

## DATASHEET - 22DILEM



**Auxiliary contact module, 4 pole, 2 N/O, 2 NC, Screw terminals**



Powering Business Worldwide™

**Part no.** 22DILEM  
**Catalog No.** 010112  
**Alternate Catalog No.** XTMCXFC22  
**EL-Nummer (Norway)** 4130387

## Delivery program

Accessories				Auxiliary contact modules
Description				with interlocked opposing contacts Switching elements according to EN 50012 Switching elements according to EN 50012 are to be preferred. Version E combinations correspond to EN 50011 and are to be preferred.
Function				for standard applications
Number of poles				4 pole
Connection technique				Screw terminals
<b>Rated operational current</b>				
AC-15				
220 V 230 V 240 V	$I_e$	A		4
380 V 400 V 415 V	$I_e$	A		2
<b>Contacts</b>				
N/O = Normally open				2 N/O
N/C = Normally closed				2 NC
Mounting type				Front fixing
Contact sequence				
For use with				DILEM-10(-G)(...) DILEM-4(-G)(...) DILEEM-10(-G)(...) DILEM12-10(-G)(...)
<b>Instructions</b>				Interlocked opposing contacts according to IEC/EN 60947-5-1 appendix L, inside the auxiliary contact modules, also for the integrated auxiliary contacts of the DILER, DILE(E)M Auxiliary contacts used as mirror contacts according to IEC/EN 60947-4-1 Appendix F (not N/C late open)

## Technical data

### General

Standards				IEC/EN 60947, VDE 0660, UL, CSA
Lifespan, mechanical				
AC operated	Operations	$\times 10^6$		10
DC operated	Operations	$\times 10^6$		20
Component lifespan at $U_e = 240$ V				
AC-15	Operations	$\times 10^6$		0.2
DC				
L/R = 50 ms: 2 contacts in series at $I_e = 0.5$ A	Operations	$\times 10^6$		0.15
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 - +50
Enclosed		°C		- 25 - 40
Ambient temperature, storage		°C		- 40 - 80
Mounting position				

Mounting position			As required, except vertical with terminals A1/A2 at the bottom
Mechanical shock resistance (IEC/EN 60068-2-27)			
Half-sinusoidal shock, 10 ms			
Basic unit with auxiliary contact module		g	
N/O contact		g	10
N/C contact		g	8
Degree of Protection			IP20
Protection against direct contact when actuated from front (EN 50274)			Finger and back-of-hand proof
Weight		kg	0.04
Terminal capacities		mm <sup>2</sup>	
Screw terminals			
Solid		mm <sup>2</sup>	1 x (0.75 - 2.5) 2 x (0.75 - 2.5)
Flexible with ferrule		mm <sup>2</sup>	1 x (0.75 - 1.5) 2 x (0.75 - 1.5)
Solid or stranded		AWG	Single 18 – 14/Double 18 – 14
Terminal screw			M3.5
Pozidriv screwdriver		Size	2
Standard screwdriver		mm	0.8 x 5.5 1 x 6
Max. tightening torque		Nm	1.2

## Contacts

Interlocked opposing contacts within an auxiliary contact module (to IEC 60947-5-1 Annex L)			Yes
Rated impulse withstand voltage	$U_{imp}$	V AC	6000
Overvoltage category/pollution degree			III/3
Rated insulation voltage	$U_i$	V AC	690
Rated operational voltage	$U_e$	V AC	600
Safe isolation to EN 61140			
between coil and auxiliary contacts		V AC	300
between the auxiliary contacts		V AC	300
Rated operational current		A	
Conventional free air thermal current, 1 pole			
Notes			At maximum permissible ambient air temperature.
Conv. thermal current	$I_{th}$	A	10
AC-15			
220 V 230 V 240 V	$I_e$	A	4
380 V 400 V 415 V	$I_e$	A	2
500 V	$I_e$	A	1.5
DC current			
			Switch-on and switch-off conditions based on DC-13, time constant as specified.
DC L/R $\leq$ 15 ms			
Contacts in series:		A	
1	24 V	A	2.5
2	60 V	A	2.5
3	110 V	A	1.5
3	220 V	A	0.5
Control circuit reliability	Failure rate	$\lambda$	$<10^{-8}$ , < one failure at 100 million operations (at $U_e = 24$ V DC, $U_{min} = 17$ V, $I_{min} = 5.4$ 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	6
500 V		A fast	10

