DATASHEET - DILER-22-G(220VDC)



Contactor relay, 220 V DC, N/O = Normally open: 2 N/O, N/C = Normally closed: 2 NC, Screw terminals, DC operation



Part no. DILER-22-G(220VDC)
Catalog No. 010091

Alternate Catalog XTRM10A22BD

No

Similar to illustration

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, 1 pole			
Open			
at 50 °C	$I_{th} = I_e$	Α	10
AC-15			
220 V 230 V 240 V	I _e	Α	6
380 V 400 V 415 V	I _e	Α	3
Contacts			
N/O = Normally open			2 N/O
N/C = Normally closed			2 NC
Contact sequence			A1 1 13 21 31 43 A2 14 22 32 44
Code number and version of combination			
Distinctive number			22E
Actuating voltage			220 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

Lifespan, mechanical DC operated Operations Ax 10 ⁶ Operations/h Climatic proofing Operations/h Operations/h Climatic proofing Ambient temperature Open Climatic proofing Open CC CC CC CC CC CC CC CC CC	deliciui			
DC operated Operations x 10 ⁶ 20 Maximum operating frequency Operations/h Climatic proofing Ambient temperature Open Open Croc -25 - +50 Mounting position Operations x 10 ⁶ 20 Operations/h Climatic proofing Open Climatic proofing Open Climatic proofing Open Croc -25 - 40	Standards			IEC/EN 60947, EN 60947-5-1, VDE 0660, UL, CSA
Maximum operating frequency Climatic proofing Ambient temperature Open Clicologed Mounting position Operations/h Operatio	Lifespan, mechanical			
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 Mounting position Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30	DC operated	Operations	x 10 ⁶	20
Ambient temperature Open °C -25 - +50 Enclosed °C -25 - 40 Mounting position	Maximum operating frequency	Operations/h		9000
Open °C -25 - +50 Enclosed °C -25 - 40 Mounting position	Climatic proofing			
Enclosed °C - 25 - 40 Mounting position	Ambient temperature			
Mounting position	Open		°C	-25 - +50
	Enclosed		°C	- 25 - 40
Mounting position As required, except vertical with terminals A1/A2 at the bottom	Mounting position			
	Mounting position			As required, except vertical with terminals A1/A2 at the bottom

Mounting position			A A
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
Altitude		m	Max. 2000
Weight			
DC operated		kg	0.211
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 1 x (18 - 14) 2 x (18 - 14)
Stripping length		mm	8
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			
Interlocked opposing contacts to ZH 1/457, including auxiliary contact module			Yes
Rated impulse withstand voltage	U _{imp}	V AC	6000
Overvoltage category/pollution degree			111/3
Rated insulation voltage	Ui	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		Α	
Conventional free air thermal current, 1 pole			
Open			
at 50 °C	I _{th} =I _e	Α	10
AC-15			
220 V 230 V 240 V	l _e	Α	6
380 V 400 V 415 V	I _e	Α	3
500 V	l _e	Α	1.5
DC current			
Notes			Switch-on and switch-off conditions based on DC-13, time constant as specified.
DC L/R ≦ 15 ms			
Contacts in series:		Α	
1	24 V	Α	2.5

