

# DATASHEET - DILM25-01(RDC24)



**Contactor, 3 pole, 380 V 400 V 11 kW, 1 NC, RDC 24: 24 - 27 V DC, DC operation, Screw terminals**



**Part no.** DILM25-01(RDC24)  
**Catalog No.** 277178  
**Alternate Catalog No.** XTCE025C01TD  
**EL-Nummer (Norway)** 4130348

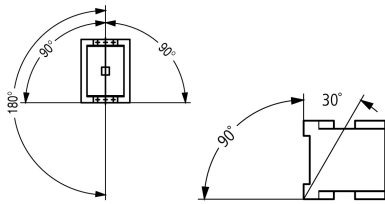
## Delivery program

|                                                           |                |    |                                                                                                                                                                                                                                   |
|-----------------------------------------------------------|----------------|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product range                                             |                |    | Contactors                                                                                                                                                                                                                        |
| Application                                               |                |    | Contactors for Motors                                                                                                                                                                                                             |
| Subrange                                                  |                |    | Contactors up to 170 A, 3 pole                                                                                                                                                                                                    |
| Utilization category                                      |                |    | AC-1: Non-inductive or slightly inductive loads, resistance furnaces<br>AC-3/AC-3e: Normal AC induction motors: Starting, switching off while running<br>AC-4: Normal AC induction motors: starting, plugging, reversing, inching |
|                                                           |                |    |                                                                                                                                                                                                                                   |
| Notes                                                     |                |    | Also suitable for motors with efficiency class IE3.                                                                                                                                                                               |
| Connection technique                                      |                |    | Screw terminals                                                                                                                                                                                                                   |
| Number of poles                                           |                |    | 3 pole                                                                                                                                                                                                                            |
| <b>Rated operational current</b>                          |                |    |                                                                                                                                                                                                                                   |
| AC-3                                                      |                |    |                                                                                                                                                                                                                                   |
| Notes                                                     |                |    | At maximum permissible ambient temperature (open.)<br>Also tested according to AC-3e.                                                                                                                                             |
| 380 V 400 V                                               | $I_e$          | A  | 25                                                                                                                                                                                                                                |
| AC-1                                                      |                |    |                                                                                                                                                                                                                                   |
| Conventional free air thermal current, 3 pole, 50 - 60 Hz |                |    |                                                                                                                                                                                                                                   |
| Open                                                      |                |    |                                                                                                                                                                                                                                   |
| at 40 °C                                                  | $I_{th} = I_e$ | A  | 45                                                                                                                                                                                                                                |
| enclosed                                                  | $I_{th}$       | A  | 36                                                                                                                                                                                                                                |
| Conventional free air thermal current, 1 pole             |                |    |                                                                                                                                                                                                                                   |
| open                                                      | $I_{th}$       | A  | 100                                                                                                                                                                                                                               |
| enclosed                                                  | $I_{th}$       | A  | 90                                                                                                                                                                                                                                |
| <b>Max. rating for three-phase motors, 50 - 60 Hz</b>     |                |    |                                                                                                                                                                                                                                   |
| AC-3                                                      |                |    |                                                                                                                                                                                                                                   |
| 220 V 230 V                                               | P              | kW | 7.5                                                                                                                                                                                                                               |
| 380 V 400 V                                               | P              | kW | 11                                                                                                                                                                                                                                |
| 660 V 690 V                                               | P              | kW | 14                                                                                                                                                                                                                                |
| AC-4                                                      |                |    |                                                                                                                                                                                                                                   |
| 220 V 230 V                                               | P              | kW | 3.5                                                                                                                                                                                                                               |
| 380 V 400 V                                               | P              | kW | 6                                                                                                                                                                                                                                 |
| 660 V 690 V                                               | P              | kW | 8.5                                                                                                                                                                                                                               |
| <b>Contacts</b>                                           |                |    |                                                                                                                                                                                                                                   |
| N/C = Normally closed                                     |                |    | 1 NC                                                                                                                                                                                                                              |
| Contact sequence                                          |                |    |                                                                                                                                                                                                                                   |
| <b>Instructions</b>                                       |                |    |                                                                                                                                                                                                                                   |
| Can be combined with auxiliary contact                    |                |    | DILA-XHI(V)...<br>DILM32-XHI11-S                                                                                                                                                                                                  |
| Actuating voltage                                         |                |    | RDC 24: 24 - 27 V DC                                                                                                                                                                                                              |
| Voltage AC/DC                                             |                |    | DC operation                                                                                                                                                                                                                      |

|                            |  |                                                                  |
|----------------------------|--|------------------------------------------------------------------|
| Connection to SmartWire-DT |  | yes<br>in conjunction with DIL-SWD SmartWire DT contactor module |
| Frame size                 |  | 2                                                                |

