Circuit Breakers BZM

Product Information

Circuit Breaker BZM1(16 to 125 A)

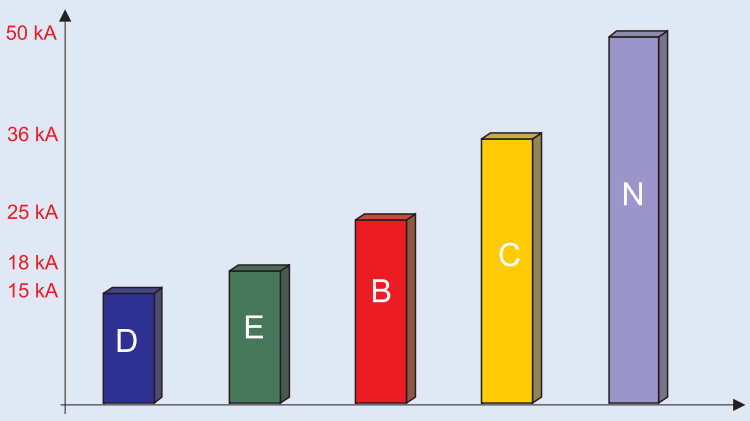
Circuit Breaker BZM2 (125 to 250A)

Circuit Breaker BZM3 (250 to 400A)

BZM1 & BZM2 & BZM3 Accessories

Powering Business Worldwide

Optimum and Efficient Protection for Every Application



Compact

Simple

Safe

The new BZM

Eaton is a synonym for innovation, product quality, reliability and decades of experience in the electrical engineering industry. Our products comply with the latest national and international standards and regulations.

Our Circuit Breaker Division takes pride in expanding the range of circuit breakers by adding the new BZM series designed for the lower LV segment and featuring factory-set thermal and magnetic tripping values. With our new BZM series we offer compact circuit breakers and a wide range of accessories for your business applications in all kinds of trade and industry. Easy handling, enhanced capacities and proven quality in the attractive Eaton design are additional features of this product.

With the BZM1 for up to 125 A, the BZM2 for up to 250 A and the BZM3 for up to 400 A. Eaton now also completes its range of products in the segment of circuit breakers, allowing us to cover all kinds of applications and requirements.

Protect your electrical system and cables with our new BZM!

Three Advantages for Your Benefit

- **Compact**
  Unbeatable when it comes to saving space:
  In the range of circuit breakers, the BZM1, BZM2 and BZM3 are among the slimmest in their class and can therefore use the valuable distribution space most efficiently, regardless of whether they are used for energy sub-distribution or as a protection for incoming power in residential or functional buildings.

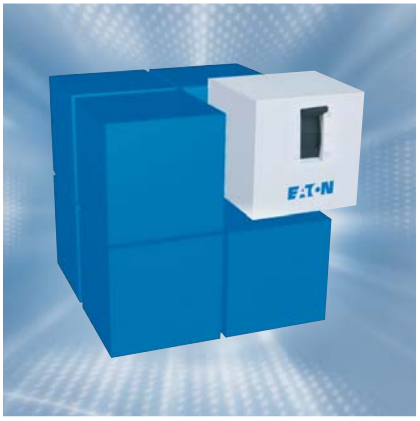
- **Simple**
  Easy to handle:
  For a fast starting are thermal and magnetic tripping values already fixed.
  The BZM series is absolutely easy to handle and allows for quick installation when executing your jobs.

- **Safe**
  Eaton's switchgears have a worldwide reputation for being the benchmark in low-voltage power distribution. Eaton's quality protects people and assets against short-circuits and overload, with the BZM series being designed for the 16 to 400 A range in sub-distribution.

Standards
In complying with the IEC/EN 60947-2 standards and pollution degree III (IEC/EN 60947) we not only ensure the material but also the immaterial values of the BZM circuit breaker series. And with our BZM series, we also show consideration for the environment as these circuit breakers conform to the RoHS directives and can be recycled to a large extent. And last but not least - the stylish outfit of the BZM series in the distinctive Eaton design makes these products attractive not only from a technical but also from an aesthetic point of view.

For more information please turn to page 21.
(technical data page).

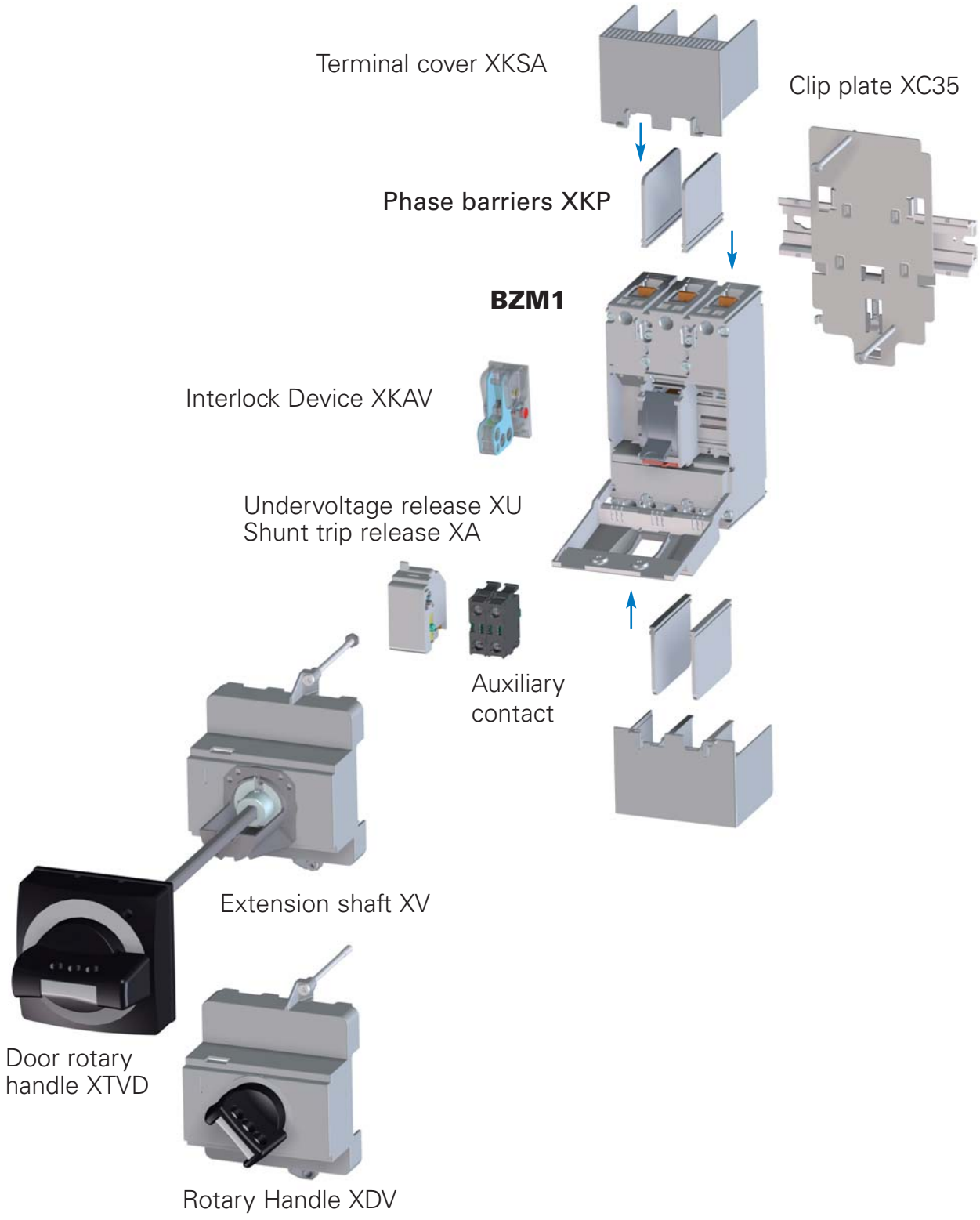
Compact



Simple

Safe

Range Overview BZM1



BZM1 - Small is Powerful

- **Concentrated technology with a long lifespan**
  The BZM1 provides protection with rated currents **up to 125 A** and **36 kA** breaking capacity, despite its light weight and slim width of only 25 mm per pole. The star within the circuit breaker family, is available as a **1, 2, 3 or 4-pole** device. For a fast starting are thermal and magnetic tripping values already fixed by Eaton. And it has an extremely long lifespan of up to 10,000 mechanical operating cycles. In addition, thanks to its terminal cover, the BZM1 features an IP 10 degree of protection.

- **Multiple mounting options**
  Upside-down or horizontal? It is up to you how you wish to mount the BZM1. But regardless of the mounting position and the side you choose for the supply of power, it will always provide the full protective function.

- **Cable Fixing: Cable lug and box terminal**
  The proven **cable lug** with M6 screws **and the box terminal technology** for quick and easy mounting (BZM1…-BT): both are included in the **standard range** of products.

- **Solutions made to measure**
  Remote tripping, signalling the switching status or undervoltage releasing in case of security relevent applications - all of this is easy to manage for the BZM1. Thanks to the comprehensive range of accessories, the BZM1 will not only be the perfect match for standard applications, but also the ideal solution for individual handling requirements.

  Upon request the BZM1 is also available with a rotary handle (for direct mounting or door coupling).

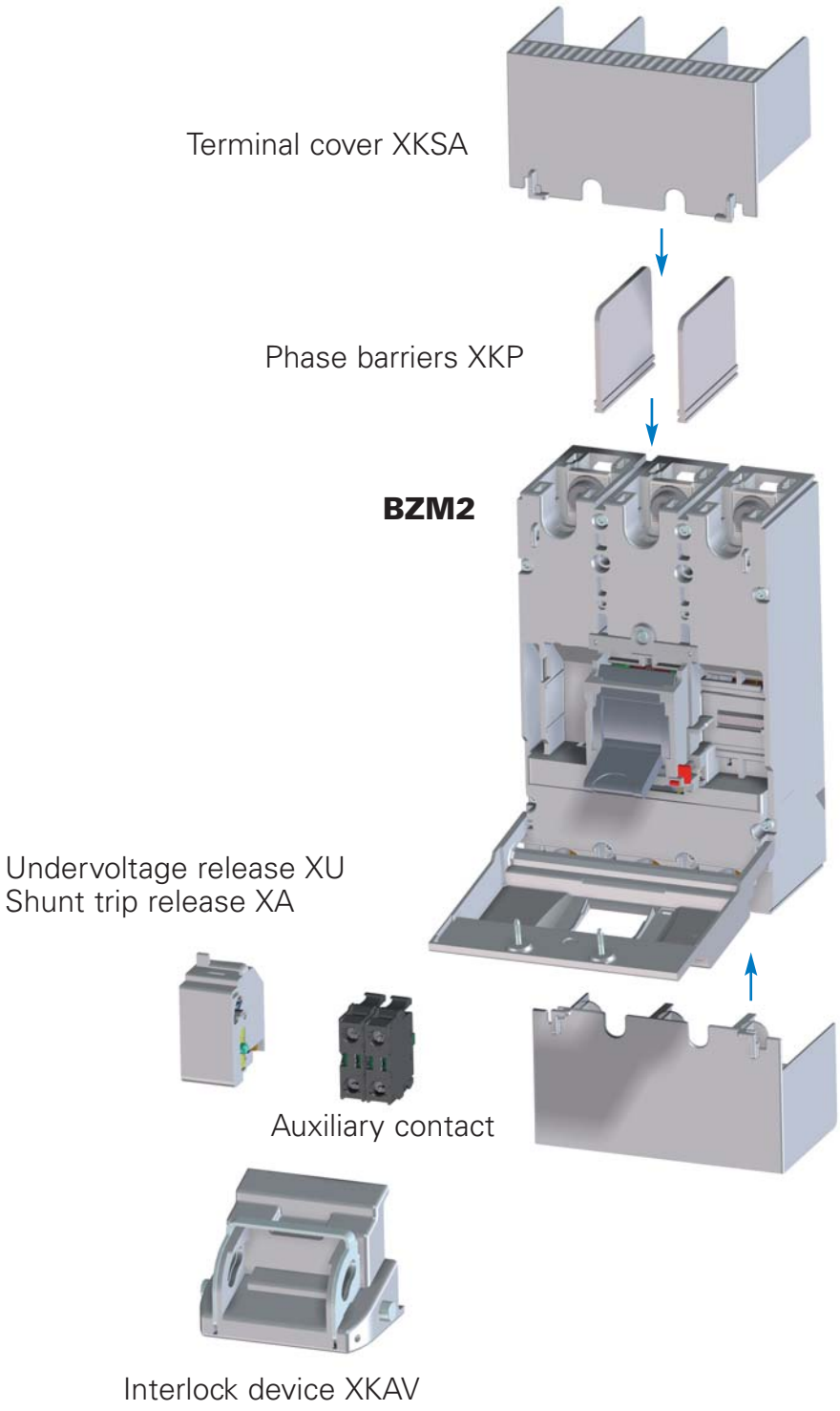
- **Characteristics / Features**

Rated current:	16 A up to 125 A
Breaking Capacity:	15, 18, 25, 36 kA
Cable fixing:	Cable lug M6 or Box Terminal (BZM1…-BT)
Available poles:	1pole, 2pole, 3pole, 4pole
Rated Voltage:	up to 400/415V, 50/60Hz
3-Position lever:	Off - Trip - ON
Electrical Supply:	Line or Load-Side

BZM1

BZM1... -BT

Range Overview BZM2



BZM2 - Excellent Protection for High-Rated Current Requirements

BZM2

- **Technology brought to the point**
  Eaton's new BZM2 keeps a watchful eye on **rated currents** ranging **from 125 to 250 A** and a breaking capacity up to **36 kA**: it impresses especially with its functionality and robust design.
  The **3-pole** version **(size W x D x H: 105 x 91.5 x 165 mm)** with a lifespan of 8,000 mechanical operating cycles makes it a powerful protective device in a compact format.

