www.moeller.net

Circuit-breakers LZM and switch-disconnectors LN up to 1600 A



xEnergy

Reliably and safely controlling, switching and managing power. In industry, in buildings and in machine construction. Innovative protection concepts. With built-in diagnostics and communication functions. Housed in modern switchboard systems.

Circuit-breaker LZM

Circuit-breaker NZM

Circuit-breaker IZM

Switchboard system

Automatic change-over unit

Catalogue 2008

Circuit-breaker LZM

Switch-disconnector LN

MOELLER

We keep power under control.

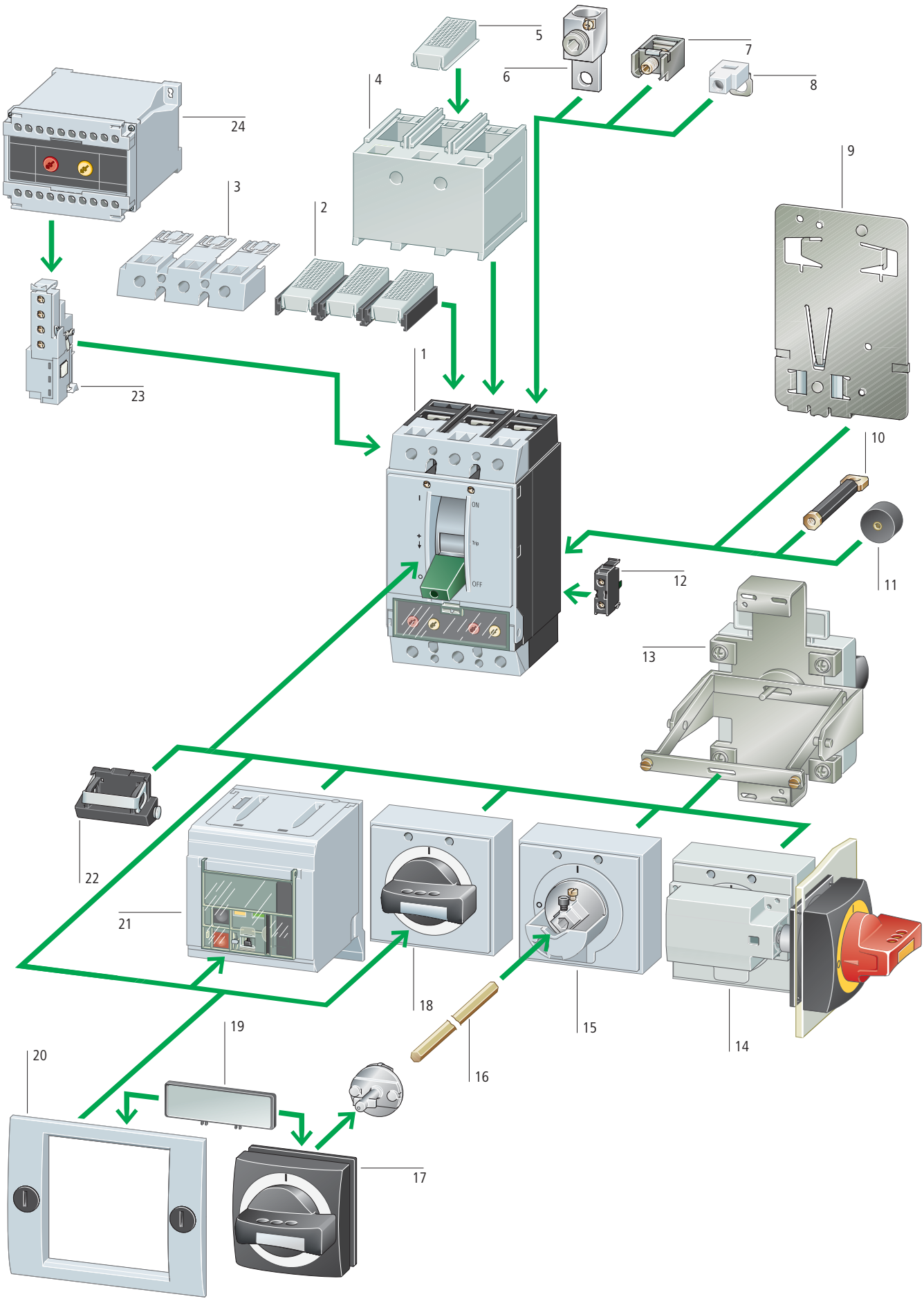
Circuit-breakers, switch-disconnectors from 15 to 1600 A

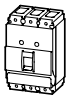
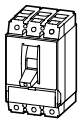
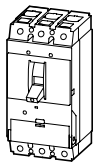
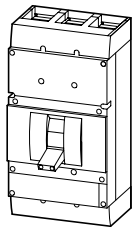


	Page
System overview	
Circuit-breakers, switch-disconnectors	2
Ordering	
Switch-disconnectors, 3 pole (1)	3
Circuit-breakers, thermo-magnetic release, 3 pole (1)	4
Circuit-breakers, electronic release, 3 pole (1)	5
Connection types	6
Box terminals (7)	6
Tunnel terminals for Al and Cu cable (6)	6
Rear connection (10)	6
Control circuit terminals (8)	6
Terminal cover (4)	6
Terminal cover, knockout (3)	6
IP2X protection against contact with a finger (2)(5)	6
Auxiliary contacts	6
Standard auxiliary contacts (HIN) (12)	6
Trip-indicating auxiliary contacts (HIA) (12)	6
Early-make auxiliary contacts (23)	6
Undervoltage release with screw terminals (23)	6
Delay unit for undervoltage release (24)	*
Shunt release with screw terminals (23)	6
Rotary handles	8
Door coupling rotary handles (15)	8
Extension shaft (16)	8
Locable door coupling rotary handles (17)	8
Rotary handles with door interlock (18)	8
Main switch assembly kit	8
Main switch rotary handle for side panel mounting (14)	8
Accessories	8
Rear drive (13)	8
Insulating surround (20)	8
Spacer (11)	8
Clip plate (9)	8
Bowden cables	8
External warning plate/designation label (19)	*
Toggle lever interlock device (22)	*
Remote operator (21)	8

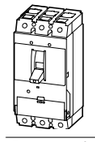
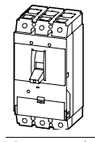
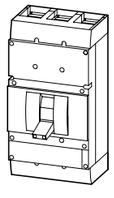
	Page
Engineering	
Selectivity: incoming circuit-breaker, outgoing circuit-breaker	10
Direction of blow-out, minimum clearances, tube cable lugs	12
Auxiliary switches, trip-indicating auxiliary contacts	13
Mechanical interlock for (door-coupling) rotary handles	14
Mechanical interlock for remote operator	15
Sizes 1, 2, 3: tripping characteristics	16
Size 3, 4: tripping characteristics	17
Technical data	
Circuit-breakers	18
Switch-disconnectors	20
Temperature influence	21
Effective power loss	22
Equipping with auxiliary contacts, time differences, auxiliary contact	23
Terminal capacities	24
Dimensions	
Size 1,2: basic units	26
Size 3,4: basic units	27

* see Industrial switchgear catalogue 2007/2008

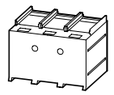
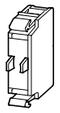
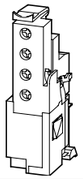
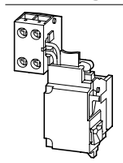
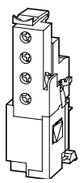
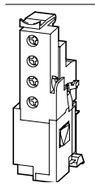

5
6
7
8
4
24
3
2
9
23
1
10
11
12
13
22
21
18
19
15
14
20
16
17

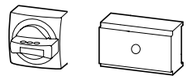
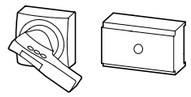
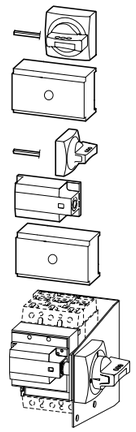
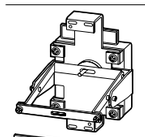
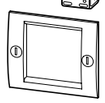
		Rated current = rated uninterrupted current $I_n = I_u$ A	Short-circuit protection max. fuse gL-characteristic A gL	**3 switch positions I, +, 0;** can be tripped remotely with shunt/undervoltage release **Part no.** Article no.	Std. pack
Switch-disconnectors					
Box terminals as standard					
		63	125	**LN1-63-I** 111994	1 off
		100	125	**LN1-100-I** 111995	
		125	125	**LN1-125-I** 111996	
		160	160	**LN1-160-I** 111997	
Screw terminals as standard					
		160	250	**LN2-160-I** 112002	1 off
		200	250	**LN2-200-I** 112003	
		250	250	**LN2-250-I** 112004	
		400	630	**LN3-400-I** 112008	
		630	630	**LN3-630-I** 112009	
		800	1600	**LN4-800-I** 112012	
		1000	1600	**LN4-1000-I** 112013	
		1250	1600	**LN4-1250-I** 112014	
		1600	1600	**LN4-1600-I** 112015	

Notes
Main switch characteristics including positive drive to IEC/EN 60204 and VDE 0113
Isolating characteristics to IEC/EN 60947-3 and VDE 0660
Protection against accidental contact according to IEC 100