## Technical data

### General

|                                                                       |              |                 |                                                                                    |
|-----------------------------------------------------------------------|--------------|-----------------|------------------------------------------------------------------------------------|
| Standards                                                             |              |                 | IEC/EN 60947, VDE 0660, UL, CSA                                                    |
| Lifespan, mechanical                                                  |              |                 |                                                                                    |
| DC operated                                                           | Operations   | $\times 10^6$   | 10                                                                                 |
| Operating frequency, mechanical                                       |              |                 |                                                                                    |
| DC operated                                                           | Operations/h |                 | 5000                                                                               |
| 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                                                                          |
| Storage                                                               |              | °C              | - 40 - 80                                                                          |
| Mounting position                                                     |              |                 |  |
| Mechanical shock resistance (IEC/EN 60068-2-27)                       |              |                 |                                                                                    |
| Half-sinusoidal shock, 10 ms                                          |              |                 |                                                                                    |
| Main contacts                                                         |              |                 |                                                                                    |
| N/O contact                                                           |              | g               | 10                                                                                 |
| Auxiliary contacts                                                    |              |                 |                                                                                    |
| N/O contact                                                           |              | g               | 7                                                                                  |
| N/C contact                                                           |              | g               | 5                                                                                  |
| Mechanical shock resistance (IEC/EN 60068-2-27) when tabletop-mounted |              |                 |                                                                                    |
| Half-sinusoidal shock, 10 ms                                          |              |                 |                                                                                    |
| Main contacts                                                         |              |                 |                                                                                    |
| N/O contact                                                           |              | g               | 6.9                                                                                |
| Auxiliary contacts                                                    |              |                 |                                                                                    |
| N/O contact                                                           |              | g               | 5.3                                                                                |
| N/C contact                                                           |              | g               | 3.5                                                                                |
| Degree of Protection                                                  |              |                 | IP00                                                                               |
| Protection against direct contact when actuated from front (EN 50274) |              |                 | Finger and back-of-hand proof                                                      |
| Altitude                                                              |              | m               | Max. 2000                                                                          |
| Weight                                                                |              |                 |                                                                                    |
| DC operated                                                           |              | kg              | 0.534                                                                              |
| Screw connector terminals                                             |              |                 |                                                                                    |
| Terminal capacity main cable                                          |              |                 |                                                                                    |
| Solid                                                                 |              | mm <sup>2</sup> | 1 x (0.75 - 16)<br>2 x (0.75 - 10)                                                 |
| Flexible with ferrule                                                 |              | mm <sup>2</sup> | 1 x (0.75 - 16)<br>2 x (0.75 - 10)                                                 |
| Stranded                                                              |              | mm <sup>2</sup> | 1 x 16                                                                             |
| Solid or stranded                                                     |              | AWG             | single 18 - 6, double 18 - 8                                                       |
| Stripping length                                                      |              | mm              | 10                                                                                 |
| Terminal screw                                                        |              |                 | M5                                                                                 |
| Tightening torque                                                     |              | Nm              | 3.2                                                                                |
| Tool                                                                  |              |                 |                                                                                    |
| Pozidriv screwdriver                                                  |              | Size            | 2                                                                                  |
| Standard screwdriver                                                  |              | mm              | 0.8 x 5.5<br>1 x 6                                                                 |

|                                          |  |                 |                                      |
|------------------------------------------|--|-----------------|--------------------------------------|
| Terminal capacity control circuit cables |  |                 |                                      |
| Solid                                    |  | mm <sup>2</sup> | 1 x (0.75 - 4)<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                              |
| Stripping length                         |  | mm              | 10                                   |
| Terminal screw                           |  |                 | M3.5                                 |
| Tightening torque                        |  | Nm              | 1.2                                  |
| Tool                                     |  |                 |                                      |
| Pozidriv screwdriver                     |  | Size            | 2                                    |
| Standard screwdriver                     |  | mm              | 0.8 x 5.5<br>1 x 6                   |

## Main conducting paths

|                                        |                  |      |       |
|----------------------------------------|------------------|------|-------|
| Rated impulse withstand voltage        | U <sub>imp</sub> | V AC | 8000  |
| Overvoltage category/pollution degree  |                  |      | III/3 |
| Rated insulation voltage               | U <sub>i</sub>   | V AC | 690   |
| Rated operational voltage              | U <sub>e</sub>   | V AC | 690   |
| Safe isolation to EN 61140             |                  |      |       |
| between coil and contacts              |                  | V AC | 440   |
| between the contacts                   |                  | V AC | 440   |
| Making capacity (p.f. to IEC/EN 60947) |                  |      |       |
|                                        | Up to 690 V      | A    | 350   |
| Breaking capacity                      |                  |      |       |
| 220 V 230 V                            |                  | A    | 250   |
| 380 V 400 V                            |                  | A    | 250   |
| 500 V                                  |                  | A    | 250   |
| 660 V 690 V                            |                  | A    | 150   |
| Short-circuit rating                   |                  |      |       |
| Short-circuit protection maximum fuse  |                  |      |       |
| Type "2" coordination                  |                  |      |       |
| 400 V                                  | gG/gL 500 V      | A    | 35    |
| 690 V                                  | gG/gL 690 V      | A    | 35    |
| Type "1" coordination                  |                  |      |       |
| 400 V                                  | gG/gL 500 V      | A    | 100   |
| 690 V                                  | gG/gL 690 V      | A    | 50    |

## AC

|                                                           |                                  |   |                                                                                       |
|-----------------------------------------------------------|----------------------------------|---|---------------------------------------------------------------------------------------|
| AC-1                                                      |                                  |   |                                                                                       |
| Rated operational current                                 |                                  |   |                                                                                       |
| Conventional free air thermal current, 3 pole, 50 - 60 Hz |                                  |   |                                                                                       |
| Open                                                      |                                  |   |                                                                                       |
| at 40 °C                                                  | I <sub>th</sub> = I <sub>e</sub> | A | 45                                                                                    |
| at 50 °C                                                  | I <sub>th</sub> = I <sub>e</sub> | A | 43                                                                                    |
| at 55 °C                                                  | I <sub>th</sub> = I <sub>e</sub> | A | 42                                                                                    |
| at 60 °C                                                  | I <sub>th</sub> = I <sub>e</sub> | A | 40                                                                                    |
| enclosed                                                  | I <sub>th</sub>                  | A | 36                                                                                    |
| Conventional free air thermal current, 1 pole             |                                  |   |                                                                                       |
| open                                                      | I <sub>th</sub>                  | A | 100                                                                                   |
| enclosed                                                  | I <sub>th</sub>                  | A | 90                                                                                    |
| AC-3                                                      |                                  |   |                                                                                       |
| Rated operational current                                 |                                  |   |                                                                                       |
| Open, 3-pole: 50 – 60 Hz                                  |                                  |   |                                                                                       |
| Notes                                                     |                                  |   | At maximum permissible ambient temperature (open.)<br>Also tested according to AC-3e. |
| 220 V 230 V                                               | I <sub>e</sub>                   | A | 25                                                                                    |
| 240 V                                                     | I <sub>e</sub>                   | A | 25                                                                                    |

