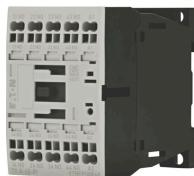


# DATASHEET - DILA-40(230V50HZ,240V60HZ)-PI



**Contactor relay, 230 V 50 Hz, 240 V 60 Hz, 4 N/O, Push in terminals, AC operation**

**Part no.** DILA-40(230V50HZ,240V60HZ)-PI

199204

**EL Number (Norway)** 4116717

## General specifications

Product name	Eaton Moeller® series DILA Control relay
Part no.	DILA-40(230V50HZ,240V60HZ)-PI
EAN	4015081972883
Product Length/Depth	75 millimetre
Product height	68 millimetre
Product width	45 millimetre
Product weight	0.227 kilogram
Certifications	CSA Class No.: 3211-03 CSA-C22.2 No. 14-05 UL Category Control No.: NKCR UL File No.: E29184 UL 508 UL CE marking CSA File No.: 012528 CSA EN 60947-5-1 VDE 0660 IEC/EN 60947
Product Tradename	DILA
Product Type	Control relay
Product Sub Type	None

## Features & Functions

Features	Positive operating contacts to EN 60947-5-1 appendix L, including auxiliary contact module
Fitted with:	Positive operation contacts

## General information

Application	Contactor relays
Connection	Push in terminals
Degree of protection	IP20
Shock resistance	5 g, N/C auxiliary contact, Basic unit with auxiliary contact module, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms 7 g, N/O auxiliary contact, Basic unit with auxiliary contact module, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms
Lifespan, mechanical	20,000,000 Operations (AC operated)
Mounting method	DIN-rail/screw
Operating frequency	9000 Operations/h
Overvoltage category	III
Pollution degree	3
Product category	DILA relays
Protection	Finger and back-of-hand proof, Protection against direct contact when actuated from front (EN 50274)
Rated impulse withstand voltage (Uimp)	6000 V AC

## Climatic environmental conditions

Ambient operating temperature - min	-25 °C
Ambient operating temperature - max	60 °C
Ambient operating temperature (enclosed) - min	25 °C
Ambient operating temperature (enclosed) - max	40 °C
Ambient storage temperature - min	40 °C
Ambient storage temperature - max	80 °C
Climatic proofing	Damp heat, cyclic, to IEC 60068-2-30 Damp heat, constant, to IEC 60068-2-78

## Terminal capacities

Terminal capacity (flexible with ferrule)	1 x (0.5 - 2.5) mm <sup>2</sup> 2 x (0.5 - 1.5) mm <sup>2</sup>
Terminal capacity (solid)	1 x (0.5 - 2.5) mm <sup>2</sup>
Terminal capacity (solid/stranded AWG)	20 - 14
Stripping length (main cable)	10 mm
Screwdriver size	3.0 x 0.5 mm, Terminal screw

## Electrical rating

Rated operational current (Ie)	16 A 3 A at 110 V, DC L/R ≤ 15 ms (with 1 contact in series) 10 A at 24 V, DC L/R ≤ 15 ms (with 1 contact in series) 1 A at 220 V, DC L/R ≤ 50 ms (with 3 contacts in series) 2 A at 110 V, DC L/R ≤ 50 ms (with 3 contacts in series) 4 A at 24 V, DC L/R ≤ 50 ms (with 3 contacts in series) 5 A at 220 V, DC L/R ≤ 15 ms (with 3 contacts in series) 4 A at 60 V, DC L/R ≤ 50 ms (with 3 contacts in series) 10 A at 60 V, DC L/R ≤ 15 ms (with 2 contacts in series) 6 A at 60 V, DC L/R ≤ 15 ms (with 1 contact in series) 1 A at 220 V, DC L/R ≤ 15 ms (with 1 contact in series) 6 A at 110 V, DC L/R ≤ 15 ms (with 3 contacts in series)
Rated operational current (Ie) at AC-15, 220 V, 230 V, 240 V	4 A
Rated operational current (Ie) at AC-15, 380 V, 400 V, 415 V	4 A
Rated operational current (Ie) at AC-15, 500 V	1.5 A
Rated insulation voltage (Ui)	690 V
Rated operational voltage (Ue) at AC - max	690 V
Short-circuit protection rating without welding	10 A gG/gL, 500 V, Max. Fuse, Contacts
Safe isolation	400 V AC, Between auxiliary contacts, According to EN 61140 400 V AC, Between coil and auxiliary contacts, According to EN 61140
Switching capacity (auxiliary contacts, general use)	1 A, 250 V DC, (UL/CSA) 15 A, 600 V AC, (UL/CSA)
Switching capacity (auxiliary contacts, pilot duty)	P300, DC operated (UL/CSA) A600, AC operated (UL/CSA)