- **Perfect adjustment to any environment**
  Standard position, horizontal or upside-down: you can select the mounting position just as freely as the side for the incoming power supply.

- **Conventional connection via cable lug**
  In line with the common practice for this type of rated current, the connection is established through a **cable lug** and M8 screws.

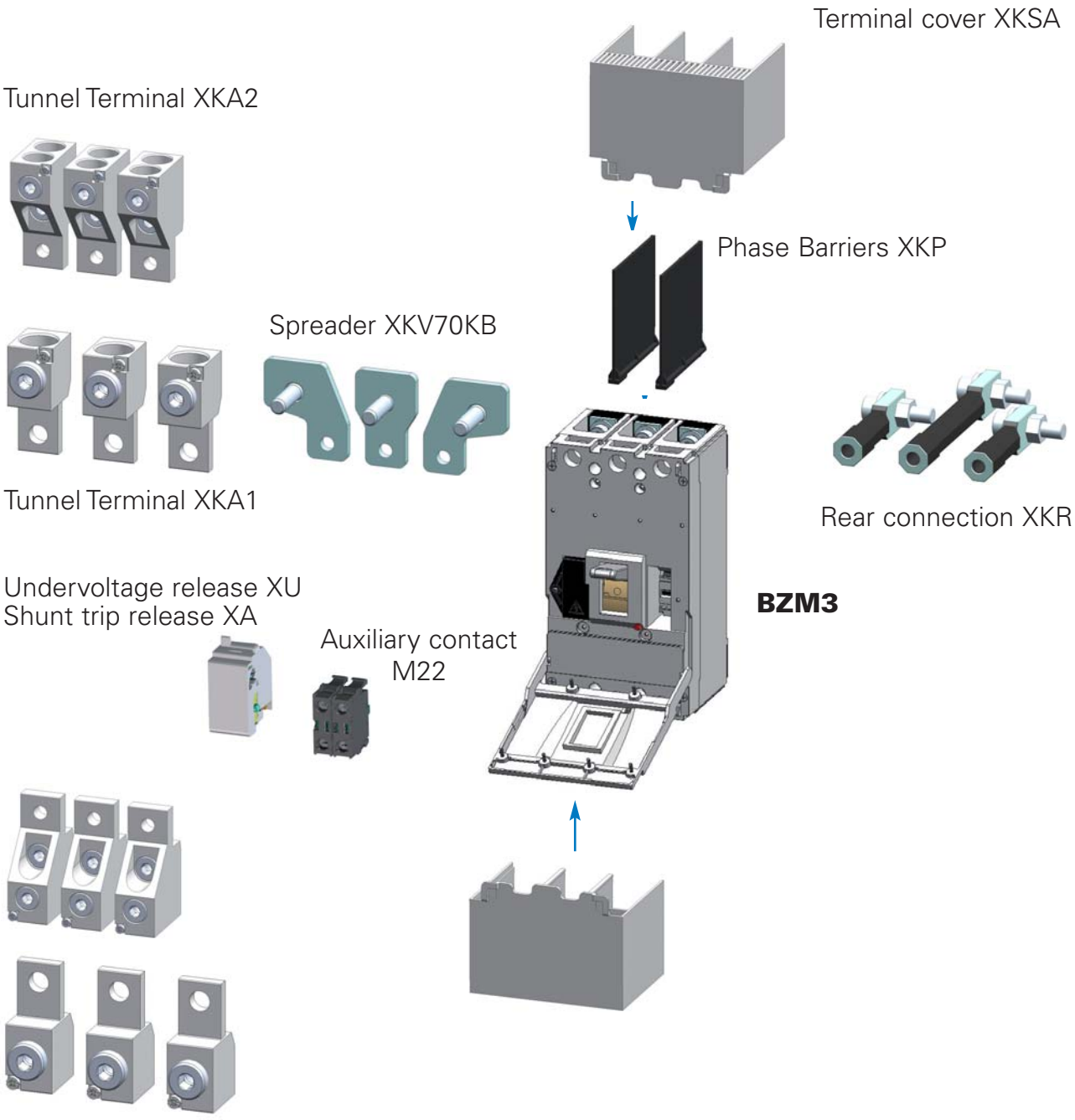
- **Accessories in Eaton style**
  Upon request and in our usual manner, we provide clever accessories such as auxiliary contacts, shunt trip releases, undervoltage releases; interlock device or terminal covers.

  The BZM2 is a specialist in the higher range of rated current and offers everything you could want in terms of reliability, easy handling and compact design!

- **Characteristics / Features**

Rated current:	125 A up to 250 A
Breaking Capacity:	25, 36 kA
Cable fixing:	Cable lug M8
Available poles:	3pole
Rated Voltage:	400/415V, 50/60Hz
3-Position lever:	Off - Trip - ON
Electrical Supply:	Line or Load-Side

Range Overview BZM3



BZM3 - the perfect high current solution

BZM3

- **Strong ratings combined with compact dimensions**
  The new BZM3 products are the most powerful Circuit Breaker within Eaton's BZM product range. The **rated current** is ranging from **250 up to 400 A** and a maximum breaking capacity **of 50kA / 415VAC** and **36kA /440VAC**. Eaton's BZM3 products - the prefect solution for your high amp applications with a compact size (size W x D x H: 140 x 149 x 255 mm)

- **Simple to use**
  As commonly known from the BZM1 and BZM2 product range, freely place the product - Standard position, horizontal or upside-down. Also the feeding direction can be chosen as required.

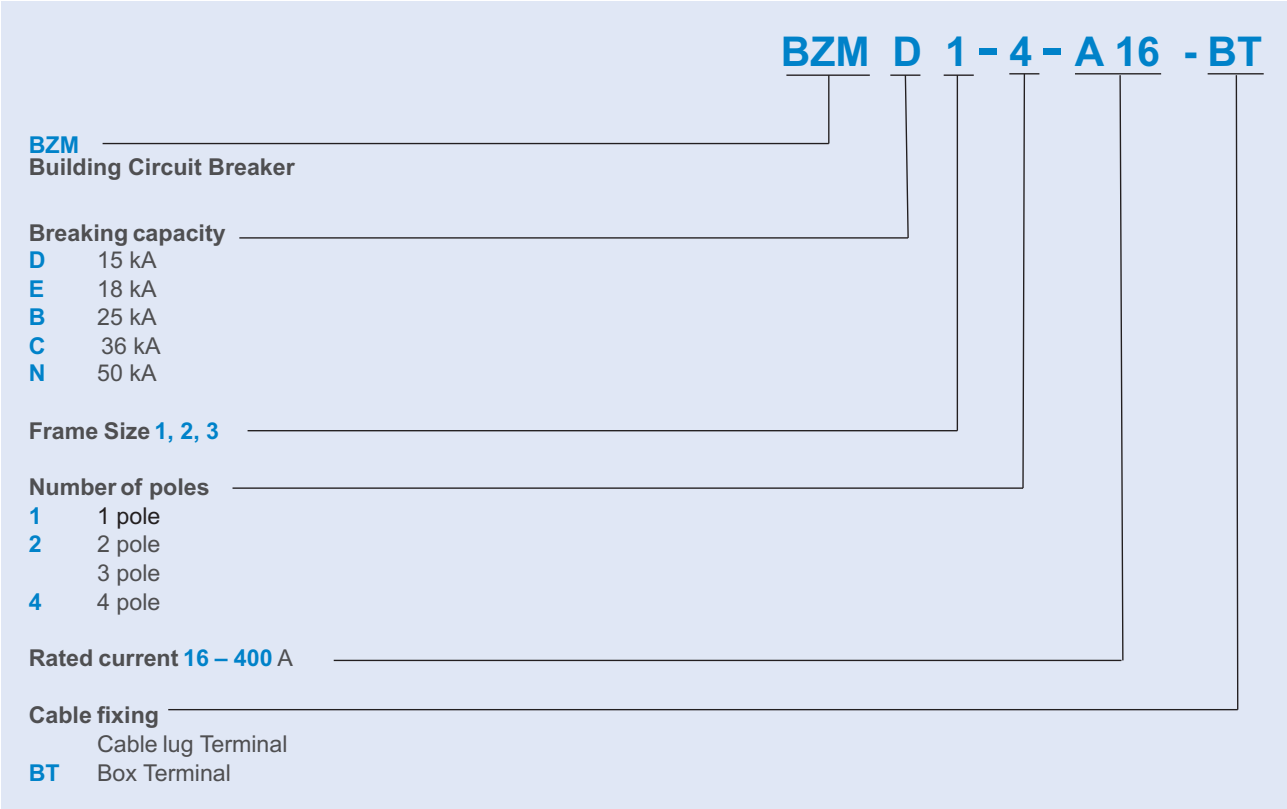
- **Cable fixing: it`s simple!**
  Wether you choose the **standard cable lug** version with M10 screw or the **Tunnel Terminal option** as accessory - the connection of your cable or busbar is quick and simple!

- **The BZM3 - not just Breaker!**
  Accessories are very important for the different applications. Therefore also the BZM3 has the perfect accessories range available for you! Not only shunt trip releases, undervoltage releases and auxiliary contacts are part of the accessories range. Also terminal covers, spreaders, tunnel terminals and phase barriers and a rear connection kit is available for this new product range

- **Characteristics / Features**
  Rated current: 250 up to 400A
  Breaking capacity 25, 36 or 50kA / 415VAC
  Cable fixing: Cable lug M10 or Tunnel terminal (accessory)
  Rated voltage: 440V, 50/60Hz
  3-Position lever: Off - Trip - On
  Electrical Supply: Line or Load-Side

Content

BZM Types Key



Circuit breakers BZM1
1-pole

	Rated current = rated uninterrupted current $I_n = I_u$ A	Short circuit releases I A $I>$	Economy switching capacity 18kA at 240 V 50/60 Hz **Part no.** Article no. 1 of each		
Protection of systems and cables					
1-pole					
Cable lug terminal					
	16	256 - 384	**BZME1-1-A16** 166250		
	20	256 - 384	**BZME1-1-A20** 166251		
	25	320 - 480	**BZME1-1-A25** 166252		
	32	320 - 480	**BZME1-1-A32** 166253		
	40	320 - 480	**BZME1-1-A40** 166254		
	50	480 - 720	**BZME1-1-A50** 166255		
	63	480 - 720	**BBZME1-1-A63** 166256		
	80	800 - 1200	**BZME1-1-A80** 166257		
	100	800 - 1200	**BBZME1-1-A100** 166258		
Box terminal					
	16	256 - 384	**BZME1-1-A16-BT** 166259		
	20	256 - 384	**BZME1-1-A20-BT** 166260		
	25	320 - 480	**BZME1-1-A25-BT** 166261		
	32	320 - 480	**BZME1-1-A32-BT** 166262		
	40	320 - 480	**BZME1-1-A40-BT** 166263		
	50	480 - 720	**BZME1-1-A50-BT** 166264		
	63	480 - 720	**BZME1-1-A63-BT** 166265		
	80	800 - 1200	**BZME1-1-A80-BT** 166266		
	100	800 - 1200	**BZME1-1-A100-BT** 166267		

Note: 1 piece phase barrier BZM1-XKP included in delivery

Circuit breakers BZM1
2-pole

	Rated current = rated uninterrupted current $I_n = I_u$ A	Short circuit releases I A	Domestic switching capacity 15kA at 415 V 50/60 Hz **Part no.** Article no. 1 of each	Economy switching capacity 18kA at 415 V 50/60 Hz **Part no.** Article no. 1 of each	Basic switching capacity 25kA at 415 V 50/60 Hz **Part no.** Article no. 1 of each
Protection of systems and cables					
2-pole					
Cable lug terminal					
	16	256 - 384	**BZMD1-2-A16** 129805	**BZME1-2-A16** 129911	**BZMB1-2-A16** 112582
	20	256 - 384	**BZMD1-2-A20** 129807	**BZME1-2-A20** 129913	**BZMB1-2-A20** 112584
	25	320 - 480	**BZMD1-2-A25** 129809	**BZME1-2-A25** 129915	**BZMB1-2-A25** 112586
	32	320 - 480	**BZMD1-2-A32** 129881	**BZME1-2-A32** 129917	**BZMB1-2-A32** 112588
	40	320 - 480	**BZMD1-2-A40** 129883	**BZME1-2-A40** 129919	**BZMB1-2-A40** 112590
	50	480 - 720	**BZMD1-2-A50** 129885	**BZME1-2-A50** 129921	**BZMB1-2-A50** 112592
	63	480 - 720	**BZMD1-2-A63** 129887	**BZME1-2-A63** 129923	**BZMB1-2-A63** 112594
	80	800 - 1200	**BZMD1-2-A80** 129889	**BZME1-2-A80** 129925	**BZMB1-2-A80** 112596
	100	800 - 1200	**BZMD1-2-A100** 129891	**BZME1-2-A100** 129927	**BZMB1-2-A100** 112598
Box terminal					
	16	256 - 384	**BZMD1-2-A16-BT** 129893	**BZME1-2-A16-BT** 129929	**BZMB1-2-A16-BT** 112602
	20	256 - 384	**BZMD1-2-A20-BT** 129895	**BZME1-2-A20-BT** 129931	**BZMB1-2-A20-BT** 112604
	25	320 - 480	**BZMD1-2-A25-BT** 129897	**BZME1-2-A25-BT** 129933	**BZMB1-2-A25-BT** 112606
	32	320 - 480	**BZMD1-2-A32-BT** 129899	**BZME1-2-A32-BT** 129935	**BZMB1-2-A32-BT** 112608
	40	320 - 480	**BZMD1-2-A40-BT** 129901	**BZMB1-2-A40-BT** 129937	**BZMB1-2-A40-BT** 112610
	50	480 - 720	**BZMD1-2-A50-BT** 129903	**BZME1-2-A50-BT** 129939	**BZMB1-2-A50-BT** 112612
	63	480 - 720	**BZMD1-2-A63-BT** 129905	**BZME1-2-A63-BT** 129941	**BZMB1-2-A63-BT** 112614
	80	800 - 1200	**BZMD1-2-A80-BT** 129907	**BZME1-2-A80-BT** 129943	**BZMB1-2-A80-BT** 112616
	100	800 - 1200	**BZMD1-2-A100-BT** 129909	**BZME1-2-A100-BT** 129945	**BZMB1-2-A100-BT** 112618

