



Contactor relay, 4N/O, DC current

Part no. DILER-40-G(110VDC)
Article no. 010287
Catalog No. XTRM10A40E0

Delivery program

Product range			DILER Mini-contactors
Application			Contactor relays
Description			with interlocked opposing contacts
Connection technique			Screw terminals
Rated operational current			
Conventional free air thermal current, 3 pole, 50 - 60 Hz			
Open			
at 50 °C	$I_{th} = I_e$	A	10
AC-15			
220 V 230 V 240 V	I_e	A	6
380 V 400 V 415 V	I_e	A	3
Contacts			
N/O = Normally open			4 N/O
Contact sequence			
Code number and version of combination			
Distinctive number			40 E
For use with			...DILE
Actuating voltage			110 V DC
Voltage AC/DC			DC operation
Instructions			Contact numbers to EN 50011 Coil terminal markings to EN 50005 Integrated diode-resistor combination Coil rating 2.6 W

Technical data

General			
Standards			IEC/EN 60947, VDE 0660, UL, CSA
Lifespan, mechanical			
DC operated	Operations	$\times 10^6$	20
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			
Open		°C	-25 - +50
Enclosed		°C	- 25 - 40
Mounting position			
Mounting position			As required, except vertical with terminals A1/A2 at the bottom
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	10
N/C contact		g	8
Degree of Protection			IP20
Protection against direct contact when actuated from front (EN 50274)			Finger and back-of-hand proof
Weight			
DC operated		kg	0.2
Terminal capacities			
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

Contacts

Positive operating contacts to EN 60947-5-1 appendix L, 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 EN 61140			
between coil and auxiliary contacts		V AC	300
between the auxiliary contacts		V AC	300
Rated operational current			
Conventional free air thermal current, 3 pole, 50 - 60 Hz			
Open			
at 50 °C	$I_{th} = I_e$	A	10
AC-15			
220 V 230 V 240 V	I_e	A	6
380 V 400 V 415 V	I_e	A	3
500 V	I_e	A	1.5
DC current			
Notes			Switch-on and switch-off conditions based on DC-13, time constant as specified.
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			
Failure rate	λ		$<10^{-8}$, < one failure at 100 million operations (at $U_e = 24$ V DC, $U_{min} = 17$ V, $I_{min} = 5.4$ mA)
Short-circuit rating without welding			
Maximum overcurrent protective device			
220 V 230 V 240 V		PKZM0	4
380 V 400 V 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}			
DC operated		W	0.3
Magnet systems			
Voltage tolerance			
DC operated			
Notes			Smoothed DC, three-phase bridge rectifiers or smoothed double-wave rectification
Pick-up voltage			0.85 1.3
at 24 V: without auxiliary contact component (40 °C)	Pick-up	x U_c	0.7 - 1.3
Power consumption			
DC operation			
Power consumption Pick-up = Sealing		VA/W	2.6
duty factor		% DF	100
Changeover time at 100 % U_c (recommended value)			
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