2				
Short-circuit raining without welding	2	60 V	Α	2.5
Control circuit reliability	3	110 V	Α	1.5
	3	220 V	Α	0.5
Maximum overcurrent protective device 230 V 230 V 240 V 15 V 380 V 400 V 15 V 500 V 7 K 250 7 K 250 V	Control circuit reliability	Failure rate	λ	$<10^{-8}$, $<$ one failure at 100 million operations (at Ue = 24 V DC, U_{min} = 17 V, I_{min} = 5.4 mA)
220 V 230 V 240 V 15 V 380 V 400 V 15 V 500 V 600 7	Short-circuit rating without welding			
Short-circuit protection maximum fuse	Maximum overcurrent protective device			
Short-circuit protection maximum fuse	220 V 230 V 240 V		PKZM0	4
Soo V Soo S Soo V Sor S	380 V 400 V 415 V		PKZM0	4
Current heat loss at I _{th} DC operated Magnet systems Voltage tolerance DC operated Notes Pick-up voltage Pick-up voltage DC operated DC operated DC operated Notes Pick-up voltage Poull-in = Wasaling DC operated Notes DC operated Notes DC operated Notes Pick-up voltage AC operated Notes AC C A	Short-circuit protection maximum fuse			
Current heat loss at I _{th} DC operated	500 V		A gG/gL	6
DC operated Magnet systems Voltage tolerance DC operated Notes Pick-up voltage at 24 V- without auxiliary contact component (40 °C) DC operated DC operated Pull-in = Wall-in = Wa	500 V		A fast	10
Wagnet systems Voltage tolerance Very Coperated Very Coperated Very Coperated Very Coperated Smoothed DC, three-phase bridge rectifiers or smoothed double-wave rectification 0.85 - 1.3 Pick-up voltage at 24 Vr. without auxiliary contact component (40 °C) Pick-up x U _c 0.7 - 1.3 Power consumption Pull-in = very Sealing W 2.3 DC operated Pull-in = very Sealing W 2.3 duty factor M 5 P V 100 Changeover time at 100 % Us (recommended value) M 5 P V 100 DC operated N/O contact opening delay M 5 P V 15 - 25 DC operated N/O contact opening delay M 5 P V 70 DC operated With auxiliary contact module Max. closing delay M 5 P V 70 Rating data for approved types M 600 400 Act operated V 600 600 General Use V 600 AC V 600 AC AC AC DC Operated AC AC AC AC AC DC Operated AC AC AC AC AC AC AC AC <td>Current heat loss at I_{th}</td> <td></td> <td></td> <td></td>	Current heat loss at I _{th}			
Voltage tolerance Coperated DC operated Smoothed DC, three-phase bridge rectifiers or smoothed double-wave rectification Pick-up voltage at 24 V. without auxiliary contact component (40 °C) Pick-up x U _c vick-up x U _c 0.85 - 1.3 Power consumption Pull-in = x aliang W D 2.3 duty factor Pull-in = x aliang W D 2.3 Changeover time at 100 % U _S (recommended value) W D 2.3 DC operated closing delay M D 2.5 DC operated With auxiliary contact opening delay M D 2.5 DC operated With auxiliary contact module Max closing delay M D 2.5 DC operated With auxiliary contact module Max closing delay M D 2.5 AC operated With auxiliary contact module Max closing delay M D 2.5 Pillot Duty M D 4.600 AC operated	DC operated		W	1.1
DC operated Notes Pick-up voltage at 24 V: without auxiliary contact component (40 °C) Pick-up voltage at 24 V: without auxiliary contact component (40 °C) Pick-up voltage at 24 V: without auxiliary contact component (40 °C) Pick-up voltage DC operation DC operated Pull-in = voltage				
Notes Pick-up voltage at 24 V: without auxiliary contact component (40 °C) Pick-up voltage at 24 V: without auxiliary contact component (40 °C) Pick-up voltage at 24 V: without auxiliary contact component (40 °C) Pick-up voltage DC operation Pull-in = vasaling V 2.3 Changeover time at 100 % Us (recommended value) DC operated closing delay DC operated vl/O contact opening delay DC operated N/O contact opening delay Ac operated Vick auxiliary contact module Max. closing delay AC operated DC operated AC	Voltage tolerance			
Pick-up voltage at 24 V: without auxiliary contact component (40 °C) Pick-up	DC operated			