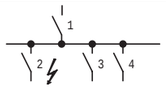
	Rated current = rated uninterrupted current	Setting range		Comfort switching capacity **36 kA** at 415 V 50/60 Hz
		Overload releases	Short-circuit releases	**Part no.** Article no.
	$I_n = I_u$ A	I_r A	I_i A	
Protection of systems and cables				
3 pole				
Box terminals as standard, thermo-magnetic release				
	20	15…20	350	**LZMC1-A20-I** 111888
	25	20…25	350	**LZMC1-A25-I** 111889
	32	25…32	350	**LZMC1-A32-I** 111890
	40	32…40	320…400	**LZMC1-A40-I** 111891
	50	40…50	300…500	**LZMC1-A50-I** 111892
	63	50…63	380…630	**LZMC1-A63-I** 111893
	80	63…80	480…800	**LZMC1-A80-I** 111894
	100	80…100	600…1000	**LZMC1-A100-I** 111895
	125	100…125	750…1250	**LZMC1-A125-I** 111896
	160	125…160	1280	**LZMC1-A160-I** 111897
Screw terminals as standard, thermo-magnetic release				
	160	125…160	960…1600	**LZMC2-A160-I** 111938
	200	160…200	1200…2000	**LZMC2-A200-I** 111939
	250	200…250	1500…2500	**LZMC2-A250-I** 111940
	300	240…300	1500…2500	**LZMC2-A300-I** 111941
Screw terminals as standard, thermo-magnetic release				
	320	250…320	1920…3200	
	400	320…400	2400…4000	
	500	400…500	3000…5000	
Screw terminals as standard, electronic release				
	630	315…630	1260…5040	
Screw terminals as standard, electronic release				
	800	400…800	1600…9600	
	1000	500…1000	2000…12000	
	1250	630…1250	2500…15000	
	1600	800…1600	3200…19200	

Normal switching capacity **50 kA** at 415 V 50/60 Hz		
Part no. Article no.	Std. pack	**Notes**
	1 off	IEC/EN 60947-2 Adjustable overload releases I_r • 0.8 – 1 × I_n (ex-works 0.8 × I_n) Adjustable short-circuit releases I_i • 6 – 10 × I_n (ex-works 6 × I_n) – LZMC1-A40-I: 8 – 10 × I_n (ex-works 8 × I_n) – LZMC2-A300-I: 5 – 8 x I_n (ex-works 5 x I_n) Fixed short-circuit release I_i • 350 A at I_n = 20 – 32 A • 1280 A at I_n = 160 A (LZM1)
	1 off	
LZMN3-A320-I 111966	1 off	
LZMN3-A400-I 111967		
LZMN3-A500-I 111968		
LZMN3-AE630-I 111969	1 off	IEC/EN 60947-2 Adjustable overload releases I_r • 0.5 – 1 × I_n (ex-works 0.8 × I_n) R.m.s. value measurement and “thermal memory” Adjustable short-circuit releases I_i • LZMN3-AE630-I: 2 – 8 × I_n (ex-works 6 × I_n) • LZMN4-AE...-I: 2 – 12 × I_n (ex-works 6 × I_n)
LZMN4-AE800-I 111978	1 off	
LZMN4-AE1000-I 111979		
LZMN4-AE1250-I 111980		
LZMN4-AE1600-I 111981		

	Description	Type for LZM1 Article no.	Type for LZM2 Article no.	Type for LZM3 Article no.	Type for LZM4 Article no.
Connection types					
	Box terminal	**NZM1-XKC** 260015	**NZM2-250-XKC** 262244	**NZM3-XKC** 260042	-
	Screw connection	**NZM1-XKS** 260019	**NZM2-XKS** 260030	**NZM3-XKS** 260039	-
	Connection with extension	-	-	**NZM3-XKV70** 100514	**NZM4-XKV110** 281593
	Tunnel terminal	**NZM1-XKA** 266730	**NZM2-XKA** 271457	**NZM3-XKA1** 271459	**NZM4-XKA** 266836
	Connection on rear	**NZM1-XKR** 266734	**NZM2-XKR** 266765	**NZM3-XKR** 266792	**NZM4-XKR** 266842
	Control circuit terminal	**NZM1-XSTS** 260150	**NZM2-XSTS** 260156	**NZM3/4-XSTS** 266797	**NZM3/4-XSTS** 266797
	Cover	**NZM1-XKSA** 260021	**NZM2-XKSA** 260038	**NZM3-XKSA** 260045	**NZM4-XKSA** 266846
	Phase isolator	-	-	**NZM3-XKP** 100512	**NZM4-XKP** 281595
	Terminal cover, knockout	**NZM1-XKSFA** 100780	**NZM2-XKSFA** 104640	**NZM3-XKSFA** 104642	**NZM4-XKSFA** 292193
	IP2x protection against contact with a finger	**NZM1-XIPK** 266744	**NZM2-XIPK** 266773	**NZM3-XIPK** 266804	-
	Cooper cabel lug	-	**NZM2-XKS185** 260032	**NZM3-XKS240** 260041	**NZM3-XKS240** 260041
Auxiliary contacts					
	Auxiliary contact 10 - screw terminals	**M22-K10** 216376	**M22-K10** 216376	**M22-K10** 216376	**M22-K10** 216376
	Auxiliary contact 01 - screw terminals	**M22-K01** 216378	**M22-K01** 216378	**M22-K01** 216378	**M22-K01** 216378
	Auxiliary contact 10 - Cage Clamp	**M22-CK10** 216384	**M22-CK10** 216384	**M22-CK10** 216384	**M22-CK10** 216384
	Auxiliary contact 01 - Cage Clamp	**M22-CK01** 216385	**M22-CK01** 216385	**M22-CK01** 216385	**M22-CK01** 216385
	Auxiliary contact 11 - Cage Clamp	**M22-CK11** 107940	**M22-CK11** 107940	**M22-CK11** 107940	**M22-CK11** 107940
	Auxiliary contact 20 - Cage Clamp	**M22-CK20** 107898	**M22-CK20** 107898	**M22-CK20** 107898	**M22-CK20** 107898
	Auxiliary contact 02 - Cage Clamp	**M22-CK02** 107899	**M22-CK02** 107899	**M22-CK02** 107899	**M22-CK02** 107899
	Early-make auxiliary contact - screw terminals	**NZM1-XHIV** 259426	**NZM2/3-XHIV** 259430	**NZM2/3-XHIV** 259430	**NZM4-XHIV** 266172
Undervoltage relaese with screw terminal					
	Undervoltage release 24 V AC	**NZM1-XU24AC** 259434	**NZM2/3-XU24AC** 259491	**NZM2/3-XU24AC** 259491	**NZM4-XU24AC** 266189
	Undervoltage release 240 V AC	**NZM1-XU208-240AC** 259442	**NZM2/3-XU208-240AC** 259499	**NZM2/3-XU208-240AC** 259499	**NZM4-XU208-240AC** 266193
	Undervoltage release 400 V AC	**NZM1-XU380-440AC** 259444	**NZM2/3-XU380-440AC** 259501	**NZM2/3-XU380-440AC** 259501	**NZM4-XU380-440AC** 266194
	Undervoltage release 12 V DC	**NZM1-XU12DC** 259450	**NZM2/3-XU12DC** 259507	**NZM2/3-XU12DC** 259507	**NZM4-XU12DC** 266203
	Undervoltage release 240 V DC	**NZM1-XU220-250DC** 259460	**NZM2/3-XU220-250DC** 259517	**NZM2/3-XU220-250DC** 259517	**NZM4-XU220-250DC** 266208
	Undervoltage release with two early-make auxiliary contacts 24 V AC	**NZM1-XUHIV24AC** 259531	**NZM2/3-XUHIV24AC** 259583	**NZM2/3-XUHIV24AC** 259583	**NZM4-XUHIV24AC** 266217
	Undervoltage release with two early-make auxiliary contacts 240 V AC	**NZM1-XUHIV208-240AC** 259539	**NZM2/3-XUHIV208-240AC** 259591	**NZM2/3-XUHIV208-240AC** 259591	**NZM4-XUHIV208-240AC** 266221
	Undervoltage release with two early-make auxiliary contacts 400 V AC	**NZM1-XUHIV380-440AC** 259541	**NZM2/3-XUHIV380-440AC** 259594	**NZM2/3-XUHIV380-440AC** 259594	**NZM4-XUHIV380-440AC** 266222
	Undervoltage release with two early-make auxiliary contacts 12 V DC	**NZM1-XUHIV12DC** 259545	**NZM2/3-XUHIV12DC** 259600	**NZM2/3-XUHIV12DC** 259600	**NZM4-XUHIV12DC** 266231
	Undervoltage release with two early-make auxiliary contacts 240 V DC	**NZM1-XUHIV220-250DC** 259555	**NZM2/3-XUHIV220-250DC** 259610	**NZM2/3-XUHIV220-250DC** 259610	**NZM4-XUHIV220-250DC** 266236
Shunt release with screw terminal					
	Shunt release 240 V AC/DC	**NZM1-XA208-250AC/DC** 259726	**NZM2/3-XA208-250AC/DC** 259763	**NZM2/3-XA208-250AC/DC** 259763	**NZM4-XA208-250AC/DC** 266451
	Shunt release 400 V AC/DC	**NZM1-XA380-440AC/DC** 259728	**NZM2/3-XA380-440AC/DC** 259766	**NZM2/3-XA380-440AC/DC** 259766	**NZM4-XA380-440AC/DC** 266452
	Shunt release with early-make auxiliary contact 240 V AC/DC	**NZM1-XAHIV208-250AC/DC** 259782	**NZM2/3-XAHIV208-250AC/DC** 259818	**NZM2/3-XAHIV208-250AC/DC** 259818	**NZM4-XAHIV208-250AC/DC** 266475
	Shunt release with early-make auxiliary contact 400 V AC/DC	**NZM1-XAHIV380-440AC/DC** 259784	**NZM2/3-XAHIV380-440AC/DC** 259820	**NZM2/3-XAHIV380-440AC/DC** 259820	**NZM4-XAHIV380-440AC/DC** 266476

