

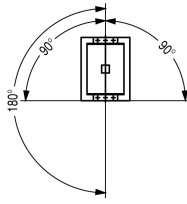
Contactor relay, 230 V 50 Hz, 240 V 60 Hz, 2 N/O, 2 NC, Push in terminals,  
AC operation

Part no. DILA-22(230V50HZ,240V60HZ)-PI  
Catalog No. 199214  
Alternate Catalog No. XTREPI10B22F

## Delivery program

Product range			DILA relays
Application			Contactor relays
Description			Basic devices with positive operation contacts
Connection technique			Push in terminals
<b>Rated operational current</b>			
AC-15			
220 V 230 V 240 V	I <sub>e</sub>	A	4
380 V 400 V 415 V	I <sub>e</sub>	A	4
<b>Contacts</b>			
N/O = Normally open			2 N/O
N/C = Normally closed			2 NC
Contact sequence			
<b>Code number and version of combination</b>			
Distinctive number			22E
Can be combined with auxiliary contact module			DILA-XHI(V)...-PI
Actuating voltage			230 V 50 Hz, 240 V 60 Hz
Voltage AC/DC			AC operation
Connection to SmartWire-DT			no
<b>Instructions</b>			
			Contact numbers to EN 50011 Coil terminal markings to EN 50005

## Technical data

<b>General</b>			
Standards			IEC/EN 60947, EN 60947-5-1, VDE 0660, UL, CSA
Lifespan, mechanical			
AC operated	Operations	x 10 <sup>6</sup>	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			
Basic unit with auxiliary contact module		g	
N/O contact		g	7
N/C contact		g	5
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			
AC operated		kg	0.23
Terminal capacities		mm <sup>2</sup>	
Push-in terminals			
Solid		mm <sup>2</sup>	1 x (0,5 - 2,5) 2 x (0,5 - 2,5)
flexible		mm <sup>2</sup>	1 x (0,5 - 2,5) 2 x (0,5 - 2,5)
flexible with ferrules		mm <sup>2</sup>	1 x (0,5 - 1,5) 2 x (0,5 - 1,5)
flexible with ultrasonic welded busbar end		mm <sup>2</sup>	1 x (0,5 - 2,5) 2 x (0,5 - 2,5)
flexible with uninsulated wire end ferrule		mm <sup>2</sup>	1 x (0,5 - 2,5) 2 x (0,5 - 2,5)
Solid or stranded		AWG	20 - 14
Stripping length		mm	10
Standard screwdriver			3.0 x 0.5

## Contacts

Positive operating 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	U <sub>i</sub>	V AC	690
Rated operational voltage	U <sub>e</sub>	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		A	
Conventional free air thermal current, 1 pole			
Open			
at 60 °C	I <sub>th</sub> = I <sub>e</sub>	A	16
AC-15			
220 V 230 V 240 V	I <sub>e</sub>	A	4
380 V 400 V 415 V	I <sub>e</sub>	A	4
500 V	I <sub>e</sub>	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 <sup>-8</sup> , < one failure at 100 million operations (at U <sub>e</sub> = 24 V DC, U <sub>min</sub> = 17 V, I <sub>min</sub> = 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	10
Current heat loss at I <sub>th</sub>		
AC operated	W	0.53

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
Power consumption			
AC operation			
Single-voltage coil 50 Hz and dual-voltage coil 50 Hz, 60 Hz	Pick-up	VA	24
Single-voltage coil 50 Hz and dual-voltage coil 50 Hz, 60 Hz	Sealing	VA	3.4
Single-voltage coil 50 Hz and dual-voltage coil 50 Hz, 60 Hz	Sealing	W	1.4
duty factor		% DF	100
Changeover time at 100 % U <sub>S</sub> (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		A	15
DC		V	250
DC		A	1

Design verification as per IEC/EN 61439

Technical data for design verification			
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	60

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	230 - 230
Rated control supply voltage Us at AC 60HZ	V	240 - 240
Rated control supply voltage Us at DC	V	0 - 0
Voltage type for actuating		AC
Rated operation current Ie, 400 V	A	4
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
Number of auxiliary contacts as change-over contact		0
With LED indication		No
Suitable for manual operation		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

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