Note: 1 piece phase barrier BZM1-XKP included in delivery

Circuit breakers BZM1
3-pole

	Rated current = rated uninterrupted current $I_n = I_u$ A	Short circuit releases I A	Domestic switching capacity 15kA at 415 V 50/60 Hz **Part no.** Article no. 1 of each	Economy switching capacity 18kA at 415 V 50/60 Hz **Part no.** Article no. 1 of each	Basic switching capacity 25kA at 415 V 50/60 Hz **Part no.** Article no. 1 of each	Comfort switching capacity 36kA at 400 V 50/60 Hz **Part no.** Article no. 1 of each
Protection of systems and cables						
3-pole						
Cable lug terminal						
	16	256 - 384	**BZMD1-A16** 109706	**BZME1-A16** 109707	**BZMB1-A16** 109708	
	20	256 - 384	**BZMD1-A20** 109709	**BZME1-A20** 109710	**BZMB1-A20** 109711	
	25	320 - 480	**BZMD1-A25** 109712	**BZME1-A25** 109713	**BZMB1-A25** 109714	
	32	320 - 480	**BZMD1-A32** 109715	**BZME1-A32** 109716	**BZMB1-A32** 109717	**BZMC1-A32** 131251
	40	320 - 480	**BZMD1-A40** 109718	**BZME1-A40** 109719	**BZMB1-A40** 109720	**BZMC1-A40** 131252
	50	480 - 720	**BZMD1-A50** 109721	**BZME1-A50** 109722	**BZMB1-A50** 109723	**BZMC1-A50** 131253
	63	480 - 720	**BZMD1-A63** 109724	**BZME1-A63** 109725	**BZMB1-A63** 109726	**BZMC1-A63** 131254
	80	800 - 1200	**BZMD1-A80** 109727	**BZME1-A80** 109728	**BZMB1-A80** 109729	**BZMC1-A80** 131255
	100	800 - 1200	**BZMD1-A100** 109730	**BZME1-A100** 109731	**BZMB1-A100** 109732	**BZMC1-A100** 131256
	125	800 - 1200	**BZMD1-A125** 112490	**BZME1-A125** 112492		
Box terminal						
	16	256 - 384	**BZMD1-A16-BT** 109733	**BZME1-A16-BT** 109734	**BZMB1-A16-BT** 109735	
	20	256 - 384	**BZMD1-A20-BT** 109736	**BZME1-A20-BT** 109737	**BZMB1-A20-BT** 109738	
	25	320 - 480	**BZMD1-A25-BT** 109739	**BZME1-A25-BT** 109740	**BZMB1-A25-BT** 109741	
	32	320 - 480	**BZMD1-A32-BT** 109742	**BZME1-A32-BT** 109743	**BZMB1-A32-BT** 109744	**BZMC1-A32-BT** 131259
	40	320 - 480	**BZMD1-A40-BT** 109745	**BZME1-A40-BT** 109746	**BZMB1-A40-BT** 109747	**BZMC1-A40-BT** 131260
	50	480 - 720	**BZMD1-A50-BT** 109748	**BZME1-A50-BT** 109749	**BZMB1-A50-BT** 109750	**BZMC1-A50-BT** 131261
	63	480 - 720	**BZMD1-A63-BT** 109751	**BZME1-A63-BT** 109752	**BZMB1-A63-BT** 109753	**BZMC1-A63-BT** 131262
	80	800 - 1200	**BZMD1-A80-BT** 109754	**BZME1-A80-BT** 109755	**BZMB1-A80-BT** 109756	**BZMC1-A80-BT** 131263
	100	800 - 1200	**BZMD1-A100-BT** 109757	**BZME1-A100-BT** 109758	**BZMB1-A100-BT** 109759	**BZMC1-A100-BT** 131264
	125	800 - 1200	**BZMD1-A125-BT** 112496	**BZME1-A125-BT** 112498		

Note: 2 pieces phase barriers BZM1-XKP included in delivery

Circuit breakers BZM1
4-pole

	Rated current = rated uninterrupted current $I_n = I_u$ A	Short circuit releases I A $I>$	Domestic switching capacity 15kA at 415 V 50/60 Hz **Part no.** Article no. 1 of each	Economy switching capacity 18kA at 415 V 50/60 Hz **Part no.** Article no. 1 of each	Basic switching capacity 25kA at 415 V 50/60 Hz **Part no.** Article no. 1 of each
Protection of systems and cables					
4-pole					
Cable lug terminal					
	16	256 - 384	**BZMD1-4-A16** 121775	**BZME1-4-A16** 112502	**BZMB1-4-A16** 112504
	20	256 - 384	**BZMD1-4-A20** 121777	**BZME1-4-A20** 112506	**BZMB1-4-A20** 112508
	25	320 - 480	**BZMD1-4-A25** 121779	**BZME1-4-A25** 112510	**BZMB1-4-A25** 112512
	32	320 - 480	**BZMD1-4-A32** 121941	**BZME1-4-A32** 112514	**BZMB1-4-A32** 112516
	40	320 - 480	**BZMD1-4-A40** 121943	**BZME1-4-A40** 112518	**BZMB1-4-A40** 112520
	50	480 - 720	**BZMD1-4-A50** 121945	**BZME1-4-A50** 112522	**BZMB1-4-A50** 112524
	63	480 - 720	**BZMD1-4-A63** 121947	**BZME1-4-A63** 112526	**BZMB1-4-A63** 112528
	80	800 - 1200	**BZMD1-4-A80** 121949	**BZME1-4-A80** 112530	**BZMB1-4-A80** 112532
	100	800 - 1200	**BZMD1-4-A100** 121951	**BZME1-4-A100** 112534	**BZMB1-4-A100** 112536
Box terminal					
	16	256 - 384	**BZMD1-4-A16-BT** 121955	**BZME1-4-A16-BT** 112542	**BZMB1-4-A16-BT** 112544
	20	256 - 384	**BZMD1-4-A20-BT** 121957	**BZME1-4-A20-BT** 112546	**BZMB1-4-A20-BT** 112548
	25	320 - 480	**BZMD1-4-A25-BT** 121959	**BZME1-4-A25-BT** 112550	**BZMB1-4-A25-BT** 112552
	32	320 - 480	**BZMD1-4-A32-BT** 121961	**BZME1-4-A32-BT** 112554	**BZMB1-4-A32-BT** 112556
	40	320 - 480	**BZMD1-4-A40-BT** 121963	**BZME1-4-A40-BT** 112558	**BZMB1-4-A40-BT** 112560
	50	480 - 720	**BZMD1-4-A50-BT** 121965	**BZME1-4-A50-BT** 112562	**BZMB1-4-A50-BT** 112564
	63	480 - 720	**BZMD1-4-A63-BT** 121967	**BZME1-4-A63-BT** 112566	**BZMB1-4-A63-BT** 112568
	80	800 - 1200	**BZMD1-4-A80-BT** 121969	**BZME1-4-A80-BT** 112570	**BZMB1-4-A80-BT** 112572
	100	800 - 1200	**BZMD1-4-A100-BT** 121971	**BZME1-4-A100-BT** 112574	**BZMB1-4-A100-BT** 112576

Note: 3 pieces phase barriers BZM1-XKP included in delivery

Circuit breakers BZM2
3-pole

	Rated current = rated uninterrupted current $I_n = I_u$ A	Short circuit releases / A $I>$	Basic switching capacity 25kA at 415 V 50/60 Hz **Part no.** Article no. 1 of each	Comfort switching capacity 36kA at 415 V 50/60 Hz **Part no.** Article no. 1 of each		
Protection of systems and cables						
3-pole						
Cable lug terminal						
	125	1400 - 2100	**BZMB2-A125** 119732	**BZMC2-A125** 121800		
	160	1400 - 2100	**BZMB2-A160** 116970	**BZMC2-A160** 121801		
	200	1400 - 2100	**BZMB2-A200** 116971	**BZMC2-A200** 121802		
	250	1400 - 2100	**BZMB2-A250** 116972	**BZMC2-A250** 121803		
Cable lug terminal (without overload release)						
	250	1400 - 2100	**BZMB2-S250** 131668			

Note: 2 pieces phase barriers BZM2-XKP included in delivery

Circuit breakers BZM3
3-pole

	Rated current = rated uninterrupted current $I_n = I_u$ A	Short circuit releases I A	Basic switching capacity 25kA at 415 V 50/60 Hz **Part no.** Article no. 1 of each	Comfort switching capacity 36kA at 415 V 50/60 Hz **Part no.** Article no. 1 of each	Normal switching capacity 50kA at 415 V 50/60 Hz **Part no.** Article no. 1 of each
Protection of systems and cables					
3-pole					
Cable lug terminal					
	250	2600-3800	**BZMB3-A250** 158104	**BZMC3-A250** 158108	**BZMN3-A250** 158272
	320	2600-3800	**BZMB3-A320** 158105	**BZMC3-A320** 158109	**BZMN3-A320** 158273
	350	2600-3800	**BZMB3-A350** 158106	**BZMC3-A350** 158270	**BZMN3-A350** 158274
	400	2600-3800	**BZMB3-A400** 158107	**BZMC3-A400** 158271	**BZMN3-A400** 158275

Note: 2 pieces phase barriers BZM3-XKP included in delivery

Accessories BZM1

	Description	Part no. Article no.	Std. pack
Auxiliary contacts (only for 2, 3 and 4pole)			
	1 NO	M22-K10 216376	20
	1 NC	M22-K01 216378	20
Phase barrier			
		BZM1-XKP 109760	1
Undervoltage release (only for 3 and 4pole)			
	230-240VAC	BZM1-3-XU230-240VAC 158053	1
	400-440VAC	BZM1-3-XU400-440VAC 158054	1
	24VDC	BZM1-3-XU24VDC 158055	1
Shunt trip release (only for 3 and 4pole)			
	230-240VAC	BZM1-3-XA230-240VAC 158056	1
	400-440VAC	BZM1-3-XA400-440VAC 158057	1
	24VDC	BZM1-3-XA24VDC 158058	1
Terminal cover (only for 1pole BZM)			
	for 1pole BZM	BZM1-1-XKSA 166268	1
	for 2pole BZM	BZM1-2-XKSA 112484	1
	for 3pole BZM	BZM1-XKSA 112482	1
	for 4pole BZM	BZM1-4-XKSA 112483	1

	Description	Part no. Article no.	Std. pack
Rotary handle (only for 2, 3 and 4pole)			
		BZM1-XDV 113168	1
Door rotary handle (only for 2, 3 and 4pole)			
 		BZM1-XTVD 112485	1
Note: XV4 or XV6 not included			
Extension axle (only for XTVD)			
	Length 400 mm	BZM1-XV4 112486	1
	Length 600 mm	BZM1-XV6 112487	1
DIN-rail-adapter			
	For 2-pole BZM	BZM1-2-XC35 112489	1
	For 3- a. 4-pole BZM	BZM1-XC35 112488	1
Cable Lug			
	35 mm^2 / M6	BZM1-XKS35 113609	10
	50 mm^2 / M6	BZM1-XKS50 113750	10
BZM1 Locking Device			
		BZM1-XKAV 152899	1

Accessories BZM2

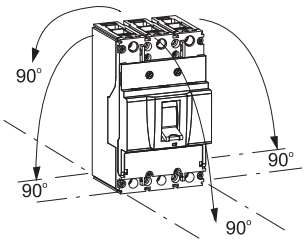
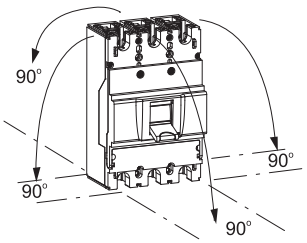
	Description	Part no. Article no.	Std. pack
Auxiliary contacts			
	1 NO	M22-K10 216376	20
	1 NC	M22-K01 216378	20
Phase barrier			
		BZM2-XKP 118720	1
Undervoltage release			
	230-240VAC	BZM1-3-XU230-240VAC 158053	1
	400-440VAC	BZM1-3-XU400-440VAC 158054	1
	24VDC	BZM1-3-XU24VDC 158055	1
Shunt trip release			
	230-240VAC	BZM1-3-XA230-240VAC 158056	1
	400-440VAC	BZM1-3-XA400-440VAC 158057	1
	24VDC	BZM1-3-XA24VDC 158058	1
Terminal cover			
		BZM2-XKSA 118727	1
Interlock Device			
		BZM2-XKAV 131669	1

