



**Contactor, 3 pole, 380 V 400 V 4 kW, 1 N/O, 1 NC, RDC 24: 24 - 27 V DC, DC operation, Push in terminals**



**Part no.** DILM11-11(RDC24)-PI  
**Catalog No.** 199273  
**Alternate Catalog No.** XTCEPI011C11TD

**Delivery program**

Product range			Contactors
Application			Contactors for Motors
Subrange			Contactors up to 170 A, 3 pole
Utilization category			AC-1: Non-inductive or slightly inductive loads, resistance furnaces AC-3/AC-3e: Normal AC induction motors: Starting, switching off while running AC-4: Normal AC induction motors: starting, plugging, reversing, inching
Notes			 Also suitable for motors with efficiency class IE3.
Connection technique			Push in terminals
Number of poles			3 pole

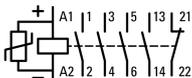
**Rated operational current**

AC-3			
Notes			At maximum permissible ambient temperature (open.) Also tested according to AC-3e.
380 V 400 V	$I_e$	A	11
AC-1			
Conventional free air thermal current, 3 pole, 50 - 60 Hz			
Open			
at 40 °C	$I_{th} = I_e$	A	40
enclosed	$I_{th}$	A	32
Conventional free air thermal current, 1 pole			
open	$I_{th}$	A	88
enclosed	$I_{th}$	A	80

**Max. rating for three-phase motors, 50 - 60 Hz**

AC-3			
220 V 230 V	P	kW	2.6
380 V 400 V	P	kW	4
660 V 690 V	P	kW	9
AC-4			
220 V 230 V	P	kW	2.5
380 V 400 V	P	kW	4.7
660 V 690 V	P	kW	6.7

**Contacts**

N/O = Normally open			1 N/O
N/C = Normally closed			1 NC
Contact sequence			

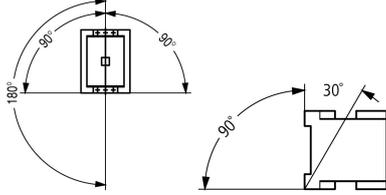
**Instructions**

Can be combined with auxiliary contact			DILM32-XHI...-PI DILA-XHI(V)...-PI
Actuating voltage			RDC 24: 24 - 27 V DC
Voltage AC/DC			DC operation
Connection to SmartWire-DT			yes

Frame size		in conjunction with DIL-SWD SmartWire DT contactor module
		2

## Technical data

### General

Standards			IEC/EN 60947, VDE 0660, UL, CSA
Operating frequency, mechanical			
DC operated	Operations/h		5000
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
Storage	°C		- 40 - 80
Mounting position			
Mechanical shock resistance (IEC/EN 60068-2-27)			
Half-sinusoidal shock, 10 ms			
Main contacts			
N/O contact	g		10
Auxiliary contacts			
N/O contact	g		7
N/C contact	g		5
Mechanical shock resistance (IEC/EN 60068-2-27) when tabletop-mounted			
Half-sinusoidal shock, 10 ms			
Main contacts			
N/O contact	g		5.7
Auxiliary contacts			
N/O contact	g		3.4
N/C contact	g		3.4
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			
DC operated	kg		0.55
Spring-loaded terminal connection			
Tool			
Standard screwdriver			3.0 x 0.5
Push-in terminals			
Terminal capacity main cable			
Solid	mm <sup>2</sup>		1 x (1 - 6) 2 x (1 - 6)
flexible	mm <sup>2</sup>		1 x (1 - 10) 2 x (1 - 6)
flexible with ferrules	mm <sup>2</sup>		1 x (1 - 6) 2 x (1 - 4)
flexible with ultrasonic welded busbar end	mm <sup>2</sup>		1 x (1 - 10) 2 x (1 - 6)
flexible with uninsulated wire end ferrule	mm <sup>2</sup>		1 x (1 - 6) 2 x (1 - 6)
Solid or stranded	AWG		18 - 8
Stripping length	mm		12
Standard screwdriver			3.0 x 0.5
Terminal capacity control circuit cables			

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
Tool			
Standard screwdriver		mm	3.0 x 0.5

### Main conducting paths

Rated impulse withstand voltage	U <sub>imp</sub>	V AC	8000
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 contacts		V AC	400
between the contacts		V AC	400
Making capacity (p.f. to IEC/EN 60947)			
	U <sub>p</sub> to 690 V	A	112
Breaking capacity			
220 V 230 V		A	90
380 V 400 V		A	90
500 V		A	70
660 V 690 V		A	50
Short-circuit rating			
Short-circuit protection maximum fuse			
Type "2" coordination			
400 V	gG/gL 500 V	A	35
690 V	gG/gL 690 V	A	35
Type "1" coordination			
400 V	gG/gL 500 V	A	63
690 V	gG/gL 690 V	A	50

### AC

AC-1			
Rated operational current			
Conventional free air thermal current, 3 pole, 50 - 60 Hz			
Open			
at 40 °C	I <sub>th</sub> = I <sub>e</sub>	A	40
at 50 °C	I <sub>th</sub> = I <sub>e</sub>	A	38
at 55 °C	I <sub>th</sub> = I <sub>e</sub>	A	37
at 60 °C	I <sub>th</sub> = I <sub>e</sub>	A	35
enclosed	I <sub>th</sub>	A	32
Conventional free air thermal current, 1 pole			
open	I <sub>th</sub>	A	88
enclosed	I <sub>th</sub>	A	80
AC-3			
Rated operational current			
Open, 3-pole: 50 – 60 Hz			
Notes			At maximum permissible ambient temperature (open.) Also tested according to AC-3e.
220 V 230 V	I <sub>e</sub>	A	11
240 V	I <sub>e</sub>	A	11

