## Moeller (a

Type: 11DILEM
Article No.: 010080


| Ordering information |  |  | Screw terminals |
| :--- | :--- | :--- | :--- |
| Connection technique |  |  | 2 -pole |
| Description | $I_{\text {th }}=I_{\text {e }}$ | A | 10 |
| Conventional thermal current $I$ th $=I$ e <br> AC-1 Open |  |  | 1 N/O |
| Contacts N/O = Normally open |  |  | 1 N/C |
| Contacts N/C = Normally closed |  |  | $\operatorname{DILE}(E) M-10(-G)(\ldots)$ <br> $\operatorname{DILEM}-4(-G)(\ldots)$ |
| Can be combined with contactor |  |  |  |

## Contact sequence



Notes concerning the product group
Auxiliary contact module contacts:
...DILEM to EN 50012
...DILE to EN 50005
Contacts to EN 50012 should be given preference.
Auxiliary contact modules with interlocked opposing contacts.
Not in the case of early-make or late-break contacts

## General

| Standards |  | IEC/EN 60947, VDE 0660, CSA, UL |
| :---: | :---: | :---: |
| Maximum operating frequency |  |  |
| Mechanical | Ops./h | 9000 |
| Climatic proofing |  | Damp heat, constant, to IEC 60068-2-78 <br> Damp heat cyclic to IEC $60068-2-30$ |
| Ambient temperature |  |  |
| Open | ${ }^{\circ} \mathrm{C}$ | -25/50 |
| Enclosed | ${ }^{\circ} \mathrm{C}$ | -25/40 |
| Mechanical shock resistance (IEC/EN 60068-2-27) |  |  |
| Half-sinusoidal shock, 10 ms |  |  |
| Basic unit without auxiliary contact module |  |  |
| Main contacts, make contacts | g | 10 |
| Main contacts Make/break contacts | g | 10/8 |
| Basic unit with auxiliary contact module |  |  |
| Main contacts make contact | g | 10 |
| Auxiliary contacts Make/break contacts | g | 20/20 |
| Protection type |  | IP 20 |
| Protection against direct contact when actuated from front (IEC 536) |  | Finger and back-of-hand proof |
| Terminal capacity of auxiliary and main contacts |  |  |
| Solid | $\mathrm{mm}^{2}$ | $\begin{aligned} & 1 \times(0.75-2.5) \\ & 2 \times(0.75-2.5) \end{aligned}$ |
| Flexible with ferrule | $\mathrm{mm}^{2}$ | $\begin{aligned} & 1 \times(0.75-1.5) \\ & 2 \times(0.75-1.5) \end{aligned}$ |
| Solid or stranded | AWG | 18-14 |
| Terminal screw |  | M3.5 |
| Pozidriv screwdriver | Size | 2 |
| Standard screwdriver | mm | $\begin{aligned} & 0.8 \times 5.5 \\ & 1 \times 6 \end{aligned}$ |
| Max. tightening torque | Nm | 1,2 |
| Terminal capacity springloaded terminals main and control circuits |  |  |
| Solid | $\mathrm{mm}^{2}$ | $\begin{aligned} & 1 \times(1-2.5) \\ & 2 \times(1-2.5) \end{aligned}$ |


