



**Auxiliary contact module, 2 pole, 2 NC, Front fixing, Screw terminals, DILE(E)M, DILER**

**Part no.** 02DILE  
**Catalog No.** 010240  
**Alternate Catalog No.** XTMCXFA02  
**EL-Nummer (Norway)** 4130371

## Delivery program

|                                               |                |   |   |                                                                                                                                                                                                                                                                                  |
|-----------------------------------------------|----------------|---|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Accessories                                   |                |   |   | Auxiliary contact modules                                                                                                                                                                                                                                                        |
| Description                                   |                |   |   | with interlocked opposing contacts<br>Switching elements according to EN 50005<br>Switching elements according to EN 50012 are to be preferred.<br>Version E combinations correspond to EN 50011 and are to be preferred.                                                        |
| Function                                      |                |   |   | for standard applications                                                                                                                                                                                                                                                        |
| Number of poles                               |                |   |   | 2 pole                                                                                                                                                                                                                                                                           |
| Connection technique                          |                |   |   | Screw terminals                                                                                                                                                                                                                                                                  |
| <b>Rated operational current</b>              |                |   |   |                                                                                                                                                                                                                                                                                  |
| 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 | 2 |                                                                                                                                                                                                                                                                                  |
| <b>Contacts</b>                               |                |   |   |                                                                                                                                                                                                                                                                                  |
| N/C = Normally closed                         |                |   |   | 2 NC                                                                                                                                                                                                                                                                             |
| Mounting type                                 |                |   |   | Front fixing                                                                                                                                                                                                                                                                     |
| Contact sequence                              |                |   |   |                                                                                                                                                                                                                                                                                  |
| For use with                                  |                |   |   | DILEM-10(-G)(...)<br>DILEM-01(-G)(...)<br>DILEM-4(-G)(...)<br>DILER40(-G)<br>DILER31(-G)<br>DILER22<br>DILEEM-10(-G)(...)<br>DILEEM-01(-G)(...)<br>DILEM12-10(-G)(...)<br>DILEM12-01(-G)(...)                                                                                    |
| 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 DILE(E)M 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                            |                |   |   | 42 E                                                                                                                                                                                                                                                                             |
| with basic device                             |                |   |   | DILER-40(-G)                                                                                                                                                                                                                                                                     |
|                                               |                |   |   | 33                                                                                                                                                                                                                                                                               |
| with basic device                             |                |   |   | DILER-31(-G)                                                                                                                                                                                                                                                                     |
|                                               |                |   |   | 24                                                                                                                                                                                                                                                                               |
| with basic device                             |                |   |   | DILER-22                                                                                                                                                                                                                                                                         |

## Technical data

### General

|                      |  |  |  |                                 |
|----------------------|--|--|--|---------------------------------|
| Standards            |  |  |  | IEC/EN 60947, VDE 0660, UL, CSA |
| Lifespan, mechanical |  |  |  |                                 |