Current heat loss at $I_{th}$			
AC operated		W	1.5
DC operated		W	1.5
Current heat loss per auxiliary circuit at $I_a$ (AC-15/230 V)		CO	0.24

### Rating data for approved types

Auxiliary contacts			
Pilot Duty			
AC operated			A600
DC operated			P300
General Use			
AC		V	600
AC		A	10
DC		V	250
DC		A	0.5

### Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	$I_n$	A	4
Heat dissipation per pole, current-dependent	$P_{vid}$	W	0.24
Equipment heat dissipation, current-dependent	$P_{vid}$	W	0
Static heat dissipation, non-current-dependent	$P_{vs}$	W	0
Heat dissipation capacity	$P_{diss}$	W	0
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	50
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 Verification of thermal stability of enclosures			
10.2.3.1 Verification of resistance of insulating materials to normal heat			Meets the product standard's requirements.
10.2.3.2 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects			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 7.0

Low-voltage industrial components (EG000017) / Auxiliary contact block (EC000041)

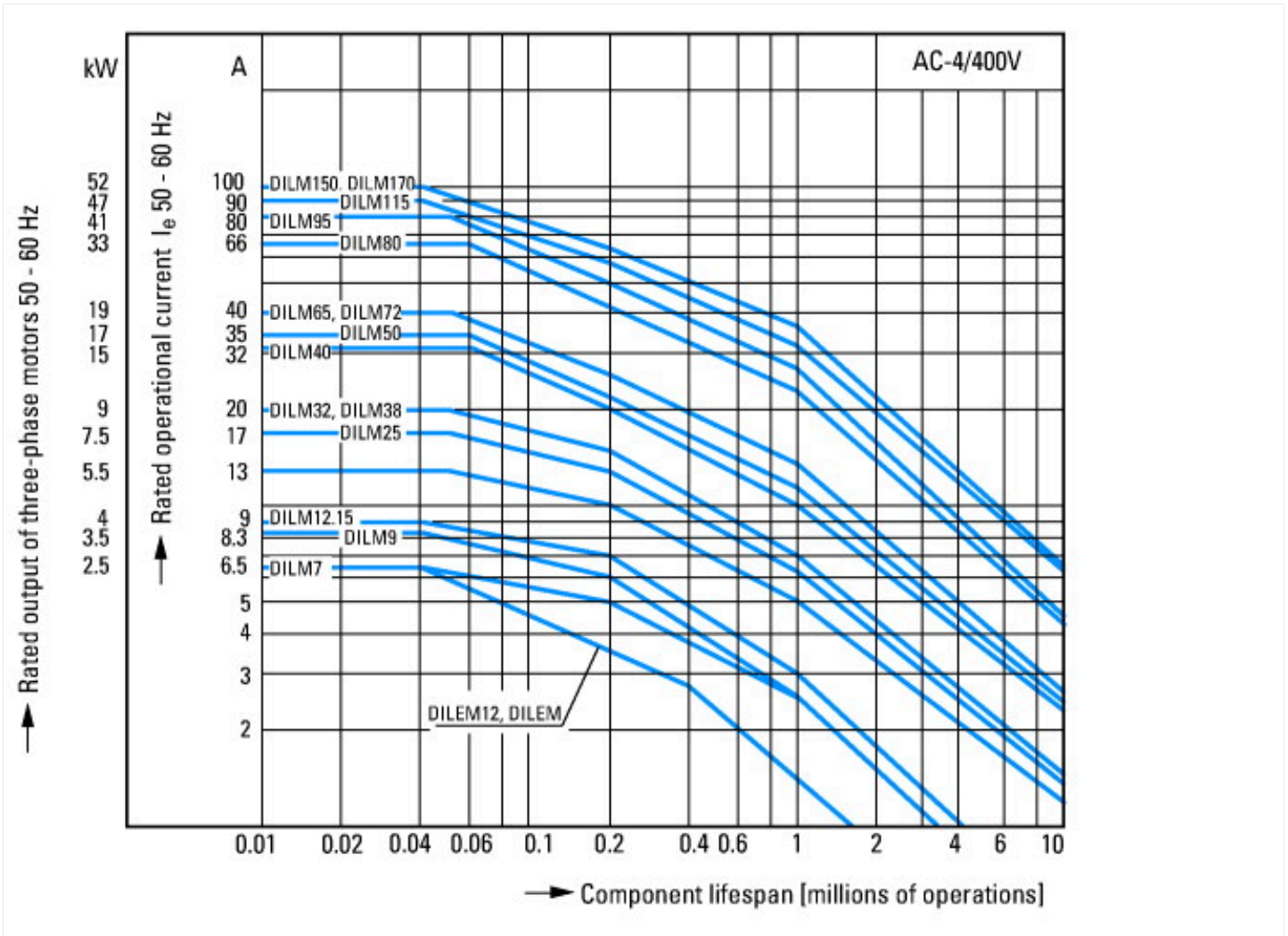
Electric engineering, automation, process control engineering / Low-voltage switch technology / Component for low-voltage switching technology / Auxiliary switch block (ec@ss10.0.1-27-37-13-02 [AKN342013])

