

# Specifications



Photo is representative



## Eaton 239402

Eaton Moeller® series DILM Contactor, 3 pole, 380 V 400 V 37 kW, 230 V 50 Hz, 240 V 60 Hz, AC operation, Screw terminals DILM80(230V50HZ,240V60HZ)

### General specifications

|                             |                                                                                                                                                                                                                                                                                                 |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>PRODUCT NAME</b>         | Eaton Moeller® series DILM contactor                                                                                                                                                                                                                                                            |
| <b>CATALOG NUMBER</b>       | 239402                                                                                                                                                                                                                                                                                          |
| <b>MODEL CODE</b>           | DILM80(230V50HZ,240V60HZ)                                                                                                                                                                                                                                                                       |
| <b>EAN</b>                  | 4015082394028                                                                                                                                                                                                                                                                                   |
| <b>PRODUCT LENGTH/DEPTH</b> | 160 mm                                                                                                                                                                                                                                                                                          |
| <b>PRODUCT HEIGHT</b>       | 170 mm                                                                                                                                                                                                                                                                                          |
| <b>PRODUCT WIDTH</b>        | 90 mm                                                                                                                                                                                                                                                                                           |
| <b>PRODUCT WEIGHT</b>       | 2.18 kg                                                                                                                                                                                                                                                                                         |
| <b>CERTIFICATIONS</b>       | CSA Certified<br>UL Listed<br>IEC 60947-4-1<br>EN 60947-4-1<br>CSA-C22.2 No. 60947-4-1-14<br>UL File No.: E29096<br>CSA<br>VDE 0660<br>CSA File No.: 012528<br>IEC/EN 60947<br>IEC/EN 60947-4-1<br>UL 60947-4-1<br>CE<br>UL Category Control No.: NLDX<br>CSA Class No.: 2411-03, 3211-04<br>UL |
| <b>CATALOG NOTES</b>        | Contacts according to EN 50012                                                                                                                                                                                                                                                                  |

## Ambient conditions, mechanical

### SHOCK RESISTANCE

5 g, N/C auxiliary contact, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms  
10 g, N/O main contact, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms  
10 g, N/O main contact, Mechanical, according to IEC/EN 60068-2-27 when tabletop-mounted, Half-sinusoidal shock 10 ms  
7 g, N/O auxiliary contact, Mechanical, according to IEC/EN 60068-2-27 when tabletop-mounted, Half-sinusoidal shock 10 ms  
5 g, N/C auxiliary contact, Mechanical, according to IEC/EN 60068-2-27 when tabletop-mounted, Half-sinusoidal shock 10 ms  
7 g, N/O auxiliary contact, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms

## Climatic environmental conditions

|                                                       |                                                                                |
|-------------------------------------------------------|--------------------------------------------------------------------------------|
| <b>ALTITUDE</b>                                       | Max. 2000 m                                                                    |
| <b>AMBIENT OPERATING TEMPERATURE - MAX</b>            | 60 °C                                                                          |
| <b>AMBIENT STORAGE TEMPERATURE - MAX</b>              | 80 °C                                                                          |
| <b>AMBIENT OPERATING TEMPERATURE - MIN</b>            | -25 °C                                                                         |
| <b>AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MAX</b> | 40 °C                                                                          |
| <b>AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MIN</b> | -25 °C                                                                         |
| <b>AMBIENT STORAGE TEMPERATURE - MIN</b>              | -40 °C                                                                         |
| <b>CLIMATIC PROOFING</b>                              | Damp heat, constant, to IEC 60068-2-78<br>Damp heat, cyclic, to IEC 60068-2-30 |

## Communication

|                                   |    |
|-----------------------------------|----|
| <b>CONNECTION TO SMARTWIRE-DT</b> | No |
|-----------------------------------|----|

## Contacts

|                                                                |   |
|----------------------------------------------------------------|---|
| <b>NUMBER OF MAIN CONTACTS (NORMALLY OPEN CONTACT)</b>         | 3 |
| <b>NUMBER OF AUXILIARY CONTACTS (NORMALLY CLOSED CONTACTS)</b> | 0 |
| <b>NUMBER OF AUXILIARY CONTACTS (NORMALLY OPEN CONTACTS)</b>   | 0 |
| <b>NUMBER OF CONTACTS (NORMALLY CLOSED) AS MAIN CONTACT</b>    | 0 |