at 24 V: without auxiliary contact component (40 °C) Power consumption DC operation DC operated Pull-in = sealing W 2.3 duty factor Changeover time at 100 % U _S (recommended value) DC operated closing delay DC operated N/O contact opening delay DC operated N/O contact opening delay DC operated With auxiliary contact module Max. closing delay Ms 15 - 25 DC operated With auxiliary contact module Max closing delay Ac operated DC operated General Use AC AC AC DC DC Note the unit of the surface of the sur	Notes			Smoothed DC, three-phase bridge rectifiers or smoothed double-wave rectification
Power consumption DC operated DC operated DC operated Pull-in = sealing W 2.3 sealing W DF 100 Changeover time at 100 % Us (recommended value) DC operated closing delay DC operated N/O contact opening delay DC operated With auxiliary contact module Max. closing delay Ms 70 Rating data for approved types Auxiliary contacts Pilot Duty AC operated DC operated DC operated AC AC AC DC DC DC DC Pull-in = W 2.3 AV BD AV BD AV BD AV BD BD BD BD BD BD BD BD BD B	Pick-up voltage			0.85 - 1.3
DC operated DC operated Pull-in = W 2.3 duty factor Changeover time at 100 % Ug (recommended value) DC operated Closing delay DC operated N/O contact opening delay DC operated With auxiliary contact module Max. closing delay MS 70 Rating data for approved types Auxiliary contacts Pilot Duty AC operated DC operated AC AC AC DC DC AC DC AC DC Pull-in = W 2.3 ADE 100 ADE 100 ADE 100 ADE 4.35 DOE 100 ADE 7.35	at 24 V: without auxiliary contact component (40 °C)	Pick-up	x U _c	0.7 - 1.3
DC operated Pull-in = sealing W 2.3 duty factor Changeover time at 100 % U _S (recommended value) DC operated closing delay DC operated N/O contact opening delay DC operated With auxiliary contact module Max. closing delay Ms 70 Rating data for approved types Auxiliary contacts Pilot Duty AC operated DC operated General Use AC AC AC AC DC DC POO **Bull-in = W 2.3 **D D **D DO **D DO	Power consumption			
duty factor Changeover time at 100 % Us (recommended value) DC operated N/O contact opening delay DC operated With auxiliary contact module Max. closing delay Bating data for approved types Auxiliary contacts Pilot Duty AC operated DC operated AC AC AC DC	DC operation			
Changeover time at 100 % U _S (recommended value) DC operated closing delay DC operated N/O contact opening delay DC operated With auxiliary contact module Max. closing delay Rating data for approved types Auxillary contacts Pilot Duty AC operated DC operated AC AC AC DC DC DC DC DC DC DC	DC operated		W	2.3
DC operated closing delay DC operated N/O contact opening delay DC operated With auxiliary contact module Max. closing delay Rating data for approved types Auxiliary contacts Pilot Duty AC operated DC operated AC AC AC DC DC DC DC DC DC DC	duty factor		% DF	100
DC operated N/O contact opening delay DC operated With auxiliary contact module Max. closing delay Rating data for approved types Auxiliary contacts Pilot Duty AC operated DC operated General Use AC AC AC AC AC AC BC CC	Changeover time at 100 % $\rm U_{S}$ (recommended value)			
DC operated With auxiliary contact module Max. closing delay ms 70 Rating data for approved types Auxiliary contacts Pilot Duty AC operated DC operated General Use AC AC AC AC AC AC AC AC AC A	DC operated closing delay		ms	26 - 35
Rating data for approved types Auxiliary contacts Pilot Duty AC operated DC operated AC AC AC AC AC AC AC AC AC A	DC operated N/O contact opening delay		ms	15 - 25
Auxiliary contacts Pilot Duty AC operated A600 DC operated P300 General Use V AC V 600 AC A 10 DC DC V	DC operated With auxiliary contact module Max. closing delay		ms	70
Pilot Duty A600 AC operated P300 General Use V 600 AC A 10 DC V 250	Rating data for approved types			
AC operated A600 DC operated P300 General Use V AC V AC A DC V 250	Auxiliary contacts			
DC operated P300 General Use V AC V AC A DC V P300 00 V 250				
General Use V 600 AC A 10 DC V 250	AC operated			A600
AC V 600 AC A 10 DC V 250	DC operated			P300
AC	General Use			
DC V 250	AC		V	600
	AC		Α	10
DC A 0.5	DC		V	250
	DC		Α	0.5

