Overload relay, Separate mounting, Earth-fault protection: none, Ir= 20 - 100 A, 1 N/O, 1 N/C



Part no. ZEB150-100/KK

136508

EL Number

4137377

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Product Tradename Product Index amount of the state of th	(Norway)	
Pers no. EAN A 1503132885 Product Length Depth Product Length Depth Product Length Clay and Secretary of the Control of the Co	General specifications	
EAN Product temply Depth 18.5 millimetre 18.0	Product name	Eaton Moeller® series ZEB Electronic overload Relay
Product Length Cuprish Product Weight Product Weight Smillimetry S	Part no.	ZEB150-100/KK
Product height Product width Product width Product width Billimetre Billimetre Cardicasions Card	EAN	4015081332885
Product width Product wight Cartificasions  Ca	Product Length/Depth	140.5 millimetre
Product weight Certifications Certif	Product height	120 millimetre
Certifications    CSA-CF22 Pix 14   U. Category Centrol Na: MCCR   LCV New 143   LC New 142   LC New 143   LC	Product width	56 millimetre
U. Lim No. E 220 U. CSA Class No. 2211-03 U. Casa Class No. 2211-03 U. See Casa No. 220056 C. Casa Class No. 220056 C. Casa C	Product weight	0.84 kilogram
Product Type Product Sub Type Catalog Notes Rated operational current. Switch-on and switch-off conditions based on DC-13, time constant as specified.  Features & Functions Earth fault protection Features Finament bulb (24 V) Financions Calcas Degree of protection Mounting method Separate mounting S	Certifications	UL File No.: E1230 UL CSA Class No.: 3211-03 UL Category Control No.: NKCR IEC/EN 60947 CSA File No.: 2290956 CSA CE IEC/EN 60947-4-1 UL 508
Product Sub Type Catalog Notes Rated operational current: Switch-on and switch-off conditions based on DC-13, time constant as specified.  Earth fault protection Features Functions Earth fault protection Features Formation Class Class Class Class Adjustable Degree of protection Mounting method Separate mounting Separate positioning Overload release current setting - min Overload release current setting - min Overload release current setting - min Overload release current setting - max Overload release current setting - max Fortection Rated impulse withstand voltage (Uimp) Shock resistance Shock resistance Shock resistance Suitable for Voltage type Self powered Climatic environmental conditions Ambient operating temperature - min Ambient operating temperature (enclosed) - max Climatic proteing Self powered	Product Tradename	ZEB
Rated operational current: Switch-on and switch-off conditions based on DC-12, time constant as specified.  Earth fault protection  Features Phase-failure sensitivity (according to IEC/EN 60947, VDE 0660 Part 102) Functions  Seneral information  Class Degree of protection Place Mounting method Separate mounting Separate mounting Separate mounting Separate mounting Overload release current setting - min Overload release current setting - max Overload release current setting - min Ov	Product Type	Electronic overload Relay
time constant as specified.  Features & Functions  Earth fault protection Features Flunctions Features Flunctions Fenetares Functions Flunctions Flunction	Product Sub Type	None
Earth fault protection Features Phase-failure sensitivity (according to IEC/EN 60947, VDE 0660 Part 102) Functions Filament bulb (24 V)  Adjustable  IP20  Mounting method Separate mounting Separate mounting Separate positioning  Overload release current setting - min Overload release current setting - max In OA  Overvoltage category III  Pollution degree 3  Protection Finger and back-of-hand proof, Protection against direct contact when actuated from front (EN 50274)  Rated impulse withstand voltage (Uimp)  Southable for Mechanical, According to IEC/EN 60068-2-27 15 g, Mechanical, According to IEC/EN 60068-2-27, Shock duration 10 ms  Suitable for Voltage type  Climatic nenvironmental conditions  Ambient operating temperature - min Ambient operating temperature - mix Ambient operating temperature - max Ambient operating temperature (enclosed) - max  Climatic proofing Damp heat, cyclic, to IEC 60068-2-30	Catalog Notes	
