          |   | DILA(C)...<br>DILM(C)7...<br>DILM(C)9...<br>DILM(C)12...<br>DILM(C)15...<br>DILM(C)17...<br>DILM(C)25...<br>DILM(C)32...<br>DILM38...<br>DILMP20...<br>DILMP32...<br>DILMP45...<br>DILL...<br>DILMF8...<br>DILMF11...<br>DILMF14...<br>DILMF17...<br>DILMF25...<br>DILMF32...              |
| Type                                          |          |   | Front mounting auxiliary contact                                                                                                                                                                                                                                                           |
| 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<br>Auxiliary contacts used as mirror contacts according to IEC/EN 60947-4-1 Appendix F (not N/C late open) |
| <b>Code number and version of combination</b> |          |   |                                                                                                                                                                                                                                                                                            |
| Distinctive number                            |          |   | 44E                                                                                                                                                                                                                                                                                        |
| with basic device                             |          |   | DILA(C)-40                                                                                                                                                                                                                                                                                 |
|                                               |          |   | 35                                                                                                                                                                                                                                                                                         |
| with basic device                             |          |   | DILA(C)-31                                                                                                                                                                                                                                                                                 |
|                                               |          |   | 26                                                                                                                                                                                                                                                                                         |
| with basic device                             |          |   | DILA(C)-22                                                                                                                                                                                                                                                                                 |

## Technical data

### General

|                                                                       |              |                 |                                                                                    |
|-----------------------------------------------------------------------|--------------|-----------------|------------------------------------------------------------------------------------|
| Standards                                                             |              |                 | IEC/EN 60947, VDE 0660, UL, CSA                                                    |
| Lifespan, mechanical                                                  |              |                 |                                                                                    |
| AC operated                                                           | Operations   | $\times 10^6$   | 10                                                                                 |
| DC operated                                                           | Operations   | $\times 10^6$   | 10                                                                                 |
| Component lifespan                                                    |              |                 |                                                                                    |
| at $U_e = 230$ V, AC-15, 3 A                                          | Operations   | $\times 10^6$   | 1.3                                                                                |
| Maximum operating frequency                                           | Operations/h |                 | 9000                                                                               |
| 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                                                                          |
| Mounting position                                                     |              |                 |                                                                                    |
| Mounting position                                                     |              |                 |  |
| 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              | 0.049                                                                              |
| Terminal capacities                                                   |              | mm <sup>2</sup> |                                                                                    |
| 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                                                                            |
| Terminal screw                                                        |              |                 | M3.5                                                                               |
| 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) |           |      | DILM7 - DILM32 |
| 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 | 400            |
| between the auxiliary contacts                                                                  |           | V AC | 400            |
| Rated operational current                                                                       |           | A    |                |
| Conventional free air thermal current, 1 pole                                                   |           |      |                |
| at 60 °C                                                                                        | $I_{th}$  | A    | 16             |

|                                                                         |                |         |                                                                                                                                                  |
|-------------------------------------------------------------------------|----------------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| AC-15                                                                   |                |         |                                                                                                                                                  |
| 220 V 230 V 240 V                                                       | I <sub>e</sub> | A       | 4                                                                                                                                                |
| 380 V 400 V 415 V                                                       | I <sub>e</sub> | A       | 4                                                                                                                                                |
| 500 V                                                                   | I <sub>e</sub> | A       | 1.5                                                                                                                                              |
| DC current                                                              |                |         |                                                                                                                                                  |
|                                                                         |                |         | Switch-on and switch-off conditions based on DC-13, time constant as specified.                                                                  |
| 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                                                          |                |         |                                                                                                                                                  |
| Contacts in series:                                                     |                | A       |                                                                                                                                                  |
| 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 <sub>e</sub> | A       | 2.5                                                                                                                                              |
| 60 V                                                                    | I <sub>e</sub> | A       | 1                                                                                                                                                |
| 110 V                                                                   | I <sub>e</sub> | A       | 0.5                                                                                                                                              |
| 220 V                                                                   | I <sub>e</sub> | A       | 0.25                                                                                                                                             |
| 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) |
| Short-circuit rating without welding                                    |                |         |                                                                                                                                                  |
| Short-circuit protection maximum fuse                                   |                |         |                                                                                                                                                  |
| 500 V                                                                   |                | A gG/gL | 10                                                                                                                                               |
| Current heat loss at I <sub>th</sub>                                    |                |         |                                                                                                                                                  |
| AC operated                                                             |                | W       | 2.6                                                                                                                                              |
| DC operated                                                             |                | W       | 2.6                                                                                                                                              |
| Current heat loss per auxiliary circuit at I <sub>e</sub> (AC-15/230 V) |                | CO      | 0.16                                                                                                                                             |

