DATASHEET - DILER-22-C(24V50HZ)



Contactor relay, 24 V 50 Hz, N/O = Normally open: 2 N/O, N/C = Normally closed: 2 NC, Spring-loaded terminals, AC operation



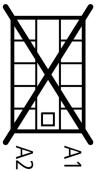
Part no.DILER-22-C(24V50HZ)Catalog No.231786Alternate CatalogXTRMC10A22UNo.No.

Delivery program

Product range			DILER Mini-contactors
Application			Contactor relays
Description			with interlocked opposing contacts
Connection technique			Spring-loaded terminals
Rated operational current			
Conventional free air thermal current, 1 pole			
Open			
at 50 °C	I _{th} =I _e	А	10
AC-15			
220 V 230 V 240 V	I _e	А	6
380 V 400 V 415 V	I _e	А	3
Contacts			
N/O = Normally open			2 N/O
N/C = Normally closed			2 NC
Contact sequence			$\begin{array}{c} A_{1} \\ A_{2} \\ A_{2} \\ A_{2} \\ A_{2} \\ A_{3} \\ A_{4} \\ A_{4} \end{array}$
Code number and version of combination			
Distinctive number			22E
For use with			DILE-C
Actuating voltage			24 V 50 Hz
Voltage AC/DC			AC operation
Instructions			Contact numbers to EN 50011 Coil terminal markings to EN 50005

Technical data

General			
Standards			IEC/EN 60947, EN 60947-5-1, VDE 0660, UL, CSA
Lifespan, mechanical			
AC operated	Operations	x 10 ⁶	10
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



