



4-pole contactor, 32A/AC-1, AC operated



Powering Business Worldwide™

Part no. DILMP32-10(110V50HZ,120V60

Article no. 109790

Program

| | | | |
|---|--------------|---|--|
| Product range | | | Contactors |
| Application | | | Contactors for 4 pole electric consumers |
| Subrange | | | Contactors up to 200 A, 4 pole |
| Connection technique | | | Screw terminals |
| Pole | | | 4 pole |
| Rated operational current | | | |
| AC-1 | | | |
| Conventional free air thermal current, 3 pole, 50 - 60 Hz | | | |
| at 40 °C | $I_{th}=I_e$ | A | 32 |
| at 50 °C | $I_{th}=I_e$ | A | 30 |
| at 60 °C | $I_{th}=I_e$ | A | 28 |
| Contact sequence | | | |
| For use with | | | DILM32-XHI(C)... DILA-XHI(V)(C)... |
| Voltage AC/DC | | | AC operation |
| Instructions Contacts to EN 50012. | | | |

Approbatoren

Product Standards
UL File No.
UL CCN
CSA File No.
CSA Class No.
NA Certification
Specially designed for NA

IEC/EN 60947-4-1; UL 508; CSA-C22.2 No. 14-05; CE marking
E29096
NLDX
012528
2411-03, 3211-04
UL listed, CSA certified
No

General

| | | | |
|---|------------------|-------------|---|
| Standards | | | IEC/EN 60947, VDE 0660, UL, CSA |
| Lifespan, mechanical | | | |
| AC operated | Operations | x 10^6 | 10 |
| DC operated | Operations | x 10^6 | 10 |
| Operating frequency, mechanical | | | |
| AC operated | Operations/ h | | 5000 |
| DC operated | Operations/ h | | 5000 |
| Climatic proofing | | | Damp heat, constant to IEC 60068-2-3 Damp heat, cyclic to IEC 60068-2-30 |
| Ambient temperature | | °C | |
| Open | | °C | - 25 - 60 |
| Enclosed | | °C | - 25 - 40 |
| Storage | | °C | - 40 - 80 |
| Mounting position, AC- and DC operated | | | |
| 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 |
| Protection type | | | IP00 |
| with accessories | | | IP20 |
| Protection against direct contact when actuated from front (EN 90274) | | | Finger- and back-of-hand proof |
| Terminal capacity main cable | | | |
| Solid | | mm ² | 1 x (0.75 - 16) 2 x (0.75 - 10) |
| Flexible with ferrule | | mm ² | 1 x (0.75 - 16) 2 x (0.75 - 10) |
| Stranded | | mm ² | 1 x 16 |
| Solid or stranded | | AWG | 18 - 6 |
| Terminal capacity control circuit cables | | | |
| Solid | | mm ² | 1 x (0.75 - 4) 2 x (0.75 - 2.5) |
| Flexible with ferrule | | mm ² | 1 x (0.75 - 2.5) 2 x (0.75 - 2.5) |
| Solid or stranded | | AWG | 18 - 14 |
| Main cable connection screw/bolt | | | M5 |
| Tightening torque | | Nm | 3 |
| Control circuit cable connection screw/bolt | | | M3.5 |
| Tightening torque | | Nm | 1.2 |
| Tool | | | |
| Main cable | | | |
| Pozidriv screwdriver | | Size | 2 |
| Standard screwdriver | | mm | 0.8 x 5.5 1 x 6 |
| Control circuit cables | | | |
| Pozidriv screwdriver | | Size | 2 |
| Standard screwdriver | | mm | 0.8 x 5.5 1 x 6 |

Main conducting paths

| | | | |
|--|------------------|---------|-------|
| Rated impulse withstand voltage | U _{imp} | V AC | 8000 |
| Overvoltage category/pollution degree | | | III/3 |
| Rated insulation voltage | U _i | V AC | 690 |
| Rated operational voltage | U _e | V AC | 690 |
| Safe isolation to VDE 0106 Part 101 and Part 101/A1 | | | |
| 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 | 238 |
| Breaking capacity | | | |
| 220/230 V | | A | 180 |
| 380/400 V | | A | 180 |
| 500 V | | A | 180 |
| 660/690 V | | A | 120 |
| 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 | 63 |
| 690 V | gG/gL 690 V | A | 50 |