|                          |                |     |      |
|--------------------------|----------------|-----|------|
| 380 V 400 V              | I <sub>e</sub> | A   | 25   |
| 415 V                    | I <sub>e</sub> | A   | 25   |
| 440V                     | I <sub>e</sub> | A   | 25   |
| 500 V                    | I <sub>e</sub> | A   | 25   |
| 660 V 690 V              | I <sub>e</sub> | A   | 15   |
| Motor rating             | P              | kWh |      |
| 220 V 230 V              | P              | kW  | 7.5  |
| 240V                     | P              | kW  | 8.5  |
| 380 V 400 V              | P              | kW  | 11   |
| 415 V                    | P              | kW  | 14.5 |
| 440 V                    | P              | kW  | 15.5 |
| 500 V                    | P              | kW  | 17.5 |
| 660 V 690 V              | P              | kW  | 14   |
| AC-4                     |                |     |      |
| Open, 3-pole: 50 – 60 Hz |                |     |      |
| 220 V 230 V              | I <sub>e</sub> | A   | 13   |
| 240 V                    | I <sub>e</sub> | A   | 13   |
| 380 V 400 V              | I <sub>e</sub> | A   | 13   |
| 415 V                    | I <sub>e</sub> | A   | 13   |
| 440 V                    | I <sub>e</sub> | A   | 13   |
| 500 V                    | I <sub>e</sub> | A   | 13   |
| 660 V 690 V              | I <sub>e</sub> | A   | 10   |
| Motor rating             | P              | kWh |      |
| 220 V 230 V              | P              | kW  | 3.5  |
| 240 V                    | P              | kW  | 4    |
| 380 V 400 V              | P              | kW  | 6    |
| 415 V                    | P              | kW  | 6.5  |
| 440 V                    | P              | kW  | 7    |
| 500 V                    | P              | kW  | 8    |
| 660 V 690 V              | P              | kW  | 8.5  |

## DC

|                                 |                |   |    |
|---------------------------------|----------------|---|----|
| Rated operational current, open |                |   |    |
| DC-1                            |                |   |    |
| 60 V                            | I <sub>e</sub> | A | 40 |
| 110 V                           | I <sub>e</sub> | A | 40 |
| 220 V                           | I <sub>e</sub> | A | 40 |

## Current heat loss

|                                                   |    |      |
|---------------------------------------------------|----|------|
| 3 pole, at I <sub>th</sub> (60°)                  | W  | 10.8 |
| Current heat loss at I <sub>e</sub> to AC-3/400 V | W  | 4.2  |
| Impedance per pole                                | mΩ | 2.7  |

## Magnet systems

|                                                                        |          |                  |                                                                                                                                                                                     |
|------------------------------------------------------------------------|----------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Voltage tolerance                                                      |          |                  |                                                                                                                                                                                     |
| DC operated                                                            | Pick-up  | x U <sub>c</sub> | 0.7 - 1.2                                                                                                                                                                           |
| Notes                                                                  |          |                  | RDC 24 (U <sub>min</sub> 24 V DC/U <sub>max</sub> 27 V DC)<br>Example: U <sub>S</sub> = 0.7 x U <sub>min</sub> - 1.2 x U <sub>max</sub> / U <sub>S</sub> = 0.7 x 24V - 1.2 x 27V DC |
| DC operated                                                            | Drop-out | x U <sub>c</sub> | 0.15 - 0.6                                                                                                                                                                          |
| Notes                                                                  |          |                  | at least smoothed two-phase bridge rectifier or three-phase rectifier                                                                                                               |
| Power consumption of the coil in a cold state and 1.0 x U <sub>S</sub> |          |                  |                                                                                                                                                                                     |
| DC operated                                                            | Pick-up  | W                | 12                                                                                                                                                                                  |
| DC operated                                                            | Sealing  | W                | 0.9                                                                                                                                                                                 |
| Duty factor                                                            |          | % DF             | 100                                                                                                                                                                                 |
| Changeover time at 100 % U <sub>S</sub> (recommended value)            |          |                  |                                                                                                                                                                                     |
| Main contacts                                                          |          |                  |                                                                                                                                                                                     |
| DC operated                                                            |          | ms               |                                                                                                                                                                                     |
| Closing delay                                                          |          | ms               |                                                                                                                                                                                     |

|                                            |      |                         |
|--------------------------------------------|------|-------------------------|
| Closing delay                              | ms   | 47                      |
| Opening delay                              | ms   |                         |
| Opening delay                              | ms   | 30                      |
| Arcing time                                | ms   | 10                      |
| <b>Electromagnetic compatibility (EMC)</b> |      |                         |
| Emitted interference                       |      | according to EN 60947-1 |
| Interference immunity                      |      | according to EN 60947-1 |
| <b>Rating data for approved types</b>      |      |                         |
| Switching capacity                         |      |                         |
| Maximum motor rating                       |      |                         |
| Three-phase                                |      |                         |
| 200 V<br>208 V                             | HP   | 7.5                     |
| 230 V<br>240 V                             | HP   | 10                      |
| 460 V<br>480 V                             | HP   | 15                      |
| 575 V<br>600 V                             | HP   | 20                      |
| Single-phase                               |      |                         |
| 115 V<br>120 V                             | HP   | 2                       |
| 230 V<br>240 V                             | HP   | 5                       |
| General use                                | A    | 40                      |
| Auxiliary contacts                         |      |                         |
| Pilot Duty                                 |      |                         |
| AC operated                                |      | A600                    |
| DC operated                                |      | P300                    |
| General Use                                |      |                         |
| AC                                         | V    | 600                     |
| AC                                         | A    | 10                      |
| DC                                         | V    | 250                     |
| DC                                         | A    | 1                       |
| Short Circuit Current Rating               | SCCR |                         |
| Basic Rating                               |      |                         |
| SCCR                                       | kA   | 5                       |
| max. Fuse                                  | A    | 125                     |
| max. CB                                    | A    | 125                     |
| 480 V High Fault                           |      |                         |
| SCCR (fuse)                                | kA   | 10/100                  |
| max. Fuse                                  | A    | 125/70 Class J          |
| SCCR (CB)                                  | kA   | 10/65                   |
| max. CB                                    | A    | 50/32                   |
| 600 V High Fault                           |      |                         |
| SCCR (fuse)                                | kA   | 10/100                  |
| max. Fuse                                  | A    | 125/100 Class J         |
| SCCR (CB)                                  | kA   | 10/22                   |
| max. CB                                    | A    | 50/32                   |
| Special Purpose Ratings                    |      |                         |
| Electrical Discharge Lamps (Ballast)       |      |                         |
| 480V 60Hz 3phase, 277V 60Hz 1phase         | A    | 40                      |
| 600V 60Hz 3phase, 347V 60Hz 1phase         | A    | 40                      |
| Incandescent Lamps (Tungsten)              |      |                         |
| 480V 60Hz 3phase, 277V 60Hz 1phase         | A    | 40                      |
| 600V 60Hz 3phase, 347V 60Hz 1phase         | A    | 40                      |
| Resistance Air Heating                     |      |                         |
| 480V 60Hz 3phase, 277V 60Hz 1phase         | A    | 40                      |

