



Contactor relay, 4M/00e, AC-operated



Powering Business Worldwide™

Part no.

DILA-40(110V50/60HZ)

Article no.

276335

Delivery programme

Product range			DILA relays
Application			Contactor relays
Description			Basic devices with positive operation contacts
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	4
Contacts			
N/O = Normally open			4 M
Contact sequence			
Code number and version of combination			
Distinctive number			40D
Can be combined with auxiliary contact module			DILA-XHI(V)...
Actuating voltage			110 V 50/60 Hz
Voltage AC/DC			AC operation
Instructions			Contact numbers to EN 50011 Coil terminal markings to EN 50005

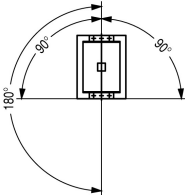
Approvals

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
E29184
NKCR
012528
3211-03
UL listed, CSA certified
No

General

Standards			IEC/EN 60947, VDE 0660, UL, CSA
Lifespan, mechanical			
AC operated	Operations	x 10 ⁶	20
DC operated	Operations	x 10 ⁶	20
Maximum operating frequency		Ops./ h	
Maximum operating frequency		Operations h	9000
Climatic proofing			Damp heat, constant to IEC 60068-2-78 Damp heat, cyclic to IEC 60068-2-30
Ambient temperature		°C	
Open		°C	- 25 - 60
Enclosed		°C	- 25 - 40
Ambient temperature, storage		°C	- 40 - 80
Mounting position			

Mounting position			
Mechanical shock resistance (IEC/EN 60068-2-27)			
Half-sinusoidal shock, 10 ms			
Basic unit with auxiliary contact module		g	
N/O contact		g	7
N/C contact		g	5
Protection type			IP20
Protection against direct contact when actuated from front (EN 50274)			Finger and back-of-hand proof
Weight			
AC operated		kg	0.23
DC operated		kg	0.28
Terminal capacities		mm ²	
Screw terminals			
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
Terminal screw			M3.5
Pozidriv screwdriver		Size	2
Standard screwdriver		mm	0.8 x 5.5 1 x 6
Max. tightening torque		Nm	1.2
Spring-loaded terminals			
Solid		mm ²	1 x (0,75 - 2,5) 2 x (0,75 - 2,5)
Flexible with or without ferrule DIN 46228		mm ²	1 x (0,75 - 1,5) 2 x (0,75 - 1,5)
Solid or stranded		AWG	18 - 14
Standard screwdriver		mm	0.6 x 3.5

Contacts

Positive operating contacts to ZH 1/457, including auxiliary contact module			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	690
Rated operational current		A	
Conventional free air thermal current, 3 pole, 50 - 60 Hz			
Open			
Conv. thermal current	I _{th}	A	16
AC-15			
220 V 230 V 240 V	I _e	A	4
380 V 400 V 415 V	I _e	A	4
500 V	I _e	A	1.5
DC current			
DC-13 L/R - 15 ms			
Contacts in series:		A	
1	24 V	A	10
1	60 V	A	6
2	60 V	A	10

1	110 V	A	3
3	110 V	A	6
1	220 V	A	1
3	220 V	A	5
DC-13 L/R - 50 ms			
Contacts in series:		A	
3	24 V	A	4
3	60 V	A	4
3	110 V	A	2
3	220 V	A	1
Safe isolation to VDE 0106 Part 101 and Part 101/A1			
between coil and auxiliary contacts		V AC	400
between the auxiliary contacts		V AC	400
Conv. thermal current	I_{th}	A	16
Control circuit reliability	Failure rate	λ	$<10^{-8}$, < one failure at 100 million operations (at $U_g = 24$ V DC, $U_{min} = 17$ V, $I_{min} = 5.4$ mA)
Conv. thermal current	I_{th}	A	16
Short-circuit rating without welding			
Maximum overcurrent protective device			
220/240 V		PKZM0	4
380/415 V		PKZM0	4
Short-circuit protection maximum fuse			
500 V		A gG/ gL	10
Current heat loss at I_{th}			
AC operated		W	0.3
DC operated		W	0.3