Peacures Phase-failure sensitivity (according to IEC/EN 60947, VDE 0660 Part 102) Functions Filament bulb (24 V)  Class Adjustable Degree of protection PiP20  Mounting method Separate mounting Separate mounting Separate mounting Separate positioning Overload release current setting - min Overload release current setting - max 100 A  Overvoltage category III Pollution degree 3 Protection Rated impulse withstand voltage (Uimp) Sobor resistance Mechanical, According to IEC/EN 60068-2-27, 15 g, Mechanical, According to IEC/EN 60068-2-27, Shock duration 10 ms Suitable for Voltage type  Climatic environmental conditions Ambient operating temperature - min Ambient operating temperature - max Ambient operating temperature (enclosed) - max Climatic proofing Damp heat, cyclic, to IEC 60068-2-30	eatures & Functions	
Functions  Flament bulb (24 V)  Flament bulb (24 V)  Flament bulb (24 V)  Adjustable  Adjustable  P20  Mounting method  Degree of protection  Mounting method  Doverload release current setting - min  Doverload release current setting - max  III  Finger and back-of-hand proof, Protection against direct contact when actuated from from t(EN 50274)  Finger and back-of-hand proof, Protection against direct contact when actuated from from t(EN 50274)  Finger and back-of-hand proof, Protection against direct contact when actuated from from t(EN 50274)  Finger and back-of-hand proof, Protection against direct contact when actuated from from t(EN 50274)  Finger and back-of-hand proof, Protection against direct contact when actuated from from t(EN 50274)  Finger and back-of-hand proof, Protection against direct contact when actuated from from t(EN 50274)  Finger and back-of-hand proof, Protection against direct contact when actuated from from t(EN 50274)  Finger and back-of-hand proof, Protection against direct contact when actuated from from t(EN 50274)  Finger and back-of-hand proof, Protection against direct contact when actuated from from t(EN 50274)  Finger and back-of-hand proof, Protection against direct contact when actuated from from t(EN 50274)  Finger and back-of-hand proof, Protection against direct contact when actuated from from trout (EN 50274)  Finger and back-of-hand proof, Protection against direct contact when actuated from from from t(EN 50274)  Finger and back-of-hand proof, Protection against direct contact when actuated from from from from from from from f	Earth fault protection	None
Class Adjustable Degree of protection Mounting method Separate mounting Separate mounting Separate positioning  Overload release current setting - min Overload release current setting - max Adjustable Overload release current setting - min Overload rel	Features	Phase-failure sensitivity (according to IEC/EN 60947, VDE 0660 Part 102)
Class Adjustable  Degree of protection  Mounting method  Separate mounting Separate positioning  Overload release current setting - min  Overload release current setting - max  100 A  Overvoltage category  III  Pollution degree  3  Protection  Finger and back-of-hand proof, Protection against direct contact when actuated from front (EN 50274)  Rated impulse withstand voltage (Uimp)  Shock resistance  Mechanical, According to IEC/EN 60068-2-27, Shock duration 10 ms  Suitable for  Voltage type  Self powered  Self powered  Climatic environmental conditions  Ambient operating temperature - min  Ambient operating temperature (enclosed) - max  Ambient operating temperature (enclosed) - max  Climatic proofing  Damp heat, cyclic, to IEC 60068-2-30	Functions	Filament bulb (24 V)