### Rating data for approved types

|                    |  |   |      |
|--------------------|--|---|------|
| Auxiliary contacts |  |   |      |
| Pilot Duty         |  |   |      |
| AC operated        |  |   | A600 |
| DC operated        |  |   | P300 |
| General Use        |  |   |      |
| AC                 |  | V | 600  |
| AC                 |  | A | 10   |
| 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  | 0.16 |
| 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.                         |

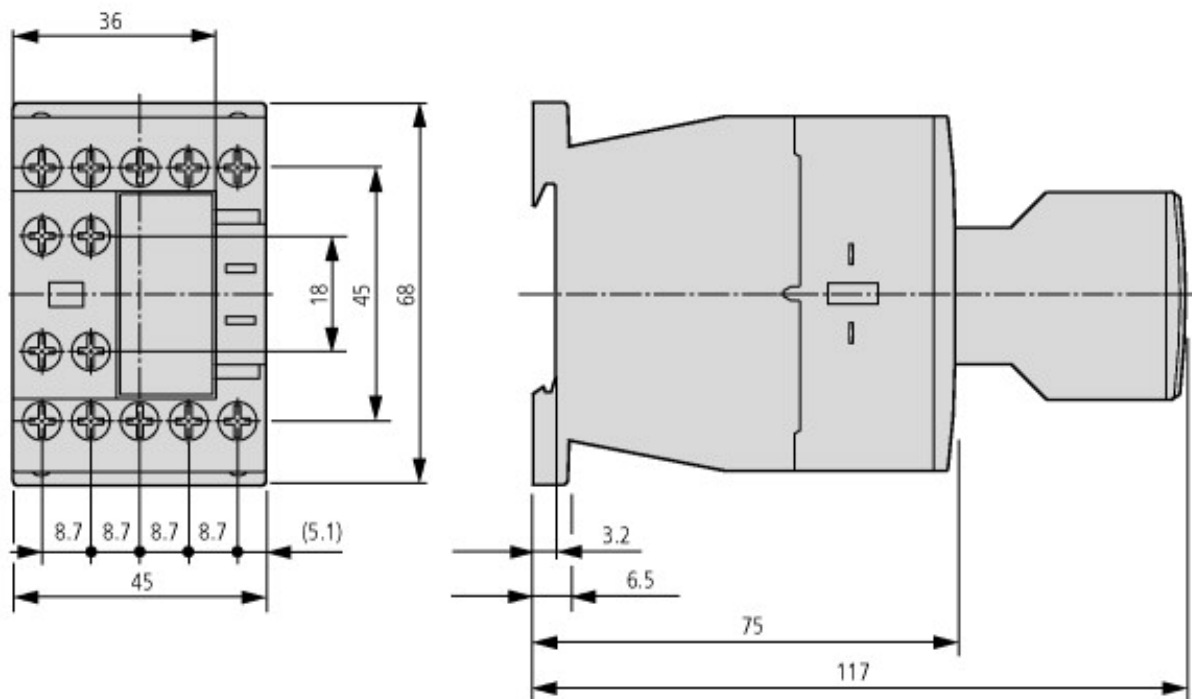
## Technical data ETIM 7.0

|                                                                                                                                                                                                                |  |   |                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---|------------------|
| 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                                                                                                                                                                    |  |   | 0                |
| Number of contacts as normally closed contact                                                                                                                                                                  |  |   | 4                |
| Number of fault-signal switches                                                                                                                                                                                |  |   | 0                |
| Rated operation current I <sub>e</sub> at AC-15, 230 V                                                                                                                                                         |  | A | 4                |
| Type of electric connection                                                                                                                                                                                    |  |   | Screw connection |
| Model                                                                                                                                                                                                          |  |   | Top mounting     |
| Mounting method                                                                                                                                                                                                |  |   | Front fastening  |
| Lamp holder                                                                                                                                                                                                    |  |   | None             |