## Conventional thermal current I<sub>th</sub>

**CONVENTIONAL  
THERMAL CURRENT I<sub>TH</sub>  
(1-POLE, ENCLOSED)** 200 A

**CONVENTIONAL  
THERMAL CURRENT I<sub>TH</sub>  
(3-POLE, ENCLOSED)** 80 A

**CONVENTIONAL  
THERMAL CURRENT I<sub>TH</sub>  
AT 55°C (3-POLE, OPEN)** 94 A

**CONVENTIONAL  
THERMAL CURRENT I<sub>TH</sub>  
AT 60°C (3-POLE, OPEN)** 90 A

**CONVENTIONAL  
THERMAL CURRENT I<sub>TH</sub>  
OF MAIN CONTACTS (1-  
POLE, OPEN)** 225 A

## Design verification

### 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.

### 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 RESIST. OF INSUL. MAT. TO ABNORMAL HEAT/FIRE BY INTERNAL ELECT. 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

Does not apply, since the

|                                                                      |                                                                    |
|----------------------------------------------------------------------|--------------------------------------------------------------------|
| <b>AGAINST ELECTRIC SHOCK</b>                                        | entire switchgear needs to be evaluated.                           |
| <b>10.6 INCORPORATION OF SWITCHING DEVICES AND COMPONENTS</b>        | Does not apply, since the entire switchgear needs to be evaluated. |
| <b>10.7 INTERNAL ELECTRICAL CIRCUITS AND CONNECTIONS</b>             | Is the panel builder's responsibility.                             |
| <b>10.8 CONNECTIONS FOR EXTERNAL CONDUCTORS</b>                      | Is the panel builder's responsibility.                             |
| <b>10.9.2 POWER-FREQUENCY ELECTRIC STRENGTH</b>                      | Is the panel builder's responsibility.                             |
| <b>10.9.3 IMPULSE WITHSTAND VOLTAGE</b>                              | Is the panel builder's responsibility.                             |
| <b>10.9.4 TESTING OF ENCLOSURES MADE OF INSULATING MATERIAL</b>      | Is the panel builder's responsibility.                             |
| <b>EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID</b>            | 9 W                                                                |
| <b>HEAT DISSIPATION CAPACITY PDISS</b>                               | 0 W                                                                |
| <b>HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID</b>             | 3 W                                                                |
| <b>RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)</b> | 80 A                                                               |
| <b>STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT PVS</b>            | 5.8 W                                                              |

## Electrical rating

|                                             |       |
|---------------------------------------------|-------|
| <b>RATED BREAKING CAPACITY AT 220/230 V</b> | 800 A |
|---------------------------------------------|-------|

|                                             |       |
|---------------------------------------------|-------|
| <b>RATED BREAKING CAPACITY AT 380/400 V</b> | 800 A |
|---------------------------------------------|-------|

|                                         |       |
|-----------------------------------------|-------|
| <b>RATED BREAKING CAPACITY AT 500 V</b> | 800 A |
|-----------------------------------------|-------|

|                                             |       |
|---------------------------------------------|-------|
| <b>RATED BREAKING CAPACITY AT 660/690 V</b> | 650 A |
|---------------------------------------------|-------|

|                                      |       |
|--------------------------------------|-------|
| <b>RATED INSULATION VOLTAGE (UI)</b> | 690 V |
|--------------------------------------|-------|

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|--------------------------------------------------------------------|--------|
| <b>RATED MAKING CAPACITY UP TO 690 V (COS PHI TO IEC/EN 60947)</b> | 1120 A |
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|--------------------------------------------------------------------|-------|
| <b>RATED OPERATIONAL CURRENT (IE) AT AC-1, 380 V, 400 V, 415 V</b> | 110 A |
|--------------------------------------------------------------------|-------|

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|--------------------------------------------------------------------|------|
| <b>RATED OPERATIONAL CURRENT (IE) AT AC-3, 220 V, 230 V, 240 V</b> | 80 A |
|--------------------------------------------------------------------|------|