	Description	Type for LZM1 Article no.	Type for LZM2 Article no.	Type for LZM3 Article no.	Type for LZM4 Article no.
Rotary handles					
	Door coupling rotary handle, standard, black/grey	**NZM1-XTVD** 260166	**NZM2-XTVD** 260168	**NZM3-XTVD** 260170	**NZM4-XTVD** 266614
	Door coupling rotary handle, standard, black/grey	**NZM1-XTVDV** 260172	**NZM2-XTVDV** 260174	**NZM3-XTVDV** 260176	**NZM4-XTVDV** 266616
	Door coupling rotary handle, red-yellow for Emergency-Stop	**NZM1-XTVDVR** 260178	**NZM2-XTVDVR** 260180	**NZM3-XTVDVR** 260182	**NZM4-XTVDVR** 266618
	Extension shaft for mounting depth 400 mm	**NZM1/2-XV4** 261232	**NZM1/2-XV4** 261232	**NZM3/4-XV4** 261234	**NZM3/4-XV4** 261234
	Extension shaft for mounting depth 600 mm	**NZM1/2-XV6** 260191	**NZM1/2-XV6** 260191	**NZM3/4-XV6** 260193	**NZM3/4-XV6** 260193
	Lockable rotary drive with rotary handle, black colour	**NZM1-XDV** 260125	**NZM2-XDV** 260127	**NZM3-XDV** 260129	**NZM4-XDV** 266608
	Lockable rotary drive with rotary handle, red/yellow colour	**NZM1-XDVR** 260135	**NZM2-XDVR** 260137	**NZM3-XDVR** 260140	**NZM4-XDVR** 266610
	Rotary handle on switch with door interlock, black colour	**NZM1-XDTV** 260131	**NZM2-XDTV** 260133	**-**	-
	Rotary handle on switch with door interlock, red/yellow colour	**NZM1-XDTVR** 260142	**NZM2-XDTVR** 260144	**-**	-
Main switch assembly kit					
	Main switch assembly kit with black door coupling rotary handle	**NZM1-XHB** 266626	**NZM2-XHB** 266627	**NZM3-XHB** 266628	**NZM4-XHB** 271779
	Main switch assembly kit with red door coupling rotary handle	**NZM1-XHBR** 266632	**NZM2-XHBR** 266633	**NZM3-XHBR** 266634	**NZM4-XHBR** 271842
	Main switch assembly kit for side panel mounting, black colour, for operation on the left	**NZM1-XS-L** 266641	**NZM2-XS-L** 266642	**NZM3-XS-L** 266643	**NZM4-XS-L** 289806
	Main switch assembly kit for side panel mounting, black colour, for operation on the right	**NZM1-XS-R** 266644	**NZM2-XS-R** 266645	**NZM3-XS-R** 266646	**NZM4-XS-R** 289807
	Main switch assembly kit for side panel mounting, red/yellow colour, for operation on the left	**NZM1-XSR-L** 266653	**NZM2-XSR-L** 266654	**NZM3-XSR-L** 266655	**NZM4-XSR-L** 289808
	Main switch assembly kit for side panel mounting, red/yellow colour, for operation on the right	**NZM1-XSR-R** 266656	**NZM2-XSR-R** 266657	**NZM3-XSR-R** 266658	**NZM4-XSR-R** 289809
	Main switch assembly kit for side panel mounting with mounting bracket, black colour, for operation on the left	**NZM1-XSM-L** 266663	**NZM2-XSM-L** 266664	**-**	**-**
	Main switch assembly kit for side panel mounting with mounting bracket, black colour, for operation on the right	**NZM1-XSM-R** 266665	**NZM2-XSM-R** 266666	**-**	**-**
	Main switch assembly kit for side panel mounting with mounting bracket, red/yellow colour, for operation on the left	**NZM1-XSRM-L** 266671	**NZM2-XSRM-L** 266672	**-**	**-**
	Main switch assembly kit for side panel mounting with mounting bracket, red/yellow colour, for operation on the right	**NZM1-XSRM-R** 266673	**NZM2-XSRM-R** 266674	**-**	**-**
Accessories					
	Rear drive, black colour	**NZM1-XRAV** 107245	**NZM2-XRAV** 107247	**-**	**-**
	Rear drive, red/yellow colour	**NZM1-XRAVR** 107249	**NZM2-XRAVR** 107261	**-**	**-**
	Add-on handle	**NZM1/2-XDZ** 266621	**NZM1/2-XDZ** 266621	**NZM3/4-XDZ** 266622	**NZM3/4-XDZ** 266622
	Insulating surrounds	**NZM1-XBR** 260195	**NZM2-XBR** 260197	**NZM3-XBR** 284645	**NZM4-XBR** 284646
	Toggle lever locking device	**NZM1-XKAV** 260199	**NZM2/3-XKAV** 260201	**NZM2/3-XKAV** 260201	-
	Spacers	**NZM1/2-XAB** 260203	**NZM1/2-XAB** 260203	**NZM3-XAB** 260211	**NZM3-XAB** 260211
	Mechanical interlocking of (door coupling) rotary handles	**NZM1-XMV** 281581	**NZM2-XMV** 281582	**NZM3-XMV** 281583	**NZM4-XMV** 281584
	Bowden cables (choose type according to page 14)	**NZM-XBZ225** 281585 **NZM-XBZ600** 281586 **NZM-XBZ1000** 281587	**NZM-XBZ225** 281585 **NZM-XBZ600** 281586 **NZM-XBZ1000** 281587	**NZM-XBZ225** 281585 **NZM-XBZ600** 281586 **NZM-XBZ1000** 281587	**NZM-XBZ225** 281585 **NZM-XBZ600** 281586 **NZM-XBZ1000** 281587
	Clip plate	**NZM1-XC35** 260213	**NZM2-XC75** 260215	**-**	**-**
Remote operator					
	Remote operator 230 V AC	-	**NZM2-XR208-240AC** 259832	**NZM3-XR208-240AC** 259850	**NZM4-XR208-240AC** 266685
	Remote operator 400 V AC	-	**NZM2-XR380-440AC** 259834	**NZM3-XR380-440AC** 259852	**NZM4-XR380-440AC** 266686
	Remote operator 24 V DC	-	**NZM2-XR24-30DC** 259836	**NZM3-XR24-30DC** 259854	**NZM4-XR24-30DC** 266691
	Remote operator 230 V DC	-	**NZM2-XR220-250DC** 259842	**NZM3-XR220-250DC** 259860	**NZM4-XR220-250DC** 266694

Notes For more information about accessories see Industrial switchgear catalogue 2007/2008 or catalog.moeller.net.



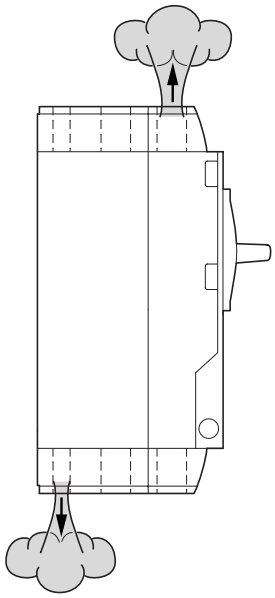
Selectivity 415 V AC

Outgoing circuit-breaker (S2)	I_n [A]	$I_{cu(415V)}$ [kA]	Incoming circuit-breaker (S1) LZMC1-A...							Incoming circuit-breaker (S1) LZMC2-A...			
	Incoming circuit-breaker	I_{cu} [kA]	36							36			
		I_n [A]	20...40	50	63	80	100	125	160	160	200	250	300
			Selectivity threshold I_s [kA] for selectivity between S2 and S1, overload and short-circuit release set to max. value										
FAZ–B(C)	0.5	15	T	T	T	T	T	T	T	T	T	T	T
	1	15	T	T	T	T	T	T	T	T	T	T	T
	2	15	2	T	T	T	T	T	T	T	T	T	T
	3	15	1.2	2	3	3	10	T	T	T	T	T	T
	4	15	1.2	2	3	3	8	T	T	T	T	T	T
	6	15	1.2	2	2.5	3	5	10	10	T	T	T	T
	10	15	1.2	1.5	2	2	4	10	10	10	10	10	10
	13	15	1	1.5	2	2	4	10	10	10	10	10	10
	16	15	1	1.2	1.5	2	3	8	8	10	10	10	10
	20	15	0.8	1.2	1.5	1.5	3	8	8	10	10	10	10
	25	15	0.7	1.2	1.5	1.5	3	7	7	10	10	10	10
	32	15	–	1.2	1	1.5	2	6	6	8	8	10	10
	40	15	–	–	1	1.5	2	5	5	7	7	10	10
	50	15	–	–	–	1.2	1.5	4	4	6	6	10	10
	63	15	–	–	–	–	1.5	3	3	6	6	10	10
PKZM0-...	0.16	100	T	T	T	T	T	T	T	T	T	T	T
	0.25	100	T	T	T	T	T	T	T	T	T	T	T
	0.4	100	T	T	T	T	T	T	T	T	T	T	T
	0.63	100	T	T	T	T	T	T	T	T	T	T	T
	1	100	T	T	T	T	T	T	T	T	T	T	T
	1.6	100	T	T	T	T	T	T	T	T	T	T	T
	2.5	100	T	T	T	T	T	T	T	T	T	T	T
	4	100	T	T	T	T	T	T	T	T	T	T	T
	6.3	100	4	5	5	T	T	T	T	T	T	T	T
	10	100	3	4	5	6	25	T	T	T	T	T	T
	12	50	3	4	5	6	25	T	T	T	T	T	T
	16	50	1.5	1.5	2	3	5	7	T	T	T	T	T
	20	50	0.8	1.5	1.5	2	3	5	T	T	T	T	T
	25	50	–	1	1.5	1.5	2.5	4	T	T	T	T	T
	32	50	–	–	1	1	2	3.5	T	T	T	T	T
PKZ2/ZM-...	0.6	100	T	T	T	T	T	T	T	T	T	T	T
	1.0	100	T	T	T	T	T	T	T	T	T	T	T
	1.6	100	T	T	T	T	T	T	T	T	T	T	T
	2.4	100	1.2	2	2.5	10	T	T	T	T	T	T	T
	4	100	1	1.5	2	2.5	2.5	4	10	10	10	T	T
	6	100	0.6	0.8	1	1.2	2	3	8	8	8	10	10
	10	100	0.5	0.7	0.8	1	1.2	2	4	4	4	5	5
	16	100	0.5	0.6	0.7	0.8	1.2	1.5	3	3	3	4	4
	25	30	–	0.6	0.7	0.7	1.2	1.5	2	2	2	3	3
	32	30	–	–	0.6	0.7	1.2	1.5	2	2	2	3	3
	40	30	–	–	0.6	0.7	1	1.5	2	2	2	2	2
PKZM4	16	100	0.5	0.8	0.8	0.8	2	5	5	5	5	5	5
	25	100	–	0.7	0.8	0.8	1.5	5	5	5	5	5	5
	32	50	–	–	0.8	0.8	1.5	4	4	4	4	4	4
	40	50	–	–	–	0.8	1.5	3	3	3	3	3	3
	50	50	–	–	–	–	1	2.5	2.5	2.5	2.5	2.5	2.5
	58	50	–	–	–	–	–	2.5	2.5	2.5	2.5	2.5	2.5
	63	50	–	–	–	–	–	2	2	2	2	2	2
LZMC1-A...	20...40	25...100	–	–	0.5	0.7	0.8	1.5	1.5	1.5	2	3	3
	50	25...100	–	–	–	0.6	0.8	1.5	1.5	1.5	2	3	3
	63	25...100	–	–	–	–	0.8	1.5	1.5	1.5	2	3	3
	80	25...100	–	–	–	–	–	1.5	1.5	1.5	2	3	3
	100	25...100	–	–	–	–	–	–	1.5	1.5	2	3	3
	125	25...100	–	–	–	–	–	–	–	–	2	3	3
	160	25...100	–	–	–	–	–	–	–	–	2	3	3
LZMC2-A...	160	25...150	–	–	–	–	–	–	–	–	–	2	2
	200	25...150	–	–	–	–	–	–	–	–	–	–	–
	250	25...150	–	–	–	–	–	–	–	–	–	–	–
LZMN3-AE...	400	50...150	–	–	–	–	–	–	–	–	–	–	–
	630	50...150	–	–	–	–	–	–	–	–	–	–	–
LZMN4-AE...	800	50...100	–	–	–	–	–	–	–	–	–	–	–
	1000	50...100	–	–	–	–	–	–	–	–	–	–	–
	1250	50...100	–	–	–	–	–	–	–	–	–	–	–
	1600	50...100	–	–	–	–	–	–	–	–	–	–	–

