## **DATASHEET - DILER-22(24V50/60HZ)**



Contactor relay, 24 V 50/60 Hz, N/O = Normally open: 2 N/O, N/C = Normally closed: 2 NC, Screw terminals, AC operation



DILER-22(24V50/60HZ) Part no. Catalog No. 021704

XTRM10A22T

**Alternate Catalog** 

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 <sub>e</sub>	Α	6	
380 V 400 V 415 V	I <sub>e</sub>	Α	3	
Contacts				
N/O = Normally open			2 N/O	
N/C = Normally closed			2 NC	
Contact sequence			$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	
Code number and version of combination				
Distinctive number			22E	
For use with			DILE	
Actuating voltage			24 V 50/60 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 10 x 10<sup>6</sup> 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 °C Open -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			
AC operated		kg	0.17
Terminal capacities		$mm^2$	
Screw terminals			
Solid		mm <sup>2</sup>	1 x (0.75 - 2.5) 2 x (0.75 - 2.5)
Flexible with ferrule		mm <sup>2</sup>	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 <sub>imp</sub>	V AC	6000
Overvoltage category/pollution degree			III/3
Rated insulation voltage	Ui	V AC	690
Rated operational voltage	U <sub>e</sub>	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 <sub>th</sub> =I <sub>e</sub>	Α	10
AC-15			
220 V 230 V 240 V	l <sub>e</sub>	Α	6
380 V 400 V 415 V	l <sub>e</sub>	Α	3
500 V	I <sub>e</sub>	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	60 V	Α	2.5

3	110 V	Α	1.5
3	220 V	Α	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 <sub>th</sub>			
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 <sub>c</sub>	0.8 - 1.1
Dual-frequency coil 50/60 Hz	Pick-up	x U <sub>c</sub>	0.85 - 1.1
Power consumption			
AC operation			
Dual-frequency coil 50/60 Hz	Hold	VA	5.4 3.9
Dual-frequency coil 50/60 Hz	Sealing	W	1.8 1.8
duty factor		% DF	100
Changeover time at 100 % $U_S$ (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		Α	10
DC		V	250

# Design verification as per IEC/EN 61439

DC

In	Α	6
$P_{\text{vid}}$	W	0.4
$P_{\text{vid}}$	W	0
$P_{vs}$	W	1.8
P <sub>diss</sub>	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 <sub>vid</sub> P <sub>vid</sub> P <sub>vs</sub> P <sub>diss</sub>	P <sub>vid</sub> W P <sub>vid</sub> W P <sub>vs</sub> W P <sub>diss</sub> W °C °C

0.5

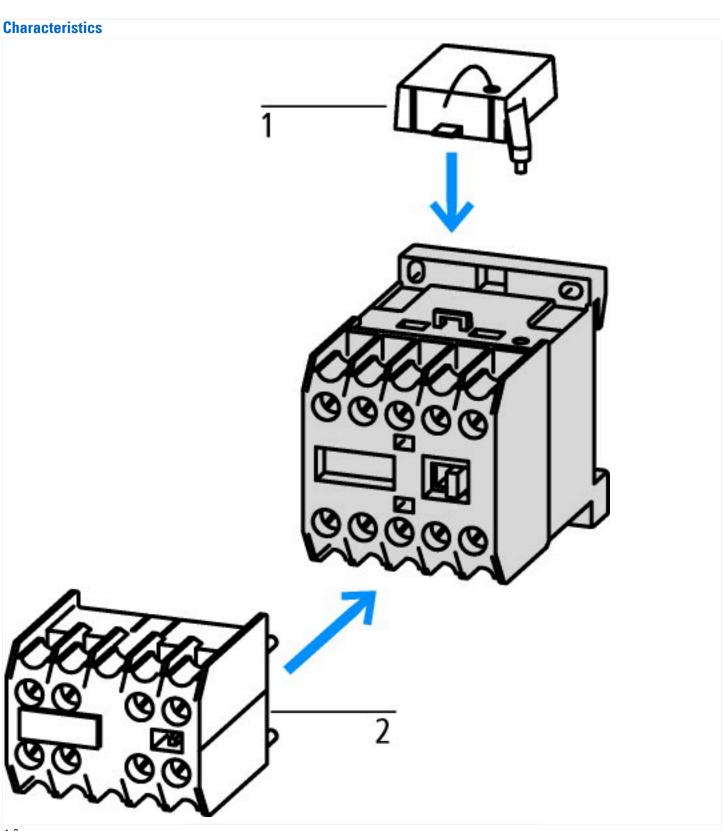
10.2.4 Resistance to ultra-violet (UV) radiation	Meets the product standard's requirements.
10.2.5 Lifting	Does not apply, since the entire switchgear needs to be evaluated.
10.2.6 Mechanical impact	Does not apply, since the entire switchgear needs to be evaluated.
10.2.7 Inscriptions	Meets the product 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 switch gear must lobserved.
10.12 Electromagnetic compatibility	Is the panel builder's responsibility. The specifications for the switchgear must lobserved.
10.13 Mechanical function	The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

