DATASHEET - DILA-22(24VDC)



Contactor relay, 24 V DC, 2 N/O, 2 NC, Screw terminals, DC operation

Part no. DILA-22(24VDC) Catalog No. 276414

Alternate Catalog XTRE10B22TD

No

EL-Nummer 4130211

(Norway)



6

Similar to illustration

Delivery program			
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	Α	4
380 V 400 V 415 V	I _e	Α	4
Contacts			
N/O = Normally open			2 N/O
N/C = Normally closed			2 NC
Contact sequence			A1 13 21 31 43 — A2 14 22 32 44
Code number and version of combination			
Distinctive number			22E
Can be combined with auxiliary contact module			DILA-XHI(V) nicht mit DILA-XHI, 4-polig
Actuating voltage			24 V DC
Voltage AC/DC			DC operation
Suppressor circuit			built-in
Connection to SmartWire-DT			yes in conjunction with DIL-SWD SmartWire DT contactor module
Instructions			Contact numbers to EN 50011 Coil terminal markings to EN 50005 built-in suppressor circuit' Integrated varistor suppressor circuit.

Technical data

General			
Standards			IEC/EN 60947, EN 60947-5-1, VDE 0660, UL, CSA
Lifespan, mechanical			
DC operated	Operations	x 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 - +60
Enclosed		°C	- 25 - 40
Ambient temperature, storage		°C	- 40 - 80
Mounting position			

Machanical soice resistance (RCPA MURIGE 2.79) #initial annualidad shoot, 10 ms Raise can with auxiliary consister medicia **No Consist**	W 2 2			
Position content and allock 10 ms 9 ms 1 ms	Mounting position			
Month description and another centest module	M. J.			34
Part				
NC contact Ougree of Protection Ougree of Protection againet direct contact when actuated from front (EN 50724) 720				
No Contact Protection September Protection P				
Depend of Protection Protection against direct contact when actuated from front (EM 5874) Image: seed to back-off hand proof Protection against direct contact when actuated from front (EM 5874) Image: seed to back-off hand proof Rev. 200 Whight Image: seed to provide the control of EM 58744 Image: seed to provide the control of EM 58744 Image: seed to provide the control of EM 58744 Image: seed to provide the control of EM 58744 Image: seed to provide the control of EM 58744 Image: seed to provide the control of EM 58744				
Protection regained direct contents when actained from from (FIN 5074) 1			g	
Miles				
Negret N			m	
DC operated			III	Wax. 2000
Remainal capacities			ka	0.704
				U.234
Solid or stranded			mm²	
Floxible with formule			2	1(0.75 4)
Solid or stranded				2 x (0,75 - 2,5)
Stripping length mm 10 Terminal screw M3.5 Pooldr's screwdriver Size 2 Standard screwdriver Size 10 Max tightening torque Wm 03 x 5.5 1 x 6 Max tightening torque Ump VAC 6000 Contacts Positive operating contacts to ZH 1/457, including auxiliary contact module VAC 6000 Rated impulse withstand voltage Uj VAC 6000 Overvoltage category/pollution degree Uj VAC 600 Rated operational voltage Uj VAC 690 Rated operational voltage Uj VAC 690 Safe isolation to EN 61140 VAC 400 between toil and auxiliary contacts VAC 400 Rated operational current A 16 AC-15 Implication of En 61140 Implication of En 61140 Implication of En 61140 Open Implication of En 61140 Implication of En 61140 Implication of En 61140 AC-15 Implication of En	Flexible with ferrule		mm ²	
Terminal screw			AWG	18 - 14
Pozidniv screwdriver Standard screwdriver Max. tightening torque			mm	
Standard screwdriver Nax tightening torque Nax tightening contacts to ZH 1/457, including auxiliary contact module Nax tightening contacts to ZH 1/457, including auxiliary contact module Nax tightening contacts to ZH 1/457, including auxiliary contact module Nax tightening contacts to ZH 1/457, including auxiliary contact module Nax tightening voltage Nax				
Max. tightening torque 1x6 Contacts 78 1.2 Positive operating contacts to ZH 1/457, including auxiliary contact module Yes Rated impulse withstand voltage Uimp VAC 6000 Overvoltage category/pollution degree III/3 III/3 Rated operational voltage Ui VAC 690 Rated operational voltage Ui VAC 690 Safe isolation to En 61140 VAC 400 Debtween coil and auxiliary contacts VAC 400 between the auxiliary contacts VAC 400 between the auxiliary contacts VAC 400 Open A 16 AC-15 A 16 AC-15 A 4 AC-15 A 4 220 V 230 V 240 V Iq A 4 500 V Iq A 4 500 V Iq A 1.5 Contacts in series: Iq A 1.5 Contacts in series:	Pozidriv screwdriver		Size	2
Contacts Positive operating contacts to 2H 1/457, including auxiliary contact module Ves Yes Rated impulse withstand voltage U _{imp} V AC 6000 Overvoltage category/pollution degree III/3 III/3 Rated insulation voltage U _i V AC 690 Rated operational voltage U _i V AC 690 Safe isolation to EN 61140 V AC 400 between coil and auxiliary contacts V AC 400 Rated operational current V AC 400 Conventional free air thermal current, 1 pole V AC 400 Open I I I I I I I I I I I I I I I I I I I	Standard screwdriver		mm	
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220 V 230 V 240 V Ie A 4 380 V 400 V 415 V Ie A 4 500 V Ie A 1.5 DC current Switch-on and switch-off conditions based on DC-13, time constant as specified. DC L/R ≤ 15 ms A Switch-on and switch-off conditions based on DC-13, time constant as specified. 1 24 V A 10 1 60 V A 6 2 60 V A 10 1 10 V A 10 1 10 V A 3	at 60 °C	$I_{th} = I_e$	Α	16
380 V 400 V 415 V I _e A 4 500 V I _e A 1.5 DC current Notes Switch-on and switch-off conditions based on DC-13, time constant as specified. DC L/R ≤ 15 ms A Contacts in series: 1 24 V A 10 1 60 V A 6 2 60 V A 10 1 10 V A 3	AC-15			
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DC L/R ≤ 15 ms A Contacts in series: A 1 24 V A 10 1 60 V A 6 2 60 V A 10 1 110 V A 3	DC current			
Contacts in series: A 1 24 V A 10 1 60 V A 6 2 60 V A 10 1 110 V A 3	Notes			Switch-on and switch-off conditions based on DC-13, time constant as specified.
1 24 V A 10 1 60 V A 6 2 60 V A 10 1 10 V A 3	DC L/R ≦ 15 ms			
1 60 V A 6 2 60 V A 10 1 110 V A 3	Contacts in series:		Α	
2 60 V A 10 110 V A 3	1	24 V	Α	10
1 110 V A 3	1	60 V	Α	6
	2	60 V	Α	10
2 110V A C	1	110 V	Α	3
JIIIV A b	3	110 V	Α	6
1 220 V A 1	1	220 V	Α	1

