DATASHEET - ZEB225-175



Overload relay, Direct mounting, Earth-fault protection: none, Ir= 35 - 175 A, 1 N/O, 1 N/C



Part no. ZEB225-175 Catalog No. 164307 Alternate Catalog XT0E175HCS

No.

EL-Nummer 4137385

(Norway)

Delivery program

Delivery program			
Product range			Electronic overload relays ZEB
Phase-failure sensitivity			IEC/EN 60947, VDE 0660 Part 102
Description			Test/off button Reset pushbutton Manual/auto reset selectable Protection with heavy starting duty (Class 10A-30)
Mounting type			Direct mounting
Earth-fault protection			
Earth-fault protection			none
Setting range			
Overload releases	l _r	А	35 - 175
Contact sequence			97 95
Auxiliary contacts			
N/O = Normally open			1 N/O
N/C = Normally closed			1 N/C
For use with			DILM185A DILM225A

Technical data

General

delicial			
Standards			IEC/EN 60947, VDE 0660, UL, CSA
Climatic proofing			Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
Ambient temperature			
Open		°C	-25 - +65
Ambient temperature open max.		°C	65
Enclosed		°C	
Ambient temperature enclosed max.		°C	45
Mechanical shock resistance		g	15 Shock duration 10 ms according to IEC 60068-2-27
Degree of Protection			IP00
Protection against direct contact when actuated from front (EN 50274)			With terminal cover
Altitude		m	Max. 2000
Main conducting paths			
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	690
Rated frequency	f	Hz	50/60
Safe isolation to EN 61140			

