

## Overload relay 24 - 40A

**Part no.** ZB65-40

**Article no.** 278458



Powering Business Worldwide™

### Program

Product range			Overload relay ZB up to 150 A
Phase-failure sensitivity			IEC/EN 60947, VDE 0660 Part 102
Description			Test/off button Reset pushbutton manual/auto Trip-free release
Mounting type			Direct mounting
	$I_r$	A	24 - 40
Contact sequence			
Auxiliary contacts			
N/O = Normally open			1 N/O
N/C = Normally closed			1 N/C
For use with			DILM40, DILM50, DILM65, DILM72, DILMF40, DILMF50, DILMF65, DIULM40, DIULM50, DIULM65, SDAINLM70, SDAINLM90, SDAINLM115
Short-circuit protection			
Type "1" coordination	gG/gL	A	125
Type "2" coordination	gG/gL	A	63

#### Notes

Overload release: tripping class 10 A

Short-circuit protection: Observe the maximum permissible fuse of the contactor with direct device mounting.

Suitable for protection of Ex e-motors.



II (2) GD

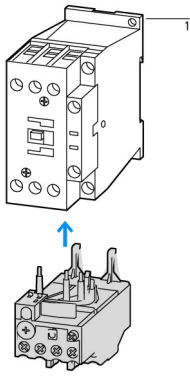
PTB 10 ATEX 3010

Observe manual AWB2300-1527D/GB.

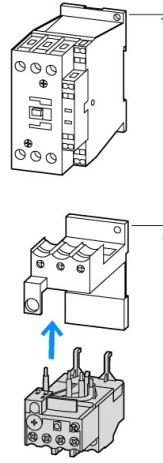
#### Notes

Fitted directly to the contactor

Separate mounting



1 Contactor  
2 Bases



## Approbationen

UL approval  
CSA approval  
Product Standards  
UL File No.  
UL CCN  
CSA File No.  
CSA Class No.  
NA Certification  
Specially designed for NA  
Suitable for  
Max. Voltage Rating  
Degree of Protection

Yes  
Yes  
UL 508; CSA-C22.2 No. 14; IEC/EN 60947-4-1; CE marking  
E29184  
NKCR  
12528  
3211-03  
UL listed, CSA certified  
No  
Branch circuits  
600 V AC  
IEC: IP00, UL/CSA Type: -

## General

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		°C	
			Operating range to IEC/EN 60947 PTB: -5 °C - +55 °C
Open		°C	- 25 - 55
Enclosed		°C	- 25 - 40
Temperature compensation			Continuous
Weight		kg	0.25
Mechanical shock resistance		g	10 Sinusoidal Shock duration 10 ms
Protection type			IP00
Protection against direct contact when actuated from front (EN 90274)			Finger- and back-of-hand proof

## Main conducting paths

Rated impulse withstand voltage	$U_{imp}$	V AC	6000
Overvoltage category/pollution degree			III/3
Rated insulation voltage	$U_i$	V	690
Rated operational voltage	$U_e$	V AC	690
Safe isolation to VDE 0106 Part 101 and Part 101/A1			
Between auxiliary contacts and main contacts		V AC	440
Between main circuits		V AC	440
Temperature compensation residual error > 40°C			$\leq 0.25\%/K$
Current heat loss (3 conductors)			
Lower value of the setting range		W	3
Maximum setting		W	7.5
Terminal capacities		mm <sup>2</sup>	
Solid		mm <sup>2</sup>	2 x (1 - 16) for use with ZB65-XEZ base: max. 1 x (1 - 16)

Flexible with ferrule		mm <sup>2</sup>	1 x (1...25) 2 x (1...10) When using 2 conductors use identical cross-section
Stranded		mm <sup>2</sup>	1 x (16...25)
Solid or stranded		AWG	14 - 2
Terminal screw			M6
Tightening torque		Nm	3.5
Tools			
Pozidriv screwdriver		Size	2
Standard screwdriver		mm	1 x 6

