DATASHEET - DILA-31(110V50/60HZ)



Contactor relay, 110 V 50/60 Hz, N/O = Normally open: 3 N/O, N/C = Normally closed: 1 NC, Screw terminals, AC operation



Part no. Catalog No. Alternate Catalog No.

DILA-31(110V50/60HZ) 276370 Italog XTRE10B31E2

Similar to illustration

Delivery program

Product range Julk relays Application Contactor relays Description Basic devices with positive operation contacts Contection technique Screw terminals Rated operational current Mo AC-15 Screw terminals 200 V200 V200 V40 V Iso A 300 V400 V415 V Iso A NO = Normally closed Iso NO NO = Normally closed Iso NO Contacts Iso NO Distinctive number Iso Iso Distinctive number Iso Iso Altading voltage Iso Iso Screwiterminals Vice And Iso Iso Iso Isotactor number Iso Iso Contacts sequence Iso Iso Distinctive number Iso Iso Contact sequence Iso Iso Isotactive number Iso Iso Contact numbers and version of combination Iso Iso Isotactive number Iso Screw terminals Iso Contactive number Iso<	Dontory program			
Description Basic devices with positive operation contacts Connection technique Screw terminals Reted operational current Screw terminals AC-15 Screw terminals 20 V 200 V 200 V No A 380 V 400 V 415 V No A N/0 = Normally open No NO N/C = Normally closed NO NC Contact sequence A A Distinctive number Screw terminals NO Contact sequence In C In C Distinctive number Screw terminals In C Contact sequence In C In C Distinctive number Screw terminals In C Contact sequence In C In C Distinctive number Screw terminals In C Contact sequence In C In C Distinctive number Screw terminals In C Contact sequence In C In C Distinctive number Screw terminals In C Contact sequence In C	Product range			DILA relays
Connection technique Image: Second terminals Rated operational current Mo AC-15 Image: Second terminals 200 V300 V40 V Image: Second terminals 380 V 400 V415 V Image: Second terminals Second terminals Image: Second terminals N/0 = Normally open Image: Second terminals N/0 = Normally closed Image: Second terminals Contacts sequence Image: Second terminals Distinctive number Image: Second terminals Distinctive number Image: Second terminals Actuating voltage Image: Second terminals Voltage AC/DC Image: Second terminals Kuetions Image: Second terminals Image: Second terminals Image: Second terminals <	Application			Contactor relays
Rated operational current Rated operational current Rated operational current Rated operational current Reference	Description			Basic devices with positive operation contacts
AC-15 I <td>Connection technique</td> <td></td> <td></td> <td>Screw terminals</td>	Connection technique			Screw terminals
220 V 230 V 240 V Ie A A 380 V 400 V 115 V Ie A A Contacts Ie A A N/0 = Normally open N/0 N/0 N/0 N/c = Normally closed InC InC Contact sequence Im Im Im Cote number and version of combination Im Im Im Distinctive number Im Im Im Contact sequence Im Im Im Voltage AC/DC Im Im Im Contaction to SmartWire-DT Im Im Im Instructions Im Im Im Im Im Instructions Im Im Im Im Im Im Instructions Im Im Im Im Im Im Im Instructions	Rated operational current			
380 V 400 V 415 V Ie A 4 Contacts 380 V 400 V 415 V Inc 380 V 400 V 415 V 380 V 400 V 415 V 400 V 415 V 380 V 400 V 415 V 400 V 415 V 40	AC-15			
Contacts Image: Contact sequence N/0 = Normally closed 3 N/0 N/C = Normally closed 1 NC Contact sequence Image: Contact sequence Contact sequence Image: Contact sequence Distinctive number Image: Contact sequence Distinctive number Image: Contact sequence Distinctive number Image: Contact module Contact sequence Image: Contact module Distinctive number Image: Contact module Contact sequence Image: Contact module Voltage AC/DC Image: Contact module Contact sequence Image: Contact module Voltage AC/DC Image: Contact module Contact numbers to EN 50011 Image: Contact numbers to EN 50011	220 V 230 V 240 V	le	А	4
N/O = Normally open 3 N/O N/C = Normally closed 1 NC Contact sequence A1 1 1 2 1 3 1 4 3	380 V 400 V 415 V	l _e	А	4
N/C = Normally closed INC Contact sequence A1 13 21 33 43 Code number and version of combination Image: A2 14 22 34 44 Distinctive number Image: A2 14 22 34 44 Can be combined with auxiliary contact module Image: A2 14 22 34 44 Atuating voltage Image: Actuating voltage Voltage AC/DC Image: Actuating voltage Connection to SmartWire-DT Image: Actuating voltage Instructions Image: Actuating voltage	Contacts			
Contact sequence A1 13 21 33 43 Contact sequence A1 14 22 34 44 Code number and version of combination Image: Contact number Distinctive number Image: Contact number Can be combined with auxiliary contact module Image: Contact number Actuating voltage Image: Contact number Voltage AC/DC Image: Contact number Connection to SmartWire-DT Image: Contact numbers to EN 50011	N/O = Normally open			3 N/O
Code number and version of combination Image: A provide a pr	N/C = Normally closed			1 NC
Distinctive number State Distinctive number 31E Can be combined with auxiliary contact module DILA-XHI(V) Actuating voltage 110 V 50/60 Hz Voltage AC/DC AC operation Connection to SmartWire-DT no Instructions Contact numbers to EN 50011	Contact sequence			└ <u></u> <u></u> <u></u> <u></u> <u></u> <u></u>
Can be combined with auxiliary contact module DILA-XHI(V) Actuating voltage DILA-XHI(V) Voltage AC/DC 10 V 50/60 Hz Connection to SmartWire-DT AC operation Instructions Contact numbers to EN 50011	Code number and version of combination			
Actuating voltage 110 V 50/60 Hz Voltage AC/DC AC operation Connection to SmartWire-DT no Instructions Contact numbers to EN 50011	Distinctive number			31E
Voltage AC/DC AC operation Connection to SmartWire-DT no Instructions Contact numbers to EN 50011	Can be combined with auxiliary contact module			DILA-XHI(V)
Connection to SmartWire-DT no Instructions Contact numbers to EN 50011	Actuating voltage			110 V 50/60 Hz
Instructions Contact numbers to EN 50011	Voltage AC/DC			AC operation
	Connection to SmartWire-DT			no
	Instructions			