AC

| | | | |
|---|--------------|-----|------|
| AC-1 duty | | | |
| Rated operational current | | | |
| Conventional free air thermal current, 3 pole, 50 - 60 Hz | | | |
| Open | | | |
| at 40 °C | $I_{th}=I_e$ | A | 32 |
| at 50 °C | $I_{th}=I_e$ | A | 30 |
| at 60 °C | $I_{th}=I_e$ | A | 28 |
| enclosed | I_{th} | A | 27 |
| Conventional free air thermal current, 1 pole | | | |
| open | I_{th} | A | 84 |
| enclosed | I_{th} | A | 76 |
| Motor rating | P | kWh | |
| Motor rating AC-1 230 V | | kW | 12 |
| Motor rating AC-1 240 V | | kW | 13 |
| Motor rating AC-1 380/400 V | | kW | 20 |
| Motor rating AC-1 415 V | | kW | 22 |
| Motor rating AC-1 440 V | | kW | 23 |
| Motor rating AC-1 500 V | | kW | 26 |
| Motor rating AC-1 690 V | | kW | 35 |
| AC-3 duty | | | |
| Rated operational current AC-3 open, 50 - 60 Hz, 3 pole | | | |
| 220/230 V | I_e | A | 18 |
| 240 V | I_e | A | 18 |
| 380/400 V | I_e | A | 18 |
| 415 V | I_e | A | 18 |
| 440V | I_e | A | 18 |
| 500 V | I_e | A | 18 |
| 660/690 V | I_e | A | 12 |
| Motor rating | P | kWh | |
| 220/230 V | P | kW | 5 |
| 240V | P | kW | 5.5 |
| 380/400 V | P | kW | 7.5 |
| 415 V | P | kW | 10 |
| 440 V | P | kW | 10.5 |
| 500 V | P | kW | 12 |
| 660/690 V | P | kW | 11 |

DC

| | | | |
|---------------------------------|-------|---|----|
| Rated operational current, open | | | |
| DC-1 operation | | | |
| 60 V | I_e | A | 32 |
| 110 V | I_e | A | 32 |
| 220 V | I_e | A | 32 |
| 440 V | I_e | A | 6 |
| DC-3 operation | | | |
| 60 V | I_e | A | 32 |
| 110 V | I_e | A | 32 |
| 220 V | I_e | A | 32 |

| | | | |
|----------------|-------|---|----|
| 440 V | I_e | A | 4 |
| DC-5 operation | | | |
| 60 V | I_e | A | 32 |
| 110 V | I_e | A | 25 |
| 220 V | I_e | A | 15 |
| 440 V | I_e | A | 4 |

Current heat loss (3 pole)

| | | | |
|-------------------------------|--|------------|-----|
| Current heat loss at I_{th} | | W | 8.2 |
| Impedance per pole | | m Ω | 2 |

Magnet systems

| | | | |
|--|----------|---------|------------|
| Voltage tolerance | | $x U_c$ | |
| AC operated 50 Hz | Pick-up | $x U_c$ | 0.8 - 1.1 |
| AC operated 50/60 Hz | | $x U_c$ | 0.85 - 1.1 |
| Drop-out voltage AC operated | Drop-out | $x U_c$ | 0.4 - 0.6 |
| DC operated | Pick-up | $x U_c$ | 0.7 - 1.2 |
| DC operated | Drop-out | $x U_c$ | 0.2 - 0.6 |
| Power consumption of the coil in a cold state and $1.0 x U_c$ | | | |
| AC operated 50/60 Hz | Pick-up | VA | 50 |
| AC operated 50/60 Hz | Pick-up | W | 40 |
| AC operated 50/60 Hz | Sealing | VA | 8 |
| AC operated 50/60 Hz | Sealing | W | 2.4 |
| DC operated | Pick-up | W | 12 |
| DC operated | Sealing | W | 0,5 |
| Duty factor | | % DF | 100 |
| Switching times at 100 % U_c (approximate values) | | | |
| Main contacts | | | |
| AC operated | | | |
| Closing delay | | ms | 16 - 22 |
| Opening delay | | ms | 8 - 14 |
| DC operated | | ms | |
| Closing delay | | ms | 47 |
| Opening delay | | ms | 30 |
| Arcing time | | ms | 10 |
| Permissible residual current with actuation of A1 - A2 by the electronics (with 0 signal). | | mA | ≤ 1 |