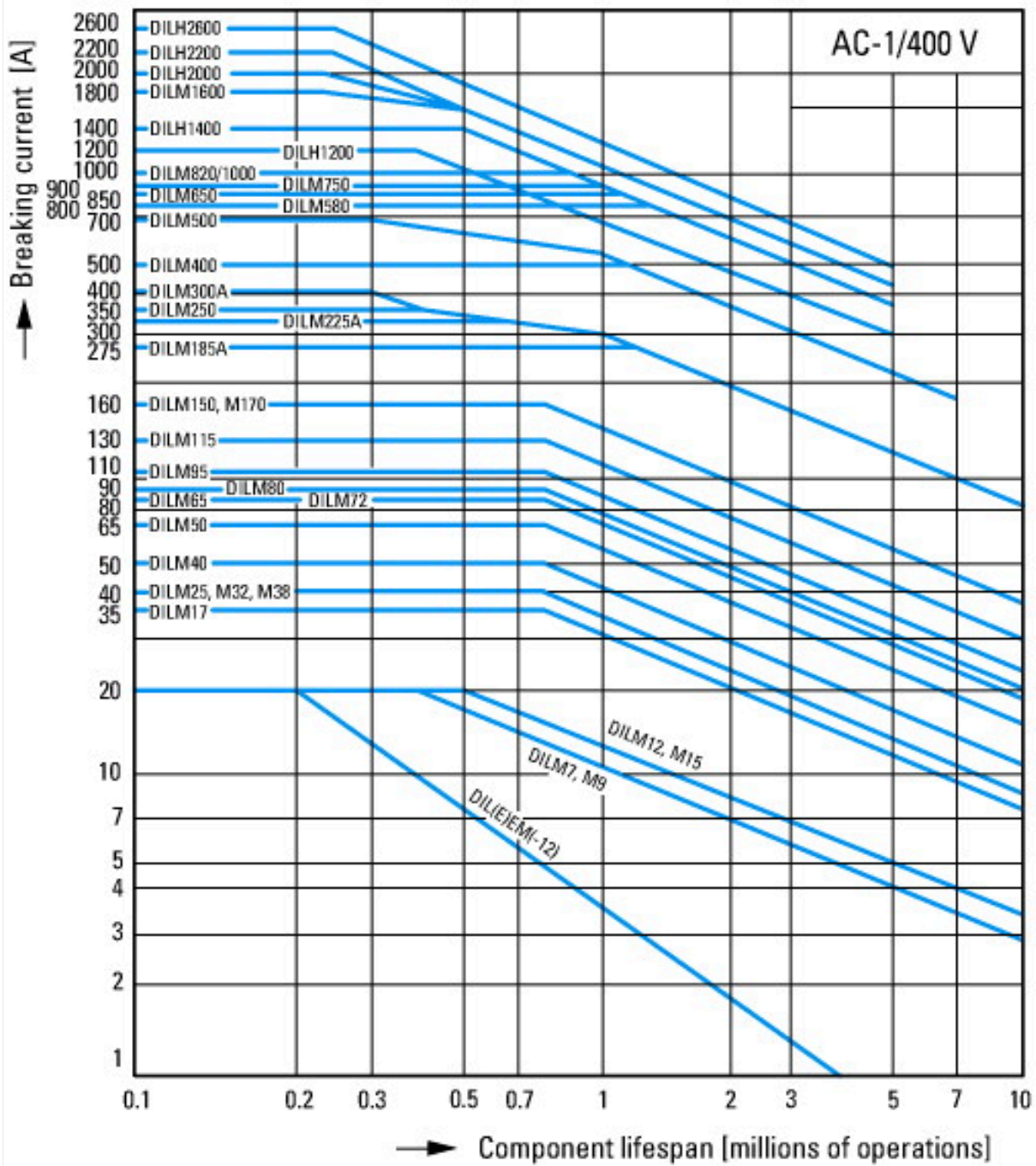
Number of contacts as change-over contact		0
Number of contacts as normally open contact		2
Number of contacts as normally closed contact		2
Number of fault-signal switches		0
Rated operation current I <sub>e</sub> at AC-15, 230 V	A	4
Type of electric connection		Screw connection
Model		Top mounting
Mounting method		Front fastening
Lamp holder		None