Incoming circuit-breaker (S1) LZMN3-AE...	LZMN4-AE...			
50	50			
630	800	1000	1250	1600
Selectivity threshold I_s [kA] for selectivity between S2 and S1, overload and short-circuit release set to max. value				
T	T	T	T	T
T	T	T	T	T
T	T	T	T	T

xEnergy **LZM1, LZM2, LZM3, LZM4**

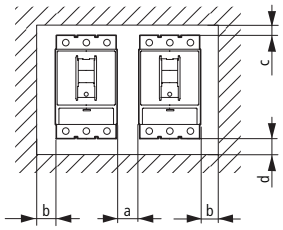
Direction of blow-out



	Top, front	Bottom, rear
LZM1	X	–
LZM2[1)]	X	X
LZM3	X	X
LZM4	X	–

[1)] LZMC2 – A … as LZM1

Minimum clearances



between two adjacently mounted switches
Minimum clearance a in mm

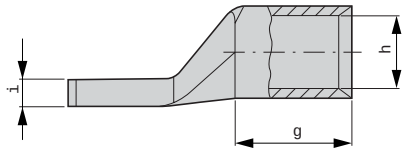
	LZM1	**LZM2**	**LZM3**	**LZM4**
LZM1	0	5	5	15
LZM2	5	5	5	15
LZM3	5	5	5	15
LZM4	15	15	15	15

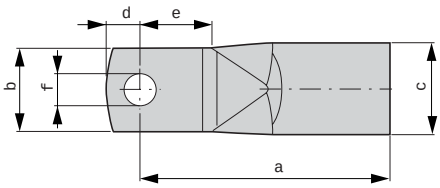
between switch and other parts
Minimum clearances in mm

	b		c		d	
	≦ 690 V	1000 V	≦ 690 V	1000 V	≦ 690 V	1000 V
LZM1	0	–	60	–	0	–
LZM2[1)]	5	5	35	35	35	35
LZM3	5	5	60	60	60	60
LZM4	15	15	100	200	0	0

[1)] LZMC2 – A … c = 60 mm, d = 0 mm

Dimensions





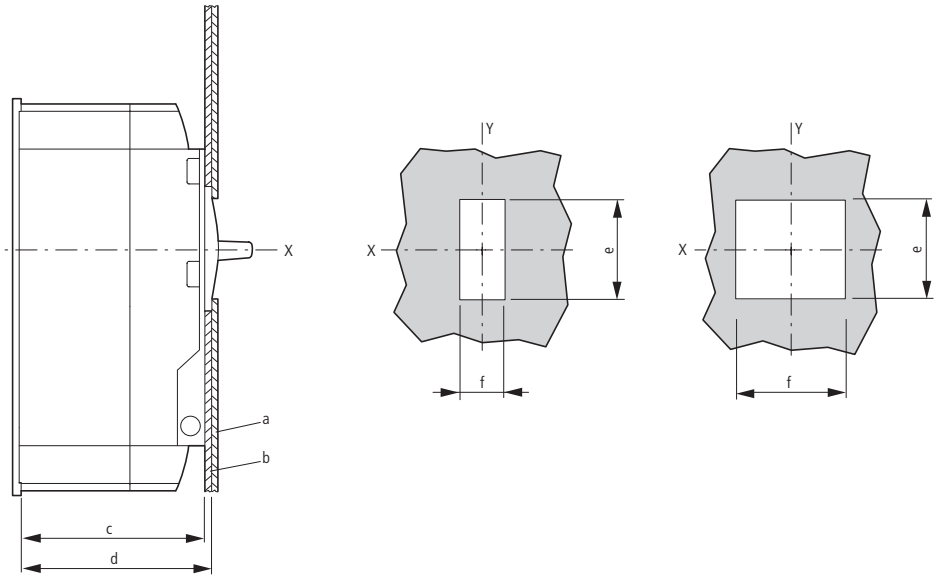
For pressing the cable lugs a press tool K22, HK60/22 or EK22
from the company Klauke is necessary with the following press inserts:
R22/95 for 95 mm²
R22/120 for 120 mm²
R22/150 for 150 mm²
R22/185 for 185 mm²
R22/240 for 240 mm²

Cable lug	For use with	Rated cross section	Terminal bolt	Dimensions in mm								
		mm²	∅	a	b	c	d	e	f	g	h	i
KS95-NZM7	LZM2	95	M8	53_{+2}	$23_{\pm0.5}$	$18_{\pm0.2}$	$10_{\pm1}$	19	8,5	25	13,5	4,4
KS120-NZM7	LZM2	120	M8	56_{+2}	$23_{\pm0.5}$	$19.5_{\pm0.2}$	$10_{\pm1}$	19	8,5	26	15	4,4
KS150-NZM7	LZM2	150	M8	61_{+2}	$23_{\pm0.5}$	$21_{\pm0.2}$	$10_{\pm1}$	19	8,5	30	16,5	4,4
NZM2-XKS185	LZM2	185	M8	$65_{\pm1.5}$	$22_{\pm1}$	$24_{\pm0.3}$	$9^{+1}_{-0,5}$	$19^{+2,5}_{-0,5}$	$8.5^{+0,05}_{-0,1}$	$30_{\pm2}$	$19_{\pm0.4}$	7
NZM3-XKS185	LZM3, LZM4	185	M10	65	24,5	24	11,5	18	10,5	30	19	$7.0_{\pm0.8}$
NZM3-XKS240	LZM3, LZM4	240	M10	72	31	26	11,5	19	10,5	35	21	$5.0_{\pm0.8}$

Front cut-out

Cut-out a
toggle lever

Cut-out b
rotary handle,
remote operator

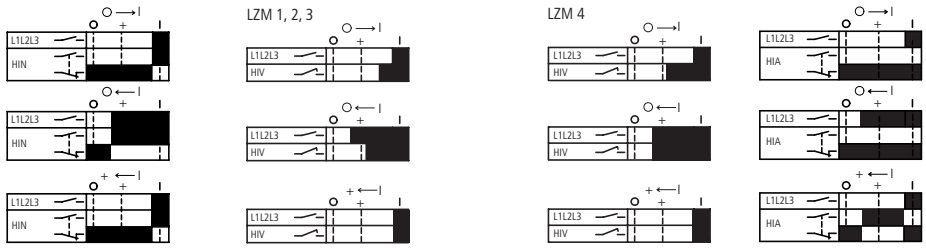


	Distance from mounting plate and door cutout		Cut-out a		Cut-out b	
	c mm	d mm	e mm	f mm	e mm	f mm
LZM1	68	73	40	23	46	91
LZM2	103	108	79	36	96	101
LZM3	120.5	125.5	79	36	96	136
LZM4	138	146	101	105	118	204

Standard auxiliary contact (HIN)

Early-make auxiliary contact (HIV)

Trip-indicating auxiliary contact (HIA)