Accessories BZM3

	Description	Part no. Article no.	Std. pack
Auxiliary contacts			
	1 NO	M22-K10 216376	20
	1 NC	M22-K01 216378	20
Phase barrier			
		BZM3-XKP 158300	1
Undervoltage release			
	230-240VAC	BZM1-3-XU230-240VAC 158053	1
	400-440VAC	BZM1-3-XU400-440VAC 158054	1
	24VDC	BZM1-3-XU24VDC 158055	1
Shunt trip release			
	230-240VAC	BZM1-3-XA230-240VAC 158056	1
	400-440VAC	BZM1-3-XA400-440VAC 158057	1
	24VDC	BZM1-3-XA24VDC 158058	1
Terminal cover			
		BZM3-XKSA 158305	1
Rear Connection			
		BZM3-XKR 185301	1
Spreaders (for one side of the breaker)			
		BZM3-XKV70KB 158302	1 set

	Description	Part no.	Std. pack Article no.	
Tunnel Terminal (for one side of the breaker)				
	185mm²	BZM3-XKA1 158303	1 set	
	240mm²	BZM3-XKA2 158304	1 set	
Cable Lug				
	185mm²	NZM3-XKS185 260040	3	
	240mm²	NZM3-XKS240 260041	3	

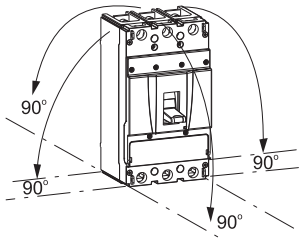
Technical Data BZM1, BZM2

			Rated current max. 125 A BZM1		Rated current max. 250 A BZM2
Mechanical specifications					
Standards			IEC/EN 60947-2		IEC/EN 60947-2
Number of poles			1, 2, 3, 4		3
Device width		mm	1pole:25, 2pole: 50, 3pole: 75, 4pole: 100		3pole: 105
Frame size		mm	45		45
Socket size		mm	130		165
Device depth		mm	84.7		91,5
Terminals			Lift terminal, ring tongue connector		ring tongue connector
Terminal capacity lift terminal		mm^2	rigid (solid/stranded) and flexible wire (2.5 - 50)		–
Terminal capacity ring tongue		mm	Diameter: max. 15		Diameter: max. 24
Busbar thickness		mm			max. 8
Terminal screw			M6 (Pozidriv PZ2)		M8
Terminal torque		Nm	4		14
Degree of Protection (DIN VDE 0470)			Built-in behind panel IP40		Built-in behind panel IP40
Climatic conditions			acc. to IEC 68-2 (25..55°C / 90..95% RH)		acc. to IEC 68-2 (25..55°C / 90..95% RH)
Ambient temperature					
Storage		°C	-35 ... +85		-35 ... +85
Operation		°C	-25 ... +70		-25 ... +70
Mounting positions			Vertical and 90° in all directions		Vertical and 90° in all directions
					
Protection System					
Enclosures			With insulating surround: IP40		With insulating surround: IP40
Number of mechanical operating cycles			> 10.000		> 8.000
Pollution degree			3		3
Electrical specifications					
			1pole	**2,3 and 4pole**	
Maximum LV h.b.c. fuse		A gG/gL	200	200	315
Rated operational voltage	U_e	V AC	230/240, 50/60 Hz	400/415, 50/60 Hz	400/415, 50/60 Hz
Rated current	I_n	A	16 up to 100	16 up to 125	125, 160, 200, 250
Rated impulse withstand voltage	U_{imp}	V	4.000 (1.2/50 µsec)	6.000 (1.2/50 µsec)	6.000 (1.2/50 µsec)
Overvoltage category			III	III	III
Rated insulation voltage	U_i	V	690	690	690
For use in IT electrical power networks		V	230/240	400/415	400/415
Direction of incoming supply			As required	As required	As required
Number of electrical operating cycles			> 1.500	> 1.500	1.000
Tripping characteristic					
Conventional non-tripping current			$I_{nt} = 1.05\ I_n$	$I_{nt} = 1.05\ I_n$	$I_{nt} = 1.05\ I_n$ [1)]
Conventional tripping current			$I_t = 1.30\ I_n$	$I_t = 1.30\ I_n$	$I_t = 1.30\ I_n$
Reference temperature		°C	40	30	30

Notes: [1)] not valid for BZMB2-S250

Technical Data BZM3

			Rated current max. 400 A BZM3
Mechanical specifications			
Standards			IEC/EN 60947-2
Number of poles			3
Device width		mm	3pole: 140
Frame size		mm	95
Socket size		mm	255
Device depth		mm	110
Terminals			
Terminal capacity ring tongue		mm	32
Terminal capacity Tunnel Terminal XKA1		mm^2	max. 350A
Copper Cabel/Aluminium cable:			1 x 16 - 185
Terminal capacity Tunnel Terminal XKA2		mm^2	max. 400A
Copper Cable/Aluminium cable:			1 x 50 - 240 or 2 x 50 - 240
Busbar thickness		mm	as required
Terminal screw			M10
Terminal torque		Nm	30
Degree of Protection (DIN VDE 0470)			Built-in behind panel IP40
Climatic conditions			acc. to IEC 68-2 (25..55°C / 90..95% RH)
Ambient temperature			
Storage		°C	-35 ... +85
Operation		°C	-25 ... +70
Mounting positions			Vertical and 90° in all directions



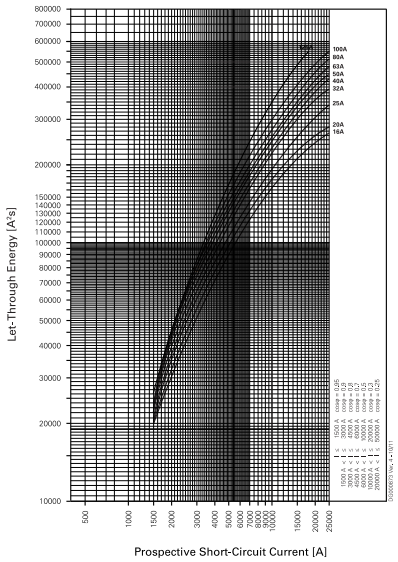
Protection System			
Enclosures			With insulating around: IP40
Number of mechanical operating cycles			> 5.000
Pollution degree			3
Electrical specifications			
Rated operational voltage	U_e	V AC	440, 50/60 Hz
Rated current	I_n	A	250, 320, 350, 400
Rated impulse withstand voltage	U_{imp}	V	8.000 (1.2/50 µsec)
Overvoltage category			III
Rated insulation voltage	U_i	V	690
For use in IT electrical power networks		V	440
Direction of incoming supply			As required
Number of electrical operating cycles			> 1.000
Tripping characteristic			
Conventional non-tripping current			$I_{nt} = 1.05\ I_n$
Conventional tripping current			$I_t = 1.30\ I_n$
Reference temperature		°C	40

Technical Data BZM1, BZM2

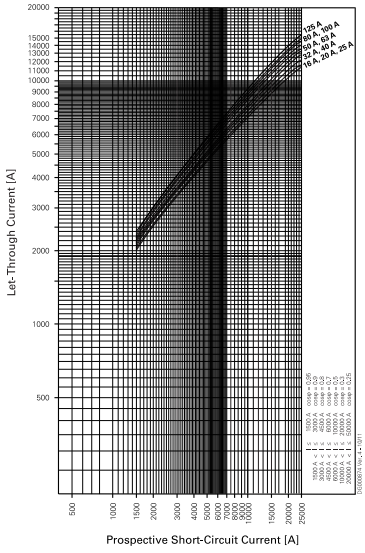
			BZMD1	BZME1	BZMB1	BZMC1	BZMB2	BZMC2
Switching capacity								
Rated short-circuit breaking capacity								
I_{CU} to IEC/EN 60947 operating sequence								
0-t-CO, 130 V 50/60 Hz	I_{CU}	kA	30	36	50		-	-
0-t-CO, 240 V 50/60 Hz	I_{CU}	kA	30	36	50		-	-
0-t-CO, 400/415 V 50/60 Hz[1)]	**I_{CU}**	**kA**	**15**	**18**	**25**	**36/400VAC**	**25**	**36**
I_{CS} to IEC/EN 60947 operating sequence								
0-t-CO-t-CO, 130 V 50/60 Hz	I_{CS}	kA	18	15	25		-	-
0-t-CO-t-CO, 240 V 50/60 Hz	I_{CS}	kA	18	15	25		-	-
0-t-CO-t-CO, 400/415 V 50/60 Hz[1)]	**I_{CS}**	**kA**	**7.5**	**9**	**12.5**	**18/9*/400VAC**	**12.5**	**9**
Utilization category to IEC/EN 60947-2								
*9kA/400VAC at IN=80, 100A			A	A	A	A	A	A

Notes: [1)] for BZM1 1pole 230/400 V, 50/60Hz

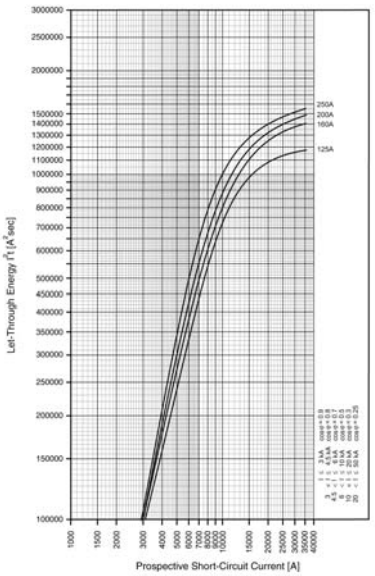
Let-through energy BZM1



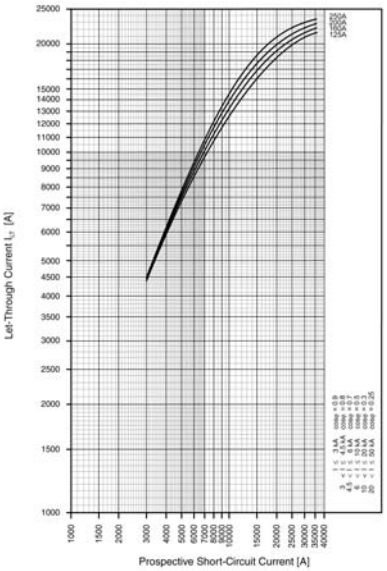
Let-through current BZM1



Let-through energy BZM2



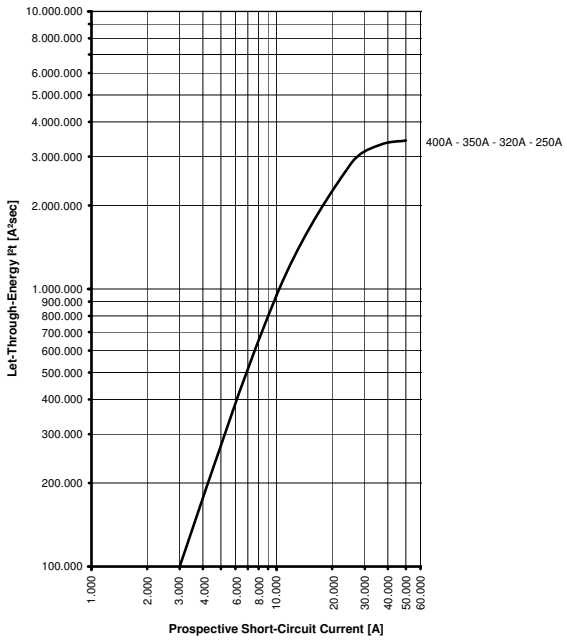
Let-through current BZM2



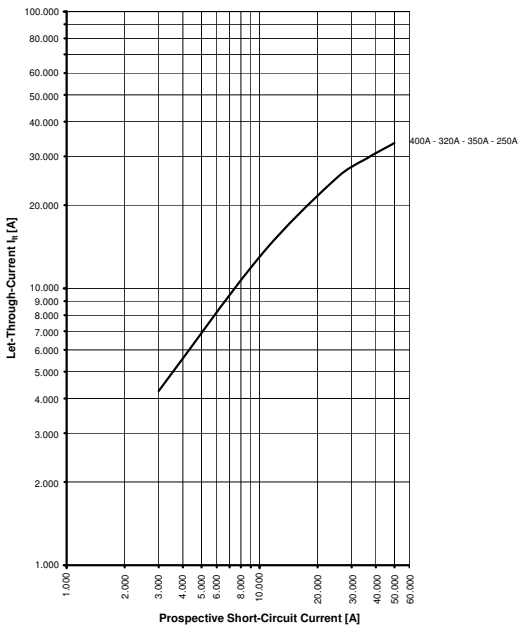
Technical Data BZM3

			BZMB3	BZMC3	BZMN3
Switching capacity					
Rated short-circuit breaking capacity					
Icu to IEC/EN 60947 operating sequence					
O-t-CO, 240 V 50/60 Hz	Icu	kA	50	85	100
O-t-CO, 400/415 V 50/60 Hz	**Icu**	**kA**	**25**	**36**	**50**
O-t-CO, 440 V 50/60 Hz	Icu	kA	20	25	36
Ics to IEC/EN 60947 operating sequence					
O-t-CO, 240 V 50/60 Hz	Ics	kA	25	42,5	50
O-t-CO-t-CO, 400/415 V 50/60 Hz	**Ics**	**kA**	**12.5**	**18**	**25**
O-t-CO, 440 V 50/60 Hz	Ics	kA	10	12,5	18
Utilization category to IEC/EN 60947-2			A	A	A

Let-through energy BZM3



Let-through current BZM3



Backup protection

between incoming circuit-breaker NZM (B)(C)(N)(H) and outgoing circuit-breaker BZM (D)(E)(B)(C)