|                                                           |    |      |
|-----------------------------------------------------------|----|------|
| 600V 60Hz 3phase, 347V 60Hz 1phase                        | A  | 40   |
| Refrigeration Control (CSA only)                          |    |      |
| LRA 480V 60Hz 3phase                                      | A  | 240  |
| FLA 480V 60Hz 3phase                                      | A  | 40   |
| LRA 600V 60Hz 3phase                                      | A  | 180  |
| FLA 600V 60Hz 3phase                                      | A  | 30   |
| Definite Purpose Ratings (100,000 cycles acc. to UL 1995) |    |      |
| LRA 480V 60Hz 3phase                                      | A  | 150  |
| FLA 480V 60Hz 3phase                                      | A  | 25   |
| Elevator Control                                          |    |      |
| 200V 60Hz 3phase                                          | HP | 3    |
| 200V 60Hz 3phase                                          | A  | 11   |
| 240V 60Hz 3phase                                          | HP | 5    |
| 240V 60Hz 3phase                                          | A  | 15.2 |
| 480V 60Hz 3phase                                          | HP | 10   |
| 480V 60Hz 3phase                                          | A  | 14   |
| 600V 60Hz 3phase                                          | HP | 15   |
| 600V 60Hz 3phase                                          | A  | 17   |

## Design verification as per IEC/EN 61439

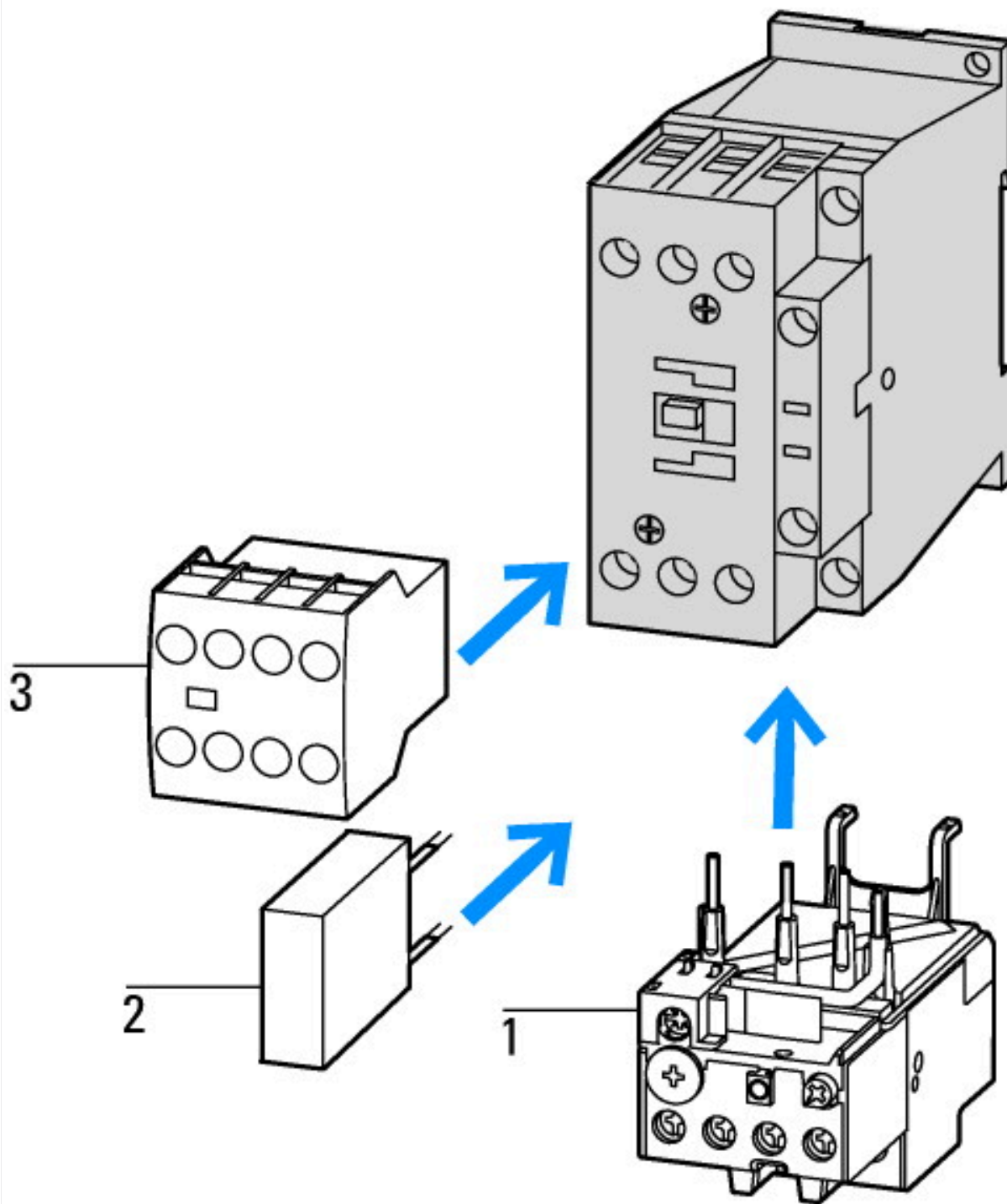
|                                                                                                                        |                   |    |                                                                                                                                  |
|------------------------------------------------------------------------------------------------------------------------|-------------------|----|----------------------------------------------------------------------------------------------------------------------------------|
| Technical data for design verification                                                                                 |                   |    |                                                                                                                                  |
| Rated operational current for specified heat dissipation                                                               | I <sub>n</sub>    | A  | 25                                                                                                                               |
| Heat dissipation per pole, current-dependent                                                                           | P <sub>vid</sub>  | W  | 1.4                                                                                                                              |
| Equipment heat dissipation, current-dependent                                                                          | P <sub>vid</sub>  | W  | 4.2                                                                                                                              |
| Static heat dissipation, non-current-dependent                                                                         | P <sub>vs</sub>   | W  | 0.9                                                                                                                              |
| 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) / Power contactor, AC switching (EC000066)                                                                                               |    |                  |
| Electric engineering, automation, process control engineering / Low-voltage switch technology / Contactor (LV) / Power contactor, AC switching (ecl@ss10.0.1-27-37-10-03 [AAB718015]) |    |                  |
| Rated control supply voltage Us at AC 50HZ                                                                                                                                            | V  | 0 - 0            |
| Rated control supply voltage Us at AC 60HZ                                                                                                                                            | V  | 0 - 0            |
| Rated control supply voltage Us at DC                                                                                                                                                 | V  | 24 - 27          |
| Voltage type for actuating                                                                                                                                                            |    | DC               |
| Rated operation current Ie at AC-1, 400 V                                                                                                                                             | A  | 45               |
| Rated operation current Ie at AC-3, 400 V                                                                                                                                             | A  | 25               |
| Rated operation power at AC-3, 400 V                                                                                                                                                  | kW | 11               |
| Rated operation current Ie at AC-4, 400 V                                                                                                                                             | A  | 13               |
| Rated operation power at AC-4, 400 V                                                                                                                                                  | kW | 6                |
| Rated operation power NEMA                                                                                                                                                            | kW | 11               |
| Modular version                                                                                                                                                                       |    | No               |
| Number of auxiliary contacts as normally open contact                                                                                                                                 |    | 0                |
| Number of auxiliary contacts as normally closed contact                                                                                                                               |    | 1                |
| Type of electrical connection of main circuit                                                                                                                                         |    | Screw connection |
| Number of normally closed contacts as main contact                                                                                                                                    |    | 0                |
| Number of main contacts as normally open contact                                                                                                                                      |    | 3                |

