

Ex-d-Built-in components



Size 1 MCB-1-pole



Size 2 MCB-2-pole



Size 3 MCB-3-pole



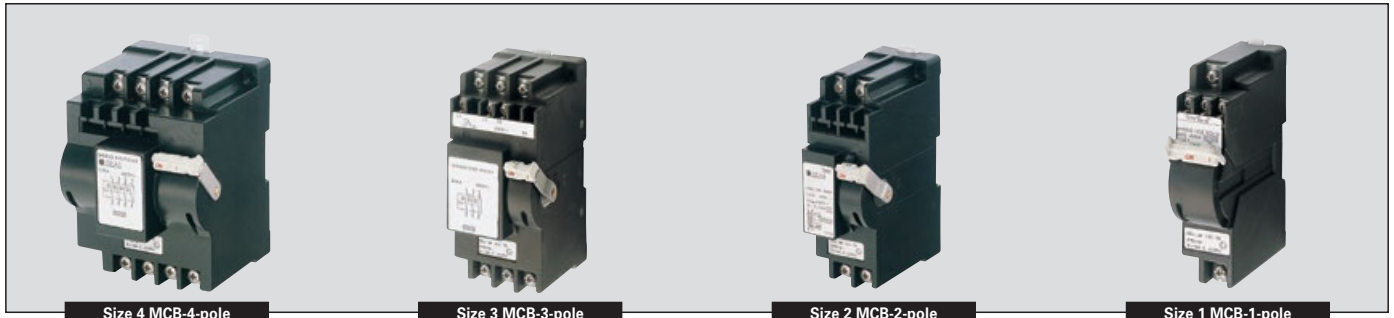
Size 4 MCB-4-pole

Technical data

MCB 0.5 A up to 40 A

Marking accd. to 94/9/EC	Ⓔ II 2 G Ex de IIC/IIB Gb / Ⓔ I M2 Ex de I Mb	
EC-Type Examination Certificate	PTB 98 ATEX 1087 U	
IECEX Certificate of Conformity	IECEX BKI 07.0038 U	
Marking accd. to IECEx	Ex de IIC	
Operating temperature range	-55 °C up to +110 °C (size 0, 1, 2 - IIC) -20 °C up to +110 °C (size 3, 4 - IIC) -55 °C up to +110 °C (size 3, 4 - IIB)	
Application temperature ¹⁾	-20 °C up to +55 °C (size 3, 4 - IIC) -55 °C up to +55 °C (size 0, 1, 2 - IIC; size 3, 4 - IIB)	
Rated voltage	main contact	max. 440 V AC
	aux. contact	max. 250 V AC
Rated current	main contact	0.5 A up to 40 A
	aux. contact	max. 5 A
Rated switching capacity 2/3 phase	10 kA	
230 V AC (133/230 V AC) kA/cos φ	10/0.5	
400 V AC (230/400 V AC) kA/cos φ	10/0.5	
Back-up fuse	depend on rated current up to 100 A	
Connecting terminals	main contact	2 x 10 mm ² fine wire with wire end sleeve/single wire
	aux. contact	2 x 2.5 mm ² fine wire with wire end sleeve/single wire
Weight	1-pole	0.55 kg size 1
	2-pole	0.95 kg size 2
	3-pole	1.25 kg size 3
	4-pole	1.57 kg size 4
Enclosure material	glass-fibre reinforced polyester	
Enclosure colour	black	
Options	Auxiliary-signal contact	
Padlocking facility	in OFF position with a commercially available padlock	

¹⁾ The limits of the operating temperature range and the max. permissible temperature rise of the components have to be taken into account.
See also pages 2.6.31.



