

Contactor, 4 pole, DC operation, AC-1: 32 A, 1 N/O, RDC 24: 24 - 27 V DC,  
Screw terminals



Part no. **DILMP32-10(RDC24)**  
Catalog No. **109811**  
Alternate Catalog No. **XTCF032C10TD**  
EL-Nummer (Norway) **4130411**



## Delivery program

Product range	Contactors		
Application	Contactors for 4 pole electric consumers		
Subrange	Contactors up to 200 A, 4 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		
Connection technique	Screw terminals		
Number of poles	4 pole		

## Rated operational current

AC-1			
Conventional free air thermal current, 3 pole, 50 - 60 Hz			
at 40 °C	$I_{th} = I_e$	A	32
at 50 °C	$I_{th} = I_e$	A	30
at 55 °C	$I_{th} = I_e$	A	29
at 60 °C	$I_{th} = I_e$	A	28

## Contacts

N/O = Normally open	1 N/O		
For use with	DILM32-XHI(C)... DILA-XHI(V)(C)...		
Actuating voltage	RDC 24: 24 - 27 V DC		
Voltage AC/DC	DC operation		
Connection to SmartWire-DT	yes in conjunction with DIL-SWD SmartWire DT contactor module		
Instructions	Contacts to EN 50 012. integrated suppressor circuit in actuating electronics		

## Technical data

General			
Standards	IEC/EN 60947, VDE 0660, UL, CSA		
Lifespan, mechanical			
AC operated	Operations	$\times 10^6$	10
DC operated	Operations	$\times 10^6$	10
Operating frequency, mechanical			
AC operated	Operations/h		5000
DC operated	Operations/h		5000
Climatic proofing	Damp heat, constant, to IEC 60068-2-3 Damp heat, cyclic, to IEC 60068-2-30		
Ambient temperature			
Open		°C	-25 - +60
Enclosed		°C	-25 - 40
Storage		°C	-40 - 80
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
Degree of Protection		IP00
Altitude	m	Max. 2000
Protection against direct contact when actuated from front (EN 50274)		Finger and back-of-hand proof
Stripping length	mm	10
Terminal capacity main cable		
Solid	mm <sup>2</sup>	1 x (0.75 - 16) 2 x (0.75 - 10)
Flexible with ferrule	mm <sup>2</sup>	1 x (0.75 - 16) 2 x (0.75 - 10)
Stranded	mm <sup>2</sup>	1 x 16
Solid or stranded	AWG	18 - 6
Terminal screw		M5
Tightening torque	Nm	3
Stripping length	mm	10
Terminal capacity control circuit cables		
Solid	mm <sup>2</sup>	1 x (0.75 - 4) 2 x (0.75 - 2.5)
Flexible with ferrule	mm <sup>2</sup>	1 x (0.75 - 2.5) 2 x (0.75 - 2.5)
Solid or stranded	AWG	18 - 14
Stripping length	mm	10
Terminal screw		M3.5
Tightening torque	Nm	1.2
Tool		
Main cable		
Pozidriv screwdriver	Size	2
Standard screwdriver	mm	0.8 x 5.5 1 x 6
Control circuit cables		
Pozidriv screwdriver	Size	2
Standard screwdriver	mm	0.8 x 5.5 1 x 6

### 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	440
between the contacts		V AC	440
Making capacity (cos φ)	Up to 690 V	A	238 According to IEC/EN 60947
Breaking capacity			
220 V 230 V		A	180
380 V 400 V		A	180
500 V		A	180
660 V 690 V		A	120
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	$I_{th} = I_e$	A	32
at 50 °C	$I_{th} = I_e$	A	30
at 55 °C	$I_{th} = I_e$	A	29
at 60 °C	$I_{th} = I_e$	A	28
enclosed	$I_{th}$	A	27
Conventional free air thermal current, 1 pole			
open	$I_{th}$	A	84
enclosed	$I_{th}$	A	76
Motor rating	P	kWh	
220/230 V	P	kW	12
240 V	P	kW	13
380/400 V	P	kW	20
415 V	P	kW	22
440 V	P	kW	23
500 V	P	kW	26
690 V	P	kW	35
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	$I_e$	A	18
240 V	$I_e$	A	18
380 V 400 V	$I_e$	A	18
415 V	$I_e$	A	18
440 V	$I_e$	A	18
500 V	$I_e$	A	18
660 V 690 V	$I_e$	A	12
Motor rating	P	kWh	
220 V 230 V	P	kW	5
240 V	P	kW	5.5
380 V 400 V	P	kW	7.5
415 V	P	kW	10
440 V	P	kW	10.5
500 V	P	kW	12
660 V 690 V	P	kW	11