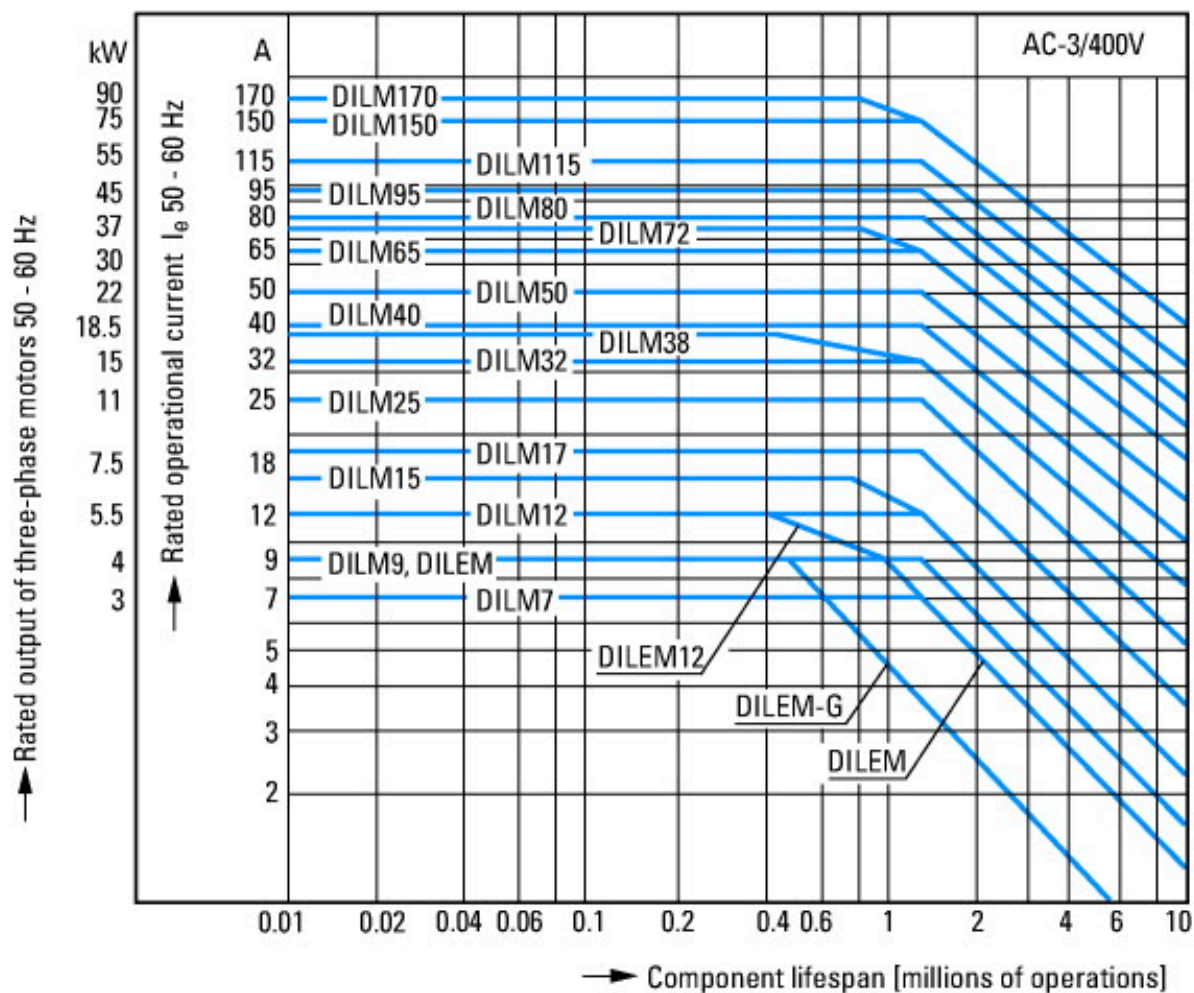
Approvals

|                                      |  |                                                                          |
|--------------------------------------|--|--------------------------------------------------------------------------|
| Product Standards                    |  | IEC/EN 60947-4-1; UL 60947-4-1; CSA - C22.2 No. 60947-4-1-14; CE marking |
| UL File No.                          |  | E29096                                                                   |
| UL Category Control No.              |  | NLDX                                                                     |
| CSA File No.                         |  | 012528                                                                   |
| CSA Class No.                        |  | 2411-03, 3211-04                                                         |
| North America Certification          |  | UL listed, CSA certified                                                 |
| Specially designed for North America |  | No                                                                       |