|                                                                       |              |               |                                                                                |
|-----------------------------------------------------------------------|--------------|---------------|--------------------------------------------------------------------------------|
| AC operated                                                           | Operations   | $\times 10^6$ | 10                                                                             |
| DC operated                                                           | Operations   | $\times 10^6$ | 20                                                                             |
| Component lifespan at $U_e = 240\text{ V}$                            |              |               |                                                                                |
| AC-15                                                                 | Operations   | $\times 10^6$ | 0.2                                                                            |
| DC                                                                    |              |               |                                                                                |
| L/R = 50 ms: 2 contacts in series at $I_e = 0.5\text{ A}$             | Operations   | $\times 10^6$ | 0.15                                                                           |
| 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 - +50                                                                      |
| Enclosed                                                              |              | °C            | - 25 - 40                                                                      |
| Ambient temperature, storage                                          |              | °C            | - 40 - 80                                                                      |
| Mounting position                                                     |              |               |                                                                                |
| Mounting position                                                     |              |               | As required, except vertical with terminals A1/A2 at the bottom                |
| Mechanical shock resistance (IEC/EN 60068-2-27)                       |              |               |                                                                                |
| Half-sinusoidal shock, 10 ms                                          |              |               |                                                                                |
| Basic unit with auxiliary contact module                              |              | g             |                                                                                |
| N/O contact                                                           |              | g             | 10                                                                             |
| N/C contact                                                           |              | g             | 8                                                                              |
| Degree of Protection                                                  |              |               | IP20                                                                           |
| Protection against direct contact when actuated from front (EN 50274) |              |               | Finger and back-of-hand proof                                                  |
| Weight                                                                |              | kg            | 0.03                                                                           |
| Terminal capacities                                                   |              | $\text{mm}^2$ |                                                                                |
| Screw terminals                                                       |              |               |                                                                                |
| Solid                                                                 |              | $\text{mm}^2$ | 1 x (0.75 - 2.5)<br>2 x (0.75 - 2.5)                                           |
| Flexible with ferrule                                                 |              | $\text{mm}^2$ | 1 x (0.75 - 1.5)<br>2 x (0.75 - 1.5)                                           |
| Solid or stranded                                                     |              | AWG           | Single 18 – 14/Double 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                                                                             |
| 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 | 600                                                                             |
| Safe isolation to EN 61140                                                                  |           |      |                                                                                 |
| between coil and auxiliary contacts                                                         |           | V AC | 300                                                                             |
| between the auxiliary contacts                                                              |           | V AC | 300                                                                             |
| Rated operational current                                                                   |           | A    |                                                                                 |
| Conventional free air thermal current, 1 pole                                               |           |      |                                                                                 |
| Notes                                                                                       |           |      | At maximum permissible ambient air temperature.                                 |
| Conv. thermal current                                                                       | $I_{th}$  | A    | 10                                                                              |
| AC-15                                                                                       |           |      |                                                                                 |
| 220 V 230 V 240 V                                                                           | $I_e$     | A    | 4                                                                               |
| 380 V 400 V 415 V                                                                           | $I_e$     | A    | 2                                                                               |
| 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 $\leq 15\text{ ms}$                                                                  |           |      |                                                                                 |

|                                                                |              |           |                                                                                                                    |
|----------------------------------------------------------------|--------------|-----------|--------------------------------------------------------------------------------------------------------------------|
| Contacts in series:                                            |              | A         |                                                                                                                    |
| 1                                                              | 24 V         | A         | 2.5                                                                                                                |
| 2                                                              | 60 V         | A         | 2.5                                                                                                                |
| 3                                                              | 110 V        | A         | 1.5                                                                                                                |
| 3                                                              | 220 V        | A         | 0.5                                                                                                                |
| 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                           |              |           |                                                                                                                    |
| Maximum overcurrent protective device                          |              |           |                                                                                                                    |
| 220 V 230 V 240 V                                              |              | PKZM0     | 4                                                                                                                  |
| 380 V 400 V 415 V                                              |              | PKZM0     | 4                                                                                                                  |
| Short-circuit protection maximum fuse                          |              |           |                                                                                                                    |
| 500 V                                                          |              | A gG/gL   | 6                                                                                                                  |
| 500 V                                                          |              | A fast    | 10                                                                                                                 |
| Current heat loss at $I_{th}$                                  |              |           |                                                                                                                    |
| AC operated                                                    |              | W         | 1.5                                                                                                                |
| DC operated                                                    |              | W         | 1.5                                                                                                                |
| Current heat loss per auxiliary circuit at $I_e$ (AC-15/230 V) |              | CO        | 0.24                                                                                                               |

