



Contactor, 3 pole, 380 V 400 V 11 kW, 1 N/O, 1 NC, RDC 24: 24 - 27 V DC, DC operation, Push in terminals

**EATON**  
Powering Business Worldwide™



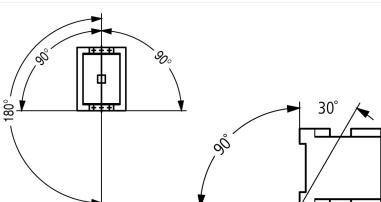
Part no. **DILM25-11(RDC24)-PI**  
Catalog No. **199288**  
Alternate Catalog No. **XTCEPI025C11TD**

## 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		
	<b>IE3 ✓</b>		
Notes	Also suitable for motors with efficiency class IE3.		
Connection technique	Push in terminals		
Number of poles	3 pole		
<b>Rated operational current</b>			
AC-3			
Notes	At maximum permissible ambient temperature (open.) Also tested according to AC-3e.		
380 V 400 V	$I_e$	A	25
AC-1			
Conventional free air thermal current, 3 pole, 50 - 60 Hz			
Open			
at 40 °C	$I_{th} = I_e$	A	45
enclosed	$I_{th}$	A	36
Conventional free air thermal current, 1 pole			
open	$I_{th}$	A	100
enclosed	$I_{th}$	A	90
<b>Max. rating for three-phase motors, 50 - 60 Hz</b>			
AC-3			
220 V 230 V	P	kW	7.5
380 V 400 V	P	kW	11
660 V 690 V	P	kW	14
AC-4			
220 V 230 V	P	kW	3.5
380 V 400 V	P	kW	6
660 V 690 V	P	kW	8.5
<b>Contacts</b>			
N/O = Normally open	1 N/O		
N/C = Normally closed	1 NC		
Contact sequence			
<b>Instructions</b>	Contacts to EN 50 012. with mirror contact.		
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		

## 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	6.9
Auxiliary contacts		
N/O contact	g	5.3
N/C contact	g	3.5
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		
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)		Up to 690 V	A
			350
Breaking capacity			
220 V 230 V		A	250
380 V 400 V		A	250
500 V		A	250
660 V 690 V		A	150
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	100
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	45
at 50 °C	I <sub>th</sub> = I <sub>e</sub>	A	43
at 55 °C	I <sub>th</sub> = I <sub>e</sub>	A	42
at 60 °C	I <sub>th</sub> = I <sub>e</sub>	A	40
enclosed	I <sub>th</sub>	A	36
Conventional free air thermal current, 1 pole			
open	I <sub>th</sub>	A	100
enclosed	I <sub>th</sub>	A	90
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	25
240 V	I <sub>e</sub>	A	25

380 V 400 V	$I_e$	A	25
415 V	$I_e$	A	25
440V	$I_e$	A	25
500 V	$I_e$	A	25
660 V 690 V	$I_e$	A	15
Motor rating	P	kWh	
220 V 230 V	P	kW	7.5
240V	P	kW	8.5
380 V 400 V	P	kW	11
415 V	P	kW	14.5
440 V	P	kW	15.5
500 V	P	kW	17.5
660 V 690 V	P	kW	14
AC-4			
Open, 3-pole: 50 – 60 Hz			
220 V 230 V	$I_e$	A	13
240 V	$I_e$	A	13
380 V 400 V	$I_e$	A	13
415 V	$I_e$	A	13
440 V	$I_e$	A	13
500 V	$I_e$	A	13
660 V 690 V	$I_e$	A	10
Motor rating	P	kWh	
220 V 230 V	P	kW	3.5
240 V	P	kW	4
380 V 400 V	P	kW	6
415 V	P	kW	6.5
440 V	P	kW	7
500 V	P	kW	8
660 V 690 V	P	kW	8.5

### Current heat loss

3 pole, at $I_{th}$ (60°)	W	10.8
Current heat loss at $I_e$ to AC-3/400 V	W	4.2
Impedance per pole	$m\Omega$	2.7

### Magnet systems

Voltage tolerance			
DC operated	Pick-up	$\times U_c$	0.7 - 1.2
Notes			RDC 24 ( $U_{min}$ 24 V DC/ $U_{max}$ 27 V DC) Example: $U_S = 0.7 \times U_{min} - 1.2 \times U_{max} / U_S = 0.7 \times 24V - 1.2 \times 27V DC$
DC operated	Drop-out	$\times U_c$	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 $1.0 \times U_S$			
DC operated	Pick-up	W	12
DC operated	Sealing	W	0,9
Duty factor		% DF	100
Changeover time at 100 % $U_S$ (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

**Rating data for approved types**

Switching capacity

Maximum motor rating

Three-phase

200 V  
208 V

HP 7.5

230 V  
240 V

HP 10

460 V  
480 V

HP 15

575 V  
600 V

HP 20

Single-phase

115 V  
120 V

HP 2

230 V  
240 V

HP 5

General use

A 40

Auxiliary contacts

General Use

V 600

AC

A 10

AC

V 250

DC

A 1

DC

Short Circuit Current Rating

SCCR

Basic Rating

kA 5

SCCR

A 125

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 45

Rated operation current Ie at AC-3, 400 V

A 25

Rated operation power at AC-3, 400 V

kW 11

Rated operation current Ie at AC-4, 400 V

A 13

Rated operation power at AC-4, 400 V

kW 6

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

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