Retrotecen main circuits	Between auxiliary contacts and main contacts		V AC	600
Section of stronded Image: Management of the controlled of th				
Solid Solid seranded Solid seranded voltage Solid seranded voltage Solid seranded voltage Solid seranded voltage Solid seranded				600
Solid or strunded	Terminal capacities		mm ²	
Real Conductor	Solid		mm^2	1 x 10 - 95
Stronging langth Autor Image I	Solid or stranded		AWG	1 x 8 - 4/0
Auxiliary and control circuits Retail impulse with stand degree Oerrollage category/gallution degree Sold Sold Sold Sold Flexible with famule Sold of carbonide Flexible with famule Flexible with famule Flexible with famule Flexible with famule Sold of carbonide Flexible with famule Flexible with famule Sold of carbonide Flexible with famule Sold of carbonide Flexible with famule Sold of carbonide Flexible with famule Flexib	Flat conductor	x Breite x	mm	6 x 18 x 0.8
Read injusted with standard vollage Uamp of the processing actangary/polludion degree Uamp of the processing acta			mm	22
Overolitage category/pollution degree max ma			.,	
Terminal capacities		U _{imp}	V	
Solid mm* 2 x (0.75 - 4) Flexible with ferrule mm² 2 x (0.75 - 2.8) Solid or standed AVG 2 x (18 - 12) Torminal screw MM 08 - 1.2 Tightening forque Mm 08 - 1.2 Steipping langth mm 1 7 Floodin's screwdriver mm 1 8 G Standard screwdriver mm 1 x 6 Standed sacterwdriver mm 1 x 6 Rated operational voltage U, u VAC 500 Rated operational voltage U, u VAC 500 Rated operational voltage U, u VAC 500 State insolation 15 No 1140 W 2 40 50 Detween the acculary contacts I, u VAC 50 Correctional terrent I, u X 5 Rated operational current I, u X 5 ALS 120 V X 5 5 State scheduler I, u X 5 5				III/3
Resible with ferule	Terminal capacities		mm ²	
Solid or stranded March Ma	Solid		mm^2	2 x (0.75 - 4)
Terminal screw Max 3.5 Tightaning torque 9 Nm 0.8 ± 12 Tightaning torque 9 Max 9 Podrify screwdriver 9 4 6 Rated operational voltage 0 VAC 50 Sale scalation to Ri 140 y AC 20 Detwoon the auxiliary contacts y AC 20 Conventional terrent % y 20 Rated operational current % AC 20 Rated operational current % AC 20 Act 15 Y Y 20 20 Act 20 10 A 15 12 Act 3 15 12 12 12 12 12 12 12 12 12 12 12 12	Flexible with ferrule		mm ²	2 x (0.75 - 2.5)
Tightening torque Nm 0.8 - 1.2 Tightening torque 16-in 7 Stripping length mm 8 Troble mm 16-6 Pozidiri screwdriver mm 1.6 Stated insulation voltage Up VAC 500 Safeted operational voltage Up VAC 500 Safe isolation to FN61140 WC 240 between the auxiliary contacts VAC 240 Conventional thermal current Ip A 5 Act-15 WC A 5 Make contact Ip A 15 120 V Ip A 15 220 V 230 V 240 V 415 V Ip A 15 300 V 400 V 415 V Ip A 15 220 V 230 V 240 V 40 V 415 V Ip A 15 300 V 400 V 415 V Ip A 15 300 V 400 V 415 V Ip A 15 300 V Ip A 15	Solid or stranded		AWG	2 x (18 - 12)
Tightening torque Tightening Tig	Terminal screw			
Tightening torque In in the part of th	Tightening torque		Nm	0.8 - 1.2
Stripping length mm 8 Tools 2 Posidir's screwdriver 1,8 12 Standard screwdriver mm 1,6 Rated insulation voltage Uj VAC 30 Sate isolation to R18140 TV 24 between the auxiliary contacts In AC 5 Conventional thermal current In AC 5 Reted operational current In AC 5 Makes contact In AC 15 200 V 230 V 240 V 40 V 415 V In AC 15 330 V 400 V 415 V In AC 15 200 V 200 V 200 V In AC 15 300 V 400 V 415 V In AC 10 4 V In AC 10 5 V 200 V 200 V In <td></td> <td></td> <td></td> <td>7</td>				7
Tools Pozidin's crewdriver Pozidin's crewdriver Rated isolation to teN 61140 between the auxiliary contacts Conventional thermal current Rated operational current Rated ope				
Standard screwdriver Imm 1x 8 Rated perational voltage Ui V AC 500 Safe isolation to PK 61140 V AC 300 Bebween the auxiliary contacts V AC 240 Conventional thermal current In V AC 30 Rised operational current In V AC 240 AC-15 In AC In Make contact In AC 15 220 V 220 V 240 V In A 15 300 V 400 V 415 V In A 15 300 V 400 V 415 V In A 15 120 V In A 15 300 V 400 V 415 V In A 15 120 V In A 15 300 V 400 V 415 V In A 15 300 V 400 V 415 V In A 15 300 V 400 V 415 V In A 10 300 V 400 V 415 V In A 10 400 V				
Standard screwdriver Imm 1x 6 Rated insulation voltage Ui VAC 500 Rated operational voltage Ue VAC 500 Safe isolation to RN 61140 VAC 240 Conventional thermal current In XAC 240 Rated operational current In XAC 240 AC-15 VAC 240 240 Make contact In XAC 240 20 V 220 V 240 V 400 V 415 V In XAC 15 300 V 400 V 415 V In XAC 15 120 V In XAC 15 120 V In XAC 15 120 V In XAC 15 300 V 400 V 415 V In XAC 15 300 V 400 V 415 V In XAC 15 300 V 400 V 415 V In XAC 15 300 V 400 V 415 V In XAC 15 300 V 400 V 415 V XAC XAC 15	Pozidriv screwdriver		Size	2
