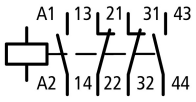
Mini contactor relay,2NO/2NC,DC operated

Part no. DILER-22-G(24VDC)

Article no. 010042

Powering Business Worldwide™

Program

Product range				DILER Mini-contactors
Application				Contactor relays
Connection technique				Screw terminals
Rated operational current				
AC-15				
220 V 230 V 240 V		I_e	A	6
380 V 400 V 415 V		I_e	A	3
Conv. thermal current		I_{th}	A	10
Contacts				
N/O = Normally open				2 N/O
N/C = Normally closed				2 N/C
Contact sequence				
For use with				-
Actuating voltage				24 V DC
Voltage AC/DC				DC operation
Code number and version of combination				
Distinctive number				22E

Auxiliary contact module				
Interlocked opposing contacts		22E		Conforms to EN 50011 - terminal markings of the coil according to EN 50005
Interlocked opposing contacts	02DILE	24		EN 50005
Interlocked opposing contacts	04DILE	26		EN 50005
Interlocked opposing contacts	11DILE	33		EN 50005
1 early-make contact, 1 late-break contact	11DDILE	33		EN 50005
Interlocked opposing contacts	13DILE	35		EN 50005
Interlocked opposing contacts	20DILE	42		EN 50005
Interlocked opposing contacts	22DILE	44		EN 50005
1 early-make contact, 1 late-break contact	22DDILE	44		EN 50005
Interlocked opposing contacts	31DILE	53		EN 50005
Interlocked opposing contacts	40DILE	62		EN 50005

InstructionsContact numbers to EN 50011
Coil terminal markings to EN 50005
Integrated diode-resistor combination
Coil rating 2.6 W

Approbationen

UL approval	Yes
CSA approval	Yes
Product Standards	IEC/EN 60947-4-1; UL 508; CSA-C22.2 No. 14-05; CE marking
UL File No.	E29184
UL CCN	NKCR
CSA File No.	012528
CSA Class No.	3211-03
NA Certification	UL listed, CSA certified
Specially designed for NA	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	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
Climatic proofing			Damp heat, constant, to IEC 60068-2-78; Damp heat, cyclical, to IEC 60068-2-30
Ambient temperature		°C	
Open		°C	- 25 - 50
Enclosed		°C	- 25 - 40
Mounting position			
Mounting position			As required, except vertical with terminals A1/A2 at the bottom
Mechanical shock resistance (IEC/EN 60068-2-27)			
Half-sinusoidal shock, 10 ms			
Basic unit with auxiliary contact module		g	
N/O contact		g	10
N/C contact		g	8
Protection type			IP20
Protection against direct contact when actuated from front (EN 90274)			Finger and back-of-hand proof
Weight			
AC operated		kg	0.17
DC operated		kg	0.2
Terminal capacities		mm^2	
Screw terminals			
Solid		mm^2	1 x (0.75 - 2.5) 2 x (0.75 - 2.5)
Flexible with ferrule		mm^2	1 x (0.75 - 1.5) 2 x (0.75 - 1.5)
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 (1 - 2.5) 2 x (1 - 2.5)
Flexible with or without ferrule DIN 46228		mm^2	1 x (1 - 2.5) 2 x (1 - 2.5)
Solid or stranded		AWG	1 x (16 - 14) 2 x (16 - 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	600
Safe isolation to VDE 0106 Part 101 and Part 101/A1			
between coil and auxiliary contacts		V AC	300
between the auxiliary contacts		V AC	300
Rated operational current	I_e	A	
AC-15			

220/240 V	I_e	A	6
380/415 V	I_e	A	3
500 V	I_e	A	1.5
DC-13			
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
Conv. thermal current	I_{th}	A	10
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	6
500 V		A fast	10
Current heat loss at I_{th}			
AC operated		W	0.2
DC operated		W	0.3