## Magnet system

Duty factor	100 %
Pick-up voltage	0.8 - 1.1 V AC x Uc (voltage tolerance - single-voltage coil 50 Hz and dual-voltage coil 50 Hz, 60 Hz)
Power consumption, pick-up, 50 Hz	24 VA, AC, Single-frequency coil 50 Hz and Dual-frequency coil 50/60 Hz
Power consumption, pick-up, 60 Hz	24 VA, AC, Single-frequency coil 50 Hz and Dual-frequency coil 50/60 Hz
Power consumption, sealing, 50 Hz	3.4 VA, AC, Single-frequency coil 50 Hz and Dual-frequency coil 50/60 Hz 1.4 W, AC, Single-frequency coil 50 Hz and Dual-frequency coil 50/60 Hz
Power consumption, sealing, 60 Hz	1.4 W, AC, Single-frequency coil 50 Hz and Dual-frequency coil 50/60 Hz
Rated control supply voltage (Us) at AC, 50 Hz - min	230 V
Rated control supply voltage (Us) at AC, 50 Hz - max	230 V
Rated control supply voltage (Us) at AC, 60 Hz - min	240 V
Rated control supply voltage (Us) at AC, 60 Hz - max	240 V
Rated control supply voltage (Us) at DC - min	0 V
Rated control supply voltage (Us) at DC - max	0 V
Switching time (AC operated, make contacts, closing delay) - min	15 ms
Switching time (AC operated, make contacts, closing delay) - max	21 ms
Switching time (AC operated, make contacts, opening delay) - min	9 ms
Switching time (AC operated, make contacts, opening delay) - max	18 ms

## Communication

Connection to SmartWire-DT	No
----------------------------	----

## Contacts

Code number	40E
Control circuit reliability	$\lambda < 5 \times 10^{-7}$ (1 failure at 2,000,000 operations for U# = 24 V DC, Umin = 17 V, Imin = 5.4 mA) $\lambda < 5 \times 10^{-7}$ (1 failure at 2,000,000 operations for U# = 24 V DC, Umin = 17 V, Imin = 5.4 mA)
Number of auxiliary contacts (change-over contacts)	0
Number of contacts (normally closed contacts)	0
Number of contacts (normally open contacts)	4
Number of auxiliary contacts (normally closed contacts)	0

Number of auxiliary contacts (normally open contacts)	4
<b>Design verification</b>	
Equipment heat dissipation, current-dependent Pvid	0 W
Heat dissipation capacity Pdiss	0 W
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 Resist. of insul. mat. to abnormal heat/fire by internal elect. 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.
10.9.2 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 9.0

Low-voltage industrial components (EG000017) / Contactor relay (EC000196)		
Electric engineering, automation, process control engineering / Low-voltage switch technology / Contactor (LV) / Contactor relay (ecl@ss13-27-37-10-01 [AAB716019])		
Rated control supply voltage AC 50 Hz	V	230 - 230
Rated control supply voltage AC 60 Hz	V	240 - 240
Rated control supply voltage DC	V	0 - 0
Voltage type for actuating		
Rated operation current	A	16
Rated operation current Ie, 400 V	A	4
Mounting method		DIN-rail/screw
With LED indication		No
Suitable for manual operation		No
Interface		No
Number of auxiliary contacts as normally closed contact		0
Number of auxiliary contacts as normally open contact		4
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
Operating voltage AC 50 Hz	V	17 - 500
Operating voltage AC 60 Hz	V	17 - 500
Operating voltage DC	V	24 - 220
Voltage type (operating voltage)		AC/DC
Rated switch current	A	16
Connection type auxiliary circuit		Push-in clamp connection
Width	mm	45
Height	mm	68
Depth	mm	75