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|--------------------------------------------------------------------|------|
| <b>RATED OPERATIONAL CURRENT (IE) AT AC-3, 380 V, 400 V, 415 V</b> | 80 A |
|--------------------------------------------------------------------|------|

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|------------------------------------------------------|------|
| <b>RATED OPERATIONAL CURRENT (IE) AT AC-3, 440 V</b> | 80 A |
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|------------------------------------------------------|------|
| <b>RATED OPERATIONAL CURRENT (IE) AT AC-3, 500 V</b> | 80 A |
|------------------------------------------------------|------|

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| <b>RATED OPERATIONAL CURRENT (IE) AT AC-3, 660 V, 690 V</b> | 65 A |
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| <b>RATED OPERATIONAL CURRENT (IE) AT AC-4, 220 V, 230 V, 240 V</b> | 40 A |
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|------------------------------------------------------|------|
| <b>RATED OPERATIONAL CURRENT (IE) AT AC-4, 440 V</b> | 40 A |
|------------------------------------------------------|------|

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|------------------------------------------------------|------|
| <b>RATED OPERATIONAL CURRENT (IE) AT AC-4, 500 V</b> | 40 A |
|------------------------------------------------------|------|

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|-------------------------------------------------------------|------|
| <b>RATED OPERATIONAL CURRENT (IE) AT AC-4, 660 V, 690 V</b> | 27 A |
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|------------------------------------------------------|-------|
| <b>RATED OPERATIONAL CURRENT (IE) AT DC-1, 110 V</b> | 110 A |
|------------------------------------------------------|-------|

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|------------------------------------------------------|------|
| <b>RATED OPERATIONAL CURRENT (IE) AT DC-1, 220 V</b> | 70 A |
|------------------------------------------------------|------|

## Electro magnetic compatibility

|                             |                         |
|-----------------------------|-------------------------|
| <b>EMITTED INTERFERENCE</b> | According to EN 60947-1 |
|-----------------------------|-------------------------|

|                              |                         |
|------------------------------|-------------------------|
| <b>INTERFERENCE IMMUNITY</b> | According to EN 60947-1 |
|------------------------------|-------------------------|

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|-------------------------------------------------------------|-------|
| <b>RATED OPERATIONAL<br/>CURRENT (IE) AT DC-1, 60<br/>V</b> | 110 A |
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| <b>RATED OPERATIONAL<br/>POWER AT AC-3, 240 V, 50<br/>HZ</b> | 27.5 kW |
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|------------------------------------------------------------------|-------|
| <b>RATED OPERATIONAL<br/>POWER AT AC-3, 380/400<br/>V, 50 HZ</b> | 37 kW |
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|--------------------------------------------------------------|-------|
| <b>RATED OPERATIONAL<br/>POWER AT AC-3, 415 V, 50<br/>HZ</b> | 48 kW |
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| <b>RATED OPERATIONAL<br/>POWER AT AC-3, 440 V, 50<br/>HZ</b> | 51 kW |
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| <b>RATED OPERATIONAL<br/>POWER AT AC-3, 500 V, 50<br/>HZ</b> | 58 kW |
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| <b>RATED OPERATIONAL<br/>POWER AT AC-3, 690 V, 50<br/>HZ</b> | 63 kW |
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|------------------------------------------------------------------|---------|
| <b>RATED OPERATIONAL<br/>POWER AT AC-4, 220/230<br/>V, 50 HZ</b> | 11.5 kW |
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|--------------------------------------------------------------|-------|
| <b>RATED OPERATIONAL<br/>POWER AT AC-4, 240 V, 50<br/>HZ</b> | 13 kW |
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| <b>RATED OPERATIONAL<br/>POWER AT AC-4, 415 V, 50<br/>HZ</b> | 24 kW |
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| <b>RATED OPERATIONAL<br/>POWER AT AC-4, 440 V, 50<br/>HZ</b> | 25 kW |
|--------------------------------------------------------------|-------|

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|--------------------------------------------------------------|-------|
| <b>RATED OPERATIONAL<br/>POWER AT AC-4, 500 V, 50<br/>HZ</b> | 29 kW |
|--------------------------------------------------------------|-------|