Magnet systems

Voltage tolerance		x U_c	
AC operated		x U_c	
Single-voltage coil 50 Hz and dual-voltage coil 50 Hz, 60 Hz	Pick-up	x U_c	0.8 - 1.1
Dual-frequency coil 50/60 Hz	Pick-up	x U_c	0.85 - 1.1
DC operated		x U_c	
Pick-up voltage	Pick-up	x U_c	0.85 - 1.3
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	25
50 Hz	Sealing	VA	4.6
50 Hz	Sealing	W	1.3
60 Hz	Pick-up	VA	25
60 Hz	Sealing	VA	4.6
60 Hz	Sealing	W	1.3
50/60 Hz	Pick-up	VA	30 29
50/60 Hz	Sealing	VA	5.4 3.9
50/60 Hz	Sealing	W	1.6 1.1
DC operated	Pull-in = sealing	W	2.6
Duty factor		% DF	100
Switching times at 100 % U_c (approximate values)			
AC operated closing delay		ms	14 - 21
AC operated N/O contact opening delay		ms	8 - 18
AC operated With auxiliary contact module Max. closing delay		ms	45
DC operated closing delay		ms	26 - 35
DC operated N/O contact opening delay		ms	15 - 25
DC operated With auxiliary contact module Max. closing delay		ms	70