Design verification as per IEC/EN 61439

In	Α	6
P _{vid}	W	0.4
P _{vid}	W	0
P _{vs}	W	2.3
P _{diss}	W	0
	°C	-25
	°C	50
		Meets the product standard's requirements.
		Meets the product standard's requirements.
		Meets the product standard's requirements.
		Meets the product standard's requirements.
	P _{vid} P _{vid} P _{vs}	P _{vid} W P _{vid} W P _{vs} W P _{diss} W °C °C

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.

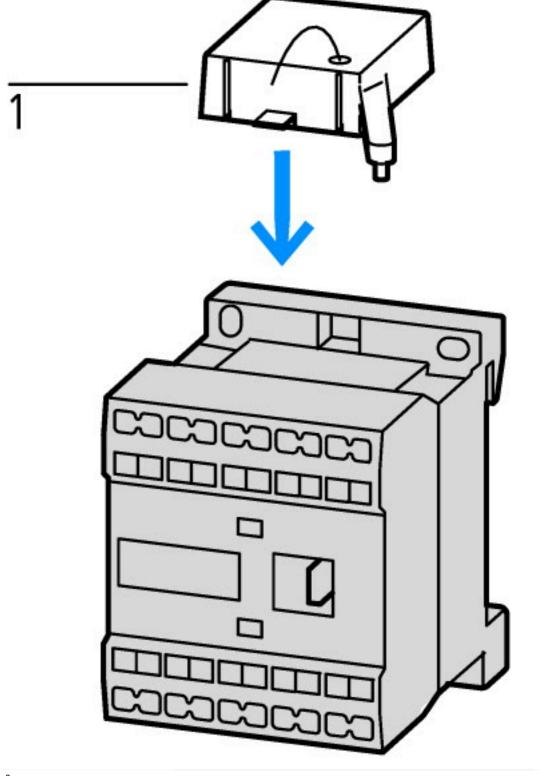
Technical data ETIM 7.0

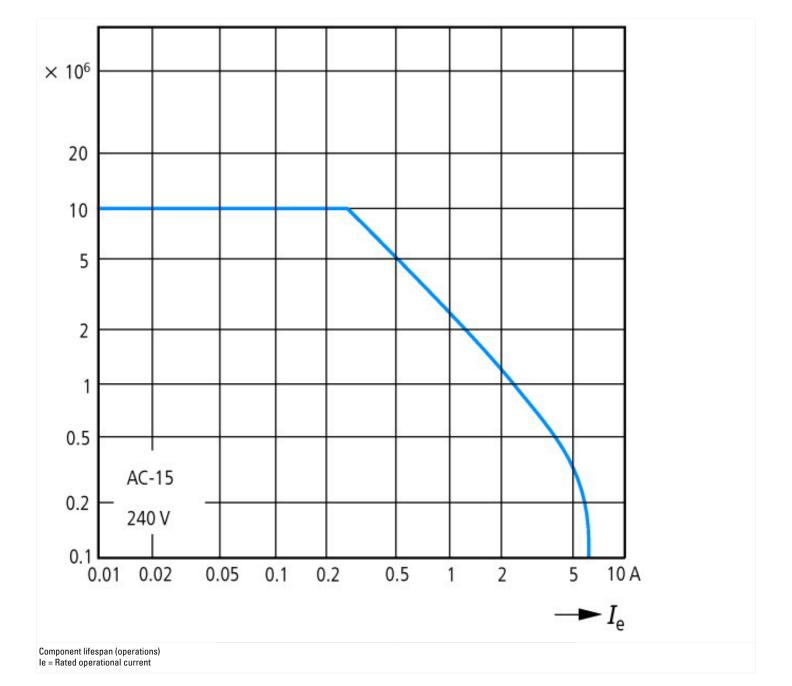
Low-voltage industrial components (EG000017) / Contactor relay (EC000196)			
Electric engineering, automation, process control engineering / Low-voltage switch technology / Contactor (LV) / Contactor relay (ecl@ss10.0.1-27-37-10-01 [AAB716014])			
Rated control supply voltage Us at AC 50HZ	V	0 - 0	
Rated control supply voltage Us at AC 60HZ	V	0 - 0	
Rated control supply voltage Us at DC	V	220 - 220	
Voltage type for actuating		DC	
Rated operation current le, 400 V	А	3	
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	
With LED indication		No	
Number of auxiliary contacts as change-over contact		0	
Manual operation possible		No	