Degree of protection  Mounting method  Separate mounting Separate positioning  Overload release current setting - min  Overload release current setting - max  100 A  Overvoltage category  III  Pollution degree  Protection  Finger and back-of-hand proof, Protection against direct contact when actuated from front (En 50274)  Rated impulse withstand voltage (Uimp)  Shock resistance  Shock resistance  Mechanical, According to IEC/EN 60088-2-27, Shock duration 10 ms  Suitable for  Voltage type  Self powered  Branch circuits, (UL/CSA)  Self powered  Ambient operating temperature - min  Ambient operating temperature - max  Ambient operating temperature (enclosed) - max  Climatic proofing  Damp heat, cyclic, to IEC 60088-2-30	General information	
Mounting method  Separate mounting Separate positioning  Overload release current setting - min  Overload release current setting - max  100 A  Overvoltage category  III  Pollution degree  Protection  Finger and back-of-hand proof, Protection against direct contact when actuated from from (EN 50274)  Rated impulse withstand voltage (Uimp)  Shock resistance  Shock resistance  Shock resistance  Mechanical, According to IEC/EN 60068-2-27, Shock duration 10 ms  Suitable for  Voltage type  Self powered  Branch circuits, (UL/CSA)  Self powered  Climatic environmental conditions  Ambient operating temperature - min  Ambient operating temperature - max  Ambient operating temperature (enclosed) - max  Climatic proofing  Damp heat, cyclic, to IEC 60068-2-30	Class	Adjustable
Separate positioning  Overload release current setting - min  Overload release current setting - max  Overvoltage category  Pollution degree  Protection  Rated impulse withstand voltage (Uimp)  Shock resistance  Shock resistance  Suitable for  Voltage type  Climatic environmental conditions  Ambient operating temperature - min  Ambient operating temperature - max  Ambient operating temperature (enclosed) - max  Climatic proofing  Separate positioning  20 A  100 A  110 A  11	Degree of protection	IP20
Overload release current setting - max  Overvoltage category  III  Pollution degree  3  Protection  Finger and back-of-hand proof, Protection against direct contact when actuated from from (EN 50274)  Rated impulse withstand voltage (Uimp)  Shock resistance  Shock resistance  Mechanical, According to IEC/EN 60068-2-27 15 g, Mechanical, According to IEC/EN 60068-2-27, Shock duration 10 ms  Suitable for  Branch circuits, (UL/CSA)  Voltage type  Self powered  Self powered  Ambient operating temperature - min  Ambient operating temperature - max  Ambient operating temperature (enclosed) - max  Climatic proofing  Damp heat, cyclic, to IEC 60068-2-30	Mounting method	
Overvoltage category  Pollution degree  3  Protection  Finger and back-of-hand proof, Protection against direct contact when actuated from front (EN 50274)  Rated impulse withstand voltage (Uimp)  Shock resistance  Shock resistance  Mechanical, According to IEC/EN 60068-2-27 15 g, Mechanical, According to IEC/EN 60068-2-27, Shock duration 10 ms  Suitable for  Branch circuits, (UL/CSA)  Voltage type  Self powered  Climatic environmental conditions  Ambient operating temperature - min  Ambient operating temperature - max  Ambient operating temperature (enclosed) - max  Climatic proofing  Damp heat, cyclic, to IEC 60068-2-30	Overload release current setting - min	20 A
Pollution degree  Protection  Finger and back-of-hand proof, Protection against direct contact when actuated from front (EN 50274)  Rated impulse withstand voltage (Uimp)  Shock resistance  Shock resistance  Mechanical, According to IEC/EN 60068-2-27 15 g, Mechanical, According to IEC/EN 60068-2-27, Shock duration 10 ms  Branch circuits, (UL/CSA)  Voltage type  Self powered  Imatic environmental conditions  Ambient operating temperature - min  Ambient operating temperature - max  Ambient operating temperature (enclosed) - max  Climatic proofing  Damp heat, cyclic, to IEC 60068-2-30	Overload release current setting - max	100 A