Technical data General

General			
Standards			IEC/EN 60947, EN 60947-5-1, VDE 0660, UL, CSA
Lifespan, mechanical			
AC 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			
Mounting position			
Mechanical shock resistance (IEC/EN 60068-2-27)			

Half-sinusoidal shock, 10 ms

Dasis unit with a william contract module			
Basic unit with auxiliary contact module		g	,
N/O contact		g	7
N/C contact		g	5
Degree of Protection			
Protection against direct contact when actuated from front (EN 50274)			Finger and back-of-hand proof
Weight			
AC operated		kg	0.24
Terminal capacities		mm ²	
Screw terminals			
Solid		mm ²	1 x (0,75 - 4) 2 x (0,75 - 2,5)
Flexible with ferrule		mm ²	1 x (0.75 - 2.5) 2 x (0.75 - 2.5)
ein- oder mehrdrähtig		AWG	18 - 14
Stripping length		mm	10
Terminal screw			M3.5
Pozidriv screwdriver		Size	2
Standard screwdriver		mm	2 0.8 x 5.5
			1 x 6
Max. tightening torque		Nm	1.2
Contacts			
Positive operating 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	Ue	V AC	690
Safe isolation to EN 61140			
between coil and auxiliary contacts		V AC	400
between the auxiliary contacts		V AC	400
Rated operational current		А	
Conventional free air thermal current, 1 pole			
Open			
at 60 °C	I _{th} =I _e	А	16
AC-15			
220 V 230 V 240 V	le	А	4
380 V 400 V 415 V	le	A	4
500 V	l _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			
Contacts in series:		A	
1	24 V	A	10
1	60 V	A	6
2	60 V	A	10
1	110 V	A	3
3	110 V	A	6
1	220 V	A	1
3	220 V	A	5
DC L/R ≦ 50 ms			
Contacts in series:		A	
3	24 V	A	4
3	60 V	A	4
3	110 V	A	2
3	220 V	A	1
Control circuit reliability	Failure rate	λ	<10 ⁻⁸ , < one failure at 100 million operations