			Incoming circuit-breaker							
			NZM1				**NZM2**			
		I_n	up to 160 A				up to 250 A			
		I_{cu} (415 V)	25kA	36kA	50kA	100kA	25kA	36kA	50kA	150kA
Outgoing Circuit Breaker										
	I_{cu} (415 V)									
BZMD1	15 kA	up to 125 A	18	25	36	40	18	25	36	50
BZME1	18 kA	up to 125 A	20	30	40	50	20	30	40	70
BZMB1	25 kA	up to 125 A	25	36	50	70	25	36	50	100
BZMC1*	36 kA*	up to 100 A*	25*	36*	50*	70*	25*	36*	50*	100*
BZMB2	25 kA	up to 250 A	-	-	-	-	-	36	50	100
BZMC2	36 kA	up to 250 A	-	-	-	-	-	-	50	100

* I_{cu} (400 V)

Back-up Protection PLHT / BZM(B)(C)(D)(E)1

	PLHT-I_n/ 1(2,3,4)/ B(C) + BZMB1
I_n [A]	U_e = 230/400 V, U_e = 240/415 V
20	18 kA (BZMB1-A125) 25 kA (BZMB1-A16...-A100)
25	
32	
40	
50	
63	
80	
100	
125	

	PLHT-I_n/ 1(2,3,4)/ B(C) + BZMC1
I_n [A]	U_e = 230/400 V
20	25 kA
25	
32	
40	
50	
63	
80	
100	

	PLHT-I_n/ 1(2,3,4)/ B(C) + BZMD1
I_n [A]	U_e = 230/400 V, U_e = 240/415 V
20	15 kA
25	
32	
40	
50	
63	
80	
100	
125	

	PLHT-I_n/ 1(2,3,4)/ B(C) + BZME1
I_n [A]	U_e = 230/400 V, U_e = 240/415 V
20	18 kA
25	
32	
40	
50	
63	
80	
100	
125	

DG001283 Vers. 2 - 10/11

U_e = 400/415V: I_{CU} (BZMD1) = 15 kA (acc. to IEC/EN 60947-2)
U_e = 400/415V: I_{CU} (BZME1) = 18 kA (acc. to IEC/EN 60947-2)
U_e = 400/415V: I_{CU} (BZMB1) = 25 kA (acc. to IEC/EN 60947-2)
U_e = 400V: I_{CU} (BZMC1) = 36 kA (acc. to IEC/EN 60947-2)

U_e = 240/415V: I_{CU} (PLHT-20..63/1..4/B,C,D) = 25 kA (acc. to IEC/EN 60947-2)
U_e = 240/415V: I_{CU} (PLHT-80/1..4/B,C,D, PLHT-100/1..4/B,C) = 20 kA (acc. to IEC/EN 60947-2)
U_e = 240/415V: I_{CU} (PLHT-100/1..4/D, PLHT-125/1..4/B,C) = 15 kA (acc. to IEC/EN 60947-2)

Back-up tests acc. to IEC/EN 60947-2, App. A.6: U = 1.05*U_e (O - t - CO)

Back-up Protection PLHT / BZM(B)(C)2

	PLHT-I_n/ 1(2,3,4)/ B(C) + BZMB2
I_n [A]	U_e = 230/400 V, U_e = 240/415 V
20	25 kA
25	
32	
40	
50	
63	
80	
100	
125	

	PLHT-I_n/ 1(2,3,4)/ B(C) + BZMC2
I_n [A]	U_e = 230/400 V, U_e = 240/415 V
20	25 kA
25	
32	
40	
50	
63	
80	
100	
125	

DG001284 Vers. 2 - 10/11

U_e = 400/415V: I_{CU} (BZMB2) = 25 kA (acc. to IEC/EN 60947-2)
U_e = 400/415V: I_{CU} (BZMC2) = 36 kA (acc. to IEC/EN 60947-2)

U_e = 240/415V: I_{CU} (PLHT-20..63/1..4/B,C,D) = 25 kA (acc. to IEC/EN 60947-2)
U_e = 240/415V: I_{CU} (PLHT-80/1..4/B,C,D, PLHT-100/1..4/B,C) = 20 kA (acc. to IEC/EN 60947-2)
U_e = 240/415V: I_{CU} (PLHT-100/1..4/D, PLHT-125/1..4/B,C) = 15 kA (acc. to IEC/EN 60947-2)

Back-up tests acc. to IEC/EN 60947-2, App. A.6: U = 1.05*U_e (O - t - CO)

Back-up Protection FAZ/PLSM / BZM(B)(C)(D)(E)1

FAZ/PLSM-I_n/1(1N,2,3,3N,4)/B(C)(D) + BZMB1			
	U_e = 230/400 V, U_e = 240/415 V		
I_n [A]	Type B	Type C	Type D
0.16	x		x
0.25			
0.5			
0.75			x
1	25 kA (up to -A100) 18 kA (Type -A125)		
1.5			
1.6			
2			
2.5			
3			
3.5			
4			
5			
6			
8			
10			
12			
13			
15			
16			
20			
25			
32			
40			
50			
63			

FAZ/PLSM-I_n/1(1N,2,3,3N,4)/B(C)(D) + BZMC1			
	U_e = 230/400 V		
I_n [A]	Type B	Type C	Type D
0.16	x		x
0.25			
0.5			
0.75			x
1	20 kA		
1.5			
1.6			
2			
2.5			
3			
3.5			
4			
5			
6			
8			
10			
12			
13			
15			
16			
20			
25			
32			
40			
50			
63			

FAZ/PLSM-I_n/1(1N,2,3,3N,4)/B(C)(D) + BZMD1			
	U_e = 230/400 V, U_e = 240/415 V		
I_n [A]	Type B	Type C	Type D
0.16	x		x
0.25			
0.5			
0.75			x
1	15 kA		
1.5			
1.6			
2			
2.5			
3			
3.5			
4			
5			
6			
8			
10			
12			
13			
15			
16			
20			
25			
32			
40			
50			
63			

FAZ/PLSM-I_n/1(1N,2,3,3N,4)/B(C)(D) + BZME1			
	U_e = 230/400 V, U_e = 240/415 V		
I_n [A]	Type B	Type C	Type D
0.16	x		x
0.25			
0.5			
0.75			x
1	18 kA		
1.5			
1.6			
2			
2.5			
3			
3.5			
4			
5			
6			
8			
10			
12			
13			
15			
16			
20			
25			
32			
40			
50			
63			

DG001285 Vers. 2 - 07/11

U_e = 400/415V: I_{CU} (BZMD1) = 15 kA (acc. to IEC/EN 60947-2)
U_e = 400/415V: I_{CU} (BZME1) = 18 kA (acc. to IEC/EN 60947-2)
U_e = 400/415V: I_{CU} (BZMB1 up to -A100) = 25 kA (acc. to IEC/EN 60947-2)
U_e = 400/415V: I_{CU} (BZMB1-A125) = 18 kA (acc. to IEC/EN 60947-2)
U_e = 400: I_{CU} (BZMC1) = 36 kA (acc. to IEC/EN 60947-2)

U_e = 240/415V: I_{CU} (PLSM all types except D50, D63) = 15 kA (acc. to IEC/EN 60947-2)
U_e = 240/415V: I_{CU} (PLSM type D50, D63) = 10 kA (acc. to IEC/EN 60947-2)
Back-up tests acc. to IEC/EN 60947-2, App. A.6: U = 1.05*U_e (O - t - CO)

Back-up Protection FAZ/PLSM / BZM(B)(C)2

FAZ/PLSM-I_n/1(1N,2,3,3N,4)/B(C)(D) + BZMB2			
	U_e = 230/400 V, U_e = 240/415 V		
I_n [A]	Type B	Type C	Type D
0.16	x	20 kA	x
0.25			
0.5			
0.75			x
1			
1.5			
1.6			
2			
2.5			
3			
3.5			
4			
5			
6			
8			
10			
12			
13			
15			
16			
20			
25			
32			
40			
50			18 kA
63			

U_e = 400/415V: I_{CU} (BZMB2) = 25 kA (acc. to IEC/EN 60947-2)
U_e = 400/415V: I_{CU} (BZMC2) = 36 kA (acc. to IEC/EN 60947-2)

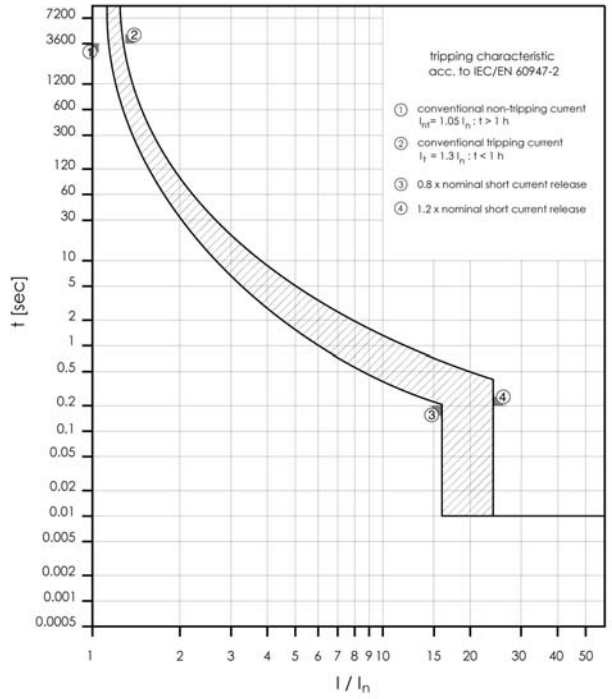
FAZ/PLSM-I_n/1(1N,2,3,3N,4)/B(C)(D) + BZMC2			
	U_e = 230/400 V, U_e = 240/415 V		
I_n [A]	Type B	Type C	Type D
0.16	x	20 kA	x
0.25			
0.5			
0.75			x
1			
1.5			
1.6			
2			
2.5			
3			
3.5			
4			
5			
6			
8			
10			
12			
13			
15			
16			
20			
25			
32			
40			
50			18 kA
63			

U_e = 240/415V: I_{CU} (PLSM all types except D50, D63) = 15 kA (acc. to IEC/EN 60947-2)
U_e = 240/415V: I_{CU} (PLSM type D50, D63) = 10 kA (acc. to IEC/EN 60947-2)
Back-up tests acc. to IEC/EN 60947-2, App. A.6: U = 1.05*U_e (O - t - CO)