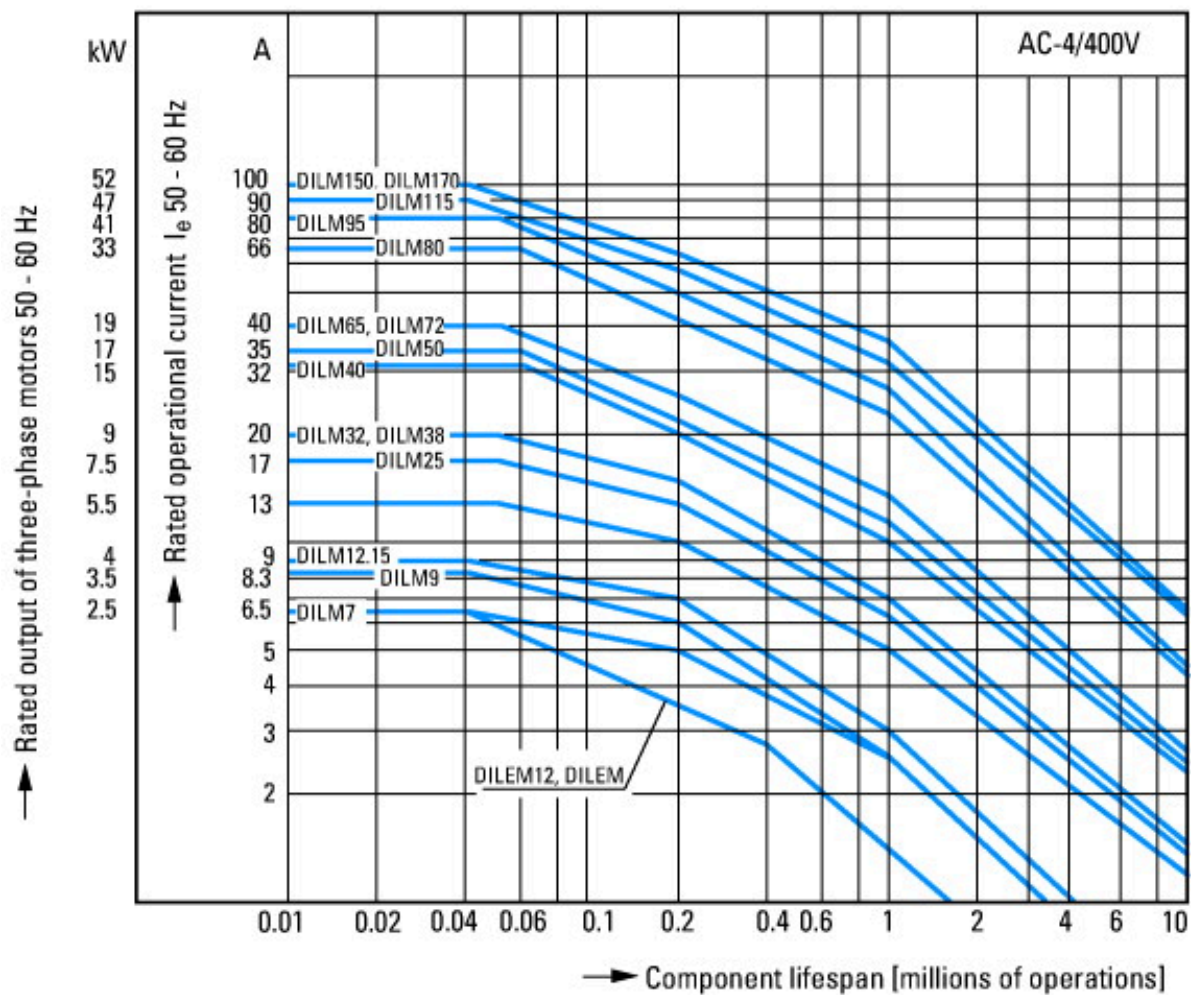


- 1: Overload relay
- 2: Suppressor
- 3: Auxiliary contact modules

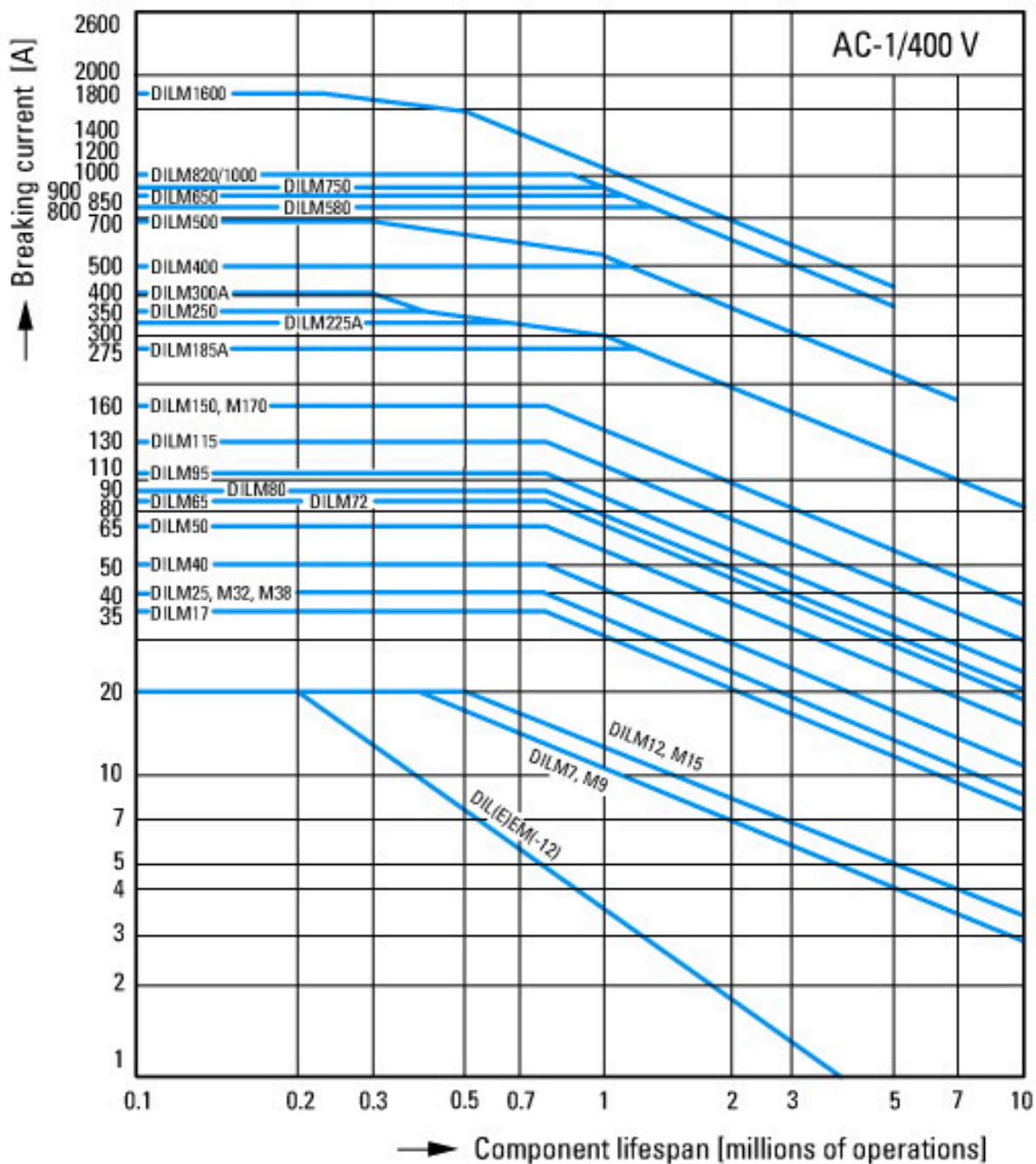




Squirrel-cage motor  
 Operating characteristics  
 Starting: from rest  
 Stopping: after attaining full running speed  
 Electrical characteristics  
 Make: up to 6 x rated motor current  
 Break: up to 1 x rated motor current  
 Utilization category  
 100 % AC-3  
 Typical applications  
 Compressors  
 Lifts  
 Mixers  
 Pumps  
 Escalators  
 Agitators  
 Fans  
 Conveyor belts  
 Centrifuges  
 Hinged flaps  
 Bucket-elevators  
 Air conditioning system  
 General drives in manufacturing and processing machines