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}			
AC operated		W	0.53
Magnet systems			
Voltage tolerance			
AC operated			
Dual-frequency coil 50/60 Hz	Pick-up	x U _c	0.8 - 1.1
Power consumption			
AC operation			
Dual-frequency coil 50/60 Hz at 60 Hz	Pick-up	VA	27 25
Dual-frequency coil 50/60 Hz	Hold	VA	4.2 3.3
Dual-frequency coil 50/60 Hz	Sealing	W	1.4 1.4
duty factor		% DF	100
Changeover time at 100 % U_{S} (recommended value)			
AC operated closing delay		ms	15 - 21
AC operated N/O contact opening delay		ms	9 - 18
Rating data for approved types			
Auxiliary contacts			
Pilot Duty			
AC operated			A600
DC operated			P300
General Use			
AC		V	600
AC		А	15
DC		V	250
DC		А	1

Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	I _n	А	15.5
Heat dissipation per pole, current-dependent	P _{vid}	W	0.5
Equipment heat dissipation, current-dependent	P _{vid}	W	0
Static heat dissipation, non-current-dependent	P _{vs}	W	1.4
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.

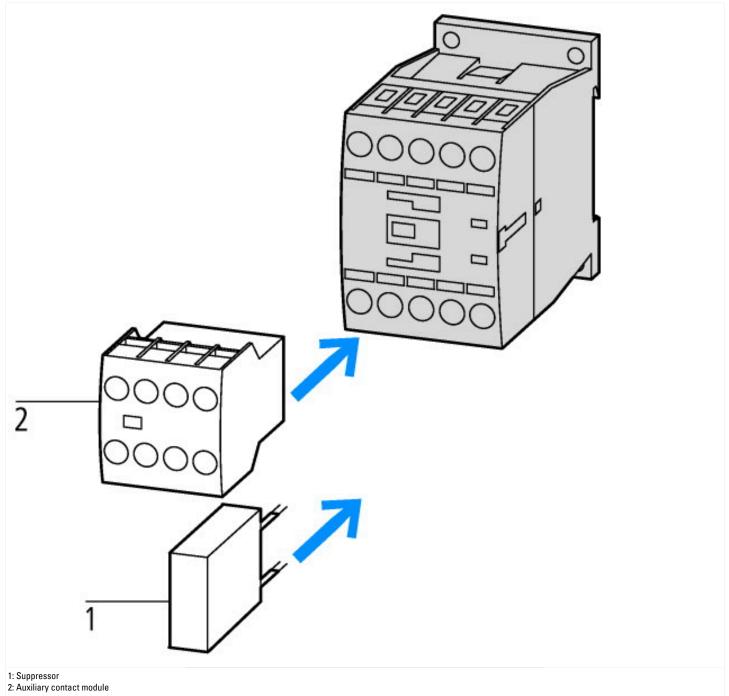
Technical data ETIM 7.0

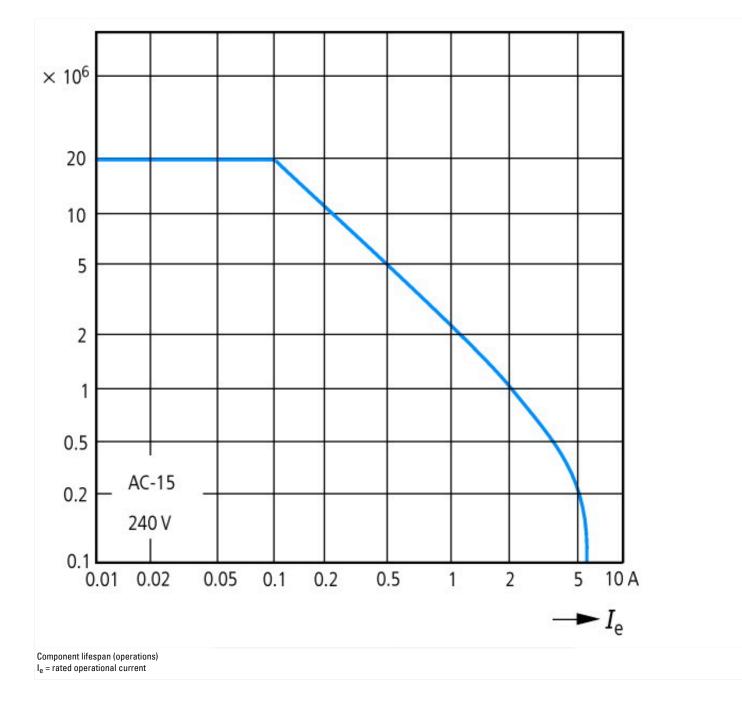
Low-voltage industrial components (EG000017) / Contactor relay (EC000196)

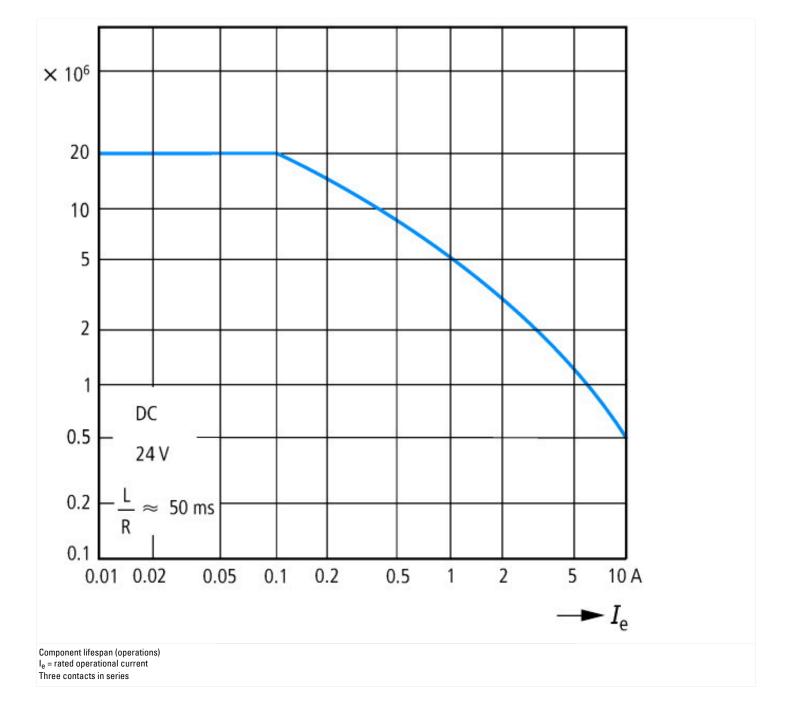
Electric engineering, automation, process control engineering / Low-voltage switch technology / Contactor (LV) / Contactor relay (ecl@ss10.0.1-27-37-10-01 [AAB716014])			
Rated control supply voltage Us at AC 50HZ	V	110 - 110	
Rated control supply voltage Us at AC 60HZ	V	110 - 110	
Rated control supply voltage Us at DC	V	0 - 0	
Voltage type for actuating		AC	
Rated operation current le, 400 V	А	4	
Connection type auxiliary circuit		Screw connection	
Mounting method		DIN-rail/screw	
Interface		No	
Number of auxiliary contacts as normally closed contact		1	
Number of auxiliary contacts as normally open contact		3	
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