### Approvals

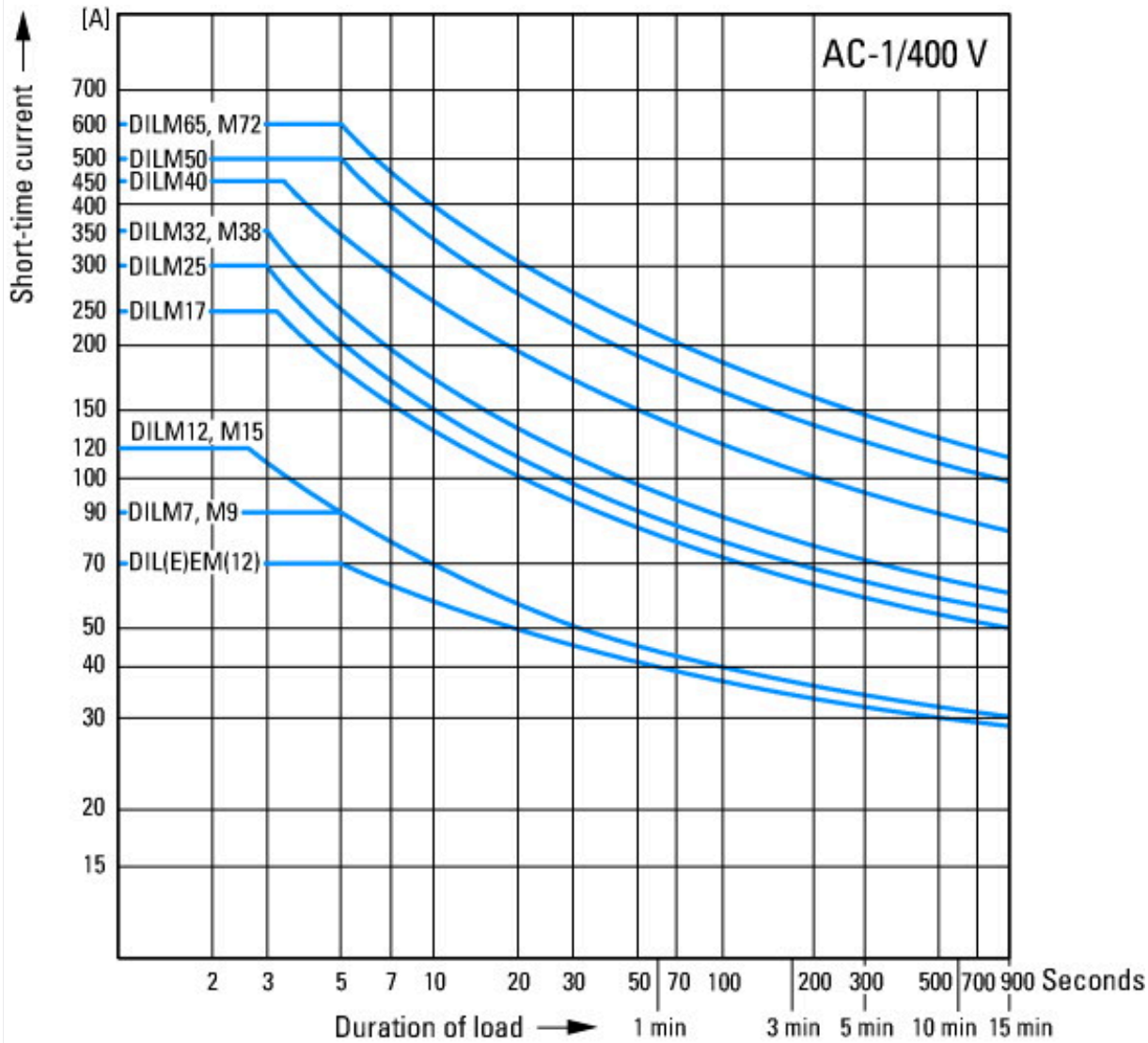
Product Standards		IEC/EN 60947-4-1; UL 508; CSA-C22.2 No. 14-05; CE marking
UL File No.		E29184
UL Category Control No.		NKCR
CSA File No.		012528
CSA Class No.		3211-03
North America Certification		UL listed, CSA certified
Specially designed for North America		No