3	220 V	Α	5
DC L/R ≦ 50 ms			
Contacts in series:		Α	
3	24 V	Α	4
3	60 V	Α	4
3	110 V	Α	2
3	220 V	Α	1
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	10
Current heat loss at I _{th}			
DC operated		W	0.85
Magnet systems			
Voltage tolerance			
DC operated			
Notes			Smoothed DC, three-phase bridge rectifiers or smoothed double-wave rectification
Pick-up voltage			0.8 - 1.1
at 24 V: without auxiliary contact component (40 °C)	Pick-up	$x\; U_c$	0.7 - 1.3
Power consumption			
DC operation			
DC operated	Pull-in = sealing	W	3
duty factor		% DF	100
Changeover time at 100 % U_{S} (recommended value)			
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
Rating data for approved types			
Auxiliary contacts			
Pilot Duty			
AC operated			A600
DC operated			P300
General Use			
AC		V	600

Auxiliary contacts		
Pilot Duty		
AC operated		A600
DC operated		P300
General Use		
AC	V	600
AC	Α	15
DC	V	250
DC	Α	1

Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	15.5
Heat dissipation per pole, current-dependent	P _{vid}	W	1
Equipment heat dissipation, current-dependent	P _{vid}	W	0
Static heat dissipation, non-current-dependent	P _{vs}	W	3
Heat dissipation capacity	P _{diss}	W	0
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	60
IEC/EN 61439 design verification			
10.2 Strength of materials and parts			
10.2.2 Corrosion resistance			Meets the product standard's requirements.