Rated insulation voltage U _I VAC 500 Rated operational voltage U _I VAC 500 Safe isolation to EN 61140 VAC 240 between the auxiliary contacts VAC 290 Conventional thermal current Ibe AC 5 Rated operational current Ibe AC 1 Make contact Incompany of the auxiliary contacts Ibe AC 15 20 V 230 V 240 V Ibe AC 15 300 V 400 V 415 V Ibe AC 15 120 V Ibe AC 15 120 V Ibe AC 15 120 V Ibe AC 15 20 V 230 V 240 V Ibe AC 15 20 V 230 V 240 V Ibe AC 15 20 V 230 V 240 V Ibe AC 15 20 V 230 V 240 V Ibe AC 15 20 V 250 V 240 V Ibe AC 15 20 V 250 V 250 V 250 V 250 V 250 V 250	Standard screwdriver			
Rated operational voltage Ue V AC 240 Safe isolation to EN 61140 V AC 240 between the auxiliary contacts In A 5 Corventional turrent In A 5 AC-15 In A 15 Make contact In A 15 220 V 230 V 240 V In A 15 380 V 400 V 415 V In A 15 Break contact In A 15 220 V 230 V 240 V In A 15 380 V 400 V 415 V In A 15 230 V 240 V 240 V In A 15 380 V 400 V 415 V In A 15 500 V In A 0 9 60 V In A 0	Rated insulation voltage	Ui	V AC	500
Sale is solation to EN 61140 VAC 240 between the auxiliary contacts Ien AC 5 Rated operational current Ien AC 5 AC-15 Make contact Image: Part of the contact of the cont			V AC	
between the auxiliary contacts VAC VAC 240 Conventional thermal current I _e AC AC Rated operational current I _e AC AC Make contact I20 V I _e AC 1.5 220 V 230 V 240 V I _e AC 1.5 380 V 400 V 415 V I _e AC 0.5 Break contact I20 V I _e AC 1.5 1 20 V I _e AC 0.5 Break contact I _e AC 1.5 2 20 V 230 V 240 V I _e AC 1.5 3 30 V 400 V 415 V I _e AC 1.5 3 30 V 400 V 415 V I _e AC 0.9 5 500 V I _e AC 0.8 DC L/R ≤ 15 ms Switch-on and switch-off conditions based on DC-13, time constant as specified by the contact of the control		- G		
Conventional thermal current Ith A 5 Rated operational current Ia AC-15 ————————————————————————————————————			۷۸۲	240
Rated operational current AC-15 Make contact 120 V 1e A 15 380 V 400 V 415 V 1e A 15 500 V 1e A 15 60 Break contact 120 V 1e A 15 500 V 1e A 15 60 Break contact 120 V 1e A 15 60 C Sonot 1e A 15 Sonot 1e A 16 A 17 Sonot 1e A 18 A 18 Sonot		L		
AC-15				
Make contact		le	А	
120 V 16				
220 V 230 V 240 V				
380 V 400 V 415 V				
Sol No No No No No No No		l _e	Α	
Break contact	380 V 400 V 415 V	l _e	Α	0.5
120 V Ie A 1.5 220 V 230 V 240 V Ie A 1.5 380 V 400 V 415 V Ie A 0.9 500 V Ie A 0.8 DC L/R ≤ 15 ms V Switch-on and switch-off conditions based on DC-13, time constant as specally as a proposed on DC-13, time constant as a proposed on DC-13, time cons	500 V	l _e	Α	0.5
220 V 230 V 240 V	Break contact			
380 V 400 V 415 V	120 V	l _e	Α	1.5
500 V Ie A 0.8 DC L/R ≤ 15 ms Switch-on and switch-off conditions based on DC-13, time constant as speed	220 V 230 V 240 V	I _e	Α	1.5
DC L/R ≦ 15 ms Switch-on and switch-off conditions based on DC-13, time constant as specially	380 V 400 V 415 V	le	Α	0.9
Switch-on and switch-off conditions based on DC-13, time constant as specified by the second	500 V	I _e	Α	0.8
24 V Ie A 0.9 60 V Ie A 0.75 110 V Ie A 0.4 220 V Ie A 0.2 Short-circuit rating without welding max. fuse A gG/gL 6 Rating data for approved types Auxiliary contacts Image: A gG/gL Image: A gG/gL	DC L/R ≦ 15 ms			
60 V Ie A 0.75 110 V Ie A 0.4 220 V Ie A 0.2 Short-circuit rating without welding max. fuse A gG/gL 6 Rating data for approved types Auxiliary contacts Image: A gG/gL Image: A gG/gL				Switch-on and switch-off conditions based on DC-13, time constant as specified.
60 V Ie A 0.75 110 V Ie A 0.4 220 V Ie A 0.2 Short-circuit rating without welding max. fuse A gG/gL 6 Rating data for approved types Auxiliary contacts Image: A gG/gL Image: A gG/gL	24 V	I _e	Α	
110 V Ie A 0.4 220 V Ie A 0.2 Short-circuit rating without welding max. fuse A gG/gL 6 Rating data for approved types Auxiliary contacts I I I I I I I I I I I I I I I I I I I				
220 V I _e A 0.2 Short-circuit rating without welding max. fuse A gG/gL 6 Rating data for approved types Auxiliary contacts I I I I I I I I I I I I I I I I I I I				
Short-circuit rating without welding max. fuse Rating data for approved types Auxiliary contacts A gG/gL 4 gG/gL 5 Contact of the contact				
max. fuse A gG/gL 6 Rating data for approved types Auxiliary contacts 6		'e	^	V.L
Rating data for approved types Auxiliary contacts			A aC/al	6
Auxiliary contacts			A yu/gL	U .
AC operated B600				B600
DC operated R300				
Short Circuit Current Rating SCCR			SCCR	