Extreme switching duty  
Squirrel-cage motor  
Operating characteristics  
Inching, plugging, reversing  
Electrical characteristics  
Make: up to 6 x rated motor current  
Break: up to 6 x rated motor current  
Utilization category  
100 % AC-4  
Typical applications  
Printing presses  
Wire-drawing machines  
Centrifuges  
Special drives for manufacturing and processing machines



Switching conditions for non-motor consumers, 3 pole, 4 pole

Operating characteristics

Non inductive and slightly inductive loads

Electrical characteristics

Switch on: 1 x rated operational current

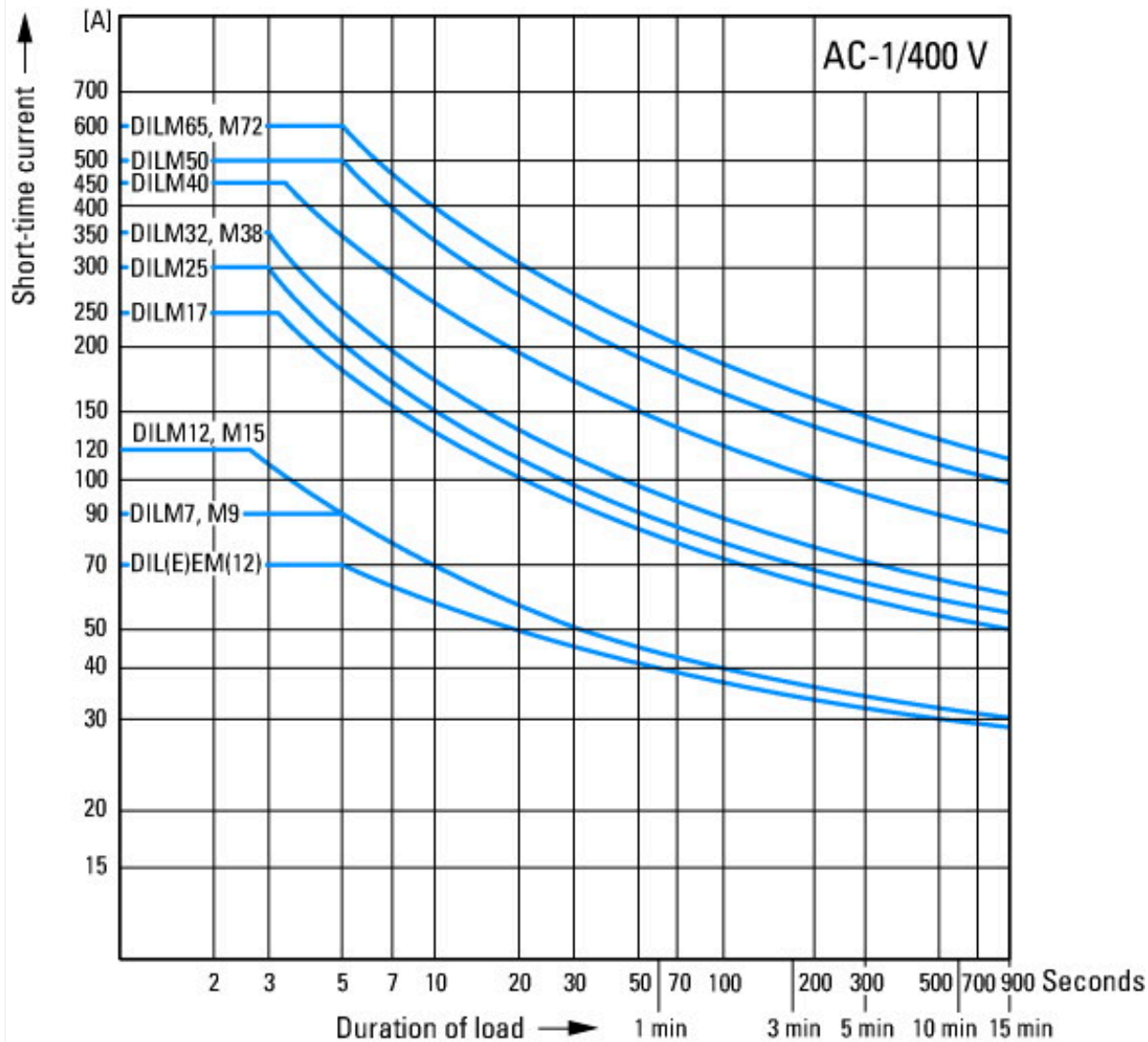
Switch off: 1 x rated operational current