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GHG 612 XXXX R0YYY

1. Contacts

1. Contacts

Contacts	Termination diagram ¹⁾	1-pole (xxxx)	Module size ²⁾	2-pole (xxxx)	Module size ²⁾	3-pole (xxxx)	Module size ²⁾	4-pole (xxxx)	Module size ²⁾
only main contact	A1 up to A5	1141	1	2141	2	3141	3	4141	4
+ aux. contact (1 C/O)	B3	1142	1	2142	2	3142	3	4142	4
+ aux. contact (1NO+1NC)	B1, B2			3150	3				
+ aux. contact (2NO)	B4					4168	4		
+ N + aux. contact (1NO+1NC)	A4, B1, B2					4166	4		
+ (1 C/O)	C3	2148	2	3157	3	4147	4	4143	4
+ signal contact (1NC) + aux. contact (1NO)	C2 + B1					4148	4		
+ signal contact (1NO) + aux. contact (1NO)	C1 + B1					4161	4	4160	4
+ signal contact (1NC) + aux. contact (1NC)	C2 + B2					4163	4		
+ Overload release (12 - 60 V)	D	2150	2	3147	3				
+ Overload release (110 - 415 V)	D	2151	2	3146	3	4146	4		
+ undervoltage trip ³⁾	E			3148	3	4144	4		
+ signal contact (1 C/O)	C3								
+ aux. contact (1 C/O)	B3			3143	3	4164	4		
+ Overload release (110 - 415 V)	D								
+ signal contact (1 C/O)	C3			4159	4				
+ Overload release (12 - 60 V)	D								
+ aux. contact (1 C/O)	B3			3149	3				
+ Overload release (110 - 415 V)	D								
+ signal contact (1 C/O)	C3								
+ auxiliary contact (1 C/O)	B3			4165	4				
+ Overload release (12 - 60 V)	D								
+ signal contact (1 C/O)	C3								
+ aux. contact (1 C/O)	B3			4169	4				
+ undervoltage trip ³⁾	E								
+ signal contact (1 C/O)	C3					4167	4		
+ undervoltage trip ³⁾	E								
+ signal contact (1 C/O)	C3								
+ aux. contact (1 C/O)	B3					4174	4		

¹⁾ Termination diagram see page 11.21

²⁾ Module size see dimension drawing page 11.22

³⁾ undervoltage trip 12 V DC, 24 V AC/DC, 48 V AC/DC, 110 V AC/DC, 230 V AC/DC, 400 V AC on request

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Size 4 MCB-4-pole

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GHG 612 XXXX R0YYY

2. Tripping current

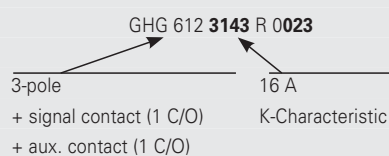
2. Tripping current, characteristic, max. back-up fuse, power dissipation per pole

Tripping current	Characteristic K		Characteristic Z		Characteristic B		Characteristic C	
	Max. Back-up fuse gL	YYY	Max. Back-up fuse gL	YYY	Max. Back-up fuse gL	YYY	Max. Back-up fuse gL	YYY
0.5 A	not necessary	013	not necessary	081			not necessary	121
0.75 A		014		082				122
1.0 A		015		083				123
1.6 A		016		084				124
2 A		017		085				125
3 A	20 A	018	20 A	086	63 A	101	20 A	126
4 A	25 A	019	20 A	087			20 A	127
6 A	63 A	020	35 A	088			40 A	128
8 A	63 A	021	40 A	089			63 A	129
10 A	63 A	022	63 A	090			100 A	130
13 A	80 A	023	63 A	091	100 A	102	100 A	131
16 A		024	80 A	092	100 A	103	100 A	132
20 A		025	80 A	093	100 A	104	100 A	133
25 A		026	100 A	094	100 A	105	100 A	134
32 A		027	100 A		100 A	106	100 A	135
40 A	125 A		100 A		125 A	107	125 A	

Back-up fuse is only required if at the installation point the max. prospective, unaffected short-circuit current will exceed the rated switching capacity.