Design verification as per IEC/EN 61439

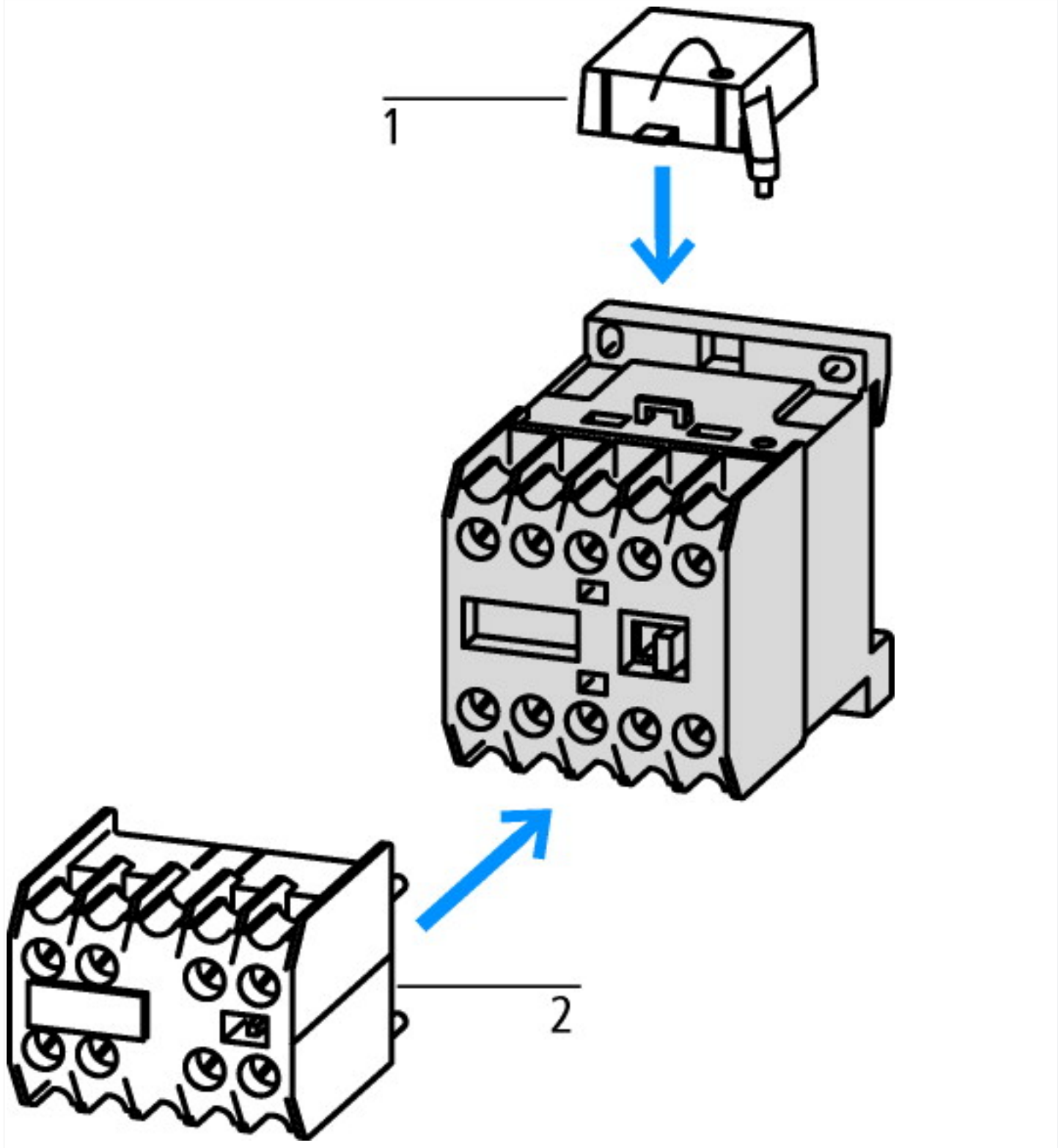
Technical data for design verification			
Rated operational current for specified heat dissipation	I_n	A	6
Heat dissipation per pole, current-dependent	P_{vid}	W	0.4
Equipment heat dissipation, current-dependent	P_{vid}	W	0
Static heat dissipation, non-current-dependent	P_{vs}	W	2.3
Heat dissipation 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			
10.2.2.1 Verification of thermal stability of enclosures			
10.2.2.2 Verification of resistance of insulating materials to normal heat			
10.2.2.3 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects			
10.2.4 Resistance to ultra-violet (UV) radiation			
10.2.5 Lifting			
10.2.6 Mechanical impact			
10.2.7 Inscriptions			
10.3 Degree of protection of ASSEMBLIES			
10.4 Clearances and creepage distances			
10.5 Protection against electric shock			
10.6 Incorporation of switching devices and components			
10.7 Internal electrical circuits and connections			
10.8 Connections for external conductors			
10.9 Insulation properties			
10.9.2 Power-frequency electric strength			
10.9.3 Impulse withstand voltage			
10.9.4 Testing of enclosures made of insulating material			
10.10 Temperature rise			
10.11 Short-circuit rating			
10.12 Electromagnetic compatibility			
10.13 Mechanical function			

Technical data ETIM 6.0

Low-voltage industrial components (EG000017) / Contactor relay (EC000196)		
Electric engineering, automation, process control engineering / Low-voltage switch technology / Contactor (LV) / Contactor relay (ecl@ss8.1-27-37-10-01 [AAB716011])		
Rated control supply voltage Us at AC 50HZ	V	0 - 0
Rated control supply voltage Us at AC 60HZ	V	0 - 0
Rated control supply voltage Us at DC	V	110 - 110
Voltage type for actuating		DC
Rated operation current Ie , 400 V	A	3
Connection type auxiliary circuit		Screw connection
Mounting method		DIN-rail/screw
Interface		No
Number of auxiliary contacts as normally closed contact		0
Number of auxiliary contacts as normally open contact		4
Number of auxiliary contacts as normally closed contact, delayed switching		0
Number of auxiliary contacts as normally open contact, leading		0
With LED indication		No
Number of auxiliary contacts as change-over contact		0
Manual operation possible		No

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



1: Suppressor
2: Auxiliary contact module



Component lifespan (operations)
 I_e = Rated operational current

Dimensions



DILER: ...
 DILER: ...-G(-C)



DILER-...(-C) + ...DILE(-C)
 DILER-...-G(-C) + ...DILE(-C)



2DILE-... + MVDILE + ...DILE
 2DILE-...-G + MVDILE + ...DILE

Additional product information (links)

IL03407009Z (AWA2100-0882) Mini contactor relay

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ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03407009Z2016_03.pdf

UL/CSA: Approved rating data

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