DATASHEET - DILM32-XTEE11(RAC130)



Timer module, 100-130VAC, 0.1-100s, on-delayed



DILM32-XTEE11(RAC130) Part no. Catalog No. 101441

Eaton Catalog No. XTCEXTEEC11A

Delivery program

Product range	Accessories
Accessories	Timer modules
Description	On-delayed Cannot be combined with top mounting auxiliary contacts Incl. suppressor circuits Time range can be selected
u_s	100 - 130 V AC 50/60 Hz
Time range	convertible 0.05 - 1 s 0.5 - 10 s 5 - 100 s
For use with	DILM7 - DILM38 DILMP20 DILMP32-DILMP45 DILA DILMF1 DILMF11 DILMF14 DILMF25 DILMF32
Contact sequence	A1 57 65

Technical data

General			
Standards			DIN EN 61812, IEC/EN 60947, VDE 0660, UL, CSA
Lifespan, mechanical			
AC operated	Operations	x 10 ⁶	3
DC operated	Operations	x 10 ⁶	3
Climatic proofing			Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
Ambient temperature			
Storage		°C	- 40 - 80
Open		°C	-25 - +60
Enclosed		°C	- 25 - 40
Mounting position			As required, except suspended
Mechanical shock resistance (IEC/EN 60068-2-27)			
Half-sinusoidal shock, 10 ms			
N/O contact		g	6
N/C contact		g	6
Degree of Protection			IP20
Protection against direct contact when actuated from front (EN 50274)			Finger and back-of-hand proof
Weight		kg	0.08
Terminal capacities		mm ²	
Solid		mm ²	1 x (0.75 - 2.5) 2 x (0.75 - 1.5)
Flexible with ferrule		mm ²	1 x (0.75 - 1.5) 2 x (0.75 - 1.5)
Solid or stranded		AWG	18 - 14
Terminal screw			M3.5
Pozidriv screwdriver		Size	2
Standard screwdriver		mm	0.8 x 5.5 1 x 6