0 → I Switching on

0 ← I Switching off

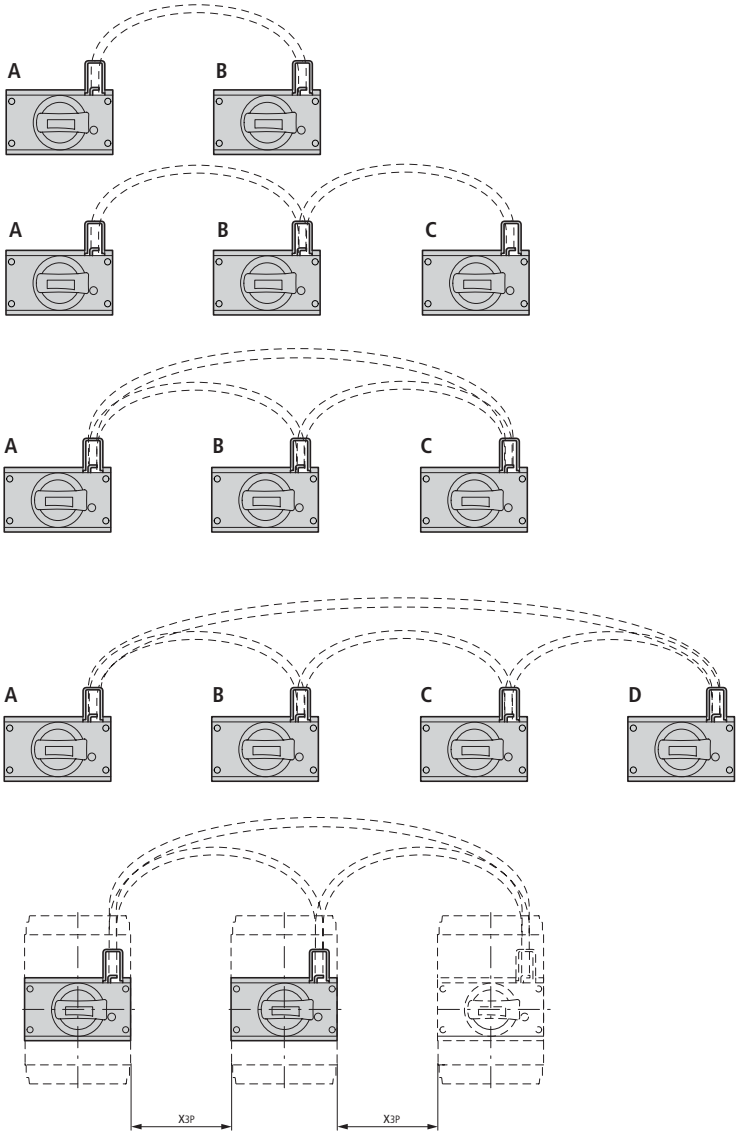
+ ← I Trip

■ Contact closed

□ Contact open

Notes If early-make contacts are required in combination with shunt or undervoltage releases, please select the combination type in the "Release" section.

Interlocking variants and combination options



A	B
OFF	OFF
ON/TRIP	~~ON~~
~~ON~~	ON/TRIP

A	B	C
OFF	OFF	OFF
~~ON~~	ON/TRIP	~~ON~~
ON/TRIP	~~ON~~	ON/TRIP

A	B	C
OFF	OFF	OFF
ON/TRIP	~~ON~~	~~ON~~
~~ON~~	ON/TRIP	~~ON~~
~~ON~~	~~ON~~	ON/TRIP

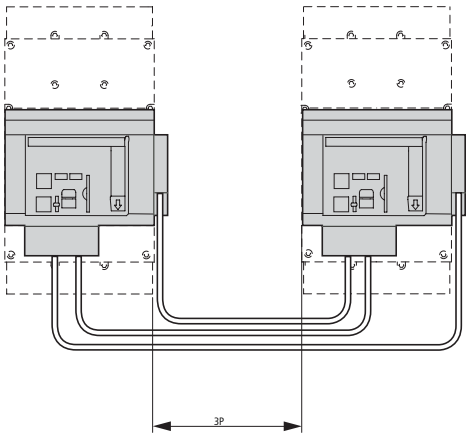
A	B	C	D
OFF	OFF	OFF	OFF
ON/TRIP	~~ON~~	ON/TRIP	~~ON~~
~~ON~~	ON/TRIP	~~ON~~	ON/TRIP

X_{3P}= Switch clearance

NZM-XBZ225		right switch		
max. switch clearance	LZM1	LZM2	LZM3	LZM4
	X_{3P}	X_{3P}	X_{3P}	X_{3P}
left switch	mm	mm	mm	mm
LZM1	135	120	135	125
LZM2	135	120	135	125
LZM3	90	75	85	80
LZM4	50	40	25	15

NZM-XBZ600		right switch		
max. switch clearance	LZM1	LZM2	LZM3	LZM4
	X_{3P}	X_{3P}	X_{3P}	X_{3P}
left switch	mm	mm	mm	mm
LZM1	510	495	510	475
LZM2	510	495	510	475
LZM3	460	450	460	460
LZM4	400	380	400	390

NZM-XBZ1000		right switch		
max. switch clearance	LZM1	LZM2	LZM3	LZM4
	X_{3P}	X_{3P}	X_{3P}	X_{3P}
left switch	mm	mm	mm	mm
LZM1	910	895	910	865
LZM2	910	895	910	865
LZM3	820	850	860	860
LZM4	750	730	800	790



XMVR mechanical interlock (Mounting adjacent)

NZM...-XMVR

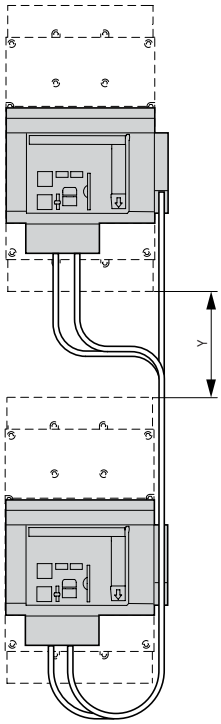
For 2 switches of the same or next frame size with each other. Mounting beside one another.

Max. switch clearance right switch

	LZM2	LZM3	LZM4
	X_{3p}	X_{3p}	X_{3p}
left switch	mm	mm	mm
LZM2	130	95	–
LZM3	–	135	155
LZM4	–	–	120

LZM2, LN2 +LZM2, LN2	**NZM2-XMVR** 104543
LZM2, LN2 +LZM3, LN3	**NZM2/3-XMVR** 104544
LZM3, LN3 +LZM3, LN3	**NZM3-XMVR** 104545
LZM3, LN3 +LZM4, LN4	**NZM3/4-XMVR** 104546
LZM4, LN4 +LZM4, LN4	**NZM4-XMVR** 104547

X_{3p} = max. switch clearance



XMVRL mechanical interlock (Mounting in adjacent enclosures)

NZM...-XMVRL

For 2 switches of the same or different type with opposed operation. Extra long bowden cable for mounting one above the other or in adjacent enclosures.

Max. switch clearance right switch

	LZM2	LZM3	LZM4
	X_{3p}	X_{3p}	X_{3p}
left switch	mm	mm	mm
LZM2	350	420	–
LZM3	–	400	460
LZM4	–	–	420

LZM2, LN2 +LZM2, LN2	**NZM2-XMVRL** 104548
LZM2, LN2 +LZM3, LN3	**NZM2/3-XMVRL** 104549
LZM3, LN3 +LZM3, LN3	**NZM3-XMVRL** 104550
LZM3, LN3 +LZM4, LN4	**NZM3/4-XMVRL** 104551
LZM4, LN4 +LZM4, LN4	**NZM4-XMVRL** 104552

XMVRL mechanical interlock (Mounting one above the other)