380 V 400 V	I <sub>e</sub>	A	11
415 V	I <sub>e</sub>	A	11
440V	I <sub>e</sub>	A	11
500 V	I <sub>e</sub>	A	11
660 V 690 V	I <sub>e</sub>	A	11
Motor rating	P	kWh	
220 V 230 V	P	kW	2.6
240V	P	kW	2.6
380 V 400 V	P	kW	4
415 V	P	kW	5
440 V	P	kW	5.5
500 V	P	kW	6.7
660 V 690 V	P	kW	9
AC-4			
Open, 3-pole: 50 – 60 Hz			
220 V 230 V	I <sub>e</sub>	A	10
240 V	I <sub>e</sub>	A	10
380 V 400 V	I <sub>e</sub>	A	10
415 V	I <sub>e</sub>	A	10
440 V	I <sub>e</sub>	A	10
500 V	I <sub>e</sub>	A	10
660 V 690 V	I <sub>e</sub>	A	8
Motor rating	P	kWh	
220 V 230 V	P	kW	2.5
240 V	P	kW	2.5
380 V 400 V	P	kW	4.7
415 V	P	kW	4.9
440 V	P	kW	5.2
500 V	P	kW	6
660 V 690 V	P	kW	6.7

### Current heat loss

3 pole, at I <sub>th</sub> (60°)		W	7.9
Current heat loss at I <sub>e</sub> to AC-3/400 V		W	0.6
Impedance per pole		mΩ	2.7

### Magnet systems

Voltage tolerance			
DC operated	Pick-up	x U <sub>c</sub>	0.7 - 1.2
Notes			RDC 24 (U <sub>min</sub> 24 V DC/U <sub>max</sub> 27 V DC) Example: U <sub>S</sub> = 0.7 x U <sub>min</sub> - 1.2 x U <sub>max</sub> / U <sub>S</sub> = 0.7 x 24V - 1.2 x 27V DC
DC operated	Drop-out	x U <sub>c</sub>	0.15 - 0.6
Notes			at least smoothed two-phase bridge rectifier or three-phase rectifier
Power consumption of the coil in a cold state and 1.0 x U <sub>S</sub>			
DC operated	Pick-up	W	12
DC operated	Sealing	W	0,9
Duty factor		% DF	100
Changeover time at 100 % U <sub>S</sub> (recommended value)			
Main contacts			
DC operated		ms	
Closing delay		ms	
Closing delay		ms	47
Opening delay		ms	
Opening delay		ms	30
Arcing time		ms	10

### Electromagnetic compatibility (EMC)

Emitted interference			According to EN 60947-1
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Interference immunity			According to EN 60947-1
<b>Rating data for approved types</b>			
Switching capacity			
Maximum motor rating			
Three-phase			
200 V 208 V	HP		3
230 V 240 V	HP		3
460 V 480 V	HP		5
575 V 600 V	HP		7,5
Single-phase			
115 V 120 V	HP		0,5
230 V 240 V	HP		1
General use	A		40
Auxiliary contacts			
General Use			
AC	V		600
AC	A		10
DC	V		250
DC	A		1
Short Circuit Current Rating			
Basic Rating			
SCCR	kA		5
max. Fuse	A		125
max. CB	A		125

## 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 7.0

Low-voltage industrial components (EG000017) / Power contactor, AC switching (EC000066)			
Electric engineering, automation, process control engineering / Low-voltage switch technology / Contactor (LV) / Power contactor, AC switching (ecl@ss10.0.1-27-37-10-03 [AAB718015])			
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 - 27
Voltage type for actuating			DC
Rated operation current Ie at AC-1, 400 V	A		40
Rated operation current Ie at AC-3, 400 V	A		11
Rated operation power at AC-3, 400 V	kW		4
Rated operation current Ie at AC-4, 400 V	A		6
Rated operation power at AC-4, 400 V	kW		2.5
Rated operation power NEMA	kW		0
Modular version			No
Number of auxiliary contacts as normally open contact			1
Number of auxiliary contacts as normally closed contact			1
Type of electrical connection of main circuit			Spring clamp connection
Number of normally closed contacts as main contact			0
Number of main contacts as normally open contact			3

## Approvals

Product Standards			IEC/EN 60947-4-1; UL 60947-4-1; CSA - C22.2 No. 60947-4-1-14; CE marking
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UL File No.	E29096
UL Category Control No.	NLDX
CSA File No.	012528
CSA Class No.	2411-03, 3211-04
North America Certification	UL listed, CSA certified
Specially designed for North America	No

## Characteristics

- 1: Overload relay
- 2: Suppressor
- 3: Auxiliary contact modules

Switching conditions for non-motor consumers, 3 pole, 4 pole

Operating characteristics

Non inductive and slightly inductive loads

Electrical characteristics

Switch on: 1 x rated operational current

Switch off: 1 x rated operational current

Utilization category

100 % AC-1

Typical examples of application

Electric heat

## Dimensions