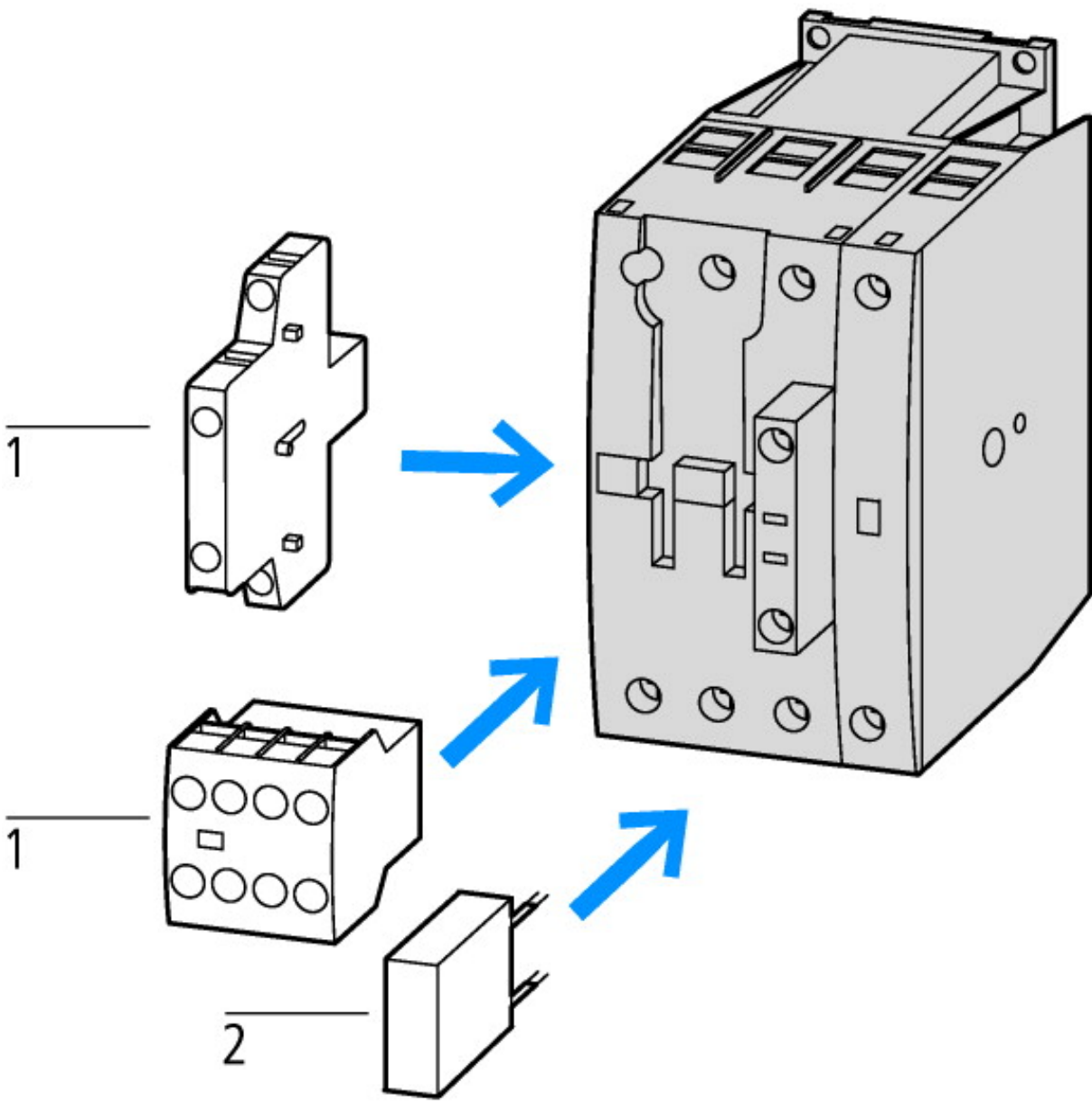
Notes

At least double-pulse bridge rectifier

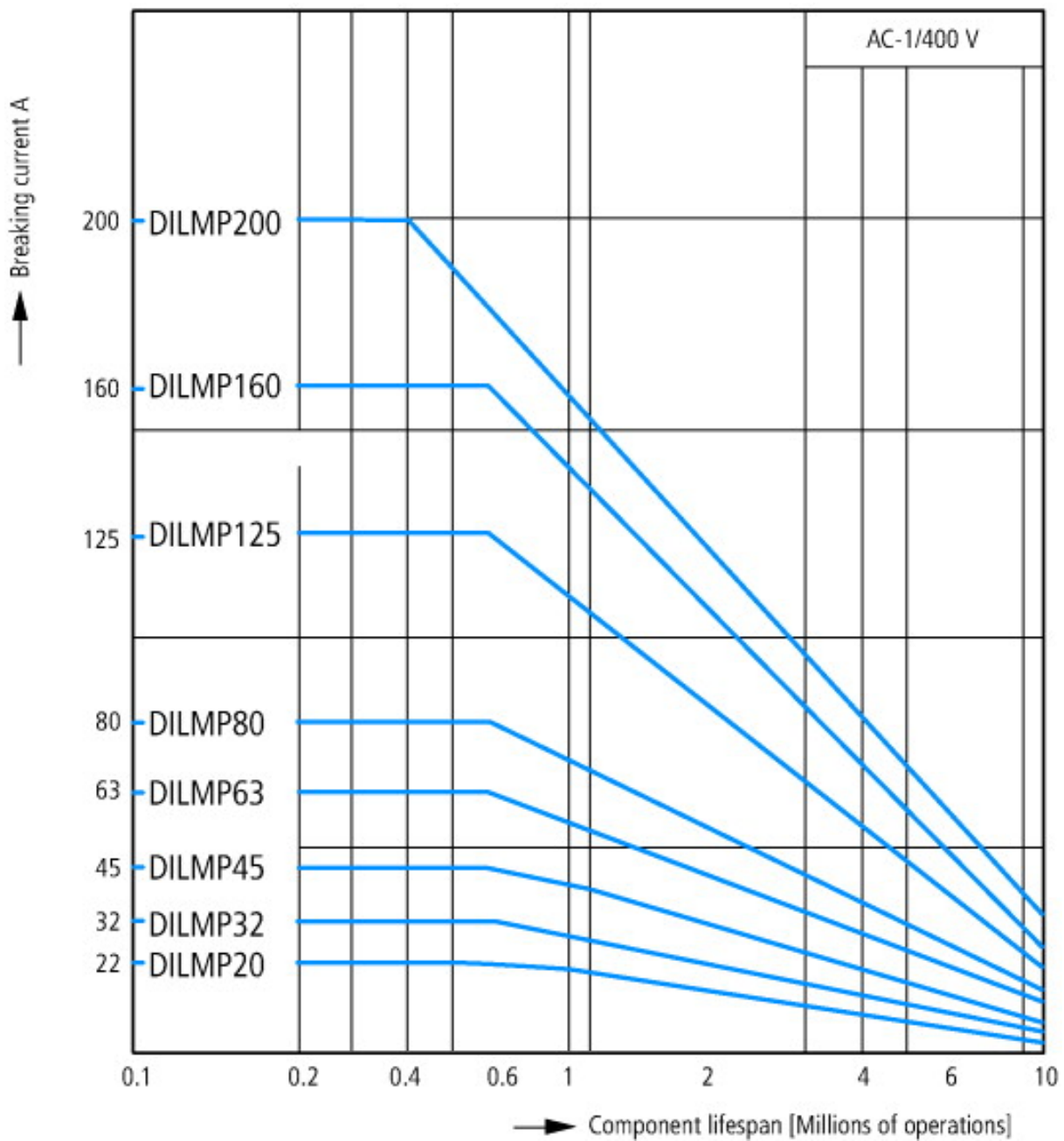
Technical data according to ETIM 4.0

| | | | |
|--|--|-----|------------------|
| Number of main contacts as N/Os | | | 4 |
| Rated operation current I_e at AC-1, 400 V | | | 32 |
| Connection type main circuit | | | Screw connection |
| Rated control voltage U_s at AC 60HZ | | V | 120 |
| Number of auxiliary contacts as N/Os | | | 1 |
| Rated control voltage U_s at AC 50HZ | | V | 110 |
| Number of auxiliary contacts as N/Cs | | | 0 |
| Suitable for rail-mounting | | | No |
| Rated control voltage U_s at DC | | V | 0 |
| Voltage type for actuation | | | AC |
| Rated operation current I_e at AC-3, 400 V | | A | 18 |
| Number of N/Cs as main contact | | | 0 |
| Motor rating at AC-3, 400 V | | kWh | 7.5 |