### Auxiliary and control circuits

Rated impulse withstand voltage	U <sub>imp</sub>	V	6000
Overvoltage category/pollution degree			III/3
Terminal capacities		mm <sup>2</sup>	
Solid		mm <sup>2</sup>	2 x (0.75...4)
Flexible with ferrule		mm <sup>2</sup>	2 x (0.75 - 2.5)
Solid or stranded		AWG	2 x (18 - 12)
Terminal screw			M3.5
Tightening torque		Nm	0.8 - 1.2
Tools			
Pozidriv screwdriver		Size	2
Standard screwdriver		mm	1 x 6
Rated insulation voltage	U <sub>i</sub>	V AC	500
Rated operational voltage	U <sub>e</sub>	V AC	500
Safe isolation to VDE 0106 Part 101 and Part 101/A1			
between the auxiliary contacts		V AC	240
Conventional thermal current	I <sub>th</sub>	A	6
Rated operational current	I <sub>e</sub>	A	
AC-15			
Make contact			
120 V	I <sub>e</sub>	A	1.5
240 V	I <sub>e</sub>	A	1.5
415 V	I <sub>e</sub>	A	0.5
500 V	I <sub>e</sub>	A	0.5
Break contact			
120 V	I <sub>e</sub>	A	1.5
240 V	I <sub>e</sub>	A	1.5
415 V	I <sub>e</sub>	A	0.9
500 V	I <sub>e</sub>	A	0.8
DC-13 L/R - 15 ms			
24 V	I <sub>e</sub>	A	0.9
60 V	I <sub>e</sub>	A	0.75
110 V	I <sub>e</sub>	A	0.4
220 V	I <sub>e</sub>	A	0.2
Short-circuit rating without welding			
max. fuse		A gG/ gL	6

