**Auxiliary contact, 2N/O+2N/C, surface mounting, screw connection**

| | |
|---|---|
| **Part no.** | **22DILEM** |
| **Article no.** | **010112** |
| **Catalog No.** | **XTMCXFC22** |

# Delivery programme

| | | | |
|---|---|---|---|
| Product range | | | Accessories |
| Accessories | | | Auxiliary contact modules |
| Description | | | with interlocked opposing contacts |
| Function | | | for standard applications |
| Pole | | | 4 pole |
| Connection technique | | | Screw terminals |
| **Rated operational current** | | | |
| AC-15 | | | |
| 220 V 230 V 240 V | $I_e$ | A | 4 |
| 380 V 400 V 415 V | $I_e$ | A | 2 |
| **Contacts** | | | |
| N/O = Normally open | | | 2 N/O |
| N/C = Normally closed | | | 2 NC |
| Mounting type | | | Front fixing |
| Contact sequence | | | |

21 31 43 53
22 32 44 54

| | | | |
|---|---|---|---|
| For use with | | | DILEM-10(-G)(…) |
| | | | DILEM-4(-G)(…) |
| | | | DILEEM-10(-G)(…) |
| | | | DILEM12-10(-G)(…) |
| **Instructions** | | | No interlocked opposing mechanism in NO early-makes and NC late-breaks. Auxiliary contact modules with positive acting contacts |

# Technical data

## Auxiliary contacts

| | | | |
|---|---|---|---|
| flexible with ferrule | | | Yes |
| Rated impulse withstand voltage | $U_{imp}$ | V AC | 6000 |
| Overvoltage category/pollution degree | | | III/3 |
| Rated insulation voltage | $U_i$ | V AC | 690 |
| Rated operational voltage | $U_e$ | V AC | 600 |
| Safe isolation to EN 61140 | | | |
| between coil and auxiliary contacts | | V AC | 300 |
| between the auxiliary contacts | | V AC | 300 |
| Rated operational current | | A | |
| Conventional free air thermal current, 3 pole, 50 - 60 Hz | | | |
| Open | | | |
| Conv. thermal current | $I_{th}$ | A | 10 |
| AC-15 | | | |
| 220 V 230 V 240 V | $I_e$ | A | 4 |
| 380 V 400 V 415 V | $I_e$ | A | 2 |
| 500 V | $I_e$ | A | 1.5 |
| DC current | | | |
| DC-13 L/R - 15 ms | | | |
| Contacts in series: | | A | |
| 1 | 24 V | A | 2.5 |
| 2 | 60 V | A | 2.5 |
| 3 | 110 V | A | 1.5 |

| | | | | |
|---|---|---|---|---|
| 3 | | 220 V | A | 0.5 |
| Control circuit reliability (at $U_e$ = 24 V DC, $U_{min}$ = 17 V, $I_{min}$= 5.4 mA) | Failure rate | λ | | $<10^{-8}$, < one failure at 100 million operations |
| Component lifespan at $U_e$ = 240 V | | | | |
| AC-15 | Operations | x $10^6$ | | 0.2 |
| DC | | | | |
| Footnote | | | | Switch-on and switch-off conditions based on DC-13, time constant as specified |
| L/R = 50 ms: 2 contacts in series at $I_e$ = 0.5 A | Operations | x $10^6$ | | 0.15 |
| Short-circuit rating without welding | | | | |
| Maximum overcurrent protective device | | | | |
| Short-circuit protection only | | | | PKZM0-4 |
| Short-circuit protection maximum fuse | | | | |
| 500 V | | | A gG/gL | 6 |
| 500 V | | | A fast | 10 |
| Current heat loss at $I_{th}$ | | | | |
| Per contact | | | W | 0.2 |