Characteristics



1: Auxiliary contact module
2: Suppressor



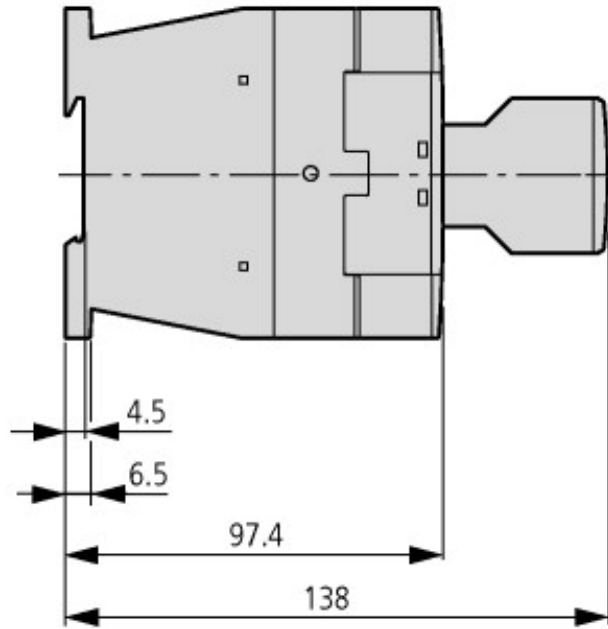
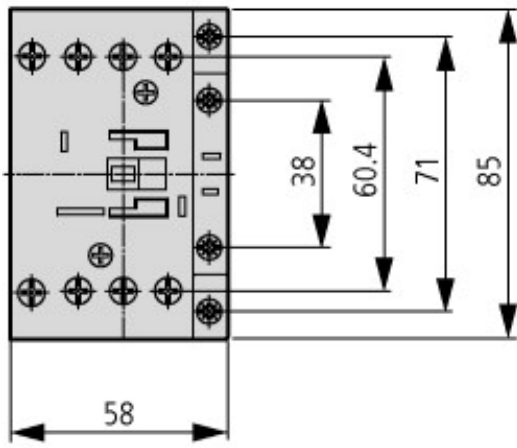
Operating characteristics
 Non inductive and slightly inductive loads
 Electrical characteristics
 Switch on: 1 × rated operational current
 Switch off: 1 × rated operational current
 Utilization category
 100 % AC-1
 Typical examples of application
 Electric heat