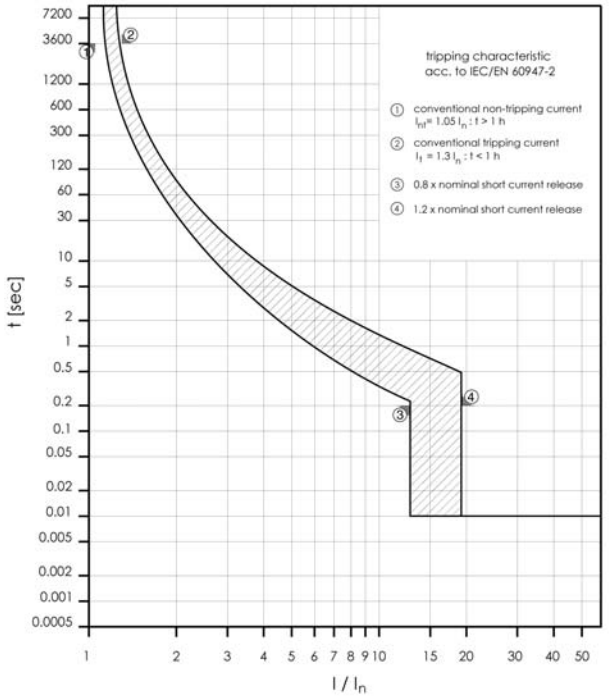
DG001286 Vers. 1 - 05/11

Tripping Current Curves BZM1

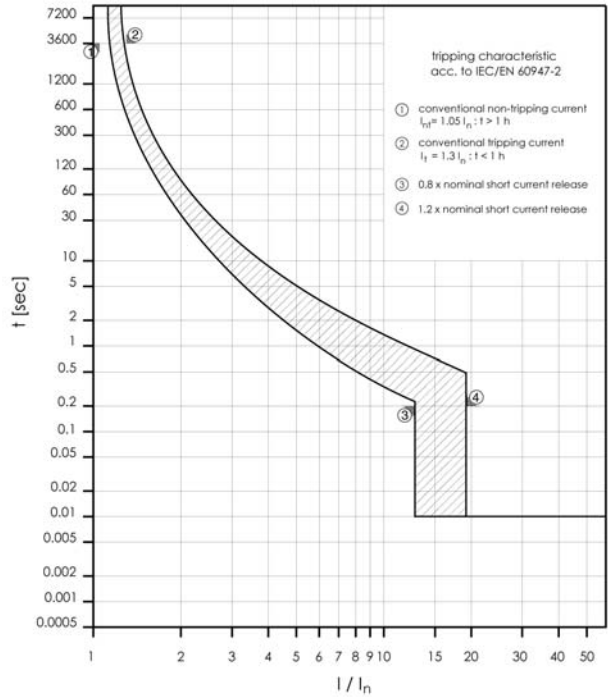
Tripping Curve BZM1 16A, 3-pole



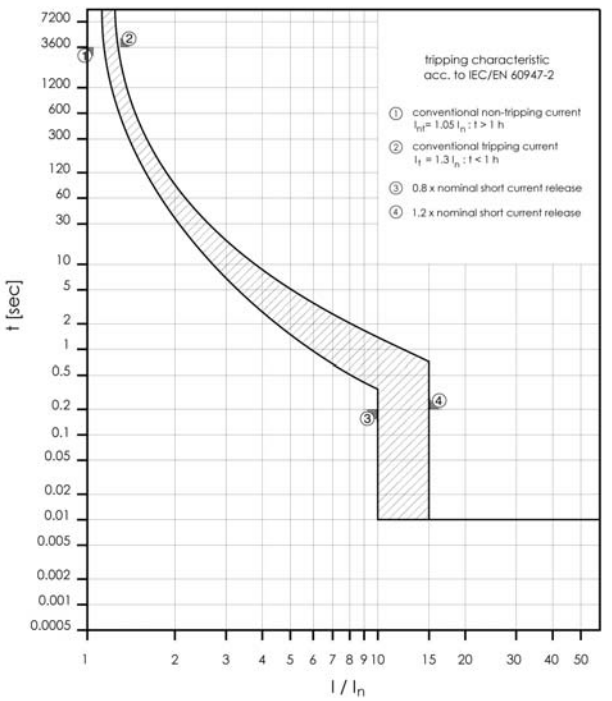
Tripping Curve BZM1 20A, 3-pole



Tripping Curve BZM1 25A, 3-pole

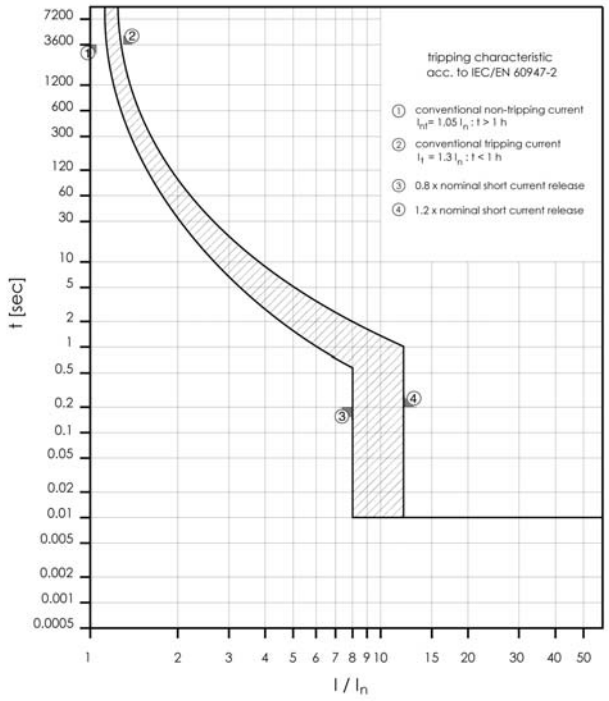


Tripping Curve BZM1 32A, 3-pole

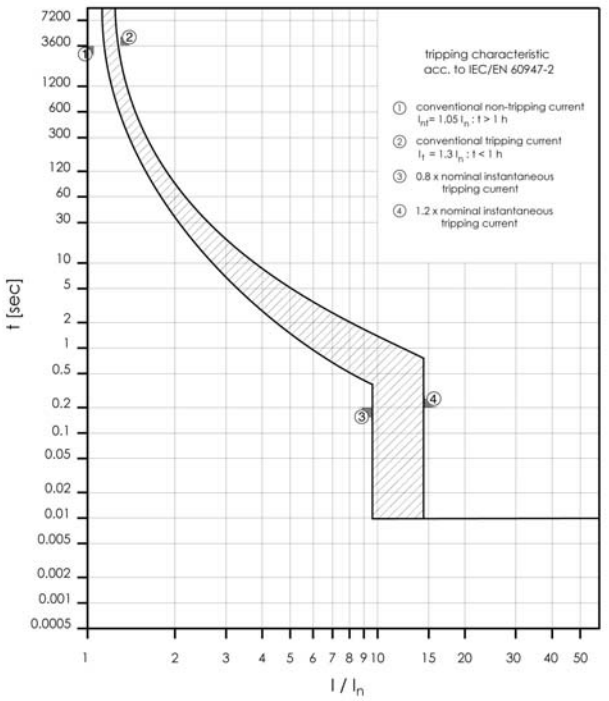


Tripping Current Curves BZM1

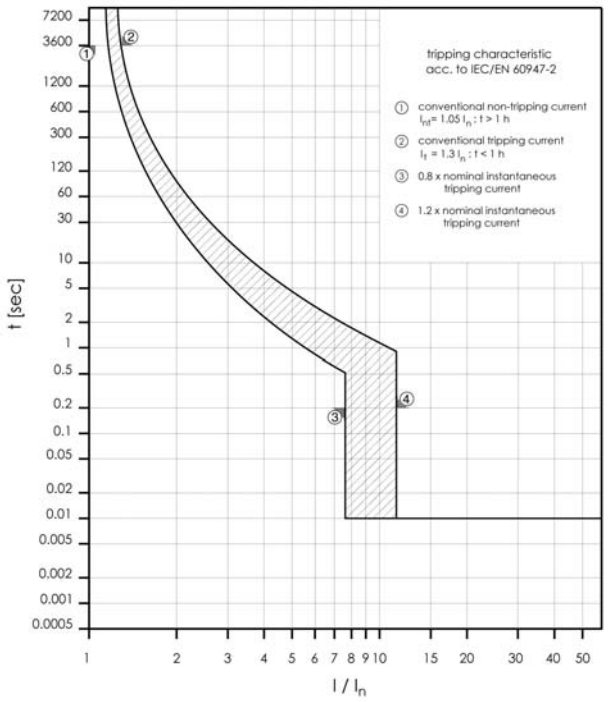
Tripping Curve BZM1 40A, 3-pole



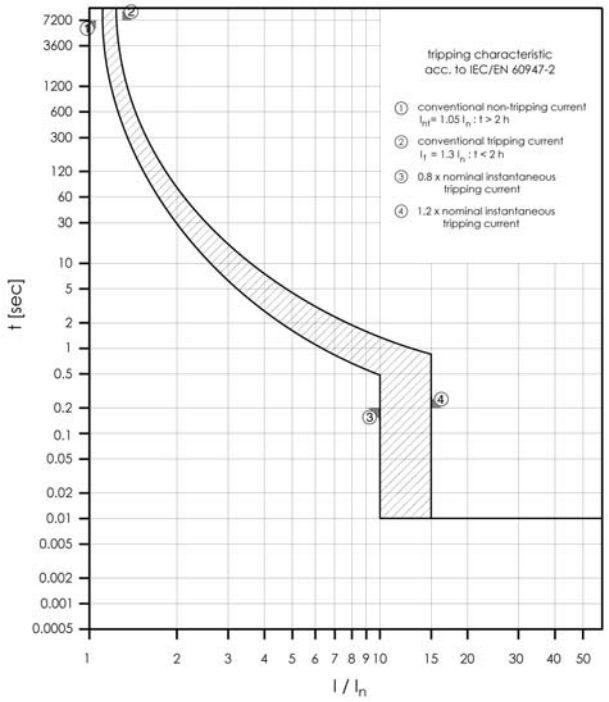
Tripping Curve BZM1 50A, 3-pole



Tripping Curve BZM 63A, 3-pole

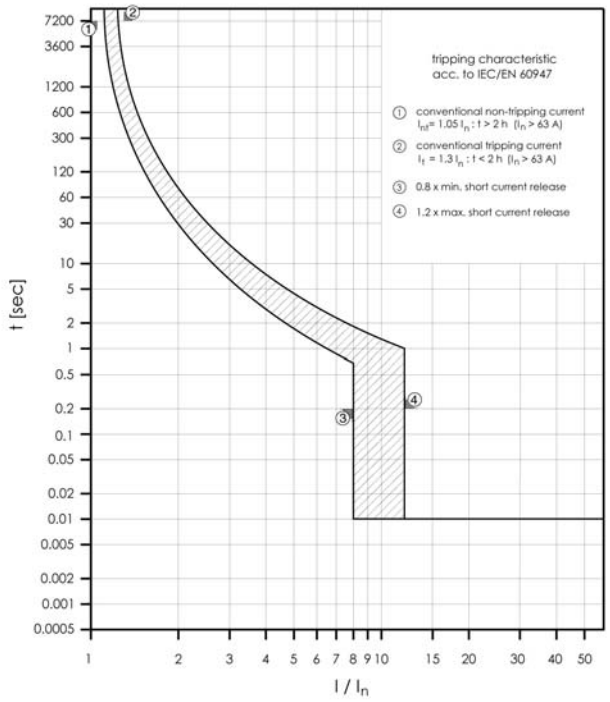


Tripping Curve BZM1 80A, 3-pole

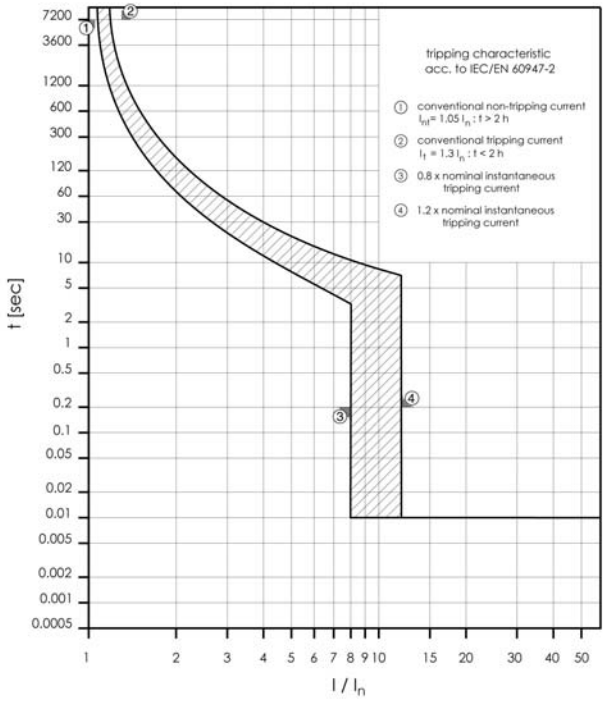