## DC

Rated operational current, open			
DC-1			
60 V	$I_e$	A	32
110 V	$I_e$	A	32
220 V	$I_e$	A	32

## Current heat loss

3 pole, at $I_{th}$ (60°)		W	6.6
Impedance per pole		$m\Omega$	2.7

## Magnet systems

Voltage tolerance			
AC operated 50/60 Hz		$\times U_c$	0.85 - 1.1
DC operated	Pick-up	$\times U_c$	At least double-pulse bridge rectifier - 0.7 - 1.2
DC operated	Drop-out	$\times U_c$	At least double-pulse bridge rectifier - 0.2 - 0.6
Power consumption of the coil in a cold state and $1.0 \times U_S$			
Notes on DC actuation			At least double-pulse bridge rectifier

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	
Notes on DC actuation			At least double-pulse bridge rectifier
Closing delay		ms	47
Opening delay		ms	30
Arcing time		ms	10
Permissible residual current with actuation of A1 - A2 by the electronics (with 0 signal).		mA	≤ 1

### Rating data for approved types

Switching capacity			
Maximum motor rating			
Three-phase			
200 V		HP	7.5
208 V			
230 V		HP	10
240 V			
460 V		HP	15
480 V			
575 V		HP	20
600 V			
Single-phase			
115 V		HP	2
120 V			
230 V		HP	5
240 V			
General use		A	40
Auxiliary contacts			
Pilot Duty			
AC operated			A600
DC operated			P300
General Use			
AC		V	600
AC		A	10
DC		V	250
DC		A	1
Short Circuit Current Rating		SCCR	
Basic Rating			
SCCR		kA	5
max. Fuse		A	125
max. CB		A	125
480 V High Fault			
SCCR (fuse)		kA	10/100
max. Fuse		A	125/70 Class J
SCCR (CB)		kA	10/65
max. CB		A	50/32
600 V High Fault			
SCCR (fuse)		kA	10/100
max. Fuse		A	125/100 Class J
SCCR (CB)		kA	10/22
max. CB		A	50/32
Special Purpose Ratings			
Electrical Discharge Lamps (Ballast)			
480V 60Hz 3phase, 277V 60Hz 1phase		A	40
600V 60Hz 3phase, 347V 60Hz 1phase		A	40

Incandescent Lamps (Tungsten)			
480V 60Hz 3phase, 277V 60Hz 1phase	A	40	
600V 60Hz 3phase, 347V 60Hz 1phase	A	40	
Resistance Air Heating			
480V 60Hz 3phase, 277V 60Hz 1phase	A	40	
600V 60Hz 3phase, 347V 60Hz 1phase	A	40	
Refrigeration Control (CSA only)			
LRA 480V 60Hz 3phase	A	240	
FLA 480V 60Hz 3phase	A	40	
LRA 600V 60Hz 3phase	A	180	
FLA 600V 60Hz 3phase	A	30	
Definite Purpose Ratings (100,000 cycles acc. to UL 1995)			
LRA 480V 60Hz 3phase	A	150	
FLA 480V 60Hz 3phase	A	25	
Elevator Control			
200V 60Hz 3phase	HP	3	
200V 60Hz 3phase	A	11	
240V 60Hz 3phase	HP	5	
240V 60Hz 3phase	A	15.2	
480V 60Hz 3phase	HP	10	
480V 60Hz 3phase	A	14	
600V 60Hz 3phase	HP	15	
600V 60Hz 3phase	A	17	

## Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	I <sub>n</sub>	A	32
Heat dissipation per pole, current-dependent	P <sub>vid</sub>	W	2.2
Equipment heat dissipation, current-dependent	P <sub>vid</sub>	W	6.6
Static heat dissipation, non-current-dependent	P <sub>vs</sub>	W	0.9
Heat dissipation capacity	P <sub>diss</sub>	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 8.0

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	32
Rated operation current Ie at AC-3, 400 V	A	18
Rated operation power at AC-3, 400 V	kW	7.5
Rated operation current Ie at AC-4, 400 V	A	15
Rated operation power at AC-4, 400 V	kW	7
Rated operation power NEMA	kW	11
Modular version		No
Number of auxiliary contacts as normally open contact		1
Number of auxiliary contacts as normally closed contact		0
Type of electrical connection of main circuit		Screw connection
Number of normally closed contacts as main contact		0
Number of normally open contacts as main contact		4