Protection  Rated impulse withstand voltage (Uimp)  Shock resistance  Shock resistance  Mechanical, According to IEC/EN 60068-2-27 15 g, Mechanical, According to IEC/EN 60068-2-27, Shock duration 10 ms  Suitable for  Voltage type  Self powered  Imatic environmental conditions  Ambient operating temperature - min  Ambient operating temperature - max  Ambient operating temperature (enclosed) - max  Climatic proofing  Finger and back-of-hand proof, Protection against direct contact when actuated from front (EN 50274)  6000 V (auxiliary circuits) 6000 V (auxil	Overvoltage category	III
From front (EN 50274)  Rated impulse withstand voltage (Uimp)  Shock resistance  Mechanical, According to IEC/EN 60068-2-27 15 g, Mechanical, According to IEC/EN 60068-2-27, Shock duration 10 ms  Suitable for  Branch circuits, (UL/CSA)  Voltage type  Self powered  Iimatic environmental conditions  Ambient operating temperature - min  -25 °C  Ambient operating temperature (enclosed) - max  Ambient operating temperature (enclosed) - max  Climatic proofing  Damp heat, cyclic, to IEC 60068-2-30	Pollution degree	3
Shock resistance  Mechanical, According to IEC/EN 60068-2-27, Shock duration 10 ms  Suitable for  Branch circuits, (UL/CSA)  Voltage type  Self powered  Ilimatic environmental conditions  Ambient operating temperature - min  -25 °C  Ambient operating temperature - max  Ambient operating temperature (enclosed) - max  Climatic proofing  Damp heat, cyclic, to IEC 60068-2-30	Protection	
Suitable for Branch circuits, (UL/CSA)  Voltage type Self powered  Climatic environmental conditions  Ambient operating temperature - min -25 °C  Ambient operating temperature - max 65 °C  Ambient operating temperature (enclosed) - max 45 °C  Climatic proofing Damp heat, cyclic, to IEC 60068-2-30	Rated impulse withstand voltage (Uimp)	
Voltage type  Self powered  Limatic environmental conditions  Ambient operating temperature - min  Ambient operating temperature - max  Ambient operating temperature (enclosed) - max  Climatic proofing  Self powered  -25 °C  45 °C  Damp heat, cyclic, to IEC 60068-2-30	Shock resistance	
Ambient operating temperature - min  Ambient operating temperature - max  Ambient operating temperature (enclosed) - max  Climatic proofing  Damp heat, cyclic, to IEC 60068-2-30	Suitable for	Branch circuits, (UL/CSA)
Ambient operating temperature - min  -25 °C  Ambient operating temperature - max  65 °C  Ambient operating temperature (enclosed) - max  45 °C  Climatic proofing  Damp heat, cyclic, to IEC 60068-2-30		Self powered
Ambient operating temperature - max 65 °C  Ambient operating temperature (enclosed) - max 45 °C  Climatic proofing Damp heat, cyclic, to IEC 60068-2-30	limatic environmental conditions	
Ambient operating temperature (enclosed) - max  45 °C  Climatic proofing  Damp heat, cyclic, to IEC 60068-2-30	Ambient operating temperature - min	-25 °C
Climatic proofing Damp heat, cyclic, to IEC 60068-2-30	Ambient operating temperature - max	65 °C
	Ambient operating temperature (enclosed) - max	45 °C
	Climatic proofing	

Terminal capacity (flexible with ferrule)	2 x (0.75 - 2.5) mm <sup>2</sup> , Control circuit cables
Terminal capacity (solid)	2 x (0.75 - 4) mm², Control circuit cables
Terminal capacity (Solid)	1 x (16 - 50) mm², Main cables
Terminal capacity (solid/stranded AWG)	1 x (6 - 1), Main cables 2 x (18 - 12), Control circuit cables
Stripping length (main cable)	14 mm
Stripping length (control circuit cable)	8 mm
Screw size	M3.5, Terminal screw, Control circuit cables