### 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 | 0.5  |

## Design verification as per IEC/EN 61439

|                                                                                                                        |            |    |                                                                    |
|------------------------------------------------------------------------------------------------------------------------|------------|----|--------------------------------------------------------------------|
| Technical data for design verification                                                                                 |            |    |                                                                    |
| Rated operational current for specified heat dissipation                                                               | $I_n$      | A  | 4                                                                  |
| Heat dissipation per pole, current-dependent                                                                           | $P_{vid}$  | W  | 0.24                                                               |
| 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 | 50                                                                 |
| 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.                             |

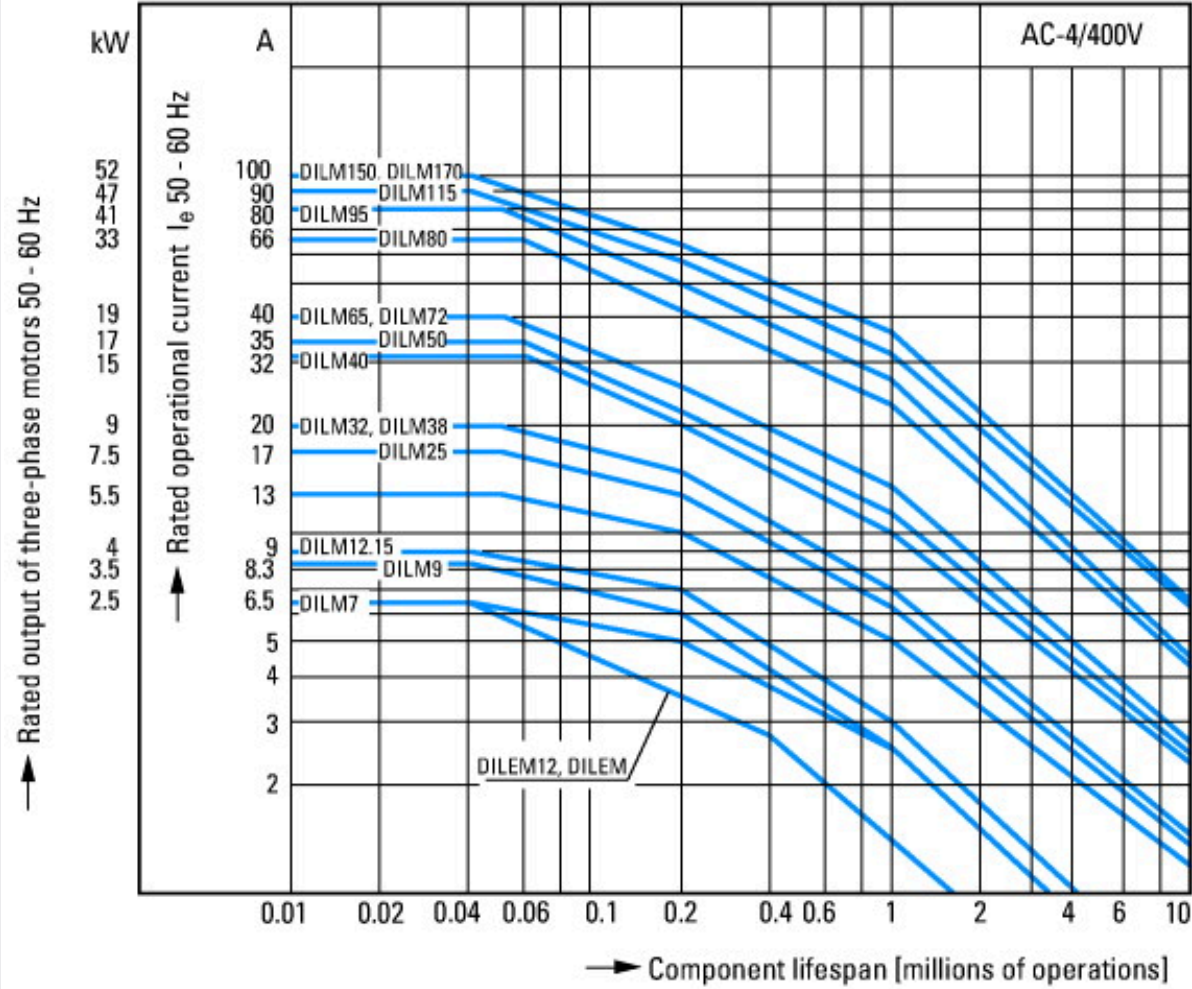
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|----------------------------------------------------------|--|--|----------------------------------------------------------------------------------------------------------------------------------|
| 10.9 Insulation properties                               |  |  |                                                                                                                                  |
| 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.                         |