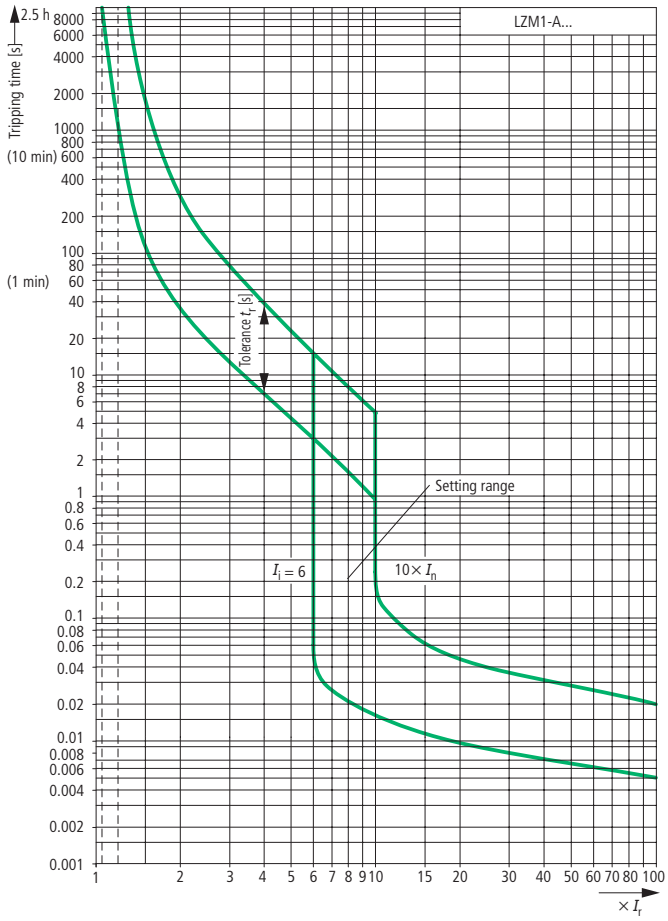
NZM…-XMVRL

Max. switch clearance switch top

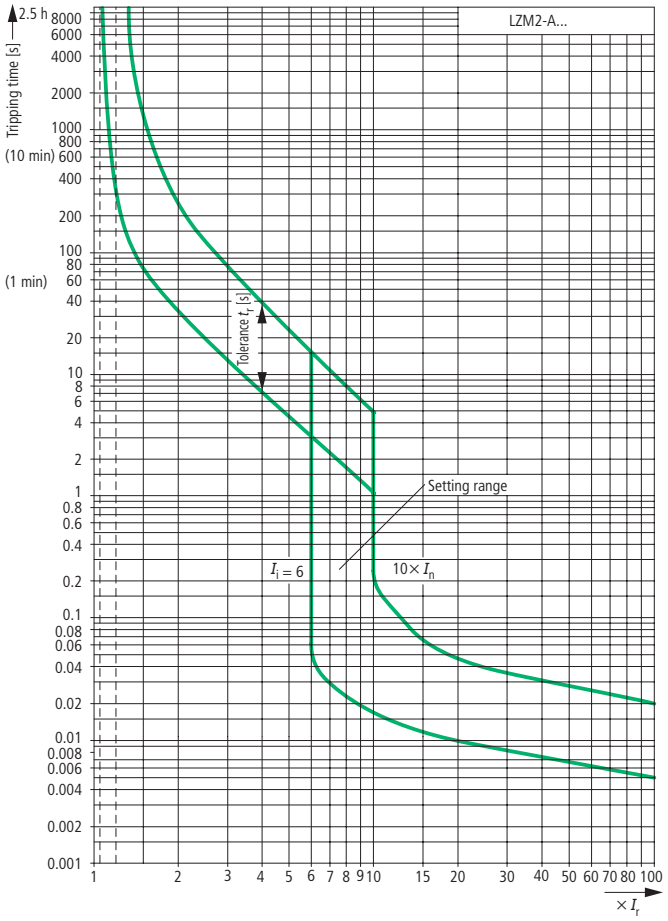
	LZM2	LZM3	LZM4
	Y	Y	Y
switch bottom	mm	mm	mm
LZM2	220	225	–
LZM3	–	220	230
LZM4	–	–	230

Y = max. switch clearance

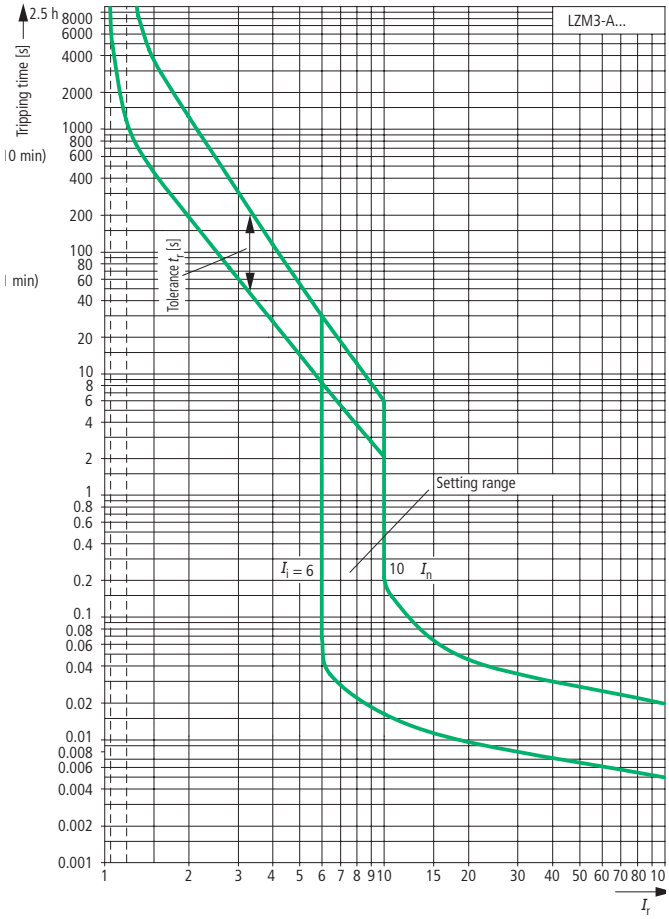
System and line protection with LZM1



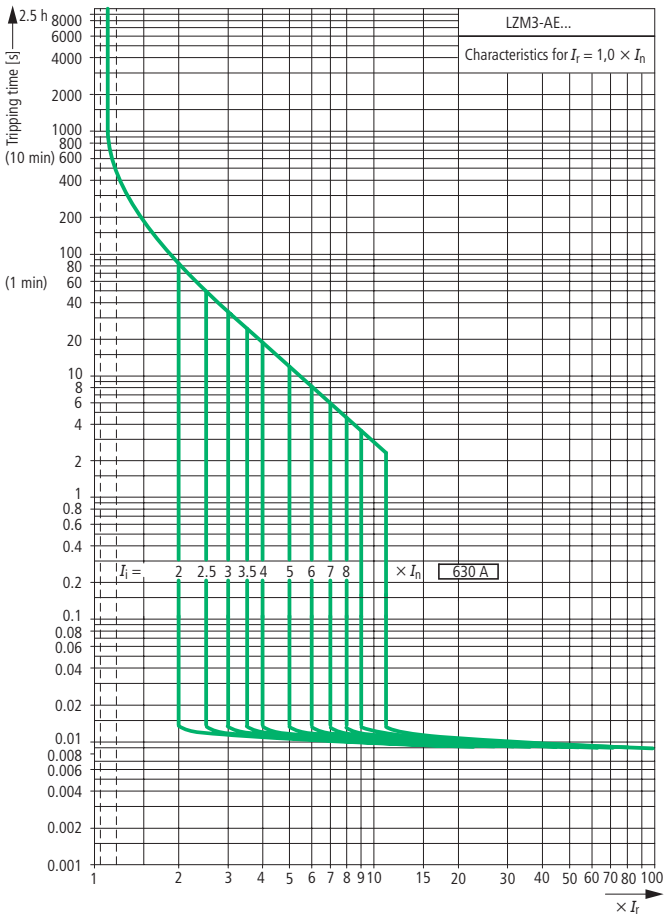
System and line protection with LZM2



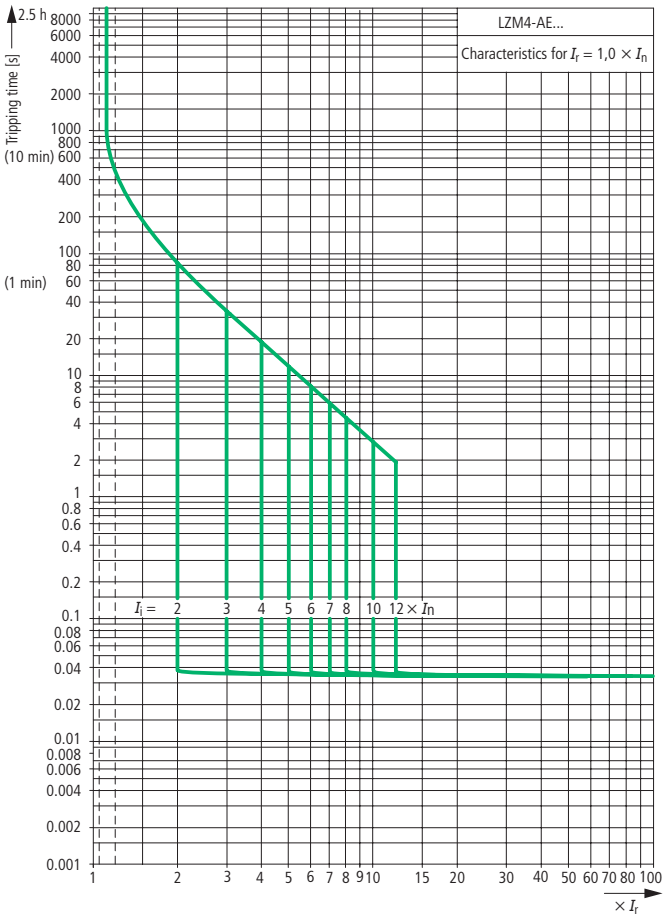
System and line protection with LZM3



System and line protection with LZM3



System and line protection with LZM4



xEnergy **LZM1, LZM2, LZM3, LZM4**

				Rated uninterrupted current max. 160 A **LZMC1**
General				
Standards				IEC/EN 60947
Protection against direct contact				Finger and back of hand proof to VDE 0106 Part 100
Climatic proofing				Damp heat, constant, according to IEC 60068-2-78 Damp heat, cyclical to IEC 60068-2-30
Ambient temperature				
Storage			°C	–25…+70
Operation			°C	–25…+70
Mechanical shock resistance (IEC/EN 60068-2-27)				20 (half-sinusoidal shock 20 ms)
Safe isolation to VDE 0106 Part 101 and Part 101/A1				
Between auxiliary contacts and main contacts			V AC	500
between the auxiliary contacts			V AC	300
Mounting position				LZM1, LN1: Vertical and 90° With residual-current release, LZM1, LN1: Vertical and 90° in all directions
Direction of incoming supply				As required
Degree of protection				
Device				In the operating controls area: IP20 (basic degree of protection)
Enclosures				With insulating surround: IP40, with door coupling rotary handle: IP66
Terminals				Tunnel terminal: IP10 Phase isolator and strip terminal: IP00
Circuit-breakers				
Rated impulse withstand voltage U_{imp}				
Main contacts			V	6000
Auxiliary contacts			V	6000
Rated operational voltage		U_e	V AC	415
Overvoltage category/pollution degree				III/3
Rated insulation voltage		U_i	V	690
Switching capacity				
Rated short-circuit making capacity				
240 V		I_{cm}	kA	121
400/415 V		$\mathbf{I_{cm}}$	kA	**76**
Rated short-circuit breaking capacity I_{cn}				
I_{cu} to IEC/EN 60947 operating sequence O-t-CO	240 V 50/60 Hz	I_{cu}	kA	55
	400/415 V 50/60 Hz	$\mathbf{I_{cu}}$	kA	**36**
I_{cs} to IEC/EN 60947 operating sequence O-t-CO-t-CO	240 V 50/60 Hz	I_{cs}	kA	27.5
	400/415 V 50/60 Hz	$\mathbf{I_{cs}}$	kA	**18**
Maximum low-voltage h.b.c. fuse[1]			A gG/gL	LZMC1-…20…100: 200 LZMC1-…125, 160: 315
Utilization category to IEC/EN 60947-2				A
Rated short-time withstand current				
t = 0.3 s		I_{cw}	kA	–
t = 1 s		I_{cw}	kA	–
Rated making and breaking capacity				
Rated operational current AC-1	**400/415 V 50/60 Hz**	I_e	A	**160**
Lifespan, mechanical		Operations		10000
Maximum operating frequency			Ops/h	30
Lifespan, electrical				
AC-1	**400/415 V 50/60 Hz**	Operations		**5000**
Current heat loss per pole at I_u[2]			W	16.7
Total opening delay at short-circuit			ms	< 10

Notes

[1] Maximum back-up fuse, if the expected short-circuit currents at the installation location exceed the switching capacity of the circuit-breaker.