Magnet systems

Voltage tolerance		x U_c	
AC operated		x U_c	
	Pick-up	x U_c	0.8 - 1.1
DC operated		x U_c	
	Pick-up	x U_c	0.8 - 1.1
at 24 V: without auxiliary contact component (40 °C)	Pick-up	x U_c	0.7 - 1.3
Power consumption			
50 Hz	Pick-up	VA	24
50 Hz	Sealing	VA	3.4
50 Hz	Sealing	W	1.2
60 Hz	Pick-up	VA	30
60 Hz	Sealing	VA	4.4
60 Hz	Sealing	W	1.4
50/60 Hz	Pick-up	VA	27 25
50/60 Hz	Sealing	VA	4.2 3.3
50/60 Hz	Sealing	W	1.4 1.2
DC operated	Pull-in = sealing	W	3
Duty factor		% DF	100
Switching times at 100 % U_c (approximate values)			
AC operated closing delay		ms	15 - 21
AC operated N/O contact opening delay		ms	9 - 18
DC operated closing delay		ms	

Switching times, DC operated, max. closing delay		ms	31
DC operated N/O contact opening delay		ms	
Switching times, DC actuated make contact Opening delay, max.		ms	12

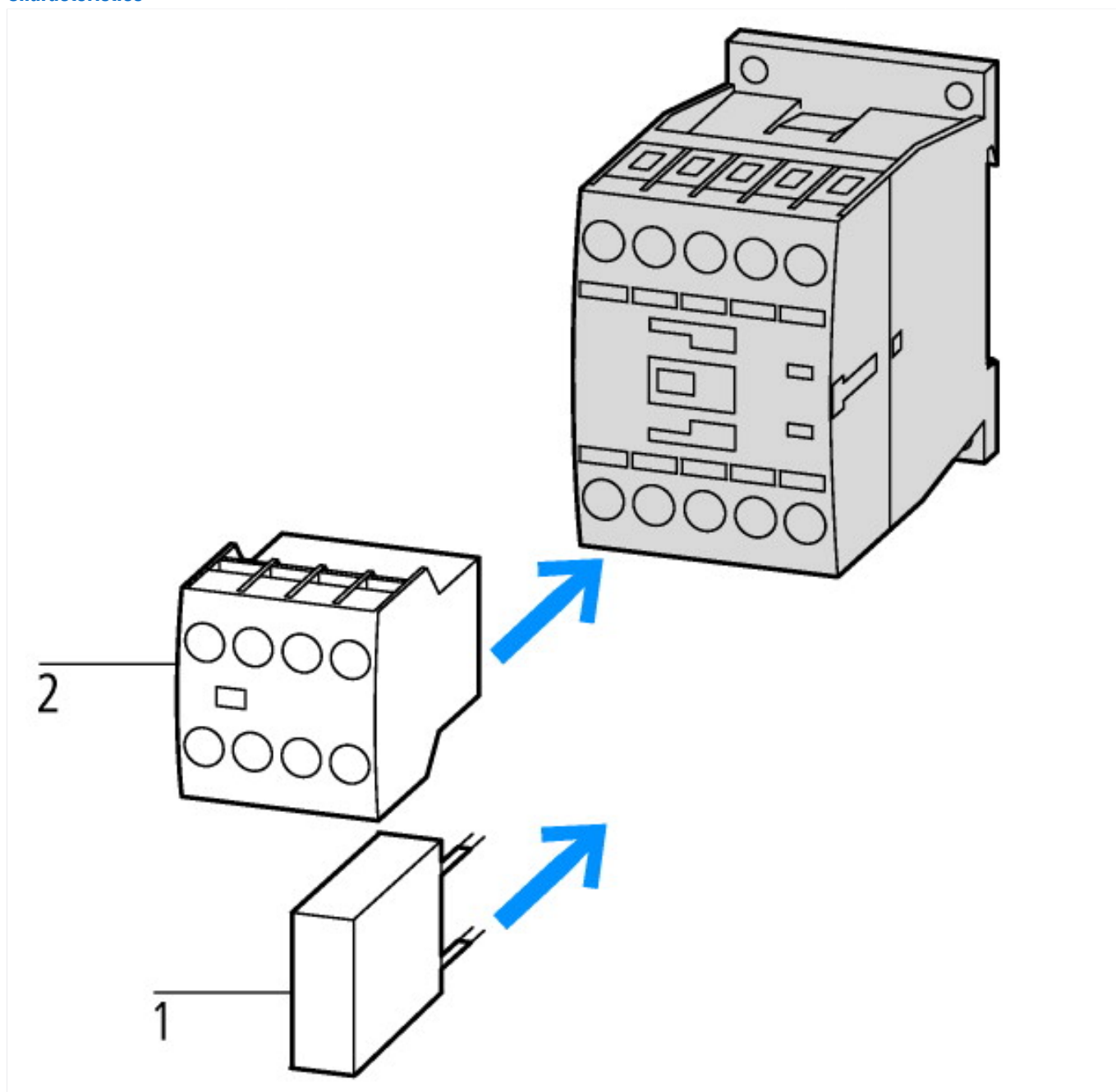
Notes

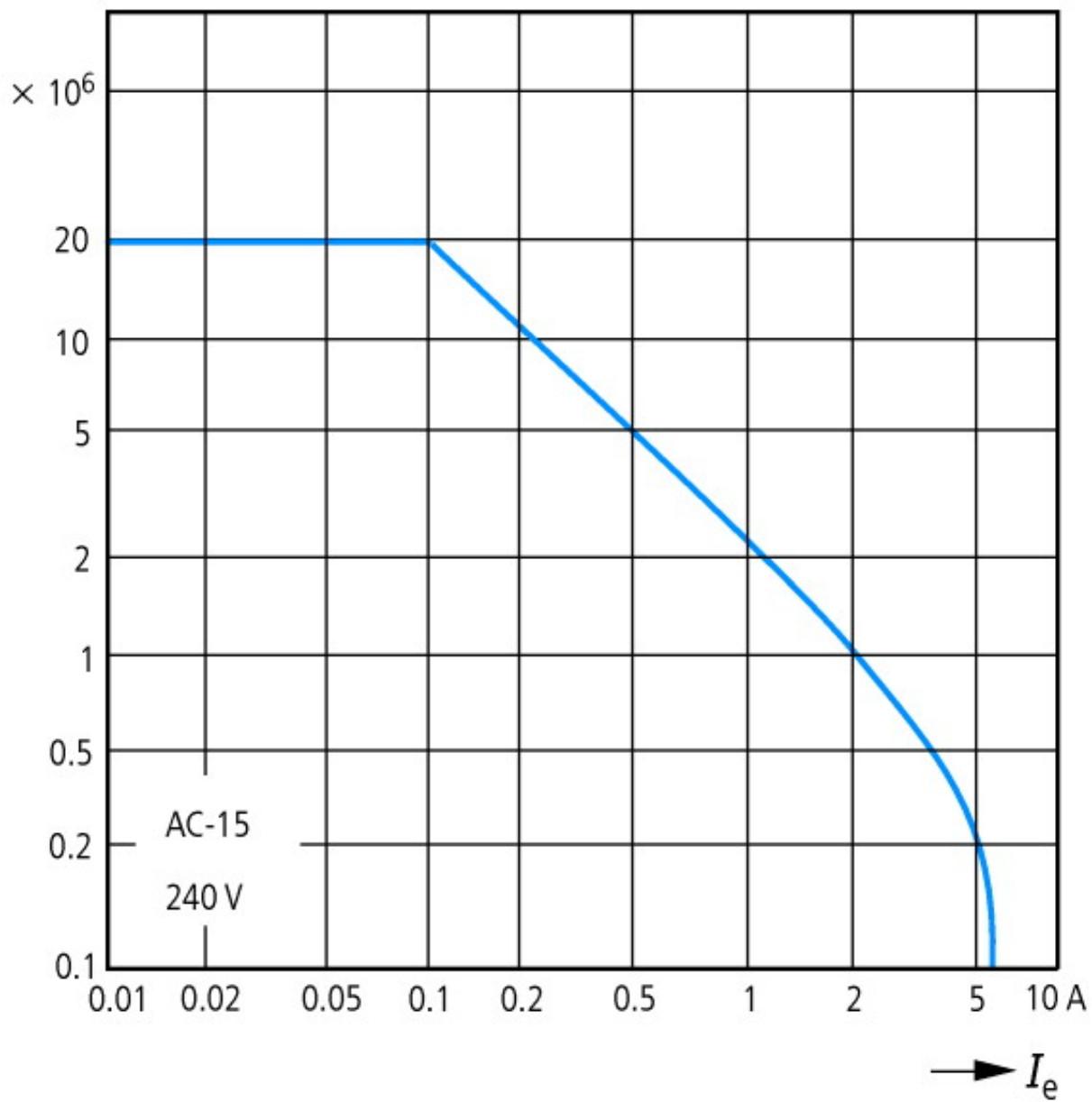
Notes Making and breaking conditions to DC-13, time constant as stated
See transparent overlay "Fuses" for time/current characteristics (please enquire)
Use only equal cross-sections