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|------------------------------------------------------------------|-------|
| <b>RATED OPERATIONAL<br/>POWER AT AC-4, 660/690<br/>V, 50 HZ</b> | 26 kW |
|------------------------------------------------------------------|-------|

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| <b>RATED OPERATIONAL<br/>VOLTAGE (UE) AT AC -<br/>MAX</b> | 690 V |
|-----------------------------------------------------------|-------|

## Features & functions

|                        |            |
|------------------------|------------|
| <b>NUMBER OF POLES</b> | Three-pole |
|------------------------|------------|

## General information

|                    |                       |
|--------------------|-----------------------|
| <b>APPLICATION</b> | Contactors for Motors |
|--------------------|-----------------------|

|                   |                 |
|-------------------|-----------------|
| <b>CONNECTION</b> | Screw terminals |
|-------------------|-----------------|

|                             |      |
|-----------------------------|------|
| <b>DEGREE OF PROTECTION</b> | IP00 |
|-----------------------------|------|

|                             |                                     |
|-----------------------------|-------------------------------------|
| <b>LIFESPAN, MECHANICAL</b> | 10,000,000 Operations (AC operated) |
|-----------------------------|-------------------------------------|

|                            |                 |
|----------------------------|-----------------|
| <b>OPERATING FREQUENCY</b> | 3600 mechanical |
|----------------------------|-----------------|

|                                               |                                                                                                                                                                                                                           |
|-----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                               | Operations/h (AC operated)                                                                                                                                                                                                |
| <b>OVERVOLTAGE CATEGORY</b>                   | III                                                                                                                                                                                                                       |
| <b>POLLUTION DEGREE</b>                       | 3                                                                                                                                                                                                                         |
| <b>PRODUCT CATEGORY</b>                       | Contactors                                                                                                                                                                                                                |
| <b>PROTECTION</b>                             | Finger and back-of-hand proof, Protection against direct contact when actuated from front (EN 50274)                                                                                                                      |
| <b>RATED IMPULSE WITHSTAND VOLTAGE (UIMP)</b> | 8000 V AC                                                                                                                                                                                                                 |
| <b>RESIDUAL CURRENT</b>                       | 1 mA (with actuation of A1 - A2 by the electronics with "0" signal)                                                                                                                                                       |
| <b>RESISTANCE PER POLE</b>                    | 0.6 mΩ                                                                                                                                                                                                                    |
| <b>SUITABLE FOR</b>                           | Also motors with efficiency class IE3                                                                                                                                                                                     |
| <b>TYPE</b>                                   | Full voltage reversing medium contactor                                                                                                                                                                                   |
| <b>UTILIZATION CATEGORY</b>                   | AC-1: Non-inductive or slightly inductive loads, resistance furnaces<br>AC-4: Normal AC induction motors: starting, plugging, reversing, inching<br>AC-3: Normal AC induction motors: starting, switch off during running |
| <b>VOLTAGE TYPE</b>                           | AC                                                                                                                                                                                                                        |
| <b>FRAME SIZE</b>                             | FS4                                                                                                                                                                                                                       |