Utilization category

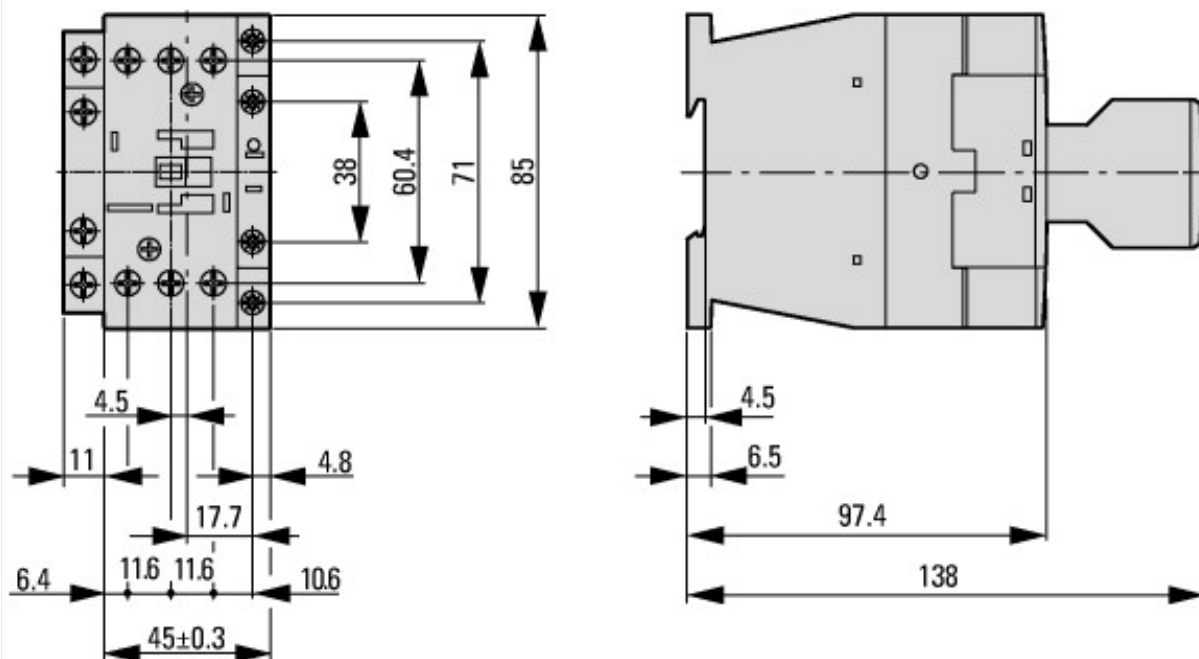
100 % AC-1

Typical examples of application

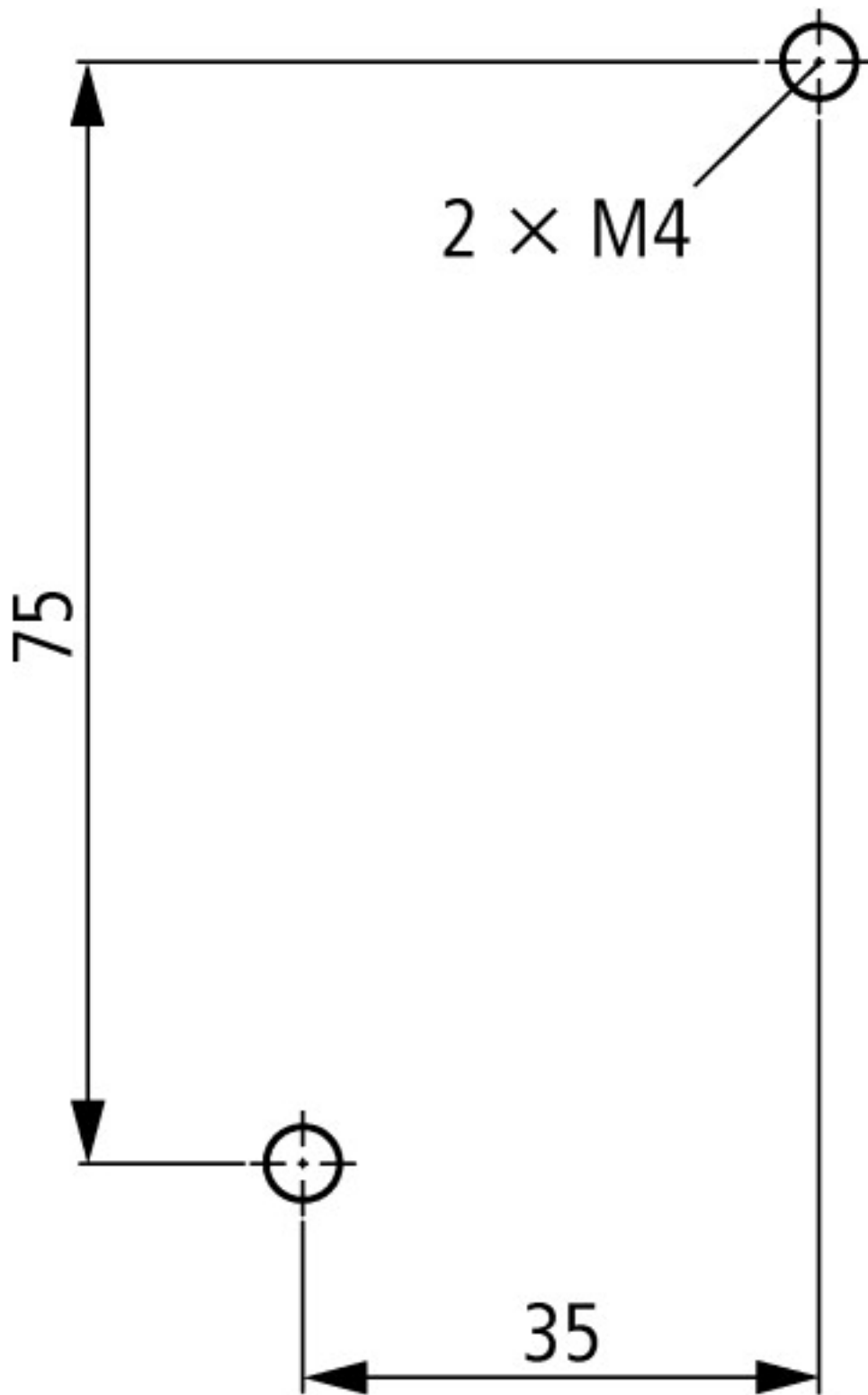
Electric heat



## Dimensions



Contactor with auxiliary contact module



distance at side to earthed parts: 6 mm

## Additional product information (links)

|                                                                                                |                                                                                                                                                                                                                 |
|------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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>                                                                               |