Martin migration delings Martin migration de	Max. tightening torque		Nm	1.2
New of tables category polition degree 1	Contacts			
Make Cimulation voltage	Rated impulse withstand voltage	U_{imp}	V AC	4000
Tables do pessibilaris vilatign Lance Lan	Overvoltage category/pollution degree			III/3
AC-15 COUNT	Rated insulation voltage	Ui	V AC	250
AC-15 200 V240 V 10	Rated operational voltage	U _e	V	250
101 101	Rated operational current	I _e	Α	
DC-13 (LIPAT - To miss	AC-15			
DC 13 LPR - 15 ms	220 V 230 V 240 V	l _e	Α	3
Cartacts in series:	DC-13			
1	DC-13 L/R - 15 ms			
1 1 100 A 0 0.2 1 1 100 A 0 0.1 Contracts in series: Contracts in series: A 1 1 0 0.2 1 1 0 0.0 1 0 0.0 1 0	Contacts in series:		Α	
1 1 10 20 0 10 10 10 10 10 10 10 10 10 10 10 10	1	24 V	Α	1
1 D.C. of services	1	60 V	Α	0.2
DC UN = 50 ms Contacts in series: 24 V A 1 1 1 0 00 V A 0.2 1 1 10 V A 0.2 1 1 0 0.13 UR - 300 ms Contacts in series: Contacts in series: Contacts in series: 1 1 24 V A 1 1 10 0 24 V A 0.2 1 1 0 0.2 V A 0.2 20 V A 0.2	1	110 V	Α	0.2
Contacts in seriess	1	220 V	Α	0.1
1	DC L/R ≦ 50 ms			
1	Contacts in series:		Α	
1	1	24 V	Α	1
1	1	60 V	Α	0.2
DC-13 UR - 300 ms	1	110 V	Α	0.2
Contracts in series: 24 V A 1 1 24 V A 1 1 60 V A 0.2 1 10 V A 0.1 1 1 20 V A 0.1 Sale isolation to EN 61140 VAC 250 between the auxiliary contacts VAC 250 between the auxiliary contacts VAC 250 between the auxiliary contacts VAC 250 Conventional thermal current In A QG/Q 4 Magnet systems VAC 250 Valuage to larance VAC YAC 20 Pick-up voltage VAC 20 20 A Operated Pick-up VAC VAC 20 Power consumption Pick-up VAC 07 - 12 Obus power and frequency Sealing VA 2 AGA Operated Sealing VA 100 Max. operating frequency Opxh 100 Max. operating frequency Opxh 100 <td>1</td> <td>220 V</td> <td>Α</td> <td>0.1</td>	1	220 V	Α	0.1
1	DC-13 L/R - 300 ms			
1	Contacts in series:		Α	
1 1 10	1	24 V	Α	1
1 220 V A 0.1 Safe isolation to EN 61140 VAC 250 between coil and auxiliary contacts VAC 250 Conventional thermal current In A A 4 Soft-ricricult rating without welding VAC 250 Magnet systems VAC 4 gG/gL 4 Motorate Uniforance VAC VAC Pick-up voltage VAC 4 gG/gL 4 GA (parated) DC operated Pick-up VL _c 0.5 - 1.1 Power consumption VL _c 0.7 - 1.2 Power consumption VL _c 0.7 - 1.2 Power consumption VL _c 0.7 - 1.2 Max operating frequency Sealing VA 2 AC operated Sealing VA 2 Max apperating frequency Ops./h 300 Max apperating frequency Ops./h 300 Conventional thermal current $I_{th} = I_a AC-1$ Max (parated) Max (parated) Max (parated) On-delayed Max (parated) <t< td=""><td>1</td><td>60 V</td><td>Α</td><td>0.2</td></t<>	1	60 V	Α	0.2
Sale is olation to EN 61140 VAC 250 between coil and auxiliary contacts VAC 250 between the auxiliary contacts VAC 250 Conventional thermal current Inh A 4 Short-circuit rating without welding A g6/gL 4 max. fuse A g6/gL 4 Magnet systems VL C Voltage tolerance YU VL B Pick-up voltage XU SU B AC operated Pick-up XU B5-11 DC operated Pick-up XU B5-11 Power consumption Su F C C AC operated Sealing VA 2 C AC operated Sealing VA 2 C Max influency So F D0 B B B Max operating frequency So F D0 ps/h B B B Conventional thermal current $I_{th} = I_{th} AC-1$ MS C D B	1	110 V	Α	0.2
between coll and auxiliary contacts V AC 250 between the auxiliary contacts V AC 250 Conventional thermal current Inh. A 4 Short-circuit rating without welding max. fuse A 96/gt. 4 Masgnet systems V VAC 5 Pick-up voltage X U _s 4 AC operated Pick-up X U _s 85-1.1 DC operated Pick-up X U _s 07-1.2 Power consumption Pick-up X U _s 07-1.2 Power consumption Sealing VA 2 AC operated Sealing VA 2 AC operated Sealing VA 2 AMA operating frequency Sp. P 100 Max mum operating frequency Ops/h 300 Max perating frequency Ops/h 300 Conventional thermal current I _{In} = I ₀ AC-1 ms < 50 Off-delayed ms < 200 AC operated 50 Hz ms < 200 AC operated 50 H	1	220 V	Α	0.1
between the auxiliary contacts V AC 250 Conventional thermal current Inh A B 4 Short-circuit rating without welding max. fuse A gG/gL 4 Wagnet systems V AC V AC Pick-up voltage x U _S 4 AC operated V AC 5 DC operated Pick-up x U _C 05 - 1.1 DC operated Pick-up x U _C 05 - 1.1 Power consumption Pick-up x U _C 05 - 1.2 Power consumption Sealing V A 2 AC operated Sealing V A 2 AC operated Sealing V A 2 Max operating frequency V D 100 Maximum operating frequency 0ps/h 360 Max operating frequency 0ps/h 360 Conventional thermal current lins = l ₀ AC-1 Max operating frequency 360 Con delayed M	Safe isolation to EN 61140			
Conventional thermal current Ith A g G/L 4 Short-circuit rating without welding A g G/L 4 Mass fuse A g G/L 4 Voltage tolerance V CU V CU Pick-up voltage X U _S V CU AC operated Pick-up X U _C 0.5 - 1.1 DC operated Pick-up X U _C 0.7 - 1.2 Power consumption X U _C 0.7 - 1.2 GO °C Sealing W 2.8 AC operated Sealing W 1.8 AC operated Sealing W 1.8 AU operating frequency DO gs/h 1.00 Max operating frequency Ops/h 360 Can be combined with auxiliary contact Ops/h 360 Conventional thermal current I _{th} = I ₀ AC-1 ms < 50 MC operated 50 Hz Power interested 50 Hz ms < 50 Recovery time (after 100% time delay) Power interested 50 Hz ms < 50 Power interested 50 Hz Power interested 5	between coil and auxiliary contacts		V AC	250