CAD-Data

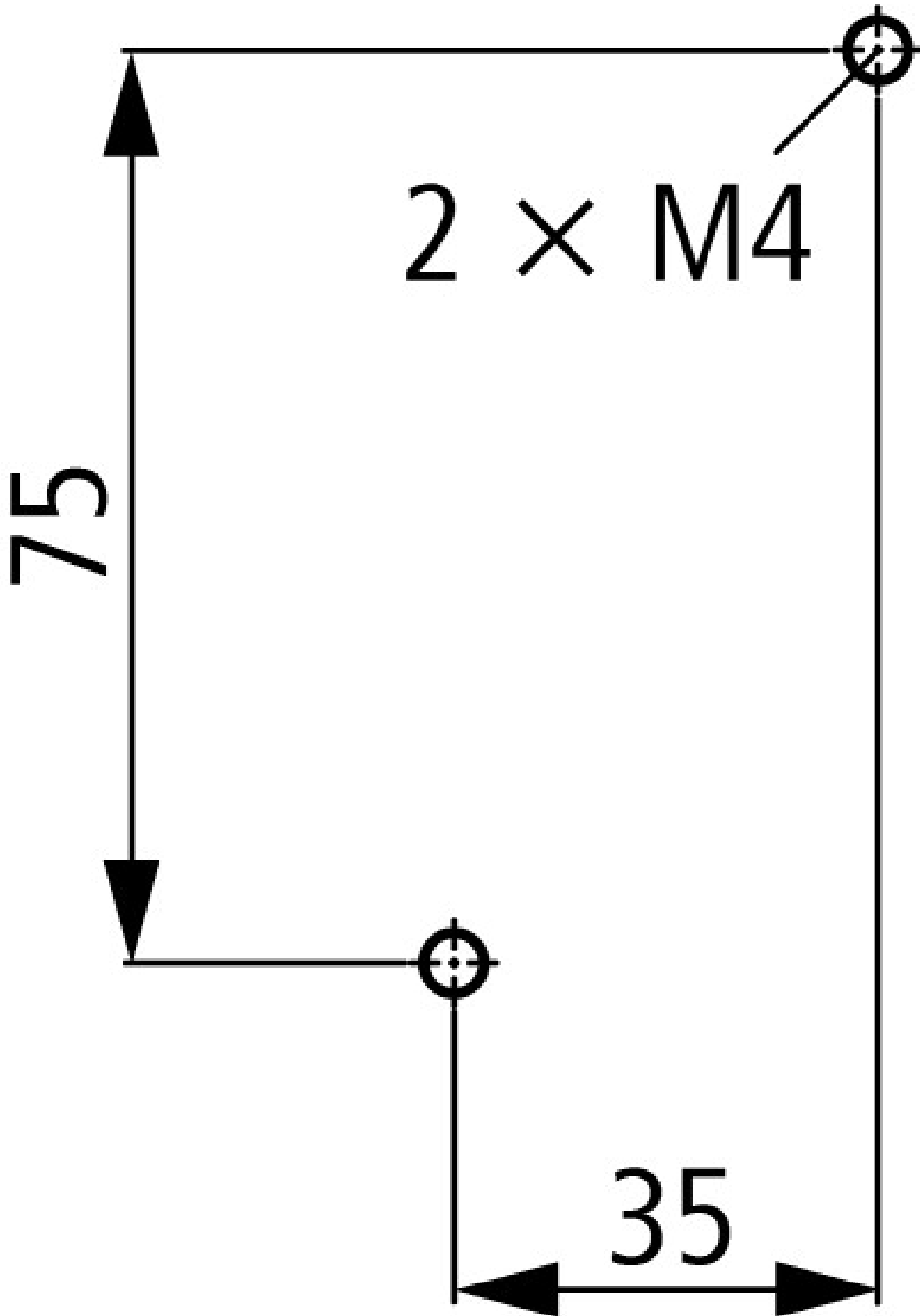
Product standards CAD data:

<http://eaton-moeller.partcommunity.com/PARTcommunity/Portal/eaton-moeller>

Dimensions



Contacteur with auxiliary contact module



distance at side to earthed parts: 6 mm

DILMP32
DILMP45

Additional product information (links)

| | |
|--|---|
| IL03407049Z (AWA2100-2356) 4-pole Contactor | ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03407049Z2010_10.pdf |
| Installation Instructions | http://www.moeller.net/en/support/instructions_awa.jsp |
| Documentation | http://www.moeller.net/en/support/index.jsp |
| Motor starters and "Special Purpose Ratings" for the North American market | http://www.moeller.net/binary/ver_techpapers/ver953en.pdf |
| Busbar Component Adapters for modern Industrial control panels | http://www.moeller.net/binary/ver_techpapers/ver960en.pdf |

| | |
|--|---|
| The Interaction of Contactors with PLCs | http://www.moeller.net/binary/ver_techpapers/ver957en.pdf |
| Standard Compliant and Functionally Safe Engineering Design with Mechanical Auxiliary Contacts | http://www.moeller.net/binary/ver_techpapers/ver956en.pdf |
| Switchgear for Luminaires | http://www.moeller.net/binary/ver_techpapers/ver955en.pdf |
| Effect of the Cable Capacitance of Long Control Cables on the Actuation of Contactors | http://www.moeller.net/binary/ver_techpapers/ver949en.pdf |
| X-Start - Modern Switching Installations Efficiently Fitted and Wired Securely | http://www.moeller.net/binary/ver_techpapers/ver938en.pdf |
| Mirror Contacts for Highly-Reliable Information Relating to Safety-Related Control Functions | http://www.moeller.net/binary/ver_techpapers/ver944en.pdf |
| X-Start - New Generation:100 years of Moeller contactors - Continuous Progress- | http://www.moeller.net/binary/ver_techpapers/ver937en.pdf |
| Switchgear of Power Factor Correction Systems | http://www.moeller.net/binary/ver_techpapers/ver934en.pdf |