Tripping Current Curves BZM1, BZM2

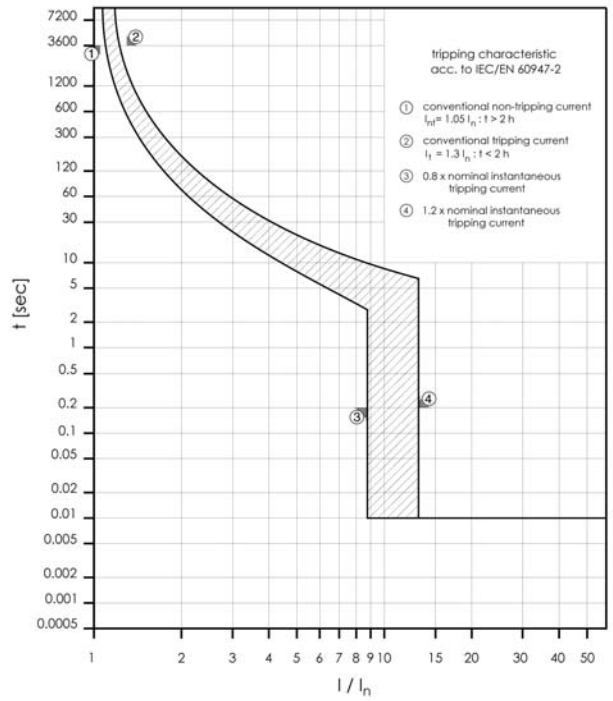
Tripping Curve BZM1 100A, 3-pole



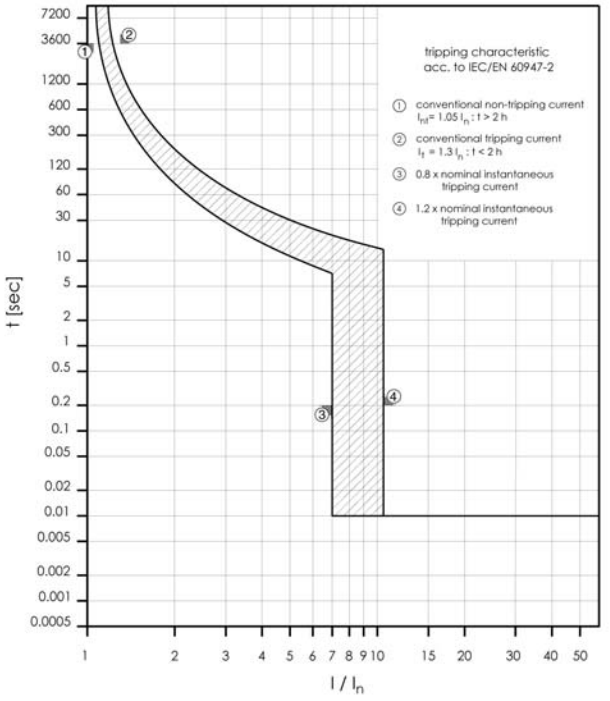
Tripping Curve BZM2 125A



Tripping Curve BZM2 160A

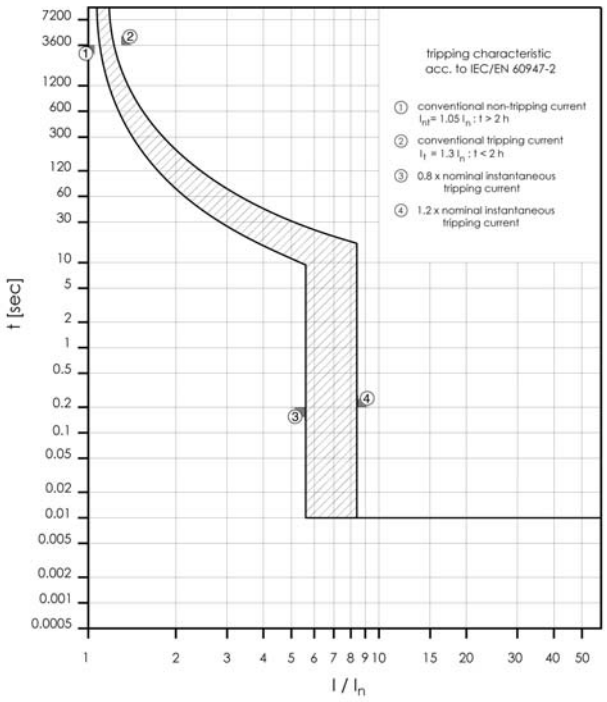


Tripping Curve BZM2 200A

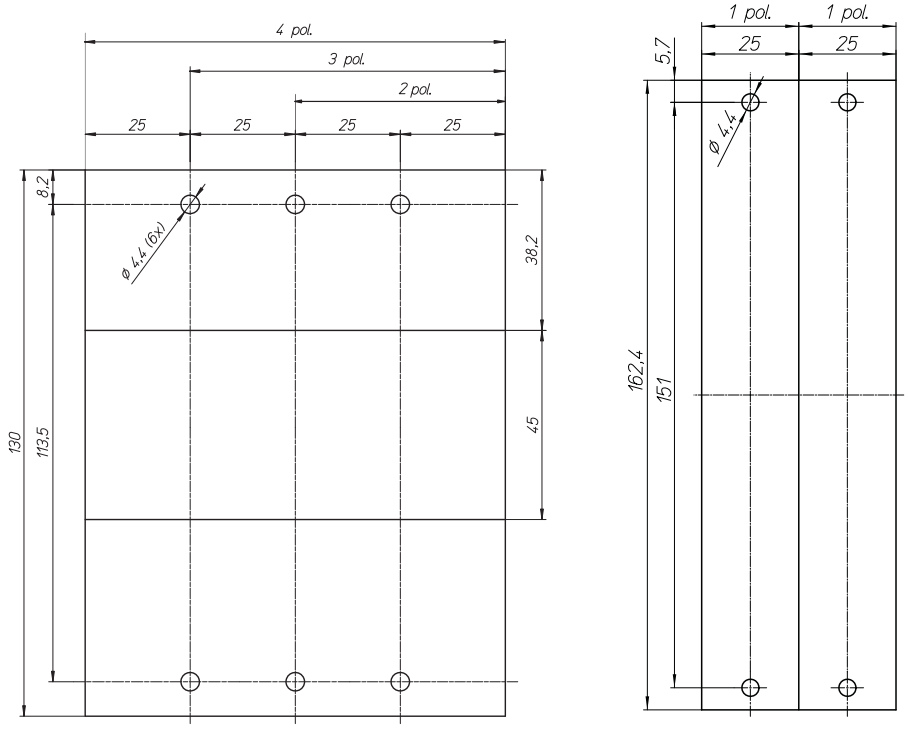


Tripping Current Curves BZM2
Mounting Holes BZM1

Tripping Curve BZM2 250A



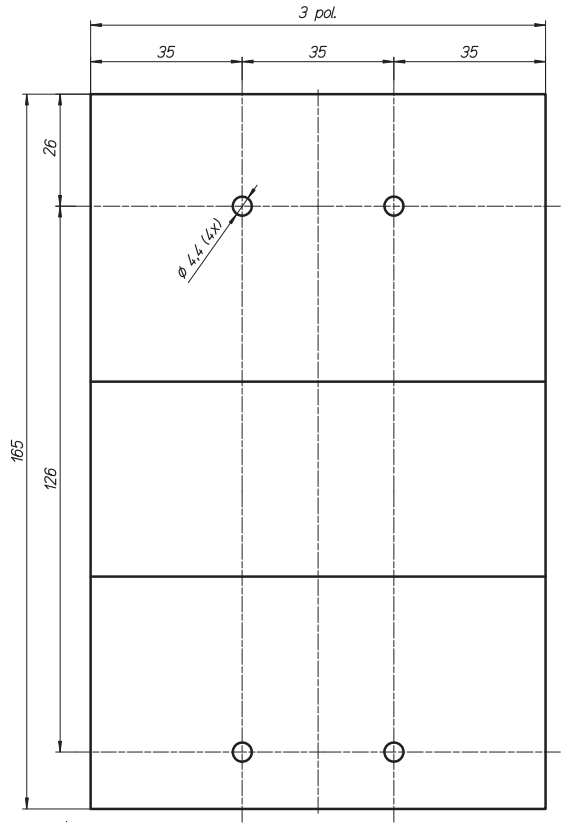
Mounting holes BZM1



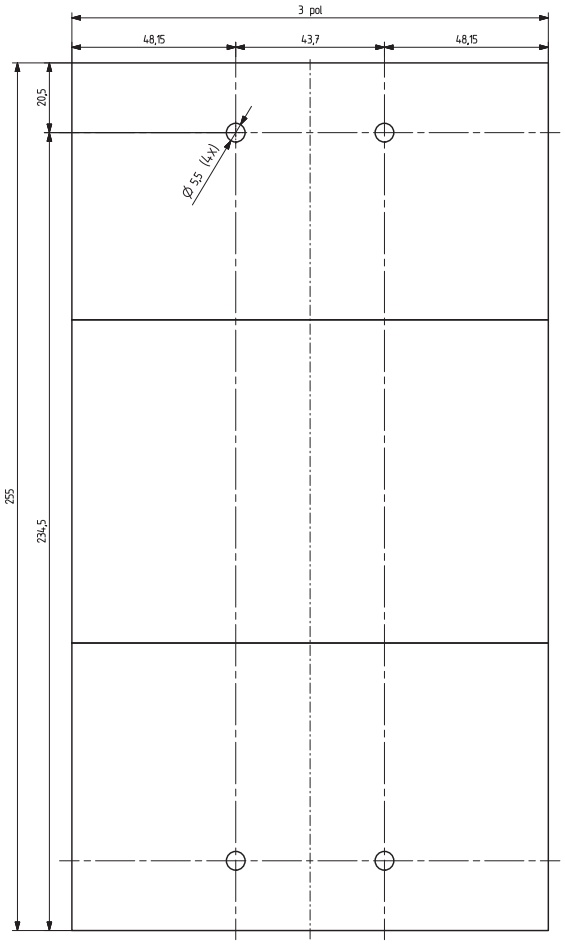
All dimensions in mm

Mounting Holes BZM2 and BZM3

Mounting holes BZM2



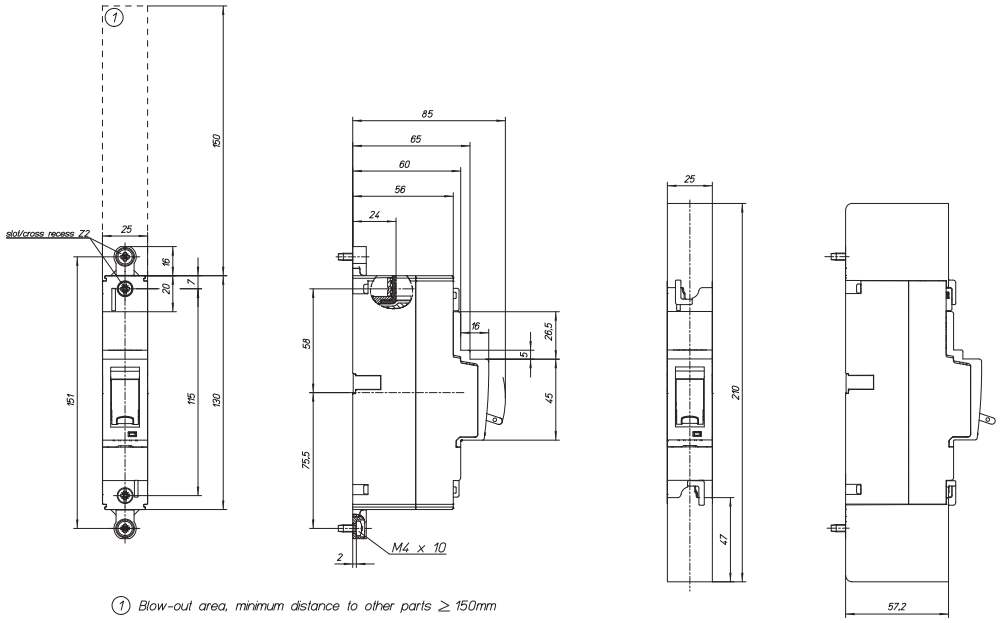
Mounting holes BZM3



All dimensions in mm

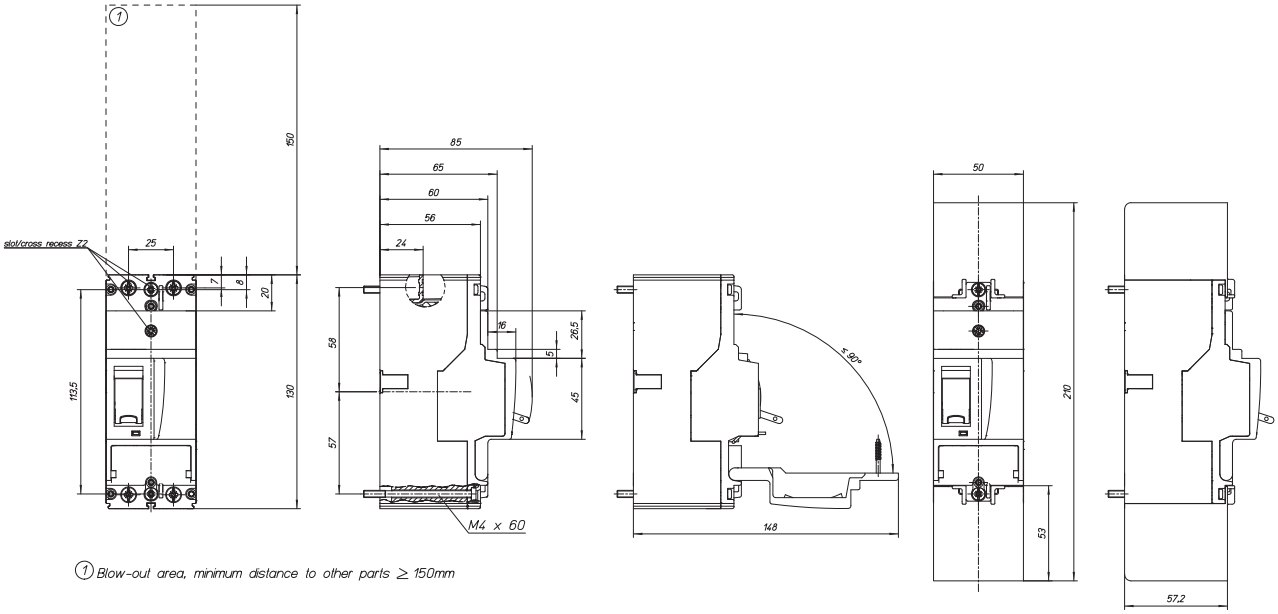