## Magnet system

|                                                                         |                                                                                                                                        |
|-------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| <b>ARCING TIME</b>                                                      | 15 ms                                                                                                                                  |
| <b>COIL VOLTAGE</b>                                                     | 230-240 Vac, 50/60 Hz                                                                                                                  |
| <b>DROP-OUT VOLTAGE</b>                                                 | AC operated: 0.6 - 0.3 x UC, AC operated                                                                                               |
| <b>DUTY FACTOR</b>                                                      | 100 %                                                                                                                                  |
| <b>PICK-UP VOLTAGE</b>                                                  | 0.8 - 1.1 V AC x Uc                                                                                                                    |
| <b>POWER CONSUMPTION, PICK-UP, 50 HZ</b>                                | 310 VA, Dual-frequency coil in a cold state and 1.0 x Us, at 50 Hz                                                                     |
| <b>POWER CONSUMPTION, PICK-UP, 60 HZ</b>                                | 345 VA, Dual-frequency coil in a cold state and 1.0 x Us, at 60 Hz                                                                     |
| <b>POWER CONSUMPTION, SEALING, 50 HZ</b>                                | 5.8 W, Dual-frequency coil in a cold state and 1.0 x Us, at 50 Hz<br>26 VA, Dual-frequency coil in a cold state and 1.0 x Us, at 50 Hz |
| <b>POWER CONSUMPTION, SEALING, 60 HZ</b>                                | 30 VA, Dual-frequency coil in a cold state and 1.0 x Us, at 60 Hz<br>5.8 W, Dual-frequency coil in a cold state and 1.0 x Us, at 60 Hz |
| <b>RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MAX</b>             | 230 V                                                                                                                                  |
| <b>RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MIN</b>             | 230 V                                                                                                                                  |
| <b>RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MAX</b>             | 240 V                                                                                                                                  |
| <b>RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MIN</b>             | 240 V                                                                                                                                  |
| <b>SWITCHING TIME (AC OPERATED, MAKE CONTACTS, CLOSING DELAY) - MAX</b> | 20 ms                                                                                                                                  |
| <b>SWITCHING TIME (AC OPERATED, MAKE CONTACTS, CLOSING DELAY) - MIN</b> | 14 ms                                                                                                                                  |
| <b>SWITCHING TIME (AC OPERATED, MAKE CONTACTS, OPENING DELAY) - MAX</b> | 14 ms                                                                                                                                  |
| <b>SWITCHING TIME (AC OPERATED, MAKE CONTACTS, OPENING</b>              | 9 ms                                                                                                                                   |

## Motor rating

**ASSIGNED MOTOR**  
**POWER AT 115/120 V, 60 HZ, 1-PHASE** 7.5 HP

**ASSIGNED MOTOR**  
**POWER AT 200/208 V, 60 HZ, 3-PHASE** 25 HP

**ASSIGNED MOTOR**  
**POWER AT 230/240 V, 60 HZ, 1-PHASE** 15 HP

**ASSIGNED MOTOR**  
**POWER AT 230/240 V, 60 HZ, 3-PHASE** 30 HP

**ASSIGNED MOTOR**  
**POWER AT 460/480 V, 60 HZ, 3-PHASE** 60 HP

**ASSIGNED MOTOR**  
**POWER AT 575/600 V, 60 HZ, 3-PHASE** 75 HP

|                          |       |
|--------------------------|-------|
| <b>DELAY) - MIN</b>      |       |
| <b>POWER CONSUMPTION</b> | 37 kW |

|                       |                                                            |
|-----------------------|------------------------------------------------------------|
| <b>Safety</b>         |                                                            |
| <b>SAFE ISOLATION</b> | 690 V AC, Between the contacts, According to EN 61140      |
|                       | 440 V AC, Between coil and contacts, According to EN 61140 |

|                                                                       |                                                                                                                                |
|-----------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| <b>Short-circuit rating</b>                                           |                                                                                                                                |
| <b>SHORT-CIRCUIT CURRENT RATING (BASIC RATING)</b>                    | 10 kA, 600 A max. fuse, SCCR (UL/CSA)<br>10 kA, 600 A max. CB, SCCR (UL/CSA)                                                   |
| <b>SHORT-CIRCUIT CURRENT RATING (HIGH FAULT AT 480 V)</b>             | 100 kA, 300 A CLASS J max. fuse, SCCR (UL/CSA)<br>30 kA, 600 A max. fuse, SCCR (UL/CSA)<br>65 kA, 250 A max. CB, SCCR (UL/CSA) |
| <b>SHORT-CIRCUIT CURRENT RATING (HIGH FAULT AT 600 V)</b>             | 100 kA, 300 A CLASS J max. fuse, SCCR (UL/CSA)<br>30 kA, 600 A max. fuse, SCCR (UL/CSA)                                        |
| <b>SHORT-CIRCUIT PROTECTION RATING (TYPE 1 COORDINATION) AT 400 V</b> | 250 A gG/gL                                                                                                                    |
| <b>SHORT-CIRCUIT PROTECTION RATING (TYPE 1 COORDINATION) AT 690 V</b> | 200 A gG/gL                                                                                                                    |
| <b>SHORT-CIRCUIT PROTECTION RATING (TYPE 2 COORDINATION) AT 400 V</b> | 160 A gG/gL                                                                                                                    |
| <b>SHORT-CIRCUIT PROTECTION RATING (TYPE 2 COORDINATION) AT 690 V</b> | 160 A gG/gL                                                                                                                    |