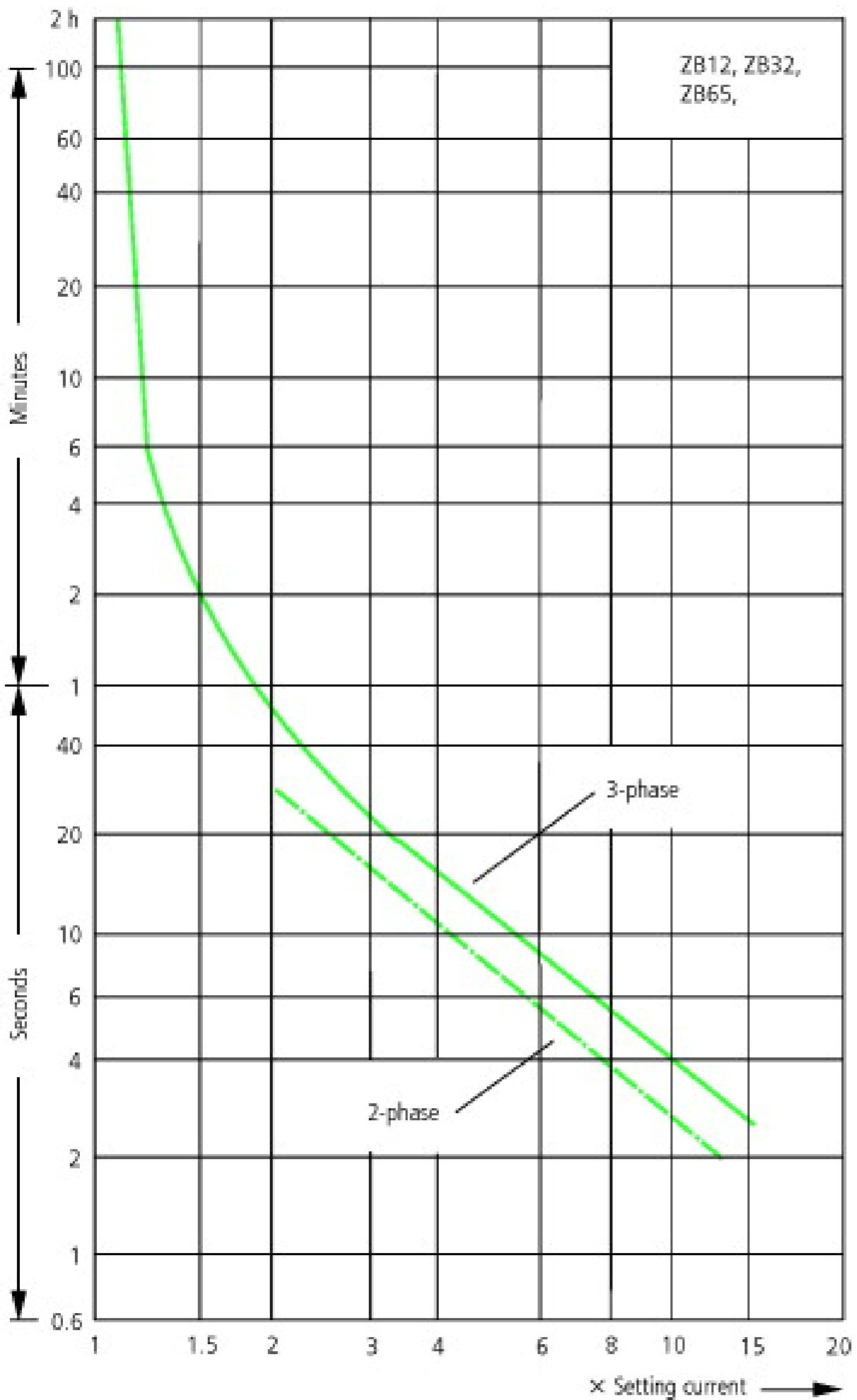
### Notes

**Notes** Ambient temperature: Operating range to IEC/EN 60947, PTB: -5°C to +55°C  
Rated operational current: Making and breaking conditions to DC-13, L/R constant as stated  
Main contacts terminal capacity solid and stranded conductors with ferrules: When using 2 conductors use identical cross-section  
See overlay "Fuses" for short-circuit rating time/current characteristic (please enquire)  
6 mm flexible with ferrules to DIN 46228  
Rated operational current DC-13, 60 V: N/O auxiliary contact 0.6 A  
at ZB65-XEZ max 1 x (1...16)

## Technical data according to ETIM 4.0

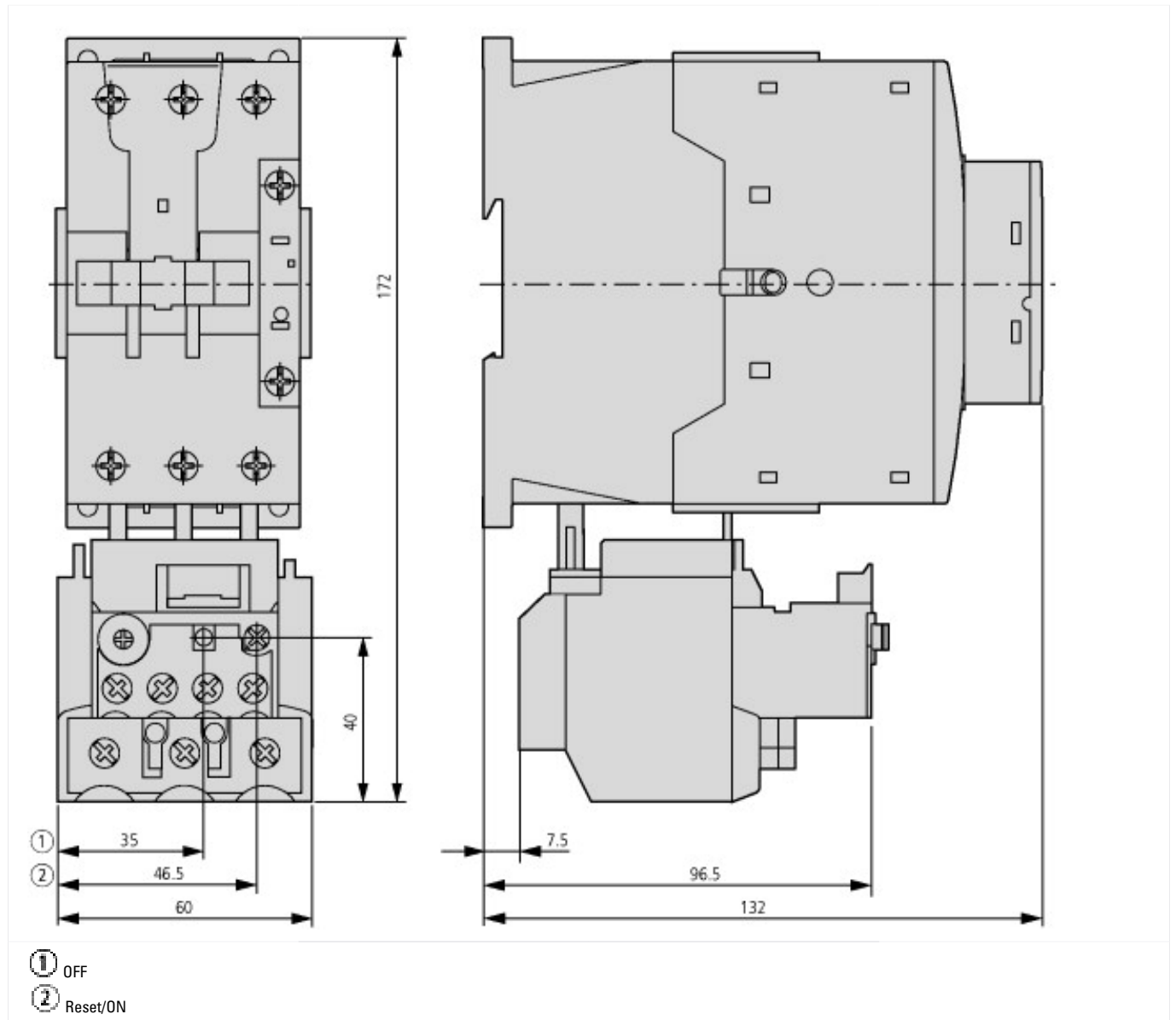
Number of auxiliary contacts as N/Cs			1
Number of auxiliary contacts as N/Os			1
Mounting type			Direct mounting
Adjustable current range		A	40
Connection type main circuit			Screw connection
Tripping class			CLASS 10
Number of auxiliary contacts as changeover contacts			0