## Design verification as per IEC/EN 61439

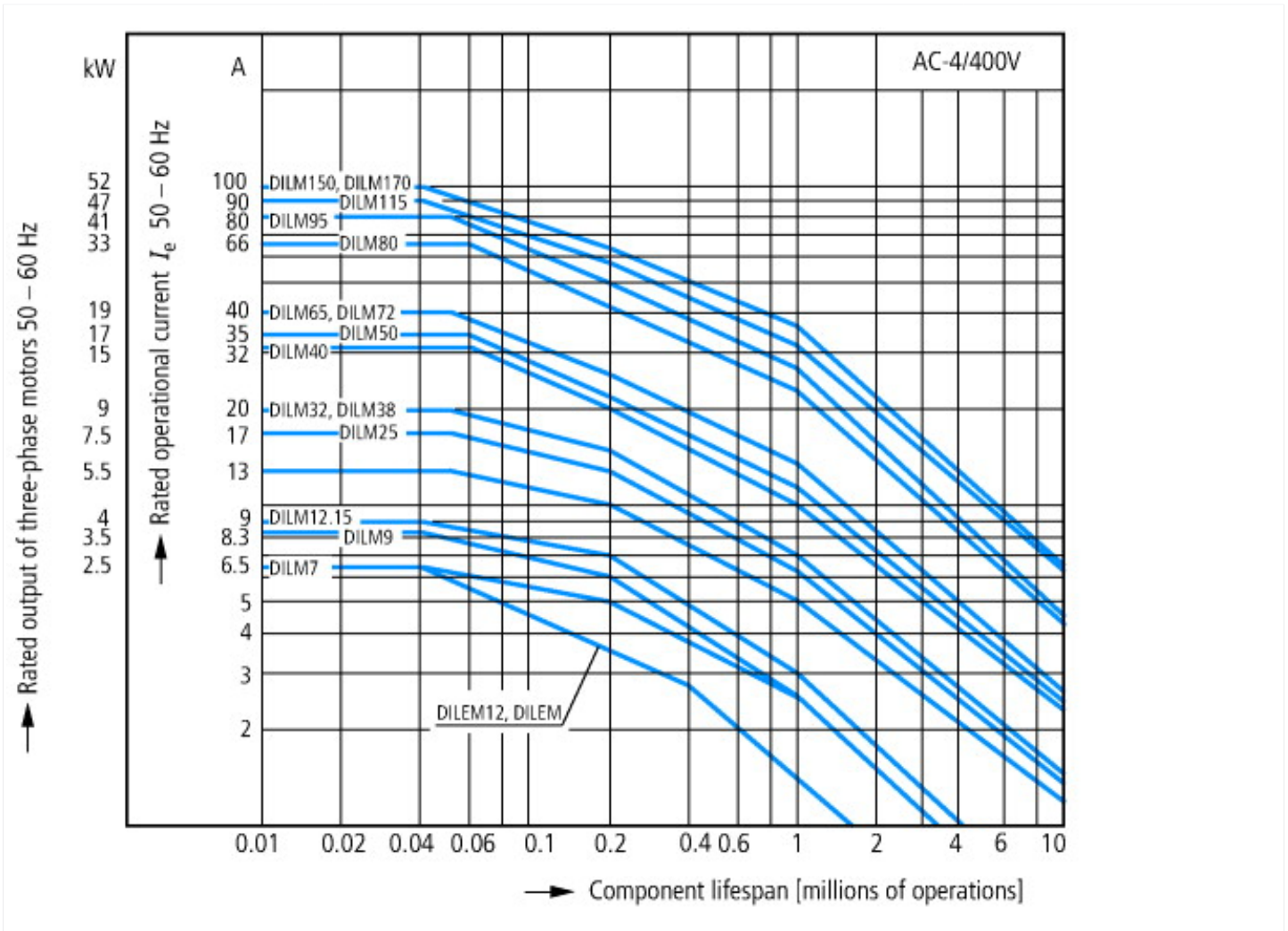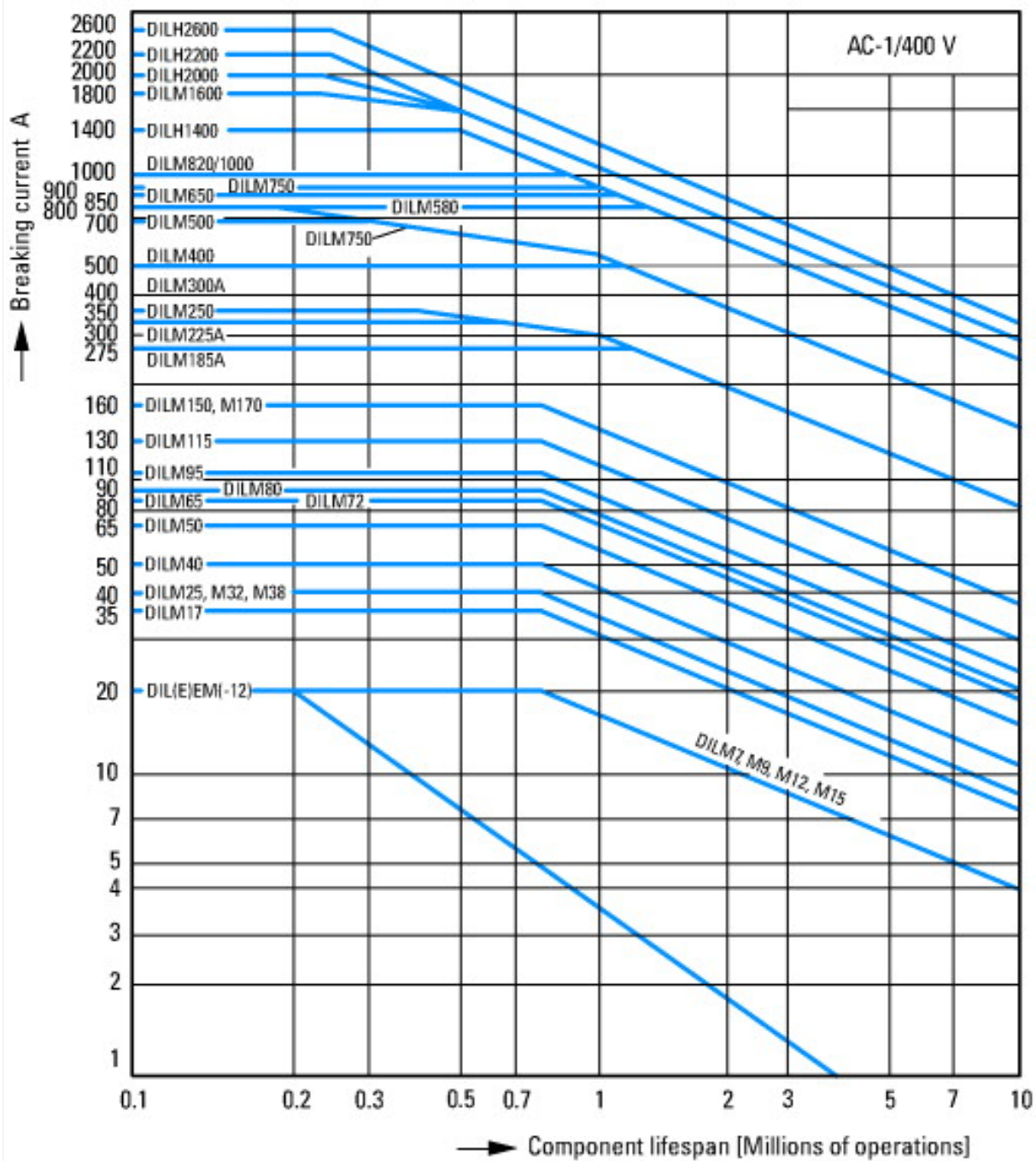| | | | |
|---|---|---|---|
| Technical data for design verification | | | |
| Rated operational current for specified heat dissipation | $I_n$ | A | 4 |
| Heat dissipation per pole, current-dependent | $P_{vid}$ | W | 0.24 |
| Equipment heat dissipation, current-dependent | $P_{vid}$ | W | 0 |
| Static heat dissipation, non-current-dependent | $P_{vs}$ | W | 0 |
| Heat dissipation capacity | $P_{diss}$ | W | 0 |
| Operating ambient temperature min. | | °C | -25 |
| Operating ambient temperature max. | | °C | 50 |
| IEC/EN 61439 design verification | | | |
| 10.2 Strength of materials and parts | | | |
| 10.2.2 Corrosion resistance | | | Meets the product standard's requirements. |
| 10.2.3.1 Verification of thermal stability of enclosures | | | Meets the product standard's requirements. |
| 10.2.3.2 Verification of resistance of insulating materials to normal heat | | | Meets the product standard's requirements. |
| 10.2.3.3 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects | | | Meets the product standard's requirements. |
| 10.2.4 Resistance to ultra-violet (UV) radiation | | | Meets the product standard's requirements. |
| 10.2.5 Lifting | | | Does not apply, since the entire switchgear needs to be evaluated. |
| 10.2.6 Mechanical impact | | | Does not apply, since the entire switchgear needs to be evaluated. |
| 10.2.7 Inscriptions | | | Meets the product standard's requirements. |
| 10.3 Degree of protection of ASSEMBLIES | | | Does not apply, since the entire switchgear needs to be evaluated. |
| 10.4 Clearances and creepage distances | | | Meets the product standard's requirements. |
| 10.5 Protection against electric shock | | | Does not apply, since the entire switchgear needs to be evaluated. |
| 10.6 Incorporation of switching devices and components | | | Does not apply, since the entire switchgear needs to be evaluated. |
| 10.7 Internal electrical circuits and connections | | | Is the panel builder's responsibility. |
| 10.8 Connections for external conductors | | | Is the panel builder's responsibility. |
| 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 6.0