Helsinglished how in works works with a work work work work work work work work				A_2 A_1
Basic unit with audiage center moduleIINo contartIIINo contartIIINo contart contart where a basic from (EN 5027)IIIArrow contains direct canter where a basic from (EN 5027)IIIArrow contains direct canter where a basic from (EN 5027)IIIArrow contains direct canter where a basic from (EN 5027)IIIArrow contains direct canter where a basic from (EN 5027)IIIArrow contains direct canter where a basic from (EN 5027)IIIArrow contains direct canter where a basic from (EN 5027)IIIArrow contains direct canter where a basic from (EN 5027)IIIStrapping lengthIIIIIStrapping lengthIIIIIStrapping lengthIIIIIIStrapping lengthIIIIIIIStrapping lengthII<	Mechanical shock resistance (IEC/EN 60068-2-27)			
N0 contactaaaaN0 contactN0N0N0Paree of boots in a contact when soluted from (Fell SG24)N0N0N0No contact when soluted from (Fell SG24)N0N0N0A coperationN0N0N0N0Second soluted from (Fell SG24)N0N0N0N0Second soluted from (Fell SG24)N0 <td>Half-sinusoidal shock, 10 ms</td> <td></td> <td></td> <td></td>	Half-sinusoidal shock, 10 ms			
NControlNoNoBarene foreactionNoNoActional statution (NUM2Y)NoNoActional statution (NUM2Y)NoNoActional statution (NUM2Y)NoNoActional statution (NUM2Y)NoNoSolid statutionNoNoSolid stat	Basic unit with auxiliary contact module		g	
Bayes of MarcelantProductionProduction spin and starts of the starts of the SM224 (and spin and starts of the starts of th	N/O contact		g	10
Protection against direct contact when actualed from from [EM S0274) Image: Source status of the statu	N/C contact		g	8
Protection against direct contact when actualed from from [EM S0274) Image: Source status of the statu	Degree of Protection			IP20
A CoperatedImage: Space of the sector of the se	Protection against direct contact when actuated from front (EN 50274)			Finger and back-of-hand proof
Terminal capacities max Signing-loaded terminals max Readed with or without fortale DIN 45228 max Singlo do stranded max Singlo do stranded max Singlo do stranded max Singlo leagth max Bated maxilow contexts to 2H1457, including assiliary context max Bated maxilow contexts to 2H1457, including assiliary context max Bated maxilow contexts to 2H1457, including assiliary context max Bated maxilow contexts to 2H1457, including assiliary context max Bated maxilow contexts Max Statiszant assister contexts Max Bated maxilow contexts Max	Weight			
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Sping-laaded terminals Image: sp	Terminal capacities		mm ²	
Rexble with ar without ferable 2014 4623 sind sind <td>Spring-loaded terminals</td> <td></td> <td></td> <td></td>	Spring-loaded terminals			
viewv			2	1 x (1 - 2.5)
initial stateinitial stateinitial stateSinders000Control00 </td <td></td> <td></td> <td></td> <td></td>				
Standard screwdriverImage: Sa	Solid or stranded		AWG	
Characterization Provide approximation of the state of t	Stripping length		mm	
Interlocked opposing cortacts to ZH 1487, including auxiliary contactManaYesSelectionRated impulse withstand voltageUmpVac600Overoltage category/pollution degreeUVac800Rated operational voltageUVac800Rated operational voltageUVac800Safe isolation to EN 8140UVac900Isobewen of and auxiliary contactsVac900900Rated operational voltageVac900900Rated operational voltageVac900900Rated operational current, 1 poleVac900900rate 50 °CMana900900900rate 50			mm	0.6 x 3.5
Rated impulse withstand voltageVAC Imput800Overvoltage category/pollution degreeVACIM3Rated persional voltageVAC800Rated persional voltageVAC800Safe isolation to RS1140VAC900Safe isolation to RS1140VAC900Between coil and auxiliary contactsVAC900Between the auxiliary contactsVAC900Rated operational current 1 poleVAC900OperVACVAC900Act 15VAC90020 V200 VADVImageNameAct 15VAC90020 V200 VADVImageNameSolo VADV 15 VImageNameNotesImageNameNotesImageNameImage<				
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Name Name <th< td=""><td></td><td></td><td></td><td></td></th<>				
She is is it in the subject of the	-			690
between coil and auxiliary contactsMACSACbetween the auxiliary contactsVACSaCBetween the auxiliary contactsVACSaCConventional free air thermal current, 1 poleVACSaCopenNameSaCSaCat S0 °CNameSaCSaCat S0 °CNameSaCSaCgat S0 °CNameSaCSaCjabo Vado Val SVIsSaCSaCS0 Vado Val SVIsSaCSaCboo Vado Val SVIsSaCSaCjabo SoCIsSaCSaCjabo SocIsSaCSaC<	Rated operational voltage	U _e	V AC	600