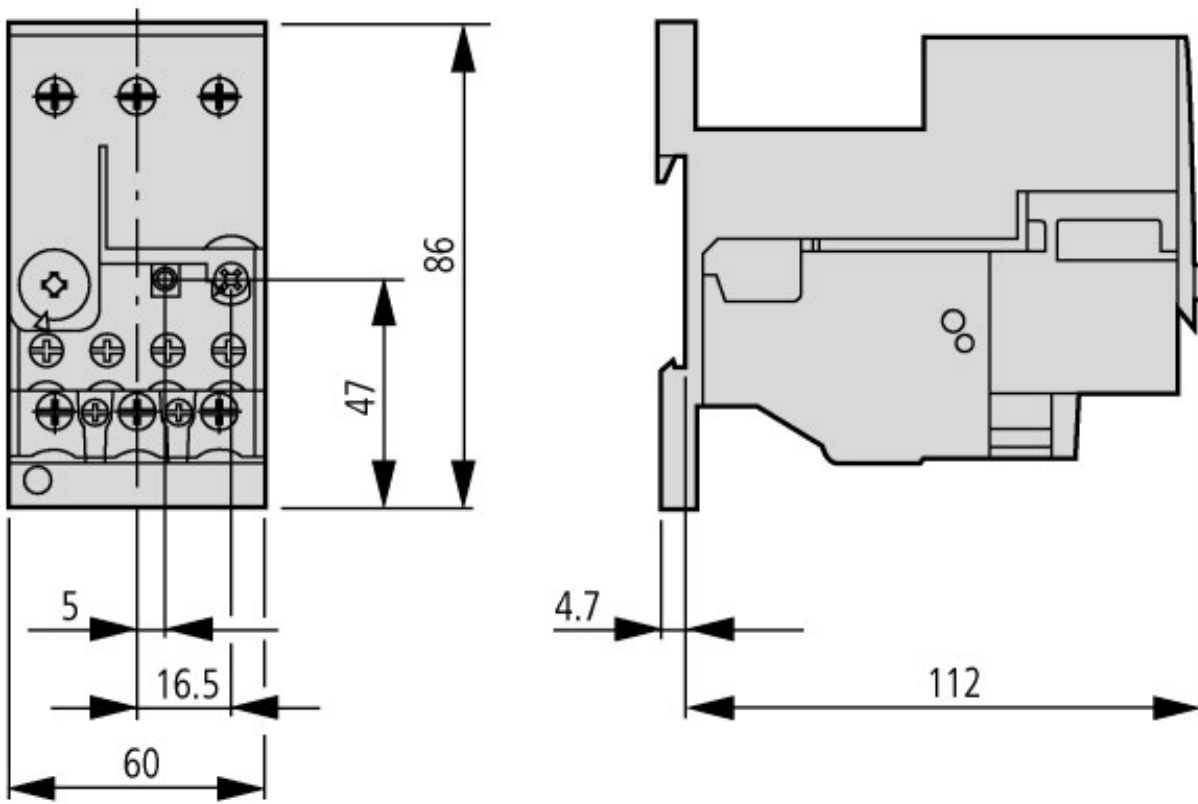
## Characteristics



These tripping characteristics are mean values of the spread at 20 °C ambient temperature in a cold state. Tripping time depends on response current. On devices at operating temperature the tripping time of the overload relay drops to approx. 25 % of the read value. Specific characteristics for each individual setting range can be found in the manual.

Dimensions





With base ZB65-XEZ

#### Additional product information (links)

IL03407008Z (IL03407008Z) Overload relay

[ftp://ftp.moeller.net/DOCUMENTATION/AWA\\_INSTRUCTIONS/IL03407008Z2010\\_10.pdf](ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03407008Z2010_10.pdf)