Dimensions BZM1

Circuit breaker BZM1 1-pole



1 Blow-out area, minimum distance to other parts ≥ 150mm

Circuit breaker BZM1 2-pole

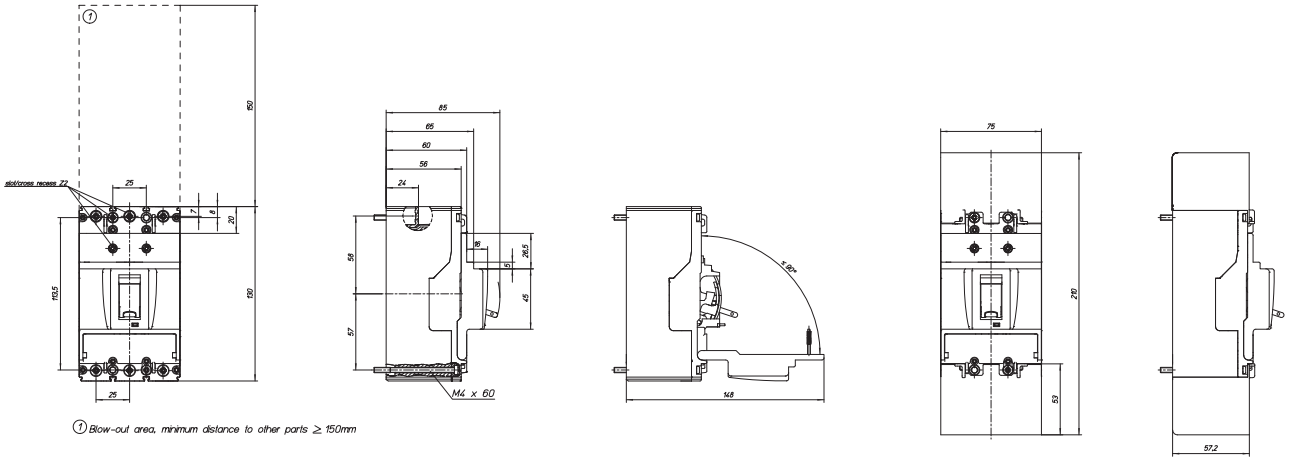


1 Blow-out area, minimum distance to other parts ≥ 150mm

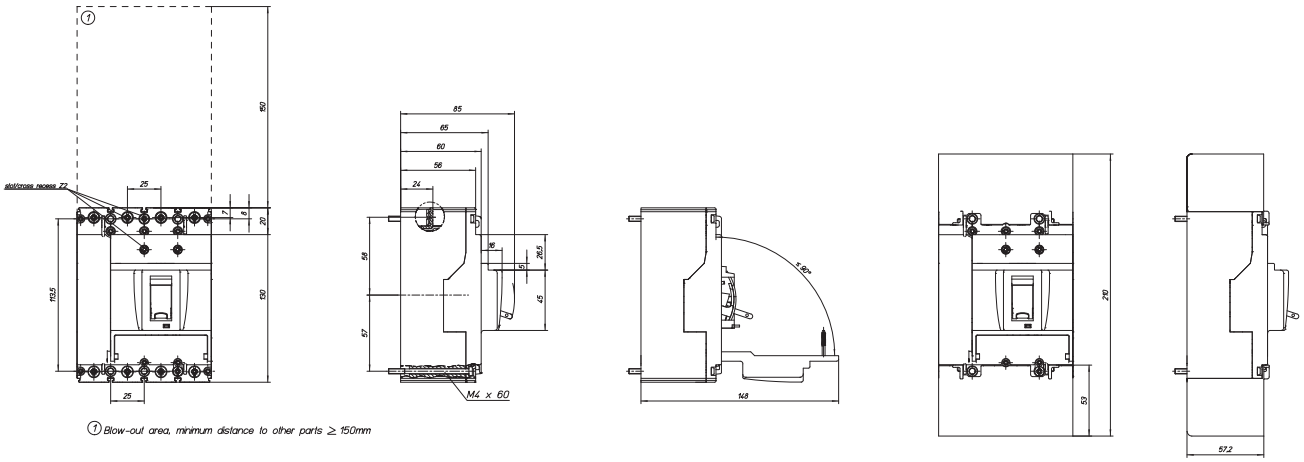
All dimensions in mm

Dimensions BZM1

Circuit breaker BZM1 3-pole



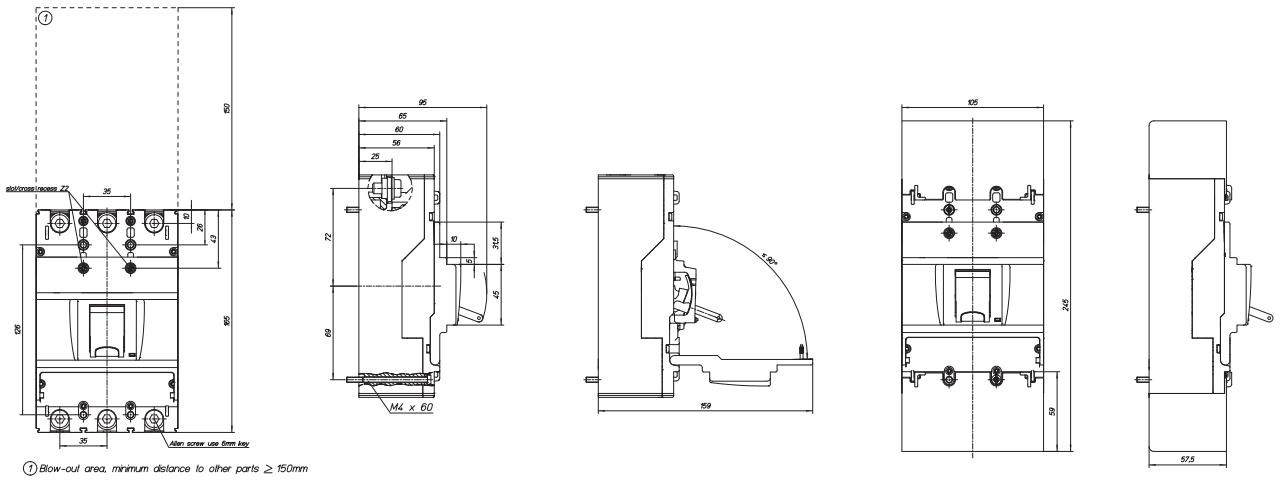
Circuit breaker BZM1 4-pole



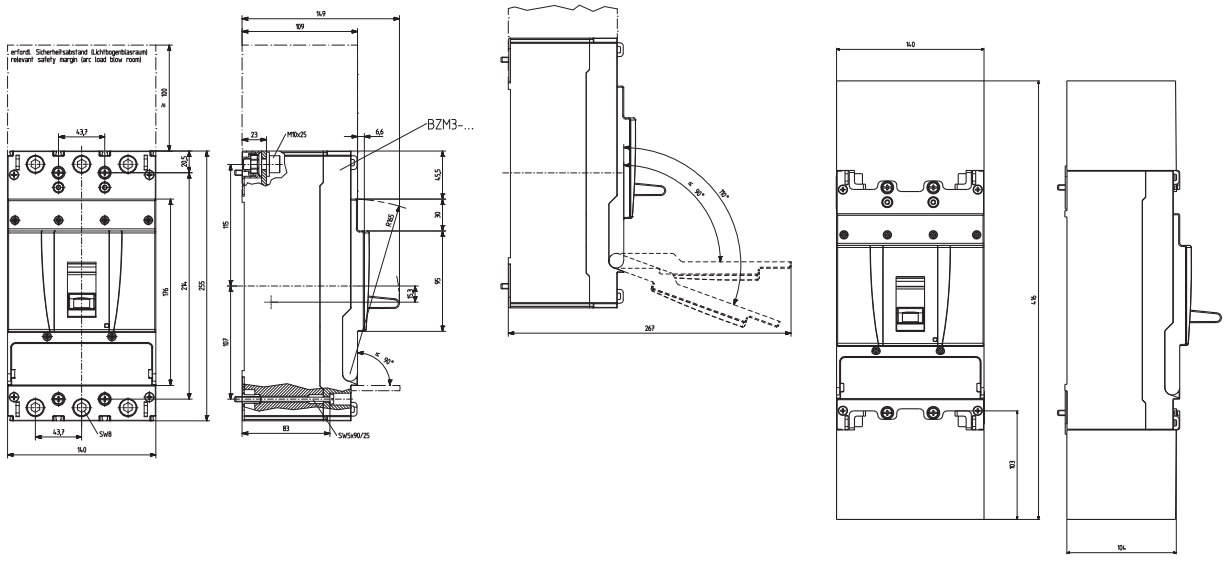
All dimensions in mm

Dimensions BZM2 and BZM3

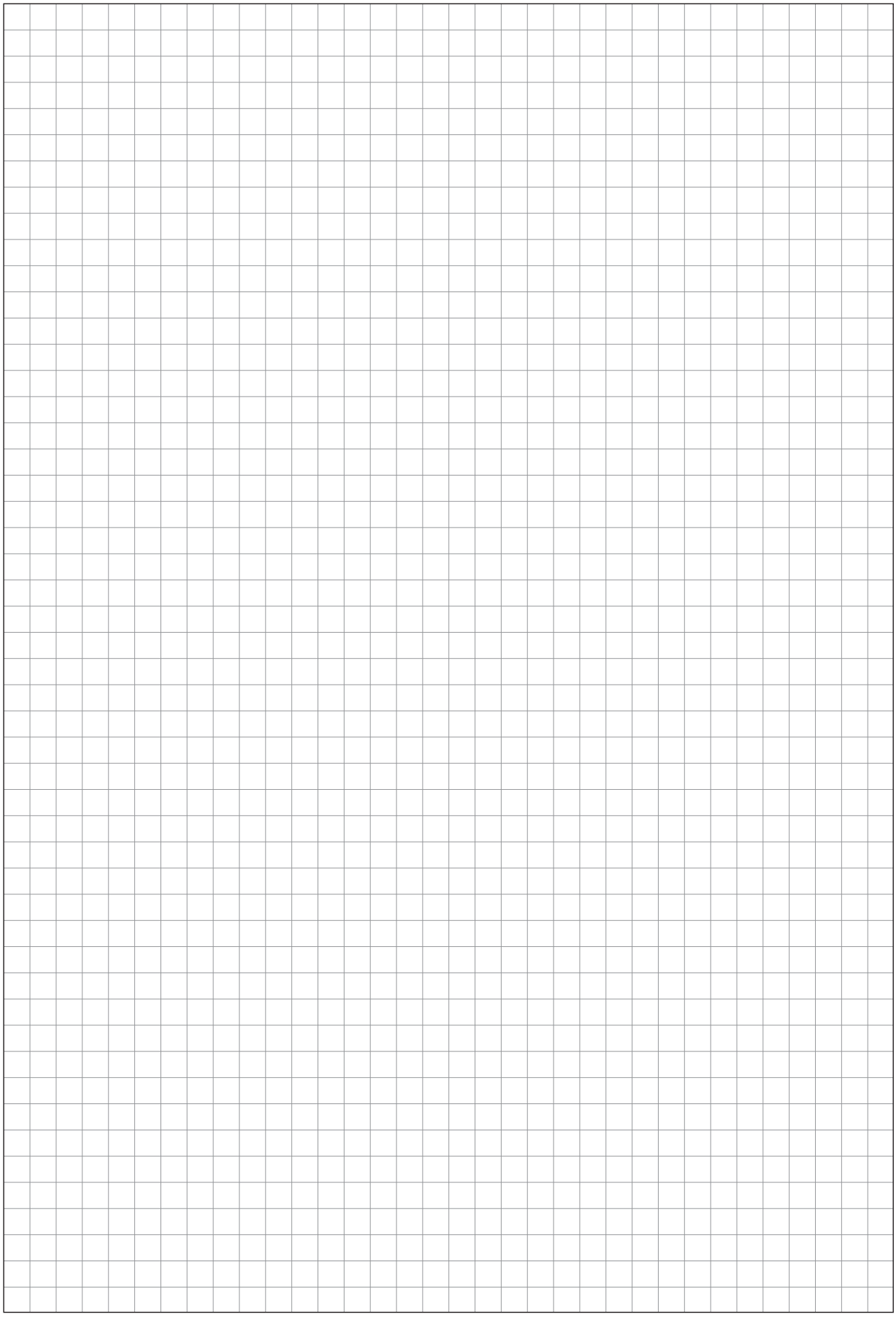
Circuit breaker BZM2 3-pole

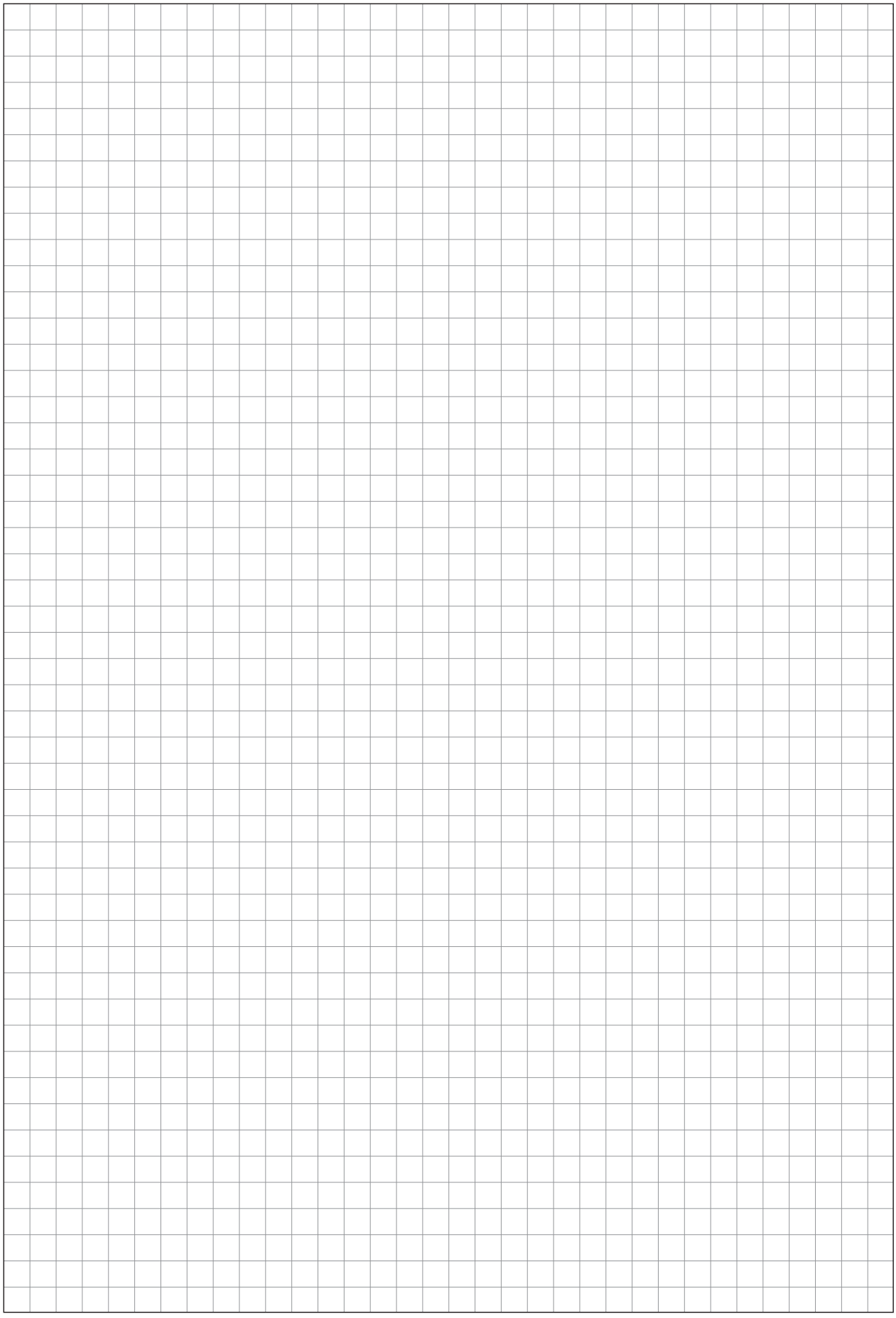


Circuit breaker BZM3 3-pole



All dimensions in mm





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