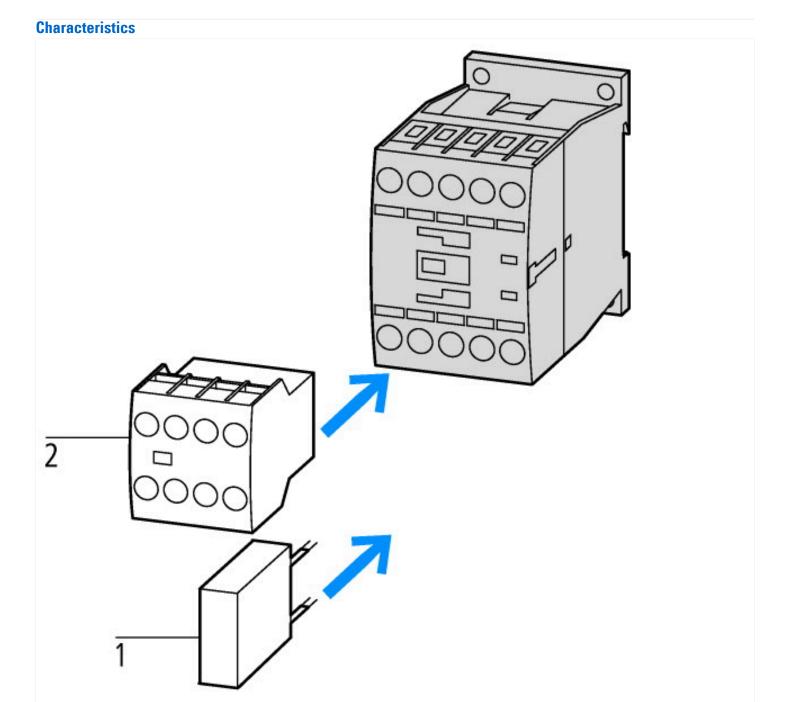
10.2.3.1 Verification of thermal stability of enclosures	Meets the product standard's requirements.
10.2.3.2 Verification of resistance of insulating materials to normal heat	Meets the product standard's requirements.
10.2.3.3 Verification of resistance of insulating materials to abnormal heat and fire 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 8.0

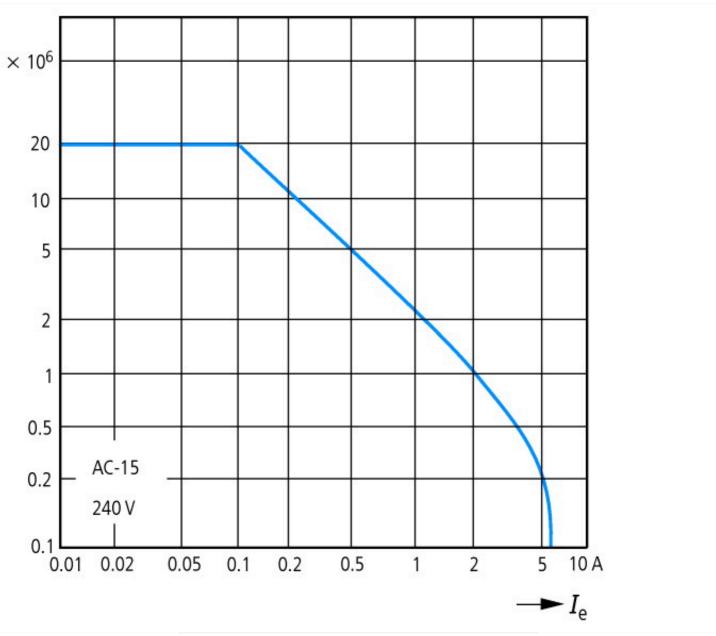
Low-voltage industrial components (EG000017) / Contactor relay (EC000196)				
Electric engineering, automation, process control engineering / Low-voltage switch technology / Contactor (LV) / Contactor relay (ecl@ss10.0.1-27-37-10-01 [AAB716014])				
Rated control supply voltage Us at AC 50HZ		V	0 - 0	
Rated control supply voltage Us at AC 60HZ		V	0 - 0	
Rated control supply voltage Us at DC		V	24 - 24	
Voltage type for actuating			DC	
Rated operation current le, 400 V		Α	4	
Connection type auxiliary circuit			Screw connection	
Mounting method			DIN-rail/screw	
Interface			No	
Number of auxiliary contacts as normally closed contact			2	
Number of auxiliary contacts as normally open contact			2	
Number of auxiliary contacts as normally closed contact, delayed switching			0	
Number of auxiliary contacts as normally open contact, leading			0	
Number of auxiliary contacts as change-over contact			0	
With LED indication			No	
Suitable for manual operation			No	