Short-circuit rating without welding A g6/gL 4 Magnet systems VAC VAC Pick-up voltage VAC VAC AC operated Pick-up VL 0.85-1.1 DC operated Pick-up VL 0.7-1.2 Power consumption Sealing VA 2 AC operated Sealing VA 1 Max immum operating frequency Ops/h 500 Max immum operating frequency Ops/h 360 Conventional thermal current $I_{th} = I_{th} AC$ -1 MS 50 On-delayed MS 50 360 Off-delayed MS 50 360 Or operated <td>between the auxiliary contacts</td> <td></td> <td>V AC</td> <td>250</td>	between the auxiliary contacts		V AC	250
Magnet systems X Us Image of the problem of the proble	Conventional thermal current	I _{th}	Α	4
Magnet systems Voltage tolerance V Us V US <t< td=""><td>Short-circuit rating without welding</td><td></td><td></td><td></td></t<>	Short-circuit rating without welding			
Voltage tolerance X Us X Us Pick-up voltage X US VAC AC operated VAC 0.85 - 1.1 DC operated Pick-up X Uc 0.7 - 1.2 Power consumption VAC 0.7 - 1.2 AC operated Sealing VA 2 AC operated Sealing VA 1.8 duty factor Sealing W 1.8 Max. operating frequency Ops/h 500 Can be combined with auxiliary contact Ops/h 360 Conventional thermal current l _{ih} = l _a AC-1 MS <50	max. fuse		A gG/gL	4
Pick-up voltage	Magnet systems			
N				
Pick-up X Uc DC operated Pick-up X Uc Pick-up X Uc DC operated DC operate				
Pick-up x U _c Pick-up x U _c Pick-up x U _c Power consumption 60 °C AC operated AC operated Maximum operating frequency Max. operating frequency Can be combined with auxiliary contact Conventional thermal current I _{th} = I _e AC-1 On-delayed Off-delayed AC operated 50 Hz Recovery time (after 100% time delay) One delayed Conventional time delay) Deviation Pick-up x U _c VA 2 AC 0,7 - 1.2 Power consumption NA U _c VA 2 NB NB NB NB NB NB NB NB NB	AC operated			
Power consumption 60 °C Sealing VA AC operated AC operated Maximum operating frequency Maximum operating frequency Can be combined with auxiliary contact Conventional thermal current lth = le AC-1 On-delayed AC operated 50 Hz Recovery time (after 100% time delay) Contact changeover time Pick-up X U _C X U _C 0,7 - 1.2 0.7 - 1.2 0		Pick-up	x U _c	0.85 - 1.1
Power consumption 60 °C AC operated AC operated Maximum operating frequency Max. operating frequency Can be combined with auxiliary contact On-delayed Off-delayed AC operated 50 Hz Recovery time (after 100% time delay) Contact changeover time Sealing VA 2 1.8 1.00	DC operated	Pick-up	x U _c	
Sealing VA 2 AC operated Sealing VA 1.8 duty factor		Pick-up	x U _c	0.7 - 1.2
AC operated AC operated 50 Hz Recovery time (after 100% time delay) AC operated 50 Hz AC operated 50	Power consumption			
duty factor % DF 100 Maximum operating frequency Ops./h Max. operating frequency Ops./h Can be combined with auxiliary contact Ops./h Conventional thermal current l _{th} = l _e AC-1 On-delayed ms < 50 Off-delayed ms < 200 AC operated 50 Hz Recovery time (after 100% time delay) ms 70 contact changeover time	60 °C	Sealing	VA	2
Maximum operating frequency Max. operating frequency Can be combined with auxiliary contact Conventional thermal current Ith = Ie AC-1 On-delayed Off-delayed AC operated 50 Hz Recovery time (after 100% time delay) Contact changeover time Ops./h Ops./h 3600 Ops./h 360 The secondary operating frequency The secondary operation operating frequency The secondary operation operating frequency The secondary operation	AC operated	Sealing	W	1.8
Max. operating frequency Can be combined with auxiliary contact Conventional thermal current Ith = Ie AC-1 On-delayed Off-delayed AC operated 50 Hz Recovery time (after 100% time delay) Ontact changeover time Ops/h 3600 Ops/h 3600 The secondact of Solution The secondact of	duty factor		% DF	100
Can be combined with auxiliary contact Conventional thermal current Ith = Ie AC-1 On-delayed Off-delayed AC operated 50 Hz Recovery time (after 100% time delay) ontact changeover time Ops./h 360 ms < 50 ms < 200 AC operated 50 Hz ms 70 The contact changeover time The contact changeover time Ops./h The contact changeover time after 100% time delay) The contact change over time after 100% time delay) The contact change over time after 100% time delay) The contact change over time after 100% time delay after 100% time a	Maximum operating frequency		Ops./h	
Conventional thermal current I _{th} = I _e AC-1 On-delayed Off-delayed Off-delayed AC operated 50 Hz Recovery time (after 100% time delay) Contact changeover time The AC-1 The AC-	Max. operating frequency		Ops/h	3600
On-delayed ms < 50 Off-delayed ms < 200 AC operated 50 Hz Deviation % < 5 Recovery time (after 100% time delay) ms 70 contact changeover time	Can be combined with auxiliary contact		Ops./h	360
off-delayed ms < 200 AC operated 50 Hz Recovery time (after 100% time delay) ms 70 contact changeover time	Conventional thermal current $I_{th} = I_e$ AC-1			
AC operated 50 Hz Recovery time (after 100% time delay) contact changeover time Deviation % < 5 ms 70	On-delayed		ms	< 50
Recovery time (after 100% time delay) ms 70 contact changeover time	Off-delayed		ms	< 200
contact changeover time	AC operated 50 Hz	Deviation	%	< 5
	Recovery time (after 100% time delay)		ms	70
DILM32-XTEE11/DILM32-XTED11 t _u ms 10	contact changeover time			
	DILM32-XTEE11/DILM32-XTED11	t _u	ms	10