between the auxiliary contacts VAC VAC Reted operational current. A A conventional free air thermal current. A A open A A at 50 °C B A 220 V200 V40V A B 300 V400 V15V A B 200 Z20 V240V A B 300 V400 V15V A B 300 V400 V15V A B bCurrent A A DCLrent A A 10 L/R 51ms A S contacts in series: A A 1 A A 3 A S 3 A S 3 A S 3 A S A S S 3 A S 3 A S 3 A S Controti vicuit reliability A S <td>Safe isolation to EN 61140</td> <td></td> <td></td> <td></td>	Safe isolation to EN 61140			
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Conventional free air thermal current, 1 poleImage: Note of the sector of	between the auxiliary contacts		V AC	300
$\[] \[] \[] \[] \[] \[] \[] \[]$	Rated operational current		А	
$h = l_0$ <td>Conventional free air thermal current, 1 pole</td> <td></td> <td></td> <td></td>	Conventional free air thermal current, 1 pole			
AC-15 Image: Control intervention of the sector of the secto				
220 V 230 V 240 V In In <t< td=""><td>at 50 °C</td><td>I_{th} =I_e</td><td>A</td><td>10</td></t<>	at 50 °C	I _{th} =I _e	A	10
380 V400 V415 V Ie A 3 300 V400 V415 V Ie A 3 500 V Ie A 15 DC current Ie A S Notes Ie A Switch-on and switch-off conditions based on DC-13, time constant as specified. DC L/R ≤ 15 ms Ie A Switch-on and switch-off conditions based on DC-13, time constant as specified. 1 Contracts in series: Ie A Sector 1 Contracts in series: A Sector Sector 3 Contracts in sector Sector Sector	AC-15			
500 V Ie A 15 DC current Image: Participation of the second of the seco	220 V 230 V 240 V	l _e	A	6
DC current A A Notes A A DC L/R ≤ 15 ms A A Contacts in series: A A 1 A A 2 A A 3 A A 3 A A A B A A B A A B A A B A A B A A B A B A A B A A A B A A B A A B A B A B Control circuit reliability A B A B B A B B A B B A B B B B B <td>380 V 400 V 415 V</td> <td>le</td> <td>А</td> <td>3</td>	380 V 400 V 415 V	le	А	3
Notes Modes Modes Modes Modes Modes Modes DC L/R ≤ 15 ms Modes Modes Modes Modes Modes Contacts in series: X X Modes Modes 1 X X X X 2 A A 2.5 A 3 10 V A 3.5 A 3 20 V A 5.5 Control circuit reliability Failure rate Note Shot-circuit without welding Failure rate Note	500 V	l _e	А	1.5
DC L/R ≦ 15 ms Image: Note of the series: Image: Note	DC current			
Contacts in series: A 1 24V A 2 6V A 3 10V A 3 20V A 5 20V A 5 5 Control circuit reliability Failure rate A A	Notes			Switch-on and switch-off conditions based on DC-13, time constant as specified.
124 VA2.5260 VA5.5310 VA1.5320 VA0.5Control circuit reliabilityFailure rateA $10^{9}_{4.5}$ < one failure at 100 million operations (at U _e = 24 V DC, U _{min} = 17 V, I _{min} = 5.4 mA)Short-circuit reliability	DC L/R ≦ 15 ms			
260 VA2.5310 VA1.5320 VA0.5Control circuit reliabilityFailure rateA $a^{0}_{0}^{0}_{0}_{0}_{0}_{0}_{0}_{0}_{0}_{0}_{0}_$	Contacts in series:		А	
3 10 V A 1.5 3 20 V A 0.5 Control circuit reliability Failure rate A 10^{18} , < 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 Image: A transmitted operation opera	1	24 V	А	2.5
3 20 V A 0.5 Control circuit reliability Failure rate λ $\{10^{-8}, < one failure at 100 million operations (at Ue = 24 V DC, Umin = 17 V, Imin = 5.4 mA)$	2	60 V	А	2.5
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	3	110 V	А	1.5
Short-circuit rating without welding		220 V	А	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)
Maximum overcurrent protective device	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}			
AC operated		W	1.1
Magnet systems			
Voltage tolerance			
AC operated			
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
Power consumption			
AC operation			
Single-voltage coil 50 Hz and dual-voltage coil 50 Hz, 60 Hz	Pick-up	VA	25
Single-voltage coil 50 Hz and dual-voltage coil 50 Hz, 60 Hz	Sealing	VA	4.6
Single-voltage coil 50 Hz and dual-voltage coil 50 Hz, 60 Hz	Sealing	W	1.3
duty factor		% DF	100
Changeover time at 100 % ${\rm U}_{\rm S}$ (recommended value)			
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
Rating data for approved types			
Auxiliary contacts			
Pilot Duty			
AC operated			A600
DC operated			P300
General Use			
AC		V	600
AC		А	10
DC		V	250
DC		А	0.5