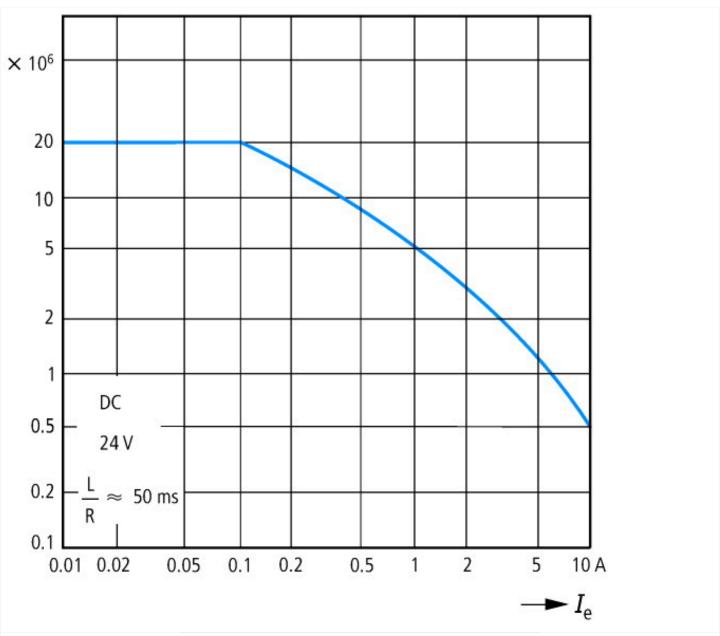
Approvals

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



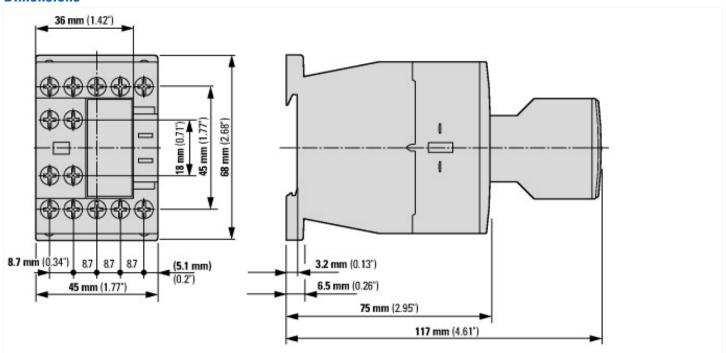
1: Suppressor 2: Auxiliary contact module

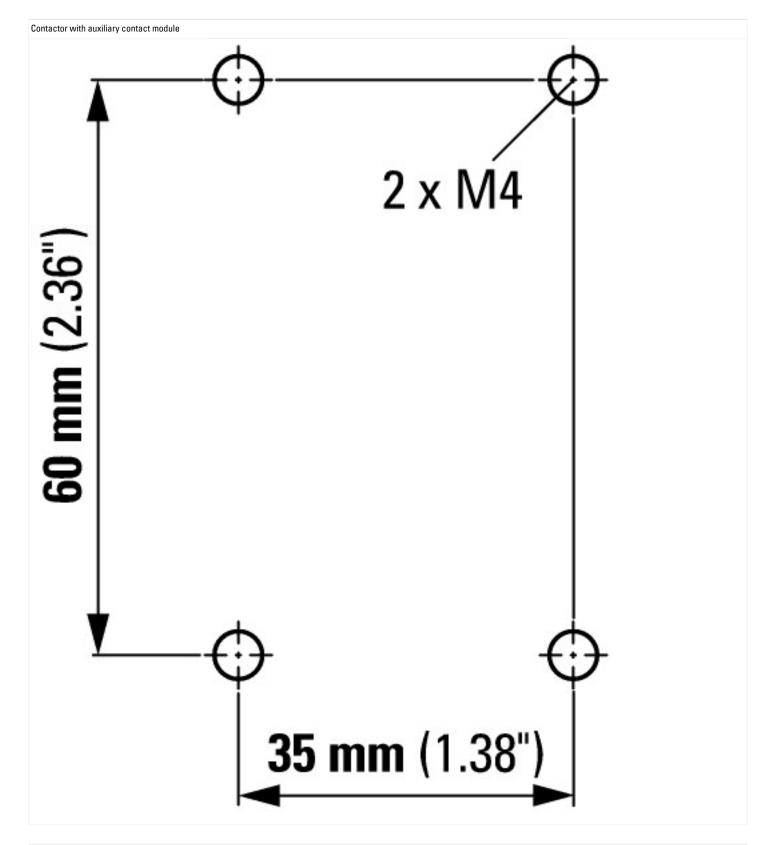




$$\label{eq:component lifespan (operations)} \begin{split} & l_e = \text{rated operational current} \\ & \text{Three contacts in series} \end{split}$$

Dimensions





Additional product information (links)

IL03407013Z (AWA2100-2126) Contactors

IL03407013Z (AWA2100-2126) Contactors

https://es-assets.eaton.com/DOCUMENTATION/AWA_INSTRUCTIONS/IL03407013Z.pdf