### Characteristics



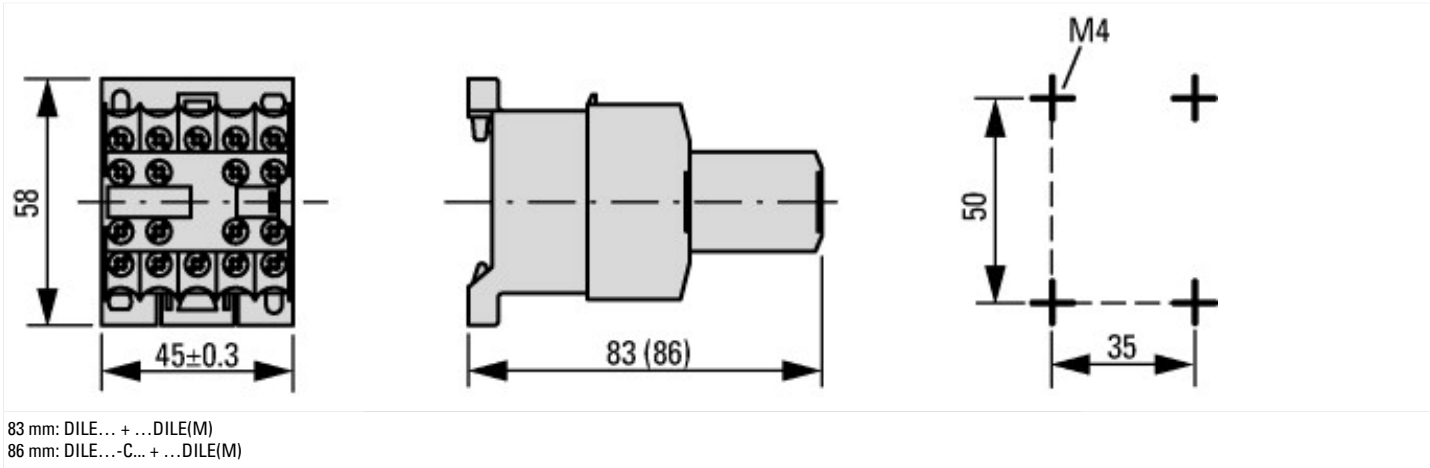


Switching duty for non-motor loads, 3-pole, 4-pole  
 Operating characteristics  
 Non-inductive or slightly inductive loads  
 Electrical characteristics  
 Make: 1 x rated current  
 Break: 1 x rated current  
 Utilization category  
 100 % AC-1  
 Typical applications  
 Electric heat



Short-time loading, 3-pole  
Time interval between two loading cycles: 15 minutes

### Dimensions





# SCATTERGOOD & JOHNSON LTD

ELECTRICAL ENGINEERING & FLUID CONTROL DISTRIBUTORS

Est.1899

At Scattergood & Johnson Ltd, we pride ourselves on being a technical distributor to specialist industries.

Working with a range of quality product suppliers across a number of specialist markets, we are not your average 'box shifter' - we are your technical and supply chain partner.

We fully support every product we sell - for free! Our internal team and external sales engineers can answer any product or application question, no matter the complexity.

Backing up this technical ability is a range of 50,000+ products available from stock for nationwide next day delivery (same day if required!), or you can collect what you need from any of our trade counters around the UK.

Select your specialist interest below to learn more about how we can help.



Online, In Branch and On the Road - Scattergood & Johnson Ltd, there when you need us.

# [www.scatts.co.uk](http://www.scatts.co.uk)