[2] For current heat loss per pole the specification refers to the maximum nominal current of the frame size.

Rated uninterrupted current max. 300 A **LZMC2**	**Rated uninterrupted current max. 630 A** **LZMN3**	**Rated uninterrupted current max. 1600 A** **LZMN4**
IEC/EN 60947		
Finger and back of hand proof to VDE 0106 Part 100		
Damp heat, constant, according to IEC 60068-2-78 Damp heat, cyclical to IEC 60068-2-30		
–25…+70		
–25…+70		
20 (half-sinusoidal shock 20 ms)		
500		
300		
LZM2, LN2: Vertical and 90° in all directions		
With residual current release, LZM2: vertical and 90° to all directions	With remote control, LZM3, LN3: vertical and 90° to all directions	With remote control, LZM4, LN4: vertical and 90° to all directions
As required		
In the operating controls area: IP20 (basic degree of protection)		
With insulating surround: IP40, with door coupling rotary handle: IP66		
Tunnel terminal: IP10 Phase isolator and strip terminal: IP00		
8000	8000	8000
6000	6000	6000
415	415	415
III/3	III/3	III/3
690	1000	1000
121	187	105
76	**105**	**105**
55	85	50
36	**50**	**50**
27.5	42.5	25
18	**25**	**25**
355	LZMN3-…250, 400: 400 LZMN3-…500, 630: 630	
A	A	B
1.9	3.3	19.2
1.9	3.3	19.2
300	**630**	**1600**
10000	7500	5000
30	30	30
5000	**2500**	**1500**
19	40	97
< 10	< 10	< 25

xEnergy LN…

				LN1 max. 160 A	LN2 max. 250 A	LN3 max. 630 A	LN4 max. 1600 A
Switch-disconnectors							
Rated impulse withstand voltage U_{imp}							
Main contacts			V	6000	8000	8000	8000
Auxiliary contacts			V	6000	6000	6000	6000
Rated operational voltage		U_e	V AC	690	690	690	690
Rated uninterrupted current max.							
IEC/EN 60947-2 annex L		I_u	A	160	250	630	1600
Technical data, divergent from the products for the IEC market UL489, CSA 22.2 No. 5.1		I_u	A	125	160	550	1200
Overvoltage category/pollution degree				III/3	III/3	III/3	III/3
Rated insulation voltage		U_i	V AC	690	690	1000	1000
For use in IT electrical power networks			V	690	690	690	525
Switching capacity							
Rated short-circuit making capacity		I_{cm}	kA	2.8	5.5	25	53
Rated short-time withstand current							
t = 0.3 s		I_{cw}	kA	2	3.5	12	25
t = 1 s		I_{cw}	kA	2	3.5	12	25
Rated conditional short-circuit current							
With back-up fuse			A gG/gL	LN1/63…125: 125 LN1-160: 160	LN2-160…250: 250	LN3-400…630: 630	LN4-630…1600: 2 × 800
400 … 415 V			kA	100	100	100	100
With downstream fuse			A gG/gL	LN1-63…125: 125 LN1-160: 160	LN2-160…250: 250	LN3-400…630: 630	LN4-630…1600: 2 × 800
400 … 415 V			kA	100	100	100	100
Rated making and breaking capacity							
Rated operational current, AC-22/23A							
	415 V	I_e	A	160	250	630	1600
Lifespan, mechanical		Operations		10000	10000	7500	5000
Maximum operating frequency			Ops./h	120	120	60	60
Lifespan, electrical to IEC/EN 60947-4-1 section B							
AC-1							
	400/415 V	Operations		5000	5000	2500	1500
AC-3							
	400/415 V	Operations		3000	3000	1000	750
Current heat loss per pole at I_u[1)]			W	12.7	16	40	97

Notes

1) The current heat loss per pole ratings refer to the maximum current rating of the frame size.

Device Type	Release type	Response values of the overload release at temperatures deviating from the reference temperatures Temperature compensation coefficient 20 °C	30 °C	40 °C	50 °C	60 °C	65 °C	70 °C
Thermomagnetic release (TM)								
System protection		Protection of systems (reference temperature 40 °C)						
LZM1-A15…80	TM	1.14	1.07	1	0.93	0.86	0.83	0.79
LZM1-A90…125	TM	1.14	1.07	1	0.93	0.86	0.83	0.79
LZM1-A160	TM	1.08	1.04	1	0.96	0.92	0.90	0.88
LZM2-A125…200	TM	1.04	1.02	1	0.98	0.96	0.95	0.94
LZM2-A250/300	TM	1.04	1.02	1	0.98	0.96	0.95	0.94

Notes With temperatures which deviate from the reference temperature, a slight change of the overload protection properties occurs. In order to determine the release time using the tripping characteristics the temperature compensation coefficient in accordance with the table must be considered.
Example: An LZM1-A100 is calibrated for a reference temperature of 40 °C.
What happens when it is operated at an ambient temperature of 60 °C?
At 60 °C, the temperature compensation coefficient of 0.86 results in a reduced operating current of I_r = 100 A × 0.86 = 86 A. In other words at an ambient temperature of 60 °C the LZM1-A100 trips as if it were set to 86 A.

Device Type	Release type	Reduction of the rated operational current (derating) under particular ambient conditions (according to IEC 947) Derating coefficient 20 °C	30 °C	40 °C	50 °C	60 °C	65 °C	70 °C
Thermomagnetic release (TM)								
System protection		Protection of systems (reference temperature 40 °C)						
LZM1-A15…80	TM	1	1	1	1	1	1	1
LZM1-A90…125	TM	1	1	1	1	0.86	0.83	0.8
LZM1-A160	TM	1	1	1	0.95	0.9	0.85	0.8
LZM2-A15…200	TM	1	1	1	1	1	1	1
LZM2-A250	TM	1	1	1	1	0.9	0.85	0.8

Notes The derating coefficient must be considered in accordance with the following table in order to determine the maximum permissible current loading at different ambient temperatures.
Example: An LZM2-A250 should be operated at an ambient temperature of 65 °C.
How high is the permissible rated operational current I_e?
At 65 °C the derating coefficient is 0.85, this means I_e = 250 A × 0.85 = 212.5 A.
The LZM2-A250 may be operated at an ambient temperature of 65 °C with a maximum I_e = 212.5 A.

Device Type	Release type	Reduction of the rated operational current (derating) under particular ambient conditions (according to IEC 947) Derating coefficient 20 °C	30 °C	40 °C	50 °C	60 °C	65 °C	70 °C
Electronic release (E)								
System protection								
LZM3-AE630	E	1	1	1	1	0.9	0.85	0.8
LZM4-AE800...1250	E	1	1	1	1	1	1	1
LZM4-AE1600	E	1	1	1	1	0.87	0.85	0.82

Notes The derating coefficient must be considered in accordance with the following table in order to determine the maximum permissible current loading at different ambient temperatures.
Example: An LZM3-AE630 should be operated at an ambient temperature of 65 °C.
How high is the permissible rated operational current I_e?
At 65 °C the derating coefficient is 0.85, this means I_e = 630 A x 0.85 = 535.5 A.
The LZM3-AE630 may be operated at an ambient temperature of 65 °C with a maximum I_e = 535.5 A..

	Part no.	Weight kg
Circuit-breaker		
LZM1-...		1.046
LZM2-...		2.345
LZM3-...		6.34
LZM4-...		21

xEnergy **LZM1, LZM2** http://catalog.moeller.net

LZM up to 250 A with thermomagnetic release

	Fixed mounting		Fixed mounting	
	LZM1-		LZM2-	
	A...		A...	
I_n [A]	P [W]	R [µOhm]	P [W]	R [µOhm]
20	9.8	8180	5.1	4250
25	8.8	4680	8	4250
26	–	–	–	–
30	–	–	–	–
32	9.1	3030	10	3140
33	–	–	–	–
35	–	–	–	–
40	11	2220	13	2800
45	–	–	–	–
50	13.5	1760	18	2270
60	–	–	–	–
63	14	1190	20	1700
70	–	–	–	–
80	15.5	850	22	1070
90	–	–	–	–
100	24	730	28	855
110	–	–	–	–
125	38	570	29	589
150	–	–	–	–
160	50	460	40	427
175	–	–	–	–
200	–	–	48	332
225	–	–	–	–
250	–	–	57	310

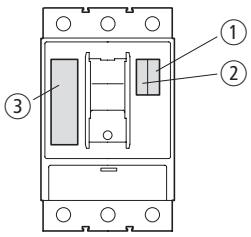
Note: The values stated in the table apply for 3-pole fixed mounted devices with an equal load distribution.
The total resistive load is the measured value for a 3-pole switch.
The total heat dissipation is the value measured at I_n, 50/60Hz for a 3-pole switch.
The heat dissipation can be calculated with the formula: $P = 3 \times R \times I^2$