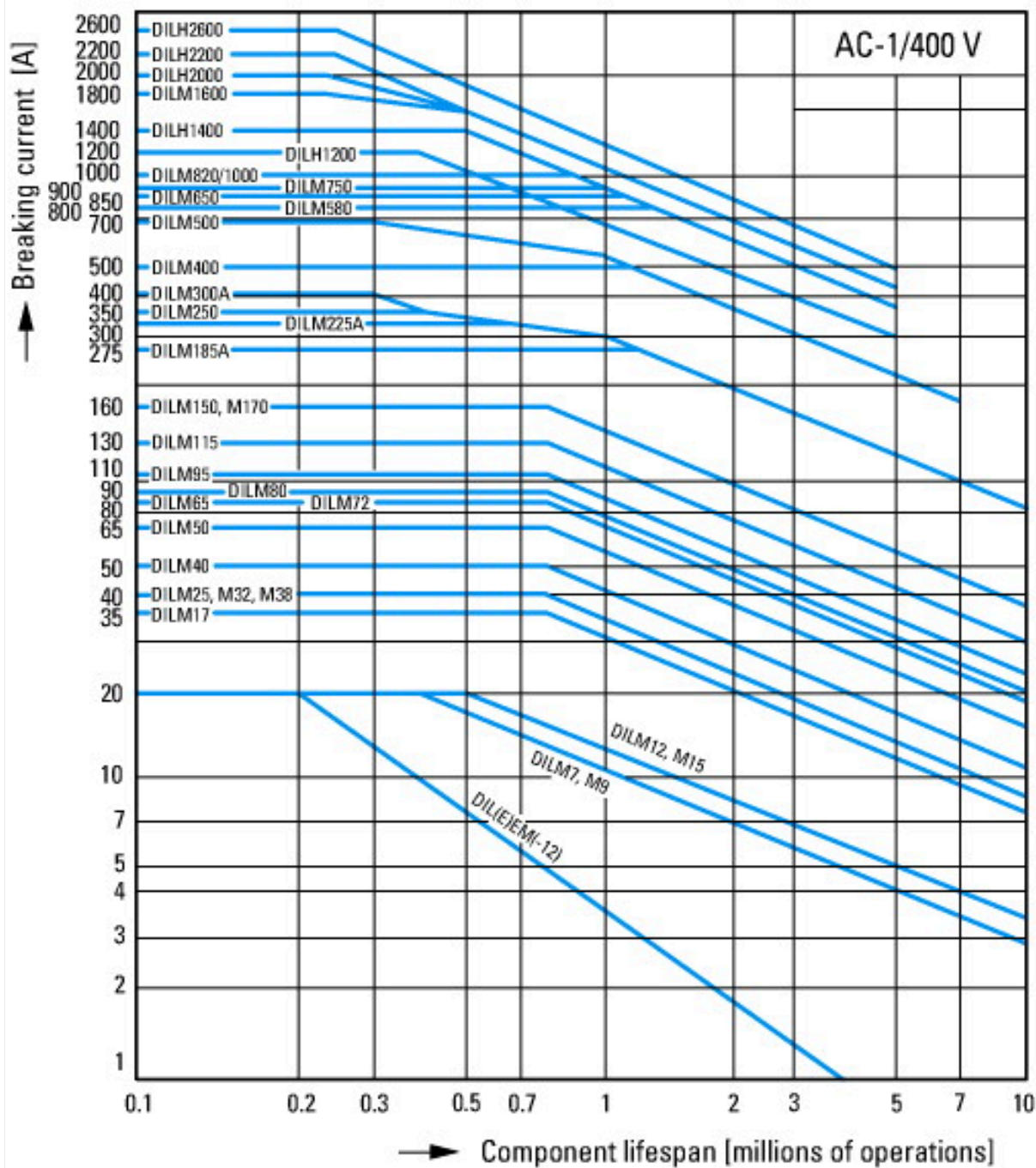
## Technical data ETIM 7.0

|                                                                                                                                                                                                                |  |   |                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---|------------------|
| 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                                                                                                                                                                  |  |   | 2                |
| Number of fault-signal switches                                                                                                                                                                                |  |   | 0                |
| Rated operation current Ie at AC-15, 230 V                                                                                                                                                                     |  | A | 4                |
| Type of electric connection                                                                                                                                                                                    |  |   | Screw connection |
| Model                                                                                                                                                                                                          |  |   | Top mounting     |
| Mounting method                                                                                                                                                                                                |  |   | Front fastening  |
| Lamp holder                                                                                                                                                                                                    |  |   | None             |