| Flexible with ferrule |  | $\mathrm{mm}^{2}$ | $\begin{aligned} & 1 \times(1-2.5) \\ & 2 \times(1-2.5) \end{aligned}$ |
| :---: | :---: | :---: | :---: |
| Standard screwdriver |  | mm | $0.6 \times 3.5$ |
| Main conducting paths |  |  |  |
| Rated impulse withstand voltage | $U_{\text {imp }}$ | V AC | 6000 |
| Overvoltage category/pollution degree |  |  | III/3 |
| Rated insulation voltage |  |  |  |
| AC | $U_{i}$ | V AC | 690 |
| Rated operational voltage |  |  |  |
| Rated operational voltage | $U_{\text {e }}$ | V AC | 690 |
| Safe isolation to VDE 0106 Part 101 and Part 101/A1 |  |  |  |
| between coil and contacts |  | V AC | 300 |
| between the contacts |  | V AC | 300 |
| Making capacity (cos to IEC/EN 60947) |  | A | 110 |
| Breaking capacity |  |  |  |
| 220/230 V |  | A | 90 |
| 380/400 V |  | A | 90 |
| 500 V |  | A | 64 |
| 660/690 V |  | A | 54 |
|  |  |  |  |
| Short-circuit protection maximum fuse |  |  |  |
| Type "2" coordination | $\mathrm{gL} / \mathrm{gG}$ | A | 10 |
| Type "1" coordination | $\mathrm{gL} / \mathrm{gG}$ | A | 20 |
| AC |  |  |  |
| AC-1 duty |  |  |  |
| conv. therm. current 3 pole 50-60 Hz |  |  |  |
| open |  |  |  |
| at $40{ }^{\circ} \mathrm{C}$ | 1 th | A | 22 |
| at $50{ }^{\circ} \mathrm{C}$ | th | A | 20 |
| at $55^{\circ} \mathrm{C}$ | 1 th | A | 19 |
| enclosed | 1 th | A | 16 |
| AC-3 duty |  |  |  |
| Rating, AC-3 motor load switch |  |  |  |
| 380/400 V | P | kW | 4 |
| AC-4 duty |  |  |  |


| AC-4 |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| $380 / 400$ V | $P$ | kW | 3 |

DC
Operations

## Magnet systems

Duty factor
Switching times at $100 \% U_{C}$
Reversing contactors
Arcing time at 690 V AC

|  | \% DF | 100 |
| :---: | :---: | :---: |
|  |  |  |
|  |  |  |
|  | ms | max. 12 |

Auxiliary contacts
Interlocked opposing contacts to ZH $1 / 457$, including auxiliary contact module
Rated impulse withstand voltage
Overvoltage category/pollution degree
Rated insulation voltage
Rated operational voltage
Rated operational voltage
Safe isolation to VDE 0106 Part 101 and Part 101/A1
between coil and auxiliary contacts
between the auxiliary contacts
Rated operational current
AC-15
220/240 V
380/415 V
500 V
DV-13
Contacts in series:
1

2
3
3
Conventional thermal current
Control circuit reliability (at $U_{e}=24 \mathrm{~V}$
$\mathrm{DC}, U_{\text {min }}=17 \mathrm{~V}, I_{\text {min }}=5.4 \mathrm{~mA}$ )
Component lifespan at $U_{\mathrm{e}}=240 \mathrm{~V}$
AC-15
DC-13

|  |  | Yes |
| :---: | :---: | :---: |
| $U_{\text {imp }}$ | V AC | 6000 |
|  |  | III/3 |
| $U_{i}$ | V AC | 690 |
| $U_{\text {e }}$ | V AC | 600 |
|  | V AC | 300 |
|  | V AC | 300 |
| $l \mathrm{e}$ | A | 4 |
| le | A | 2 |
| $l_{\text {e }}$ | A | 1,5 |
| 24 V | A | 2,5 |
| 60 V | A | 2,5 |
| 100 V | A | 1,5 |
| 220 V | A | 0,5 |
| $I_{\text {th }}$ | A | 10 |
| Failure rate |  | $-8,<$ one failure at 100 million operations |
| Operations | $\times 10^{6}$ | 0,2 |


| L/R $=50$ ms: 2 contacts in series at $l_{\mathrm{e}}$ <br> $=0.5 \mathrm{~A}$ | Operations | $\times 10^{6}$ | 0,15 |
| :--- | :--- | :--- | :--- |
| Short-circuit rating without welding <br> Maximum overcurrent protective <br> device |  |  |  |
| Short-circuit protection maximum <br> fuse |  |  | PKZM0-4 |
| 500 V |  | A <br> gG/gL | 6 |
| 500 V | A fast | 10 |  |
| Current heat loss at $l_{\text {th }}$ | W | 0,2 |  |
| Per contact |  |  | At maximum permissible <br> ambient temperature. <br> Smoothed DC or <br> three-phase bridge rectifier <br> Making and breaking <br> conditions to DC-13, time <br> L/R constant as stated |
| Notes |  |  |  |

## Mounting position

As required except vertical with terminals A1/A2 at the bottom

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