## Special purpose ratings

### SPECIAL PURPOSE RATING OF DEFINITE PURPOSE RATING

80 A, FLA 480 V 60 Hz 3-ph,  
100,000 cycles acc. to UL  
1995, (UL/CSA)  
480 A, LRA 480 V 60 Hz 3-  
ph, 100,000 cycles acc. to  
UL 1995, (UL/CSA)

### SPECIAL PURPOSE RATING OF ELEVATOR CONTROL

20 HP, 200 V 60 Hz 3-ph,  
(UL/CSA)  
62.1 A, 200 V 60 Hz 3-ph,  
(UL/CSA)  
68 A, 240 V 60 Hz 3-ph,  
(UL/CSA)  
65 A, 480 V 60 Hz 3-ph,  
(UL/CSA)  
25 HP, 240 V 60 Hz 3-ph,  
(UL/CSA)  
60 HP, 600 V 60 Hz 3-ph,  
(UL/CSA)  
50 HP, 480 V 60 Hz 3-ph,  
(UL/CSA)  
62 A, 600 V 60 Hz 3-ph,  
(UL/CSA)

### SPECIAL PURPOSE RATING OF REFRIGERATION CONTROL (CSA ONLY)

420 A, LRA 600 V 60 Hz  
3phase; (CSA)  
540 A, LRA 480 V 60 Hz  
3phase; (CSA)  
70 A, FLA 600 V 60 Hz  
3phase; (CSA)  
90 A, FLA 480 V 60 Hz  
3phase; (CSA)

### SPECIAL PURPOSE RATING OF RESISTANCE AIR HEATING

100 A, 480 V 60 Hz 3phase,  
277 V 60 Hz 1phase,  
(UL/CSA)  
100 A, 600 V 60 Hz 3phase,  
347 V 60 Hz 1phase,  
(UL/CSA)

### SPECIAL PURPOSE RATING OF TUNGSTEN INCANDESCENT LAMPS

100 A, 600 V 60 Hz 3phase,  
347 V 60 Hz 1phase,  
(UL/CSA)  
100 A, 480 V 60 Hz 3phase,  
277 V 60 Hz 1phase,  
(UL/CSA)