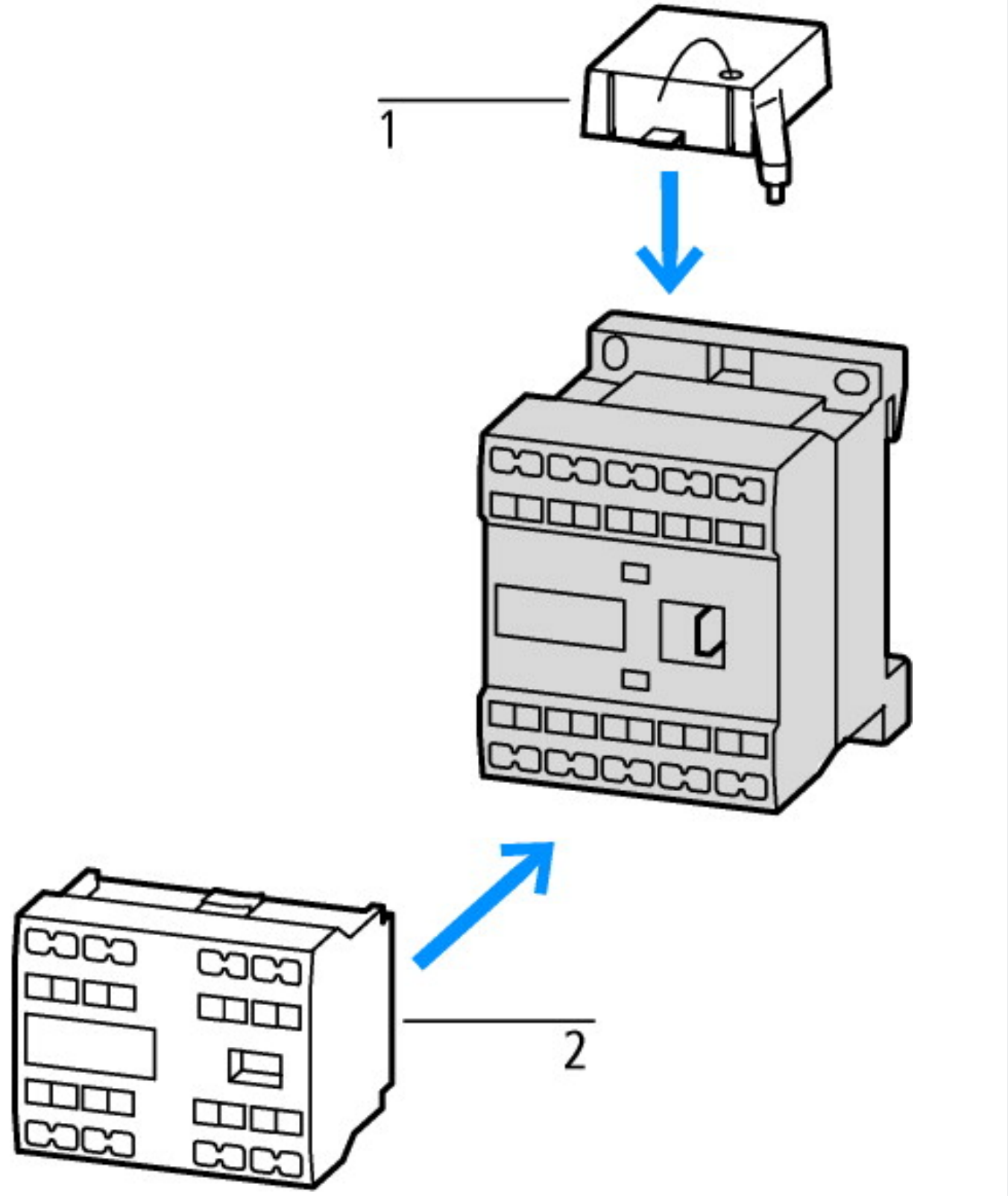
Notes

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

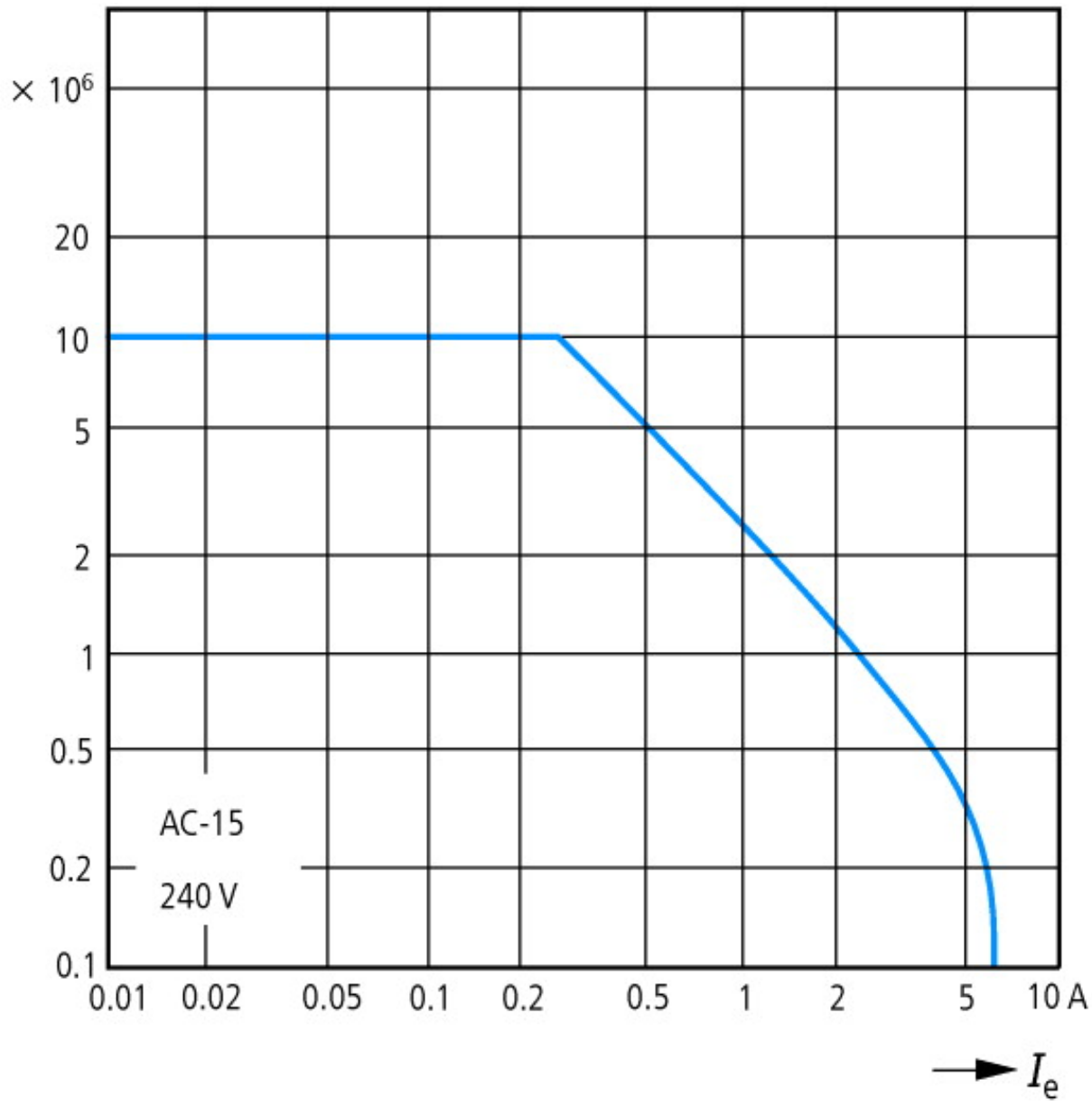
Technical data according to ETIM 4.0

Connection type main circuit			Screw connection
Rated control voltage Us at DC		V	24
Rated control voltage Us at AC 60HZ		V	0
Rated control voltage Us at AC 50HZ		V	0
Number of auxiliary contacts as changeover contacts			0
Rated operation current Ie , 400 V		A	3
Number of auxiliary contacts as N/Cs			2
Number of auxiliary contacts as N/Os			2
Voltage type for actuation			DC