600 V High Fault		
SCCR (fuse)	kA	100
max. Fuse	Α	400 Class J

Design verification as per IEC/EN 61439

In	Α	175
P _{vid}	W	11.86
P _{vid}	W	35.6
P _{vs}	W	0
P _{diss}	W	0
	°C	-25
	°C	65
		Meets the product standard's requirements.
		Meets the product standard's requirements.
		Meets the product standard's requirements.
t		Meets the product standard's requirements.
		Meets the product standard's requirements.
		Does not apply, since the entire switchgear needs to be evaluated.
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		Meets the product standard's requirements.
		Does not apply, since the entire switchgear needs to be evaluated.
		Meets the product standard's requirements.
		Does not apply, since the entire switchgear needs to be evaluated.
		Does not apply, since the entire switchgear needs to be evaluated.
		Is the panel builder's responsibility.
		Is the panel builder's responsibility.
		Is the panel builder's responsibility.
		Is the panel builder's responsibility.
		Is the panel builder's responsibility.
		The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.
		Is the panel builder's responsibility. The specifications for the switchgear must be observed.
		Is the panel builder's responsibility. The specifications for the switchgear must be observed.
		The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.
	P _{vid}	P _{vid} W P _{vid} W P _{vs} W P _{diss} W °C °C

Technical data ETIM 7.0

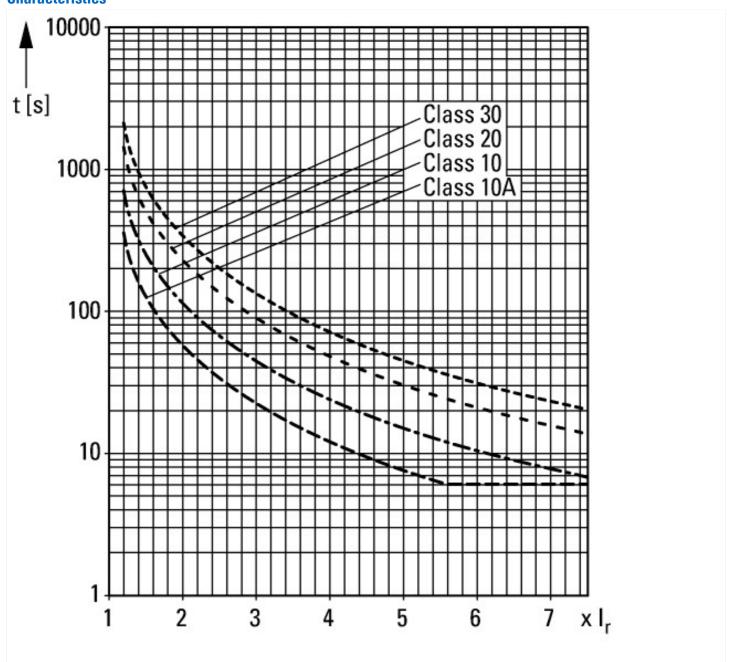
Low-voltage industrial components (EG000017) / Electronic overload relay (EC001080)			
Electric engineering, automation, process control engineering / Low-voltage switch technology / Overload protection device / Electronic overload relay (ecl@ss10.0.1-27-37-15-02 [AKF076014])			
Adjustable current range		Α	0 - 175
Mounting method			Direct attachment
Type of electrical connection of main circuit			Screw connection
Number of auxiliary contacts as normally closed contact			1
Number of auxiliary contacts as normally open contact			1
Number of auxiliary contacts as change-over contact			0
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	0 - 0
Release class			Adjustable
Voltage type for actuating			Self powered

Reset function automatic	Yes
Reset function input	No
Reset function push-button	Yes

Approvals

Product Standards	UL 508; CSA-C22.2 No. 14; IEC/EN 60947-4-1; CE marking
UL File No.	E1230
UL Category Control No.	NKCR
CSA File No.	2290956
CSA Class No.	3211-03
North America Certification	UL listed, CSA certified
Specially designed for North America	No
Suitable for	Branch circuits
Max. Voltage Rating	600 V AC
Degree of Protection	IEC: IP20, UL/CSA Type: -

Characteristics



Dimensions