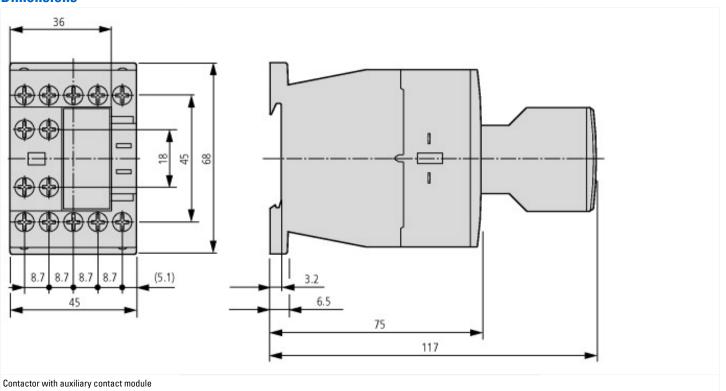
Product Standards	IEC/EN 60947-4-1; UL 508; CSA-C22.2 No. 14-05; CE marking
UL File No.	E29184
UL Category Control No.	NKCR
CSA File No.	012528
CSA Class No.	3211-03
North America Certification	UL listed, CSA certified
Specially designed for North America	No

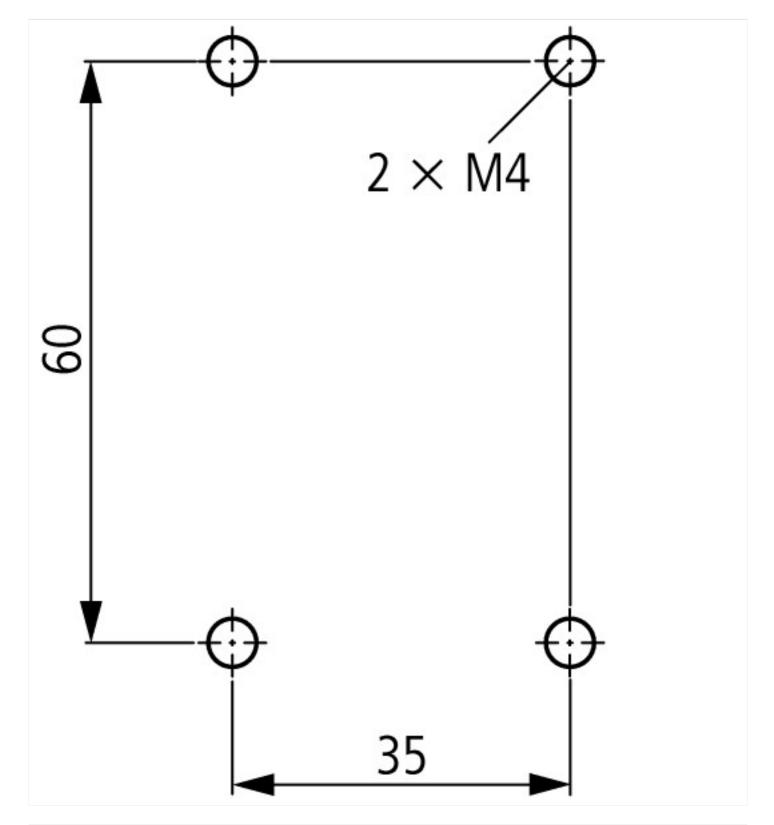






Dimensions





Assets (links)

Declaration of CE Conformity 00002875 Instruction Leaflets IL03407013Z2018_07

Additional product information (links)

IL03407013Z (AWA2100-2126) Contactors

IL03407013Z (AWA2100-2126) Contactors ftp://ftp.moelle

ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03407013Z2018_07.pdf