Screwdriver size	1 x 6 mm, Terminal screw, Control circuit cables, Standard screwdriver 2, Terminal screw, Control circuit cables, Pozidriv screwdriver
Tightening torque	0.8 - 1.2 Nm, Screw terminals, Control circuit cables 7 lb-in, Screw terminals
Electrical rating	
Conventional thermal current ith of auxiliary contacts (1-pole, open)	5 A
Rated control supply voltage (Us) at AC, 50 Hz - min	0 V
Rated control supply voltage (Us) at AC, 50 Hz - max	0 V
Rated control supply voltage (Us) at AC, 60 Hz - min	0 V
Rated control supply voltage (Us) at AC, 60 Hz - max	0 V
Rated control supply voltage (Us) at DC - min	0 V
Rated control supply voltage (Us) at DC - max	0 V
Rated frequency - min	50 Hz
Rated frequency - max	60 Hz
Rated operational current (Ie) at AC-15, 120 V	1.5 A
Rated operational current (Ie) at AC-15, 220 V, 230 V, 240 V	1.5 A
Rated operational current (Ie) at AC-15, 380 V, 400 V, 415 V	0.9 A
Rated operational current (Ie) at DC-13, 110 V	0.4 A
Rated operational current (Ie) at DC-13, 220 V, 230 V	0.2 A
Rated operational current (Ie) at DC-13, 24 V	0.9 A
Rated operational current (Ie) at DC-13, 60 V	0.75 A
Rated operational voltage (Ue) at AC - max	690 V
Safe isolation	240 V AC, Between auxiliary contacts, According to EN 61140 440 V, Between auxiliary contacts and main contacts, According to EN 61140 600 V AC, Between main circuits, According to EN 61140
Short-circuit protection rating	Max. 6 A gG/gL, fuse, Without welding, Auxiliary and control circuits
Short-circuit current rating (high fault at 600 V)	100 kA, Fuse, SCCR (UL/CSA)
Switching capacity (auxiliary contacts, pilot duty)	200 A, Class J, max. Fuse, SCCR (UL/CSA)  R300, DC operated (UL/CSA) B600, AC operated (UL/CSA)
Voltage rating - max	600 V
Contacts	
Number of auxiliary contacts (change-over contacts)	0
Number of auxiliary contacts (normally closed contacts)	1
Number of auxiliary contacts (normally open contacts)	1
Number of contacts (normally closed contacts)	1
Number of contacts (normally open contacts)	1
Design verification	
Equipment heat dissipation, current-dependent Pvid	25.4 W
Heat dissipation capacity Pdiss	0 W
Heat dissipation per pole, current-dependent Pvid	8.47 W
Rated operational current for specified heat dissipation (In)	100 A
	0 W
Static heat dissipation, non-current-dependent Pvs  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 Resist. of insul. mat. to abnormal heat/fire by internal elect. effects  10.2.4 Resistance to ultra-violet (UV) radiation	Meets the product standard's requirements.
00.7 % DESISTANCE TO 100.4-VIOLET [U1V1.13013100]	Meets the product standard's requirements.
10.2.5 Lifting	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.
10.9.2 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 9.0**

Low-voltage industrial components (EG000017) / Electronic overload relay (EC001080) Electric engineering, automation, process control engineering / Low-voltage switch technology / Overload protection device / Electronic overload relay (ecl@ss13-27-37-15-02 [AKF076019]) Mounting method Separate positioning Type of electrical connection of main circuit Screw connection Adjustable current range Α 20 - 100 No External power supply required Rated control supply voltage AC 50 Hz 0 - 0 0 - 0 ٧ Rated control supply voltage AC 60 Hz ٧ Rated control supply voltage DC 0 - 0 Voltage type for actuating Number of auxiliary contacts as normally closed contact Number of auxiliary contacts as normally open contact Number of auxiliary contacts as change-over contact 0 Voltage type (operating voltage) AC Operating voltage AC 50 Hz 230 - 690 Operating voltage AC 60 Hz 230 - 690 ٧ Operating voltage DC 0 - 0 Rated switch current Α Release class Adjustable Reset function automatic Yes Reset function input No Reset function push-button Yes Width mm 56 120 Height mm 140.5 Depth mm