Example

GHG 612 XXXX R 0YYY





Size 4 MCB-4-pole



Size 3 MCB-3-pole



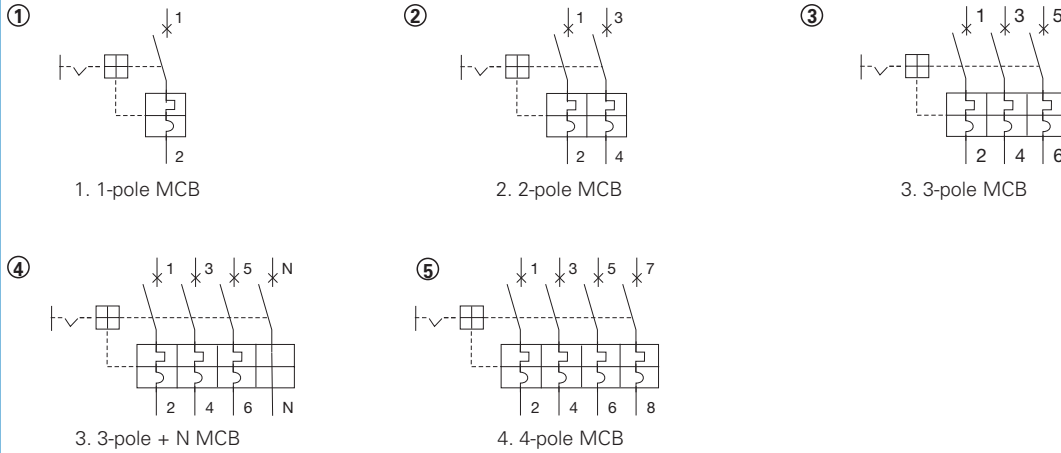
Size 2 MCB-2-pole



Size 1 MCB-1-pole

Termination diagram

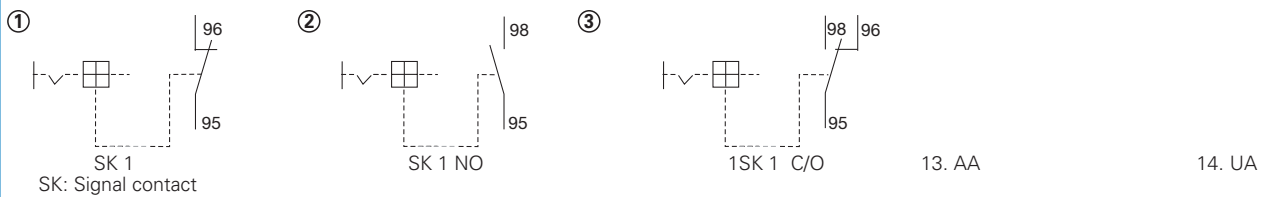
6



A. main contact



B. Auxiliary contacts



C. Signal contacts



D. AA: shunt opening release

E. undervoltage trip

HK = main contact
AC = aux. contact
SK = signal contact
AA = shunt opening release
UA = undervoltage trip

