DATASHEET - DILER-22-G(24VDC)

Contactor relay, 24 V DC, N/O = Normally open: 2 N/O, N/C = Normally closed: 2 NC, Screw terminals, DC operation



Part no.	DILER-22-G(24VDC)
Catalog No.	010042
Alternate Catalog	XTRM10A22TD
No.	
EL-Nummer	4130354
(Norway)	

Similar to illustration

Delivery program

Derivery 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	$I_{th} = I_e$	А	10
AC-15			
220 V 230 V 240 V	l _e	А	6
380 V 400 V 415 V	le	А	3
Contacts			
N/O = Normally open			2 N/O
N/C = Normally closed			2 NC
Code number and version of combination			
Distinctive number			22E
Actuating voltage			24 V DC
Voltage AC/DC			DC operation
Instructions			Contact numbers to EN 50011 Coil terminal markings to EN 50005 Integrated diode-resistor combination

Technical data

Lifespan, mechanical Operations Number of the second	General			
Image: Properties of programmer of progra	Standards			IEC/EN 60947, EN 60947-5-1, VDE 0660, UL, CSA
Maximum operating frequency Operations/h 900 Maximum operating frequency Operations/h 900 Climatic proofing amp heat, constant, to IEC 60068-2-78 amp heat, cyclic, to IEC 60068-2-78 Ambient temperature of constant, to IEC 60068-2-78 amp heat, cyclic, to IEC 60068-2-78 Open of constant, to IEC 60068-2-78 amp heat, cyclic, to IEC 60068-2-78 Open of constant, to IEC 60068-2-78 amp heat, cyclic, to IEC 60068-2-78 Open of constant, to IEC 60068-2-78 amp heat, cyclic, to IEC 60068-2-78 Mounting position of constant, to IEC 60068-2-80 amp heat, cyclic, to IEC 60068-2-80 Mounting position of constant, to IEC 60068-2-97 amp heat, cyclic, to IEC 60068-2-97 Mounting position of constant, to IEC 60068-2-97 amp heat, cyclic, to IEC 60068-2-97 Mounting position of constant, to IEC 60068-2-97 amp heat, cyclic, to IEC 60068-2-97 Mather situation of the for	Lifespan, mechanical			
Climatic proofing Amp heat, constant, to IEC 60068-2-38 bamp heat, constant, to IEC 60068-2-38 bamp heat, constant, to IEC 60068-2-38 Ambient temperature Constant, to IEC 60068-2-38 Open 25 - 450 Enclosed Constant, to IEC 60068-2-38 Mounting position Constant, to IEC 60068-2-37 Mat-sinusoidal shock, 10 ms So required, except vertical with terminals A1/A2 at the bottom Basic unit with auxiliary contact module Go N/C contact Go N/C contact Go N/C contact Pa Pose IP20 Pose Figure and back-of-hand proof	DC operated	Operations	x 10 ⁶	20
Ambient temperature Damp heat, cyclic, to IEC 60068-2-30 Open Open -25 - 50 Enclosed On °C -25 - 40 Mounting position OPEN -25 - 40 Mounting position Ambient terminals A1/A2 at the bottom Mounting position Are required, except vertical with terminals A1/A2 at the bottom Mechanical shock, resistance (IEC/EN 60068-2-27) OPEN Basic unit with auxiliary contact module OPEN NO contact OPEN NO contact OPEN N/C contact OPEN Degree of Protection POINT Page of Protection IPEN	Maximum operating frequency	Operations/h		9000
Open S2 + 50 Enclosed C 25 + 50 Mounting position C 25 + 40 Mounting position Mounting position Mounting position Mechanical shock resistance (IEC/EN 60068-2-27) Mounting position As required, except vertical with terminals A1/A2 at the bottom Half-sinusoidal shock, 10 ms Mounting position Mounting position N/O contact Mounting position Mounting position Mounting position Mounting position Mounting position Mathematication (IEC/EN 60068-2-27) Mounting position Mounting position Basic unit with auxiliary contact module Mounting position Mounting position N/O contact Mounting position Mounting position N/O contact Mounting position Mounting position Mounting position Mounting position Mounting position Mounting position Mounting position Mounting position Mounting position M	Climatic proofing			
Inclosed °C 25 - 40 Mounting position F - Mathematical shock resistance (IEC/EN 60068-2-27) F - Basic unit with auxiliary contact module G G G N/O contact G G G G N/O contact F G </td <td>Ambient temperature</td> <td></td> <td></td> <td></td>	Ambient temperature			
Mounting position Image: Basic unit with auxiliary contact module Image: Basic unit with auxili	Open		°C	-25 - +50
Mounting position Model Model As required, except vertical with terminals A1/A2 at the bottom Mechanical shock resistance (IEC/EN 60068-2-27) Model	Enclosed		°C	- 25 - 40
Mechanical shock resistance (IEC/EN 60068-2-27) Feed Feed Feed Half-sinusoidal shock, 10 ms Feed	Mounting position			
Half-sinusoidal shock, 10 ms Image: main shock, 10 ms Image: main shock, 10 ms Basic unit with auxiliary contact module g g N/O contact g 10 N/C contact g 8 Degree of Protection g 1P20 Protection against direct contact when actuated from front (EN 50274) Image: main shock, of hand proof	Mounting position			As required, except vertical with terminals A1/A2 at the bottom
Basic unit with auxiliary contact module g N/O contact g N/C contact g N/C contact g Degree of Protection G Protection against direct contact when actuated from front (EN 50274) G	Mechanical shock resistance (IEC/EN 60068-2-27)			
N/O contact g 10 N/C contact g 8 Degree of Protection Protection against direct contact when actuated from front (EN 50274) Protection Finger and back-of-hand proof	Half-sinusoidal shock, 10 ms			
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	Basic unit with auxiliary contact module		g	
Degree of Protection IP20 Protection against direct contact when actuated from front (EN 50274) Finger and back-of-hand proof	N/O contact		g	10
Protection against direct contact when actuated from front (EN 50274) Finger and back-of-hand proof	N/C contact		g	8
	Degree of Protection			IP20
Altitude m Max. 2000	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		ry mm ²	
		mm ⁺	
Screw terminals			((0.72, 0.7)
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		А	
Conventional free air thermal current, 1 pole			
Open			
at 50 °C	I _{th} =I _e	A	10
AC-15			
220 V 230 V 240 V	le	A	6
380 V 400 V 415 V	l _e	A	3
500 V	le	A	1.5
DC current	Ū		
Notes			Switch-on and switch-off conditions based on DC-13, time constant as specified.
DC 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	1.1
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			
DC operated	Pull-in = sealing	W	2.3
duty factor		% DF	100
Changeover time at 100 $\%~\text{U}_{\text{S}}$ (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
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

Design vermeation as per indy into 1405			
Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	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			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.

10.13 Mechanical function

Is the panel builder's responsibility. The specifications for the switchgear must be observed.

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	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	
Number of auxiliary contacts as change-over contact		0	
With LED indication		No	
Suitable for manual operation		No	