Number of auxiliary contacts as N/Os, leading			0
Number of auxiliary contacts as N/Cs, delayed switching			0

Characteristics



1: Suppressor
2: Auxiliary contact module



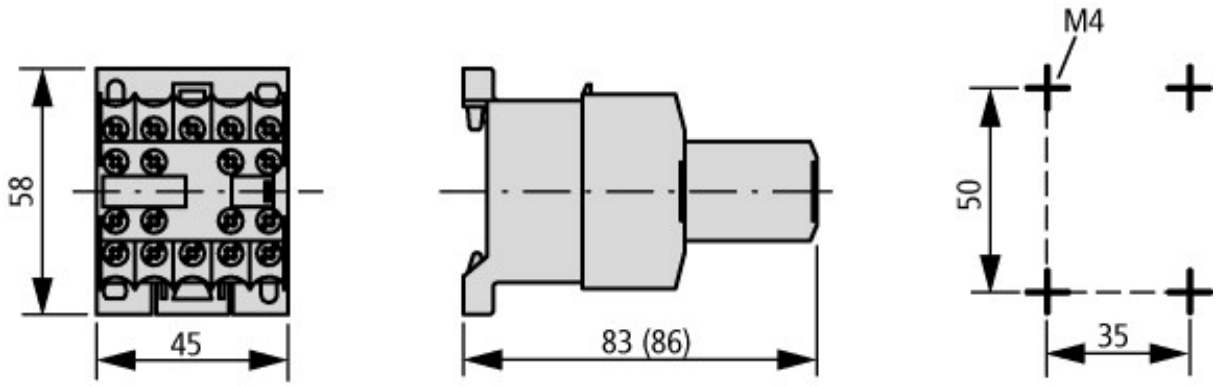
Component lifespan (operations)
Ie = Rated operational current

CAD-Data

Product standards CAD data: http://eaton-moeller.partcommunity.com

Dimensions

DILER-…
DILER-…-G



DILER-... + ...DILE
DILER-...-G + ...DILE

Additional product information (links)

IL03407009Z (IL03407009Z) Mini contactor relay	ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03407009Z2010_10.pdf