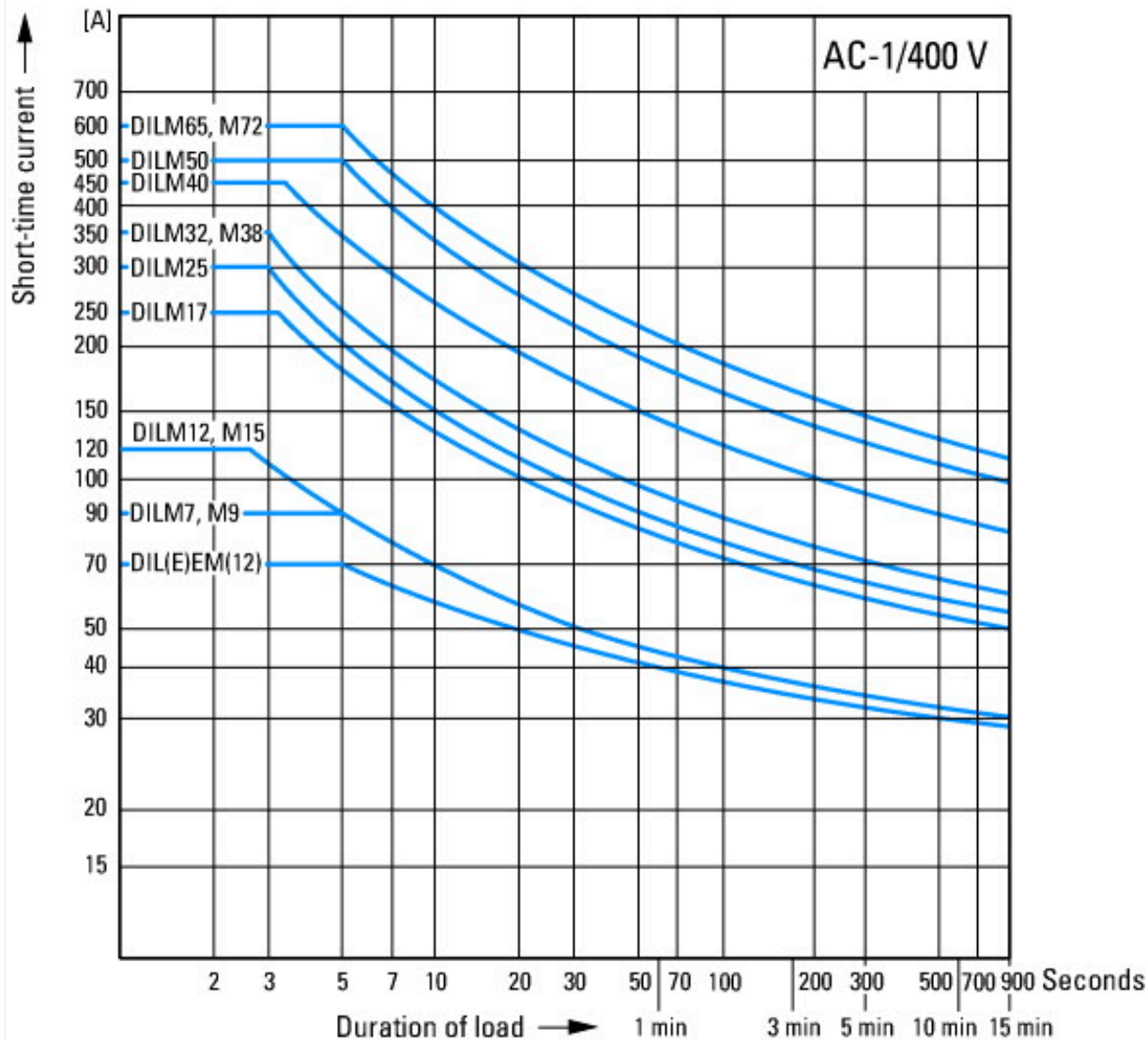
## Approvals

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



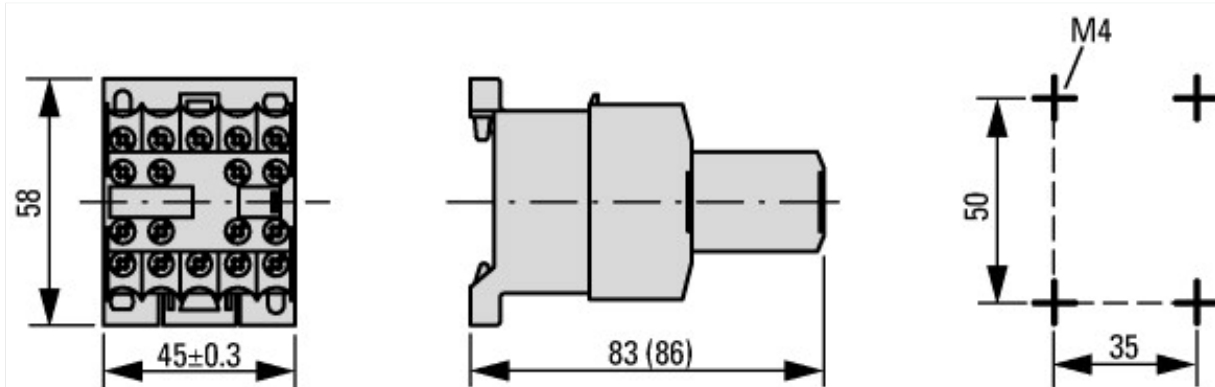


Switching duty for non-motor loads, 3-pole, 4-pole  
 Operating characteristics  
 Non-inductive or slightly inductive loads  
 Electrical characteristics  
 Make: 1 x rated current  
 Break: 1 x rated current  
 Utilization category  
 100 % AC-1  
 Typical applications  
 Electric heat



Short-time loading, 3-pole  
Time interval between two loading cycles: 15 minutes

## Dimensions



83 mm: DILE... + ...DILE(M)  
86 mm: DILE...-C... + ...DILE(M)

## Additional product information (links)

IL03407009Z (AWA2100-0882) Mini contactor relay

IL03407009Z (AWA2100-0882) Mini contactor relay

[https://es-assets.eaton.com/DOCUMENTATION/AWA\\_INSTRUCTIONS/IL03407009Z2020\\_05.pdf](https://es-assets.eaton.com/DOCUMENTATION/AWA_INSTRUCTIONS/IL03407009Z2020_05.pdf)