Technical data ETIM 4.0

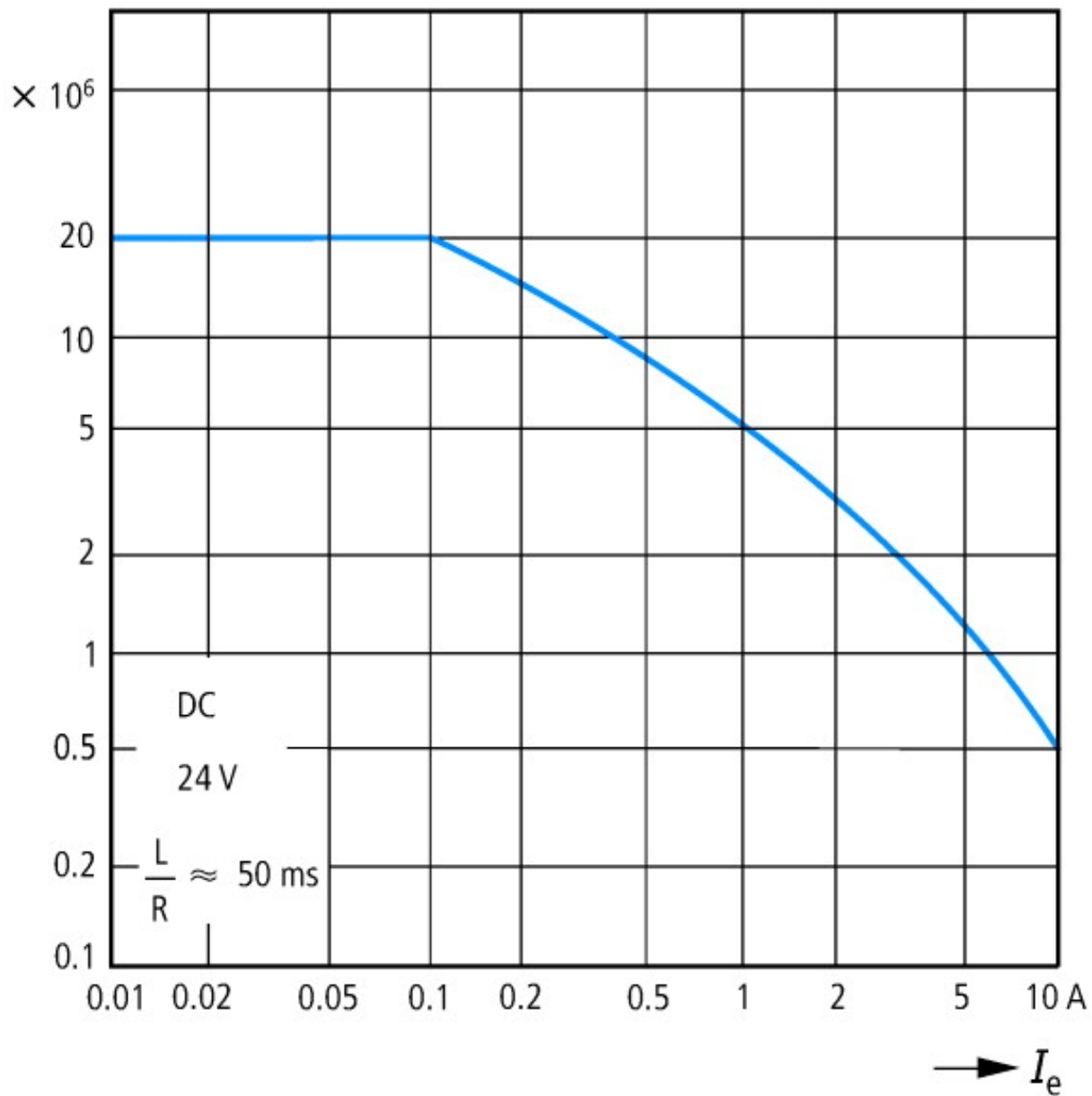
Connection type main circuit			Screw connection
Rated control voltage Us at DC		V	0
Rated control voltage Us at AC 60HZ		V	110
Rated control voltage Us at AC 50HZ		V	110
Number of auxiliary contacts as changeover contacts			0
Rated operation current Ie , 400 V		A	4
Number of auxiliary contacts as N/Cs			0
Number of auxiliary contacts as N/Os			4
Voltage type for actuation			AC
Number of auxiliary contacts as N/Os, leading			0
Number of auxiliary contacts as N/Cs, delayed switching			0