# Technical data ETIM 7.0

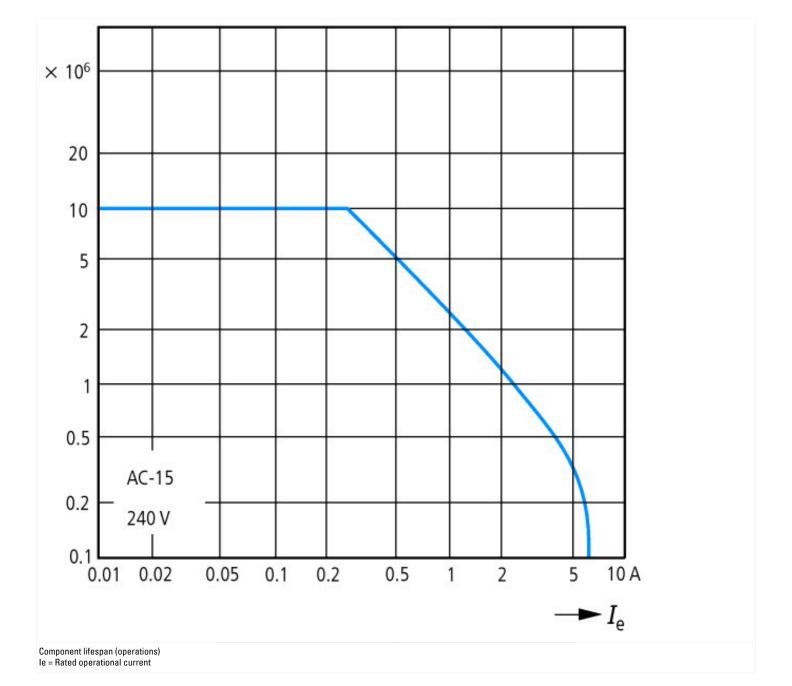
Low-voltage industrial components (EG000017) / Contactor relay (EC000196)			
Electric engineering, automation, process control engineering / Low-voltage switch technology / Contactor (LV) / Contactor relay (ecl@ss10.0.1-27-37-10-01 [AAB716014])			
Rated control supply voltage Us at AC 50HZ		V	24 - 24
Rated control supply voltage Us at AC 60HZ		V	24 - 24
Rated control supply voltage Us at DC		V	0 - 0
Voltage type for actuating			AC
Rated operation current le, 400 V		Α	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

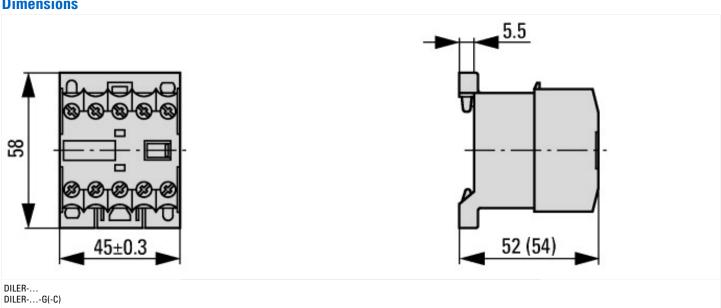
Product Standards	IEC/EN 60947-4-1; UL 508; CSA-C22.2 No. 14-05; CE marking
UL File No.	E29184
UL Category Control No.	NKCR
CSA File No.	012528
CSA Class No.	3211-03
North America Certification	UL listed, CSA certified
Specially designed for North America	No

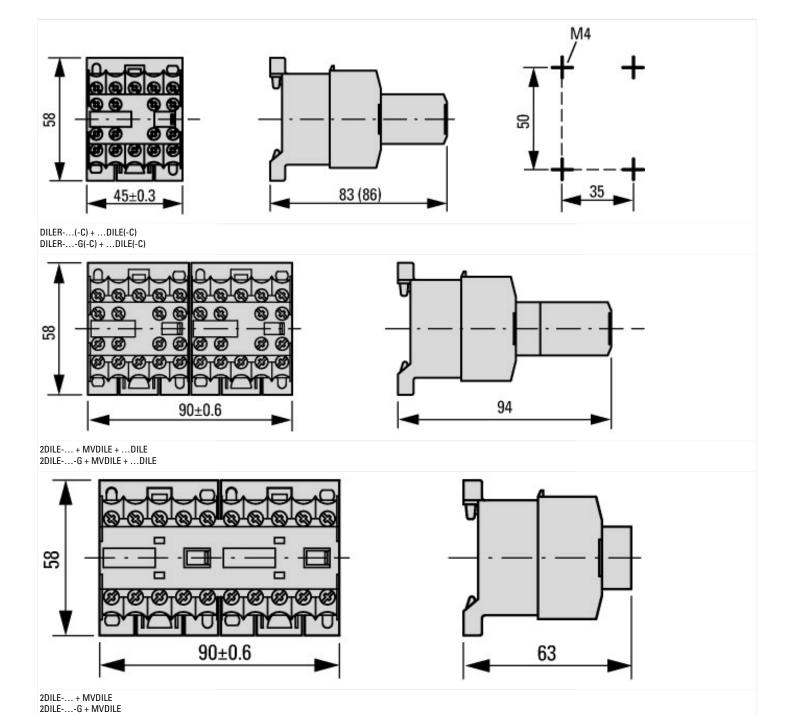


1: Suppressor 2: Auxiliary contact module



# **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 relay

ftp://ftp.moeller.net/DOCUMENTATION/AWA\_INSTRUCTIONS/IL03407009Z2018\_04.pdf