Approvals

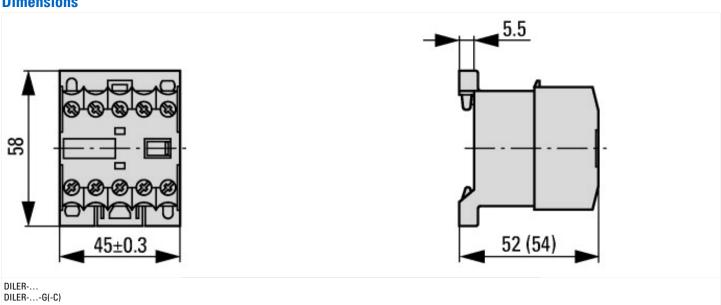
Product Standards	IEC/EN 60947-4-1; UL 508; CSA-C22.2 No. 14-05; CE marking
UL File No.	E29184
UL Category Control No.	NKCR
CSA File No.	012528
CSA Class No.	3211-03
North America Certification	UL listed, CSA certified
Specially designed for North America	No

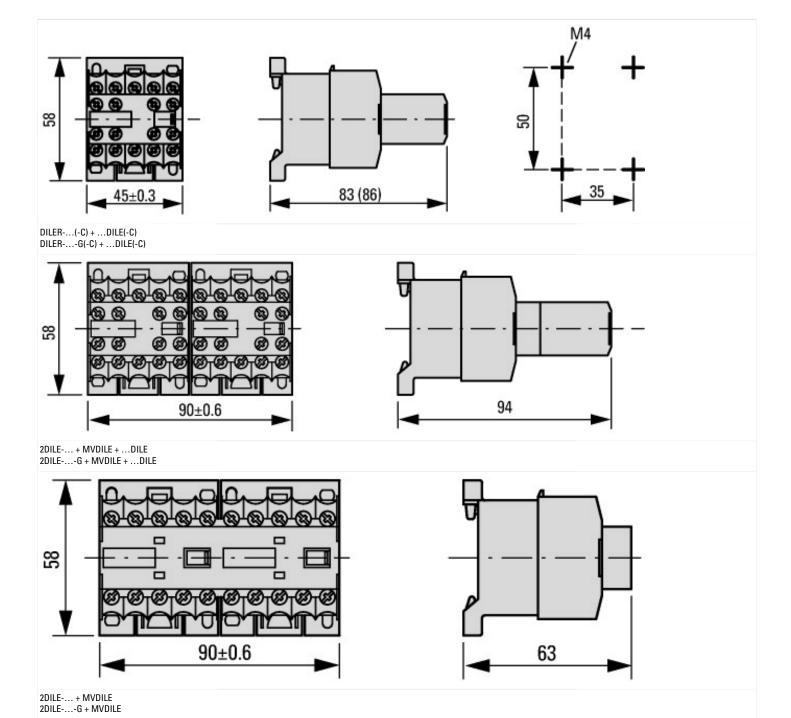






Dimensions





Additional product information (links)

IL03407009Z (AWA2100-0882) Mini contactor relay

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https://es-assets.eaton.com/DOCUMENTATION/AWA_INSTRUCTIONS/IL03407009Z2020_05.pdf