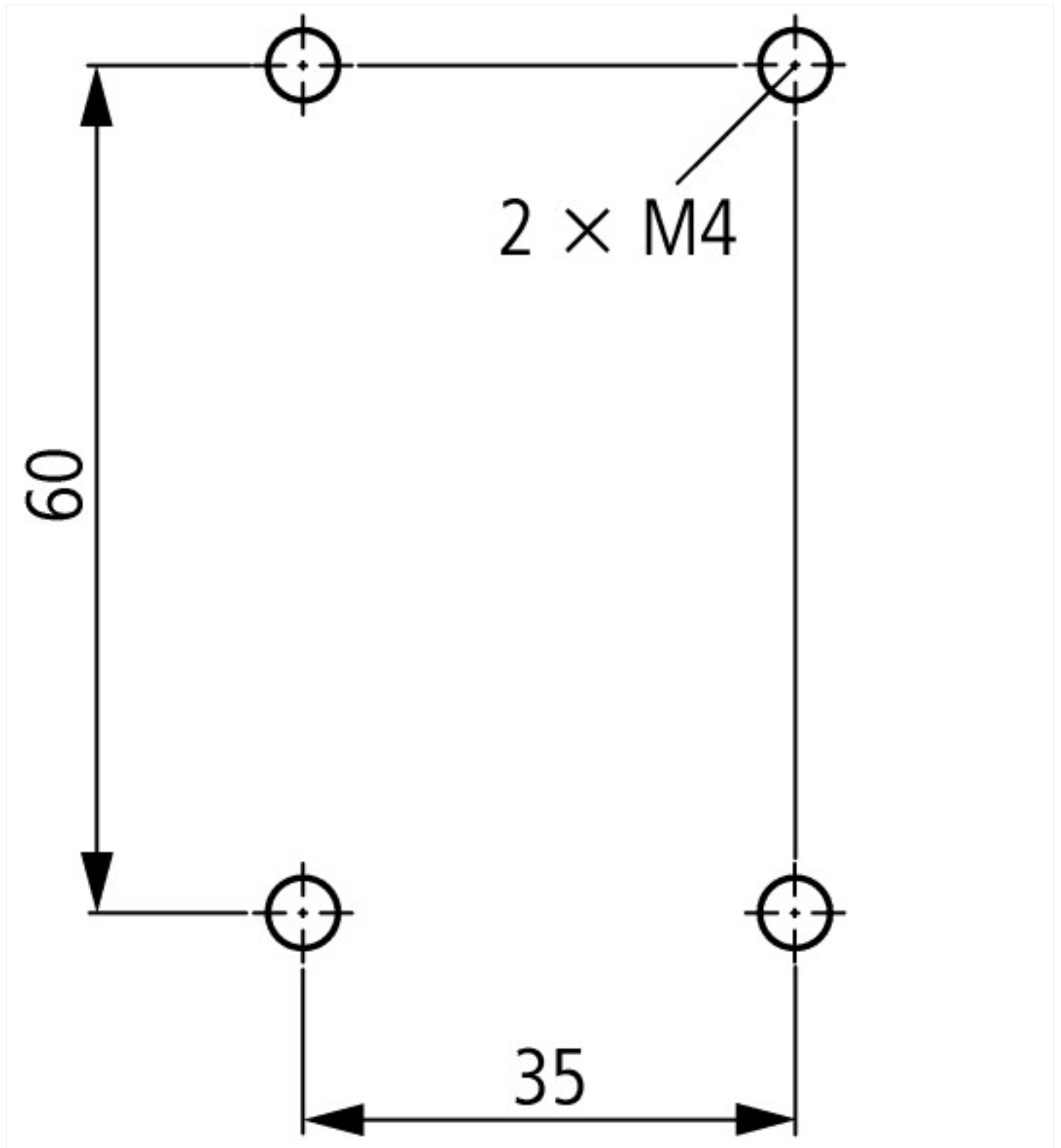
## Approvals

|                                      |  |  |                                                           |
|--------------------------------------|--|--|-----------------------------------------------------------|
| 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                                                        |

## Dimensions



Contactor with auxiliary contact module



## Assets (links)

### Declaration of CE Conformity

00002869

### Instruction Leaflets

IL03407013Z2018\_07

## Additional product information (links)

### IL03407013Z (AWA2100-2126) Contactors

|                                                                                |                                                                                                                                                                                                                 |
|--------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IL03407013Z (AWA2100-2126) Contactors                                          | <a href="ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03407013Z2018_07.pdf">ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03407013Z2018_07.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> |
| 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> |