Characteristics



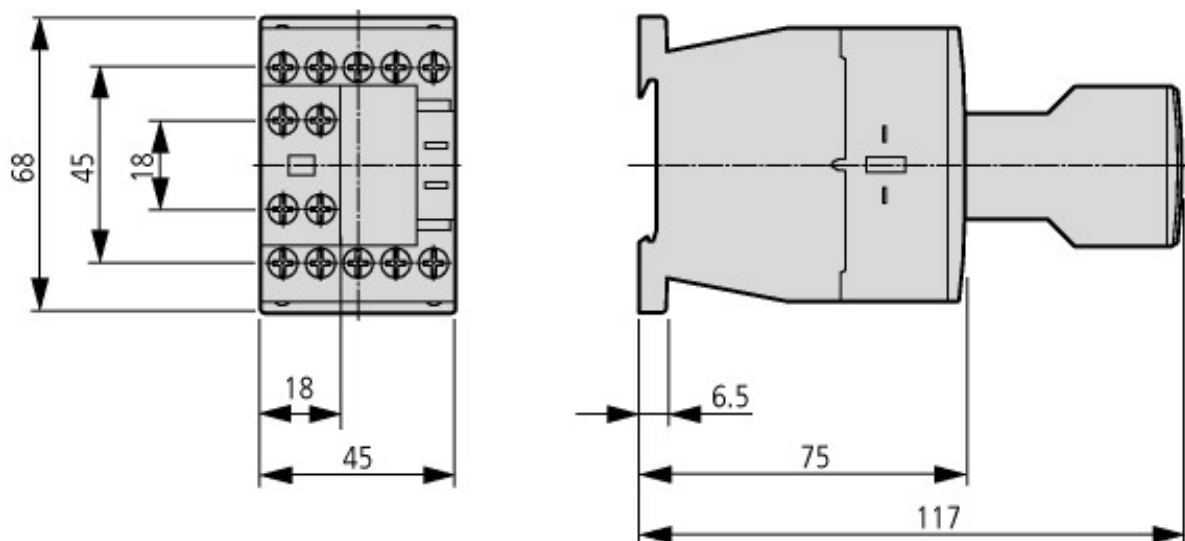


Component lifespan (operations)
 I_e = Rated operational current

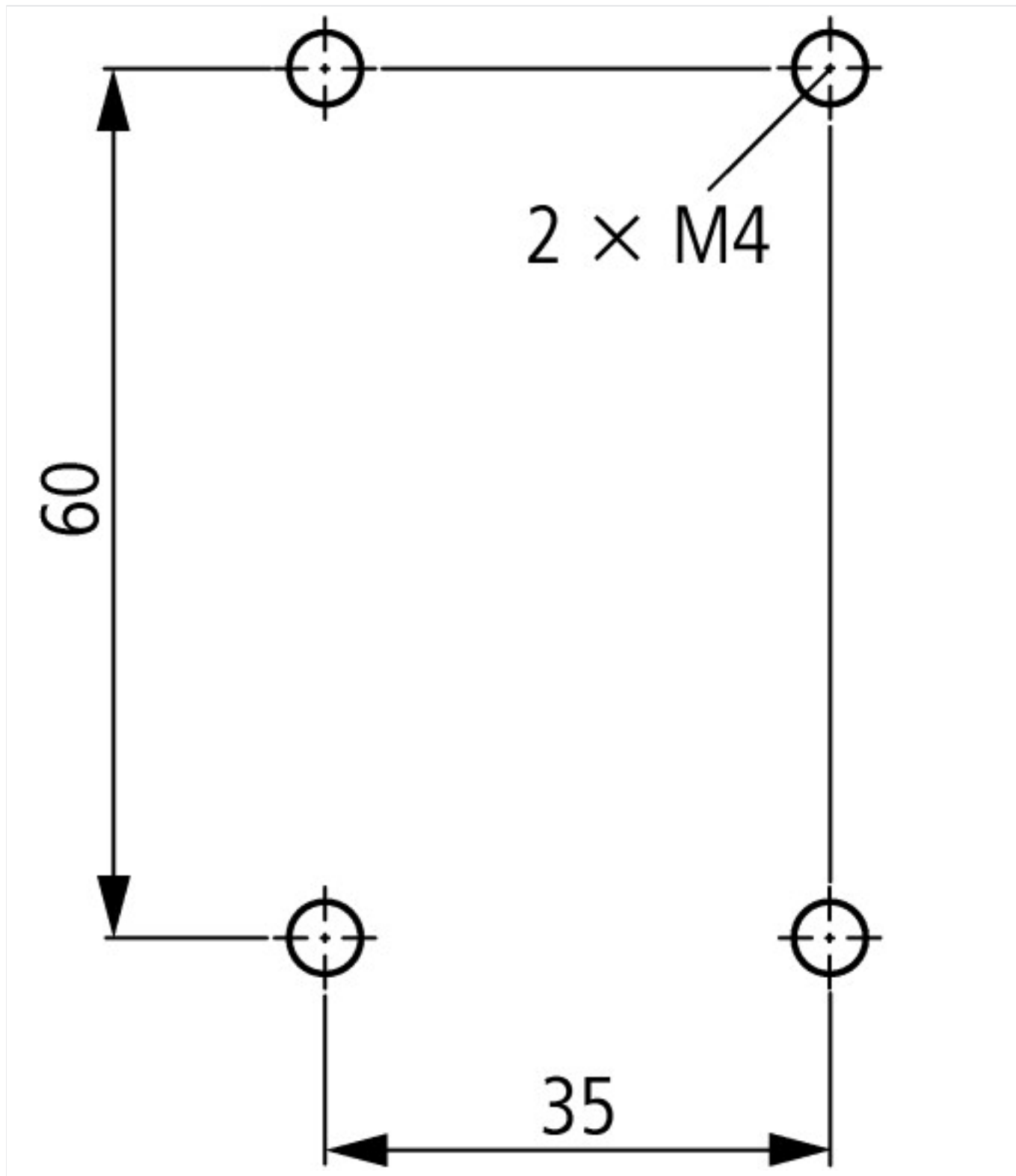


Component lifespan (operations)
 I_e = Rated operational current

Dimensions



Contactor with auxiliary contact module



Additional product information (links)

IL03407013Z (AWA2100-2126) Contactors

IL03407013Z (AWA2100-2126)
Contactors

ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03407013Z2012_03.pdf

<http://de.ecat.moeller.net/flip-cat/?edition=HPLTE&startpage=5.84>