Electric engineering, automation, process control engineering / Low-voltage switch technology / Component for low-voltage switching technology / Auxiliary switch block (ecl@ss8.1-27-37-13-02 [AKN342010])

| | | |
|---|---|---|
| Number of contacts as change-over contact | | 0 |
| Number of contacts as normally open contact | | 2 |
| Number of contacts as normally closed contact | | 2 |
| Rated operation current Ie at AC-15, 230 V | A | 4 |
| Type of electric connection | | Screw connection |
| Model | | Top mounting |
| Mounting method | | Front fastening |

## Approvals

| | | |
|---|---|---|
| Product Standards | | IEC/EN 60947-4-1; UL 508; CSA-C22.2 No. 14-05; CE marking |
| UL File No. | | E29184 |
| UL Category Control No. | | NKCR |
| CSA File No. | | 012528 |
| CSA Class No. | | 3211-03 |
| North America Certification | | UL listed, CSA certified |
| Specially designed for North America | | No |

## Characteristics

The chart shows AC-1/400 V operating characteristics. Y-axis: "Breaking current A" with values 2600, 2200, 2000, 1800, 1400, 1000, 900, 850, 800, 700, 500, 400, 350, 300, 275, 160, 130, 110, 90, 80, 65, 50, 40, 35, 20, 10, 7, 5, 4, 3, 2, 1. X-axis: "Component lifespan [Millions of operations]" with values 0.1, 0.2, 0.3, 0.5, 0.7, 1, 2, 3, 5, 7, 10.

Curve labels: DILH2600, DILH2200, DILH2000, DILM1600, DILH1400, DILM820/1000, DILM650, DILM750, DILM580, DILM500, DILM750, DILM400, DILM300A, DILM250, DILM225A, DILM185A, DILM150, M170, DILM115, DILM95, DILM80, DILM65, DILM72, DILM50, DILM40, DILM25, M32, M38, DILM17, DIL(E)EM(-12), DILM7, M9, M12, M15.
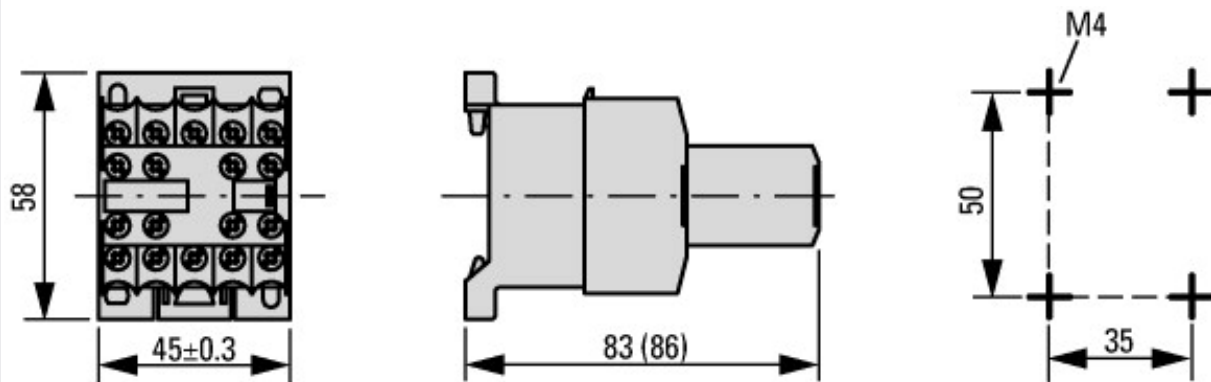
Switching duty for non-motor loads, 3-pole, 4-pole
Operating characteristics
Non-inductive or slightly inductive loads
Electrical characteristics
Make: 1 x rated current
Break: 1 x rated current
Utilization category
100 % AC-1
Typical applications
Electric heat