Design verification as per IEC/EN 61439

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Technical data for design verification			
Rated operational current for specified heat dissipation	I _n	А	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	1.8
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			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.

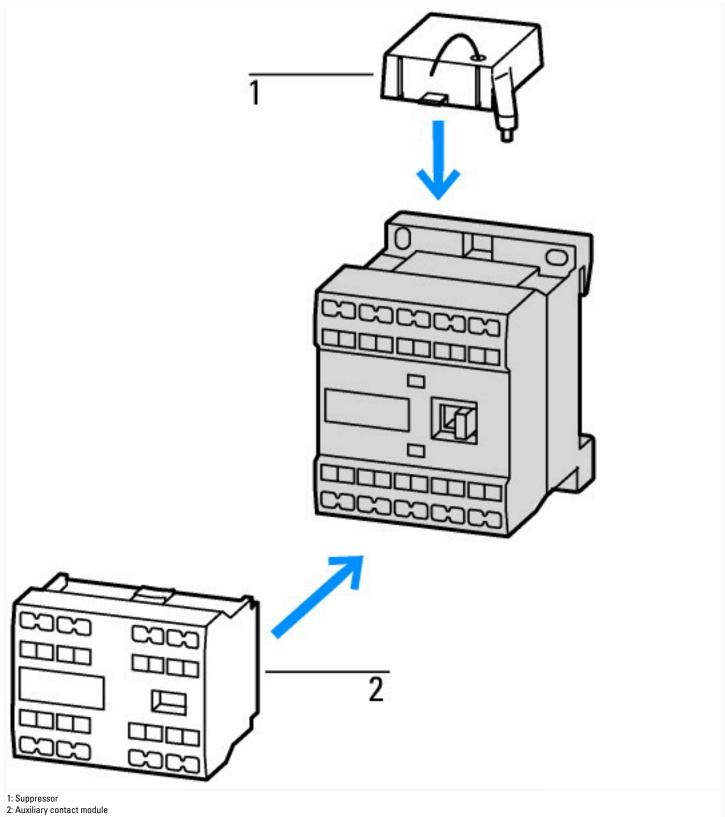
Technical data ETIM 7.0

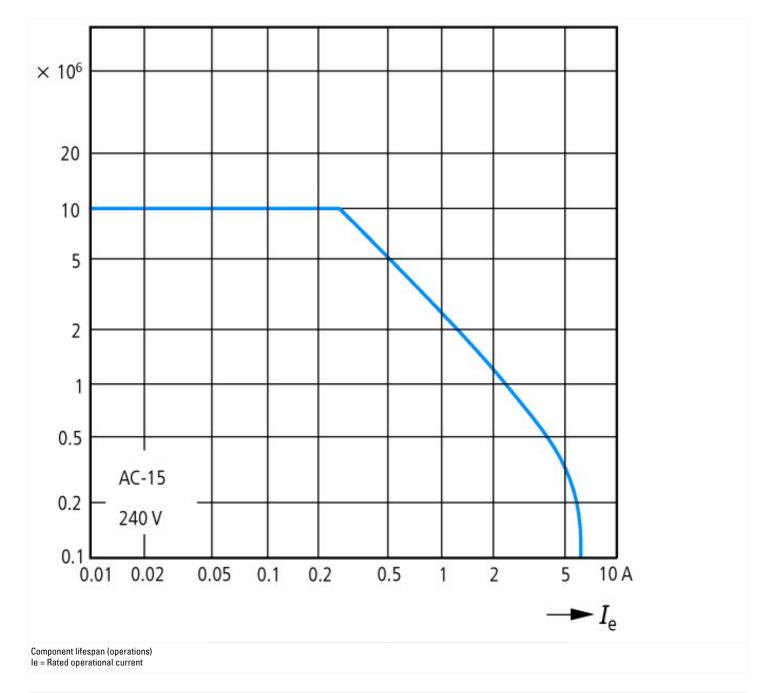
Low-voltage industrial components (EG000017) / Contactor relay (EC000196)

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	24 - 24		
Rated control supply voltage Us at AC 60HZ	V	0 - 0		
Rated control supply voltage Us at DC	V	0 - 0		
Voltage type for actuating		AC		
Rated operation current le, 400 V	А	3		
Connection type auxiliary circuit		Spring clamp 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		

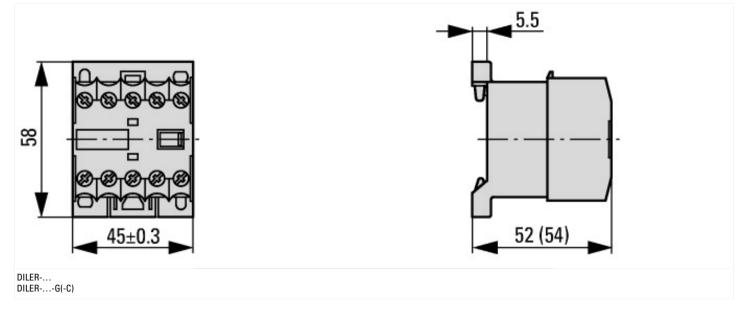
Approvals

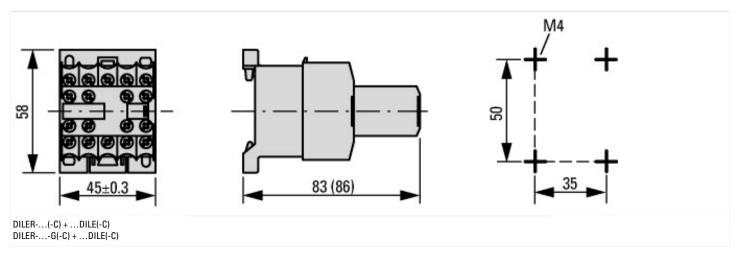
Product Standards	IEC/EN 60947-4-1; UL 508; CSA-C22.2 No. 14-05; CE marking
UL File No.	E29184
UL Category Control No.	NKCR
CSA File No.	012528
CSA Class No.	3211-03
North America Certification	UL listed, CSA certified
Specially designed for North America	No





Dimensions





Assets (links)

Declaration of CE Conformity 00003110

Instruction Leaflets IL03407009Z2018_04

Additional product information (links)

IL03407009Z (AWA2100-0882) Mini contactor relay

IL03407009Z (AWA2100-0882) Mini contactor ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03407009Z2018_04.pdf relay