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Size 1 MCB-1-pole



Size 2 MCB-2-pole

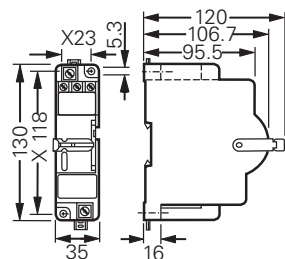


Size 3 MCB-3-pole

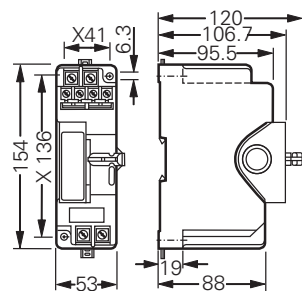


Size 4 MCB-4-pole

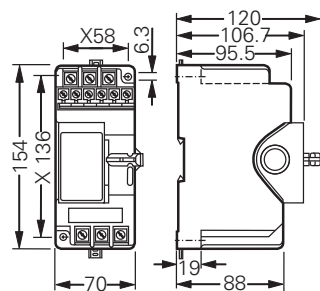
Dimension drawing | Termination diagram



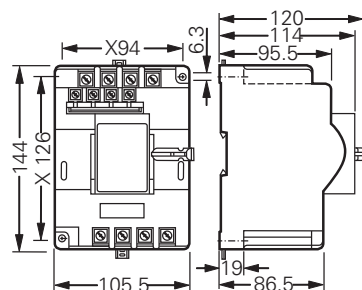
Module size 1



Module size 2



Module size 3



Module size 4

X = fixing dimension



Size 4 MCB-4-pole



Size 3 MCB-3-pole

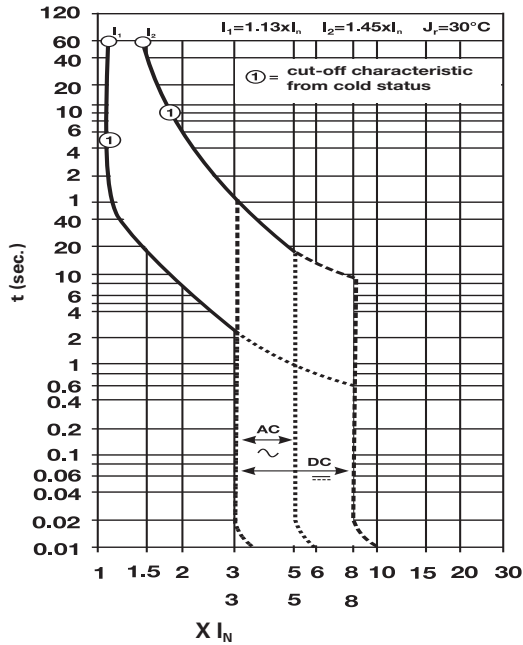


Size 2 MCB-2-pole

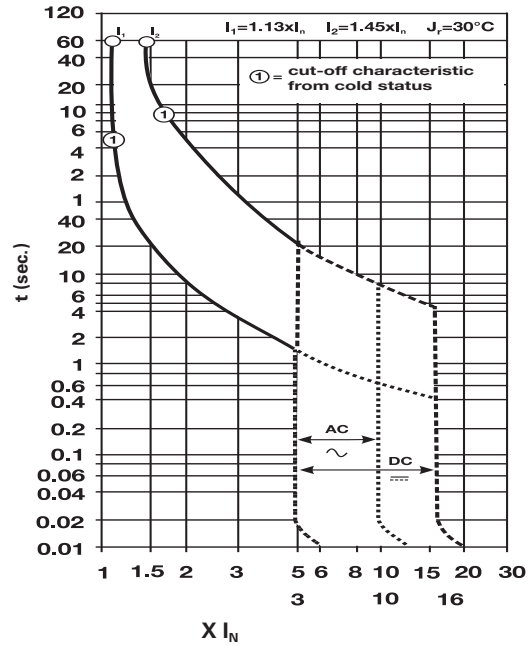


Size 1 MCB-1-pole

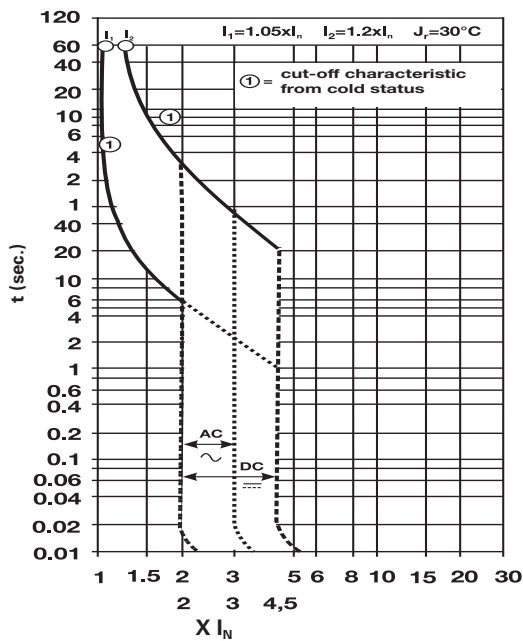
Tripping characteristic



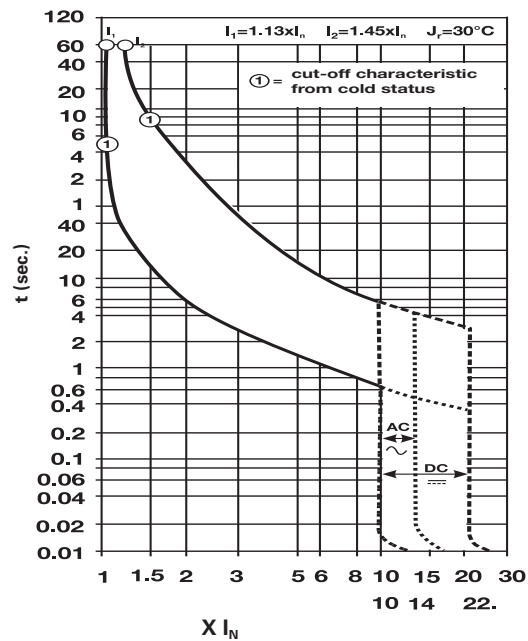
B-Characteristic



C-Characteristic



Z-Characteristic



K-Characteristic