AC-1/400 V
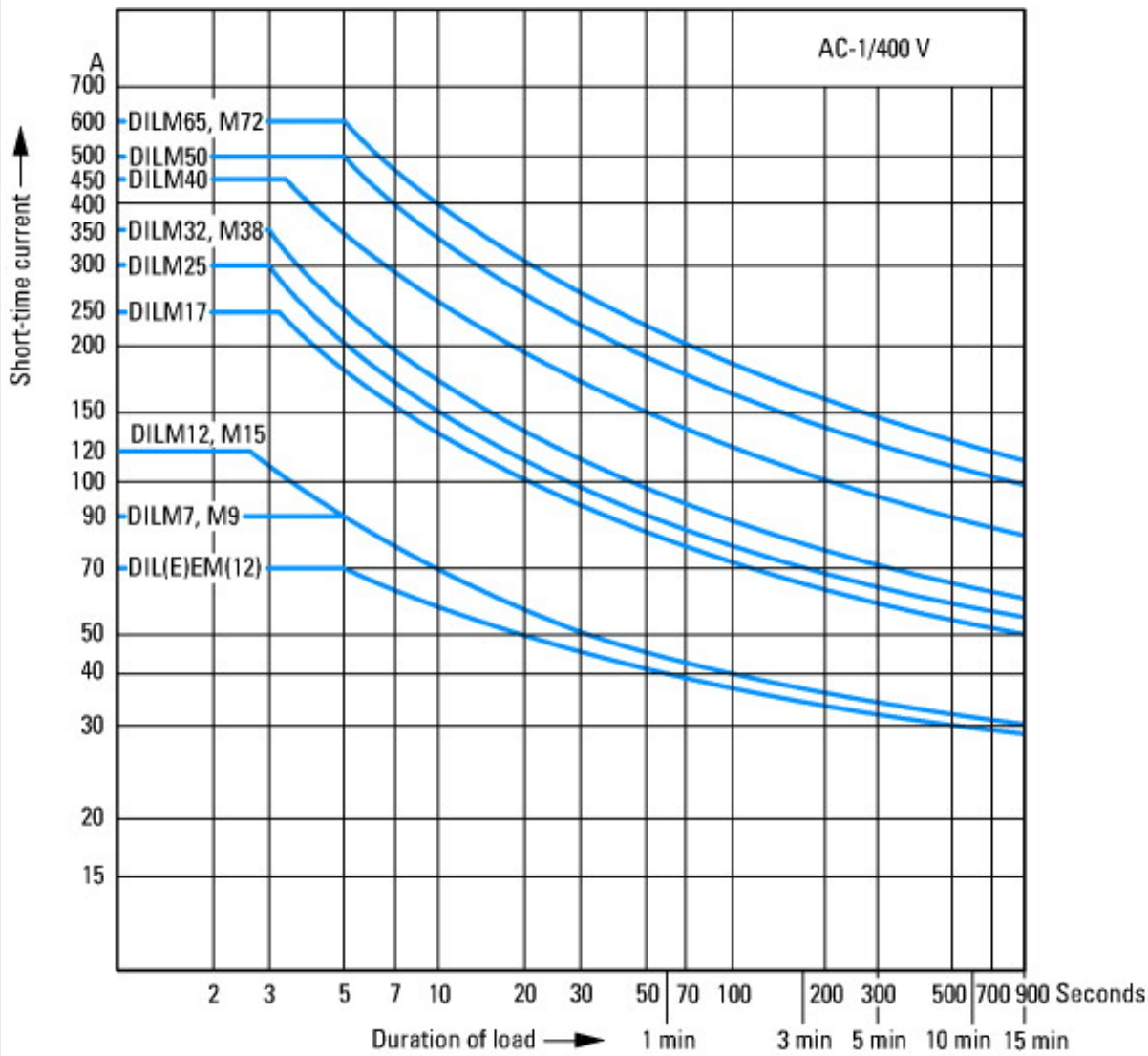
Short-time loading, 3-pole
Time interval between two loading cycles: 15 minutes

## Dimensions



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

## Additional product information (links)

**IL03407009Z (AWA2100-0882) Mini contactor relay**

| | |
|---|---|
| IL03407009Z (AWA2100-0882) Mini contactor relay | ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03407009Z2010_10.pdf |
| UL/CSA: Approved rating data | http://de.ecat.moeller.net/flip-cat/?edition=HPLTE&startpage=5.84 |