DILM32-XTEY20 t_u ms 50

Notes

Notes For rated operational current: Making and breaking conditions to DC-13, L/R constant as stated Max. fuses for short-circuit protection: Transparent overlay "Fuses" for time/current characteristics (please enquire) For pick-up voltage, DC operated:Pure DC, AC bridge rectifier or smoothed double-wave rectification.

Rating data for approved types

The state of approved types			
Auxiliary contacts			
Pilot Duty			
AC operated			B300
DC operated			R300
General Use			
AC	V	,	240
AC	A		5
DC	V	•	24
DC	A		5
Short Circuit Current Rating	S	CCR	
Basic Rating			
SCCR	k	Α	5
max. Fuse	A	L	125
max. CB	A		125
480 V High Fault			
SCCR (fuse)	k	A	10/100
max. Fuse	А	L	125/70 Class J
SCCR (CB)	k	A	10/65
max. CB	А	L	50/32
600 V High Fault			
SCCR (fuse)	k	A	10/100
max. Fuse	А		125/125 Class J
SCCR (CB)	k	A	10/22
max. CB	A		50/32

Design verification as per IEC/EN 61439

Design verification as per IEC/EN 61439			
Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	0
Heat dissipation per pole, current-dependent	P _{vid}	W	0
Equipment heat dissipation, current-dependent	P _{vid}	W	0
Static heat dissipation, non-current-dependent	P_{vs}	W	1.8
Heat dissipation capacity	P _{diss}	W	0
Operating ambient temperature max.		°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 6.0

Relays (EG000019) / Timer block (EC002060)

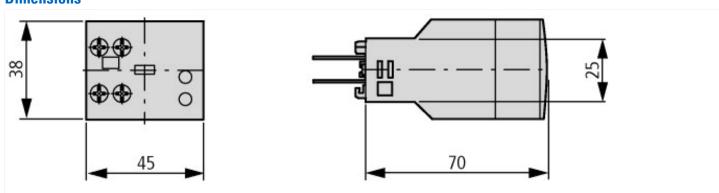
Electric engineering, automation, process control engineering / Low-voltage switch technology / Component for low-voltage switching technology / Timer block attachment (ecl@ss8.1-27-37-13-08 [ACN996008])

Switching function		Operating delayed
Setting time	s	0.05 - 100
Number of contacts as normally open contact		1
Number of contacts as normally closed contact		1
Number of contacts as change-over contact		0
Operating principle		Electronic

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

Dimensions



Additional product information (links)

IL04910004Z (AWA2527-2320) Electronical timer	,	
IL04910004Z (AWA2527-2320) Electronical timer	ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL04910004Z2010_10.pdf	
Switchgear of Power Factor Correction Systems	http://www.moeller.net/binary/ver_techpapers/ver934en.pdf	
X-Start - Modern Switching Installations Efficiently Fitted and Wired Securely	http://www.moeller.net/binary/ver_techpapers/ver938en.pdf	
Mirror Contacts for Highly-Reliable Information Relating to Safety-Related Control Functions	http://www.moeller.net/binary/ver_techpapers/ver944en.pdf	
Effect of the Cabel Capacitance of Long Control Cables on the Actuation of Contactors	http://www.moeller.net/binary/ver_techpapers/ver949en.pdf	
Motor starters and "Special Purpose Ratings" for the North American market	http://www.moeller.net/binary/ver_techpapers/ver953en.pdf	
Switchgear for Luminaires	http://www.moeller.net/binary/ver_techpapers/ver955en.pdf	

Standard Compliant and Functionally Safe Engineering Design with Mechanical Auxiliary Contacts	http://www.moeller.net/binary/ver_techpapers/ver956en.pdf
The Interaction of Contactors with PLCs	http://www.moeller.net/binary/ver_techpapers/ver957en.pdf
Busbar Component Adapters for modern Industrial control panels	http://www.moeller.net/binary/ver_techpapers/ver960en.pdf