### SPECIAL PURPOSE RATING OF BALLAST ELECTRICAL DISCHARGE LAMPS

100 A (600V 60Hz 3phase,  
347V 60Hz 1phase)  
100 A (480V 60Hz 3phase,  
277V 60Hz 1phase)

## Switching capacity

### SWITCHING CAPACITY (MAIN CONTACTS, GENERAL USE)

125 A, Maximum motor  
rating (UL/CSA)

## Terminal capacities

|                                                  |                                                                                                                                                                                                                      |
|--------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>SCREW SIZE</b>                                | M3.5, Terminal screw, Control circuit cables<br>M10, Terminal screw, Main cables<br>5 mm AF, Hexagon socket-head spanner, Terminal screw, Main cables                                                                |
| <b>SCREWDRIVER SIZE</b>                          | 2, Terminal screw, Control circuit cables, Pozidriv screwdriver<br>0.8 x 5.5/1 x 6 mm, Terminal screw, Control circuit cables, Standard screwdriver                                                                  |
| <b>STRIPPING LENGTH (CONTROL CIRCUIT CABLE)</b>  | 10 mm                                                                                                                                                                                                                |
| <b>STRIPPING LENGTH (MAIN CABLE)</b>             | 24 mm                                                                                                                                                                                                                |
| <b>TERMINAL CAPACITY (COPPER BAND)</b>           | 2 x (6 x 16 x 0.8) mm<br>(Number of segments x width x thickness), Main cables                                                                                                                                       |
| <b>TERMINAL CAPACITY (SOLID)</b>                 | 1 x (0.75 - 4) mm <sup>2</sup> , Control circuit cables<br>2 x (0.75 - 2.5) mm <sup>2</sup> , Control circuit cables                                                                                                 |
| <b>TERMINAL CAPACITY (STRANDED)</b>              | 1 x (16 - 70) mm <sup>2</sup> , Main cables<br>2 x (16 - 50) mm <sup>2</sup> , Main cables                                                                                                                           |
| <b>TERMINALS</b>                                 | Screw terminals                                                                                                                                                                                                      |
| <b>TIGHTENING TORQUE</b>                         | 14 Nm, Screw terminals, Main cables<br>1.2 Nm, Screw terminals, Control circuit cables                                                                                                                               |
| <b>TERMINAL CAPACITY (FLEXIBLE WITH FERRULE)</b> | 2 x (0.75 - 2.5) mm <sup>2</sup> , Control circuit cables<br>2 x (10 - 50) mm <sup>2</sup> , Main cables<br>1 x (0.75 - 2.5) mm <sup>2</sup> , Control circuit cables<br>1 x (10 - 70) mm <sup>2</sup> , Main cables |
| <b>TERMINAL CAPACITY (SOLID/STRANDED AWG)</b>    | 18 - 14, Control circuit cables<br>Single 8...3/0, double 8...2/0, Main cables                                                                                                                                       |

## Resources

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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| CATALOGUES                 | <a href="#">SmartWire-DT Catalog</a><br><a href="#">Product Range Catalog</a><br><a href="#">Switching and protecting motors</a><br><a href="#">eaton-product-overview-for-machinery-catalogue-ca08103003zen-en-us.pdf</a>                                                                                                                                                                                                                            |
| CHARACTERISTIC CURVE       | <a href="#">eaton-contactors-short-time-loading-dilm-characteristic-curve-002.eps</a><br><a href="#">eaton-contactors-switch-dilm-characteristic-curve.eps</a><br><a href="#">eaton-contactors-switch-dilm-characteristic-curve-002.eps</a><br><a href="#">eaton-contactors-component-dilm-characteristic-curve-003.eps</a>                                                                                                                           |
| DECLARATIONS OF CONFORMITY | <a href="#">eaton-contactor-declaration-of-conformity-uk251235en.pdf</a><br><a href="#">eaton-contactor-declaration-of-conformity-eu250752en.pdf</a>                                                                                                                                                                                                                                                                                                  |
| DRAWINGS                   | <a href="#">eaton-contactors-dilm-dimensions-003.eps</a><br><a href="#">eaton-contactors-dilm-dimensions-011.eps</a><br><a href="#">eaton-contactors-mounting-dilm-dimensions-002.eps</a><br><a href="#">eaton-contactors-mounting-dilm-dimensions.eps</a><br><a href="#">eaton-contactors-dilm-3d-drawing.eps</a><br><a href="#">eaton-contactors-dilm-3d-drawing-013.eps</a><br><a href="#">eaton-general-ie-ready-dilm-contactor-standards.eps</a> |
| ECAD MODEL                 | <a href="#">ETN.239402.edz</a>                                                                                                                                                                                                                                                                                                                                                                                                                        |

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|---------------------------|---------------------------------------------------------------------------------------------------------|
| INSTALLATION INSTRUCTIONS | <a href="#">eaton-dil-contactors-instruction-leaflet-il03407039z.pdf</a>                                |
| INSTALLATION VIDEOS       | <a href="#">WIN-WIN with push-in technology</a>                                                         |
| MCAD MODEL                | <a href="#">DA-CS-dil_m80_170</a><br><a href="#">eaton-iec-contactors-mcad-drawings-dil-m80-170.dwg</a> |
| PEP ECO-PASSPORT          | <a href="#">eaton-iec-contactors-pep-eato-00021-v0101-en.pdf</a>                                        |
| SYSTEM OVERVIEW           | <a href="#">eaton-contactors-dilm-contactor-system-overview.eps</a>                                     |
| WIRING DIAGRAMS           | <a href="#">eaton-contactors-contact-dilm-wiring-diagram-003.eps</a>                                    |

PROJECT NAME:

PROJECT NUMBER:

PREPARED BY:

DATE:



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