LZM up to 1600 A with electronic release

Fixed mounting	Fixed mounting
LZM3	LZM4
R [µOhm]	R [µOhm]
100	37

Note: The values stated in the table apply for 3-pole devices with an equal load distribution.
The total resistive load is the measured value for a 3-pole switch (independent of I_n and the type of release).
The heat dissipation can be calculated with the formula: $P = 3 \times R \times I^2$

Maximum equipment and position of the internal accessories

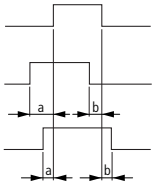


	③ -XHIV(2S) or -XA, or -XU	② HIA	① HIN
LZM1, LN1	1	1	1
LZM2, LN2	1	1	2
LZM3, LN3	1	1	3
LZM4, LN4	1	2	3

Contacts per slot with HIA and HIN
1 N/O
1 N/C
2 N/O
2 N/C

N/O = normally open contact
N/C = normally closed contact

Time differences ON-OFF



Main contact

Auxiliary contact, early make

Auxiliary contact, normal (HIN)

	Time difference a (ms)						Time difference b (ms)					
	Manual operation			Motor operators			Manual operation			Motor operators		
	HIV	HIN		HIV	HIN		HIV	HIN		HIV	HIN	
		K10	K01		K10	K01		K10	K01		K10	K01
LZM1	20[2)]	0	2.5	–	–	–	20[2)]	0	2.5	–	–	–
LZM2	20[2)]	3.5	6.5	Not permissible	2.5	4.5	20[2)]	3	4.5	Not permissible	3	4
LZM3	20[2)]	4	8	Not permissible	2	4	20[2)]	3.5	8	Not permissible	3	6.5
LZM4	90[2)]	7	11	Not permissible	on request	on request	0[1)2)]	12	15	Not permissible	on request	on request

Notes
[1)] With LZM4/N4 the HIV does **not** feature early break.
[2)] Minimum value, as it is dependent on the switching speed

		at AC = 50/60 Hz		M22-K…	NZM-XHIV	NZM-XHI
Auxiliary contacts						
Rated operational voltage						
AC		U_e	V AC	500	500	500
DC		Ue	V DC	220	220	220
Conventional thermal current		$I_{th} = I_e$	A	4	4	4
Rated operational current						
AC–15	115 V	I_e	A	4	4	4
	230 V	I_e	A	4	4	4
	400 V	I_e	A	2	2	2
	500 V	I_e	A	1	1	1
DC-13	24 V	I_e	A	3	3	3
	42 V	I_e	A	1.7	1.5	–
	60 V	I_e	A	1.2	0.8	1.2
	110 V	I_e	A	0.8	0.5	0.5
	220 V	I_e	A	0.3	0.2	0.2
Short-circuit protection						
max. fuse			A gG/gL	10	10	10
Max. miniature circuit-breaker			A	PKZM0-10/FAZ-B6	FAZ-B6	FAZ-B6
Early-make time compared to the main contacts during switch on and off (switching times with manual operation)			ms		LZM1, LN1: approx. 20 LZM2, LN2: approx. 20 LZM3, LN3: approx. 20 LZM4, LN4: approx. 90 With LZM4/N4 the HIV does **not** feature early break.	
Terminal capacities						
Solid or flexible conductor with ferrule			mm²	1 × (0.75 – 2.5) 2 × (0.75 – 2.5)	1 × (0.75 – 2.5) 2 × (0.75 – 2.5)	1 × (0.75 – 2.5) 2 × (0.75 – 2.5)
			AWG	1 × (18 – 14) 2 × (18 – 14)	1 × (18 – 14) 2 × (18 – 14)	1 × (18 – 14) 2 × (18 – 14)

					LZM1 160 A	I_n[1] A	LZM2 300 A	I_n[1] A
Terminal capacities								
Standard equipment					Box terminal		Screw terminal	
Accessories					Screw connection Tunnel terminal Connection on rear		Box terminal Tunnel terminal Connection on rear	
Rated power of coil								
Box terminal	Solid			mm²	1 × (10 – 16) 2 × (6 – 16)	160	1 × (4 – 16) 2 × (4 – 16)	300
	Stranded			mm²	1 × (25 – 70) 2 × 25		1 × (25 – 185) 2 × (25 – 70)	300
Tunnel terminal	Solid Stranded			mm²	1 × 16	160	1 × 16	300
		Single hole		mm²	1 × (25 – 95)		1 × (25 – 185)	
		Double hole fitting		mm²	–	–	–	–
		4-hole		mm²	–	–	–	–
Bolt terminal and rear-side connection								
Direct on the switch	Solid			mm²	1 × (10 – 16) 2 × (6 – 16)	160	1 × (4 – 16) 2 × (4 – 16)	300
	Stranded			mm²	1 × (25 – 70)[3] 2 × 25		1 × (25 – 185) 2 × (25 – 70)	
Module plate	Single hole	min.		mm²	–	–	–	–
		max.		mm²	–	–	–	–
Module plate	Double hole	min.		mm²	–	–	–	–
		max.		mm²	–	–	–	–
Connection width extension				mm²				
Al conductors, Al cable								
Tunnel terminal	Solid Stranded			mm²	1 × 16	160	1 × 16	300
		Single hole		mm²	1 × (25 – 95)		1 × (25 – 185)[2]	
		Double hole fitting		mm²	–	–	–	–
		4-hole		mm²	–	–	–	–
Bolt terminal and rear-side connection								
Direct on the switch	Solid			mm²	1 × (10 – 16) 2 × (10 – 16)	160	1 × (10 – 16) 2 × (10 – 16)	300
	Stranded			mm²	1 × (25 – 35) 2 × (25 – 35)		1 × (25 – 50) 2 × (25 – 50)	
Module plate	Single hole	min.		mm²	–	–	–	–
	Single hole	max.		mm²	–	–	–	–
Module plate	Double hole			mm²	–	–	–	–
Connection width extension				mm²				
Cu strip (number of segments x width x segment thickness)								
Box terminal		min.		mm	2 × 9 × 0.8	160	2 × 9 × 0.8	300
		max.		mm	9 × 9 × 0.8		10 × 16 × 0.8	
Flat conductor terminal		min.		mm				
		max.		mm				
Module plate	Single hole			mm	–	–	–	–
Bolt terminal and rear-side connection								
Flat copper strip, with holes		min.		mm			2 × 16 × 0.8	300
Flat copper strip, with holes		max.		mm			10 × 16 × 0.8	
Connection width extension				mm²	–	–	–	–
Copper busbar (width × thickness)								
Bolt terminal and rear-side connection								
Screw connection					M6		M8	
Direct on the switch		min.		mm	12 × 5	160	16 × 5	300
		max.		mm	16 × 5		20 × 5	
Module plate	Single hole	min.		mm	–	–	–	–
		max.		mm	–	–	–	–
Module plate	Double hole			mm	–	–	–	–
Connection width extension		min.		mm	–	–	–	–
		max.		mm	–	–	–	–

Notes

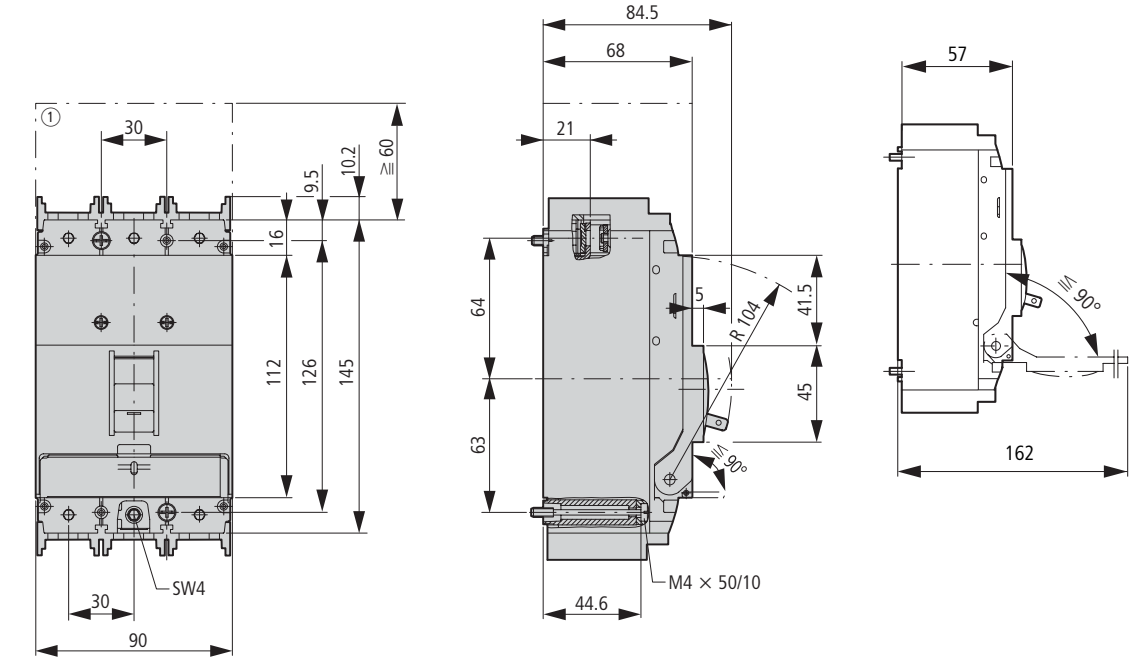
[1] The rated currents I_n have been determined conform to IEC/EN 60947 (switchgear standard) and generally relate to the max. defined cross-sections and are intended for the purpose of orientation. The engineering standards which apply in each case must be observed.

[2] depending on the cable manufacturer up to 240 mm² can be connected.

[3] depending on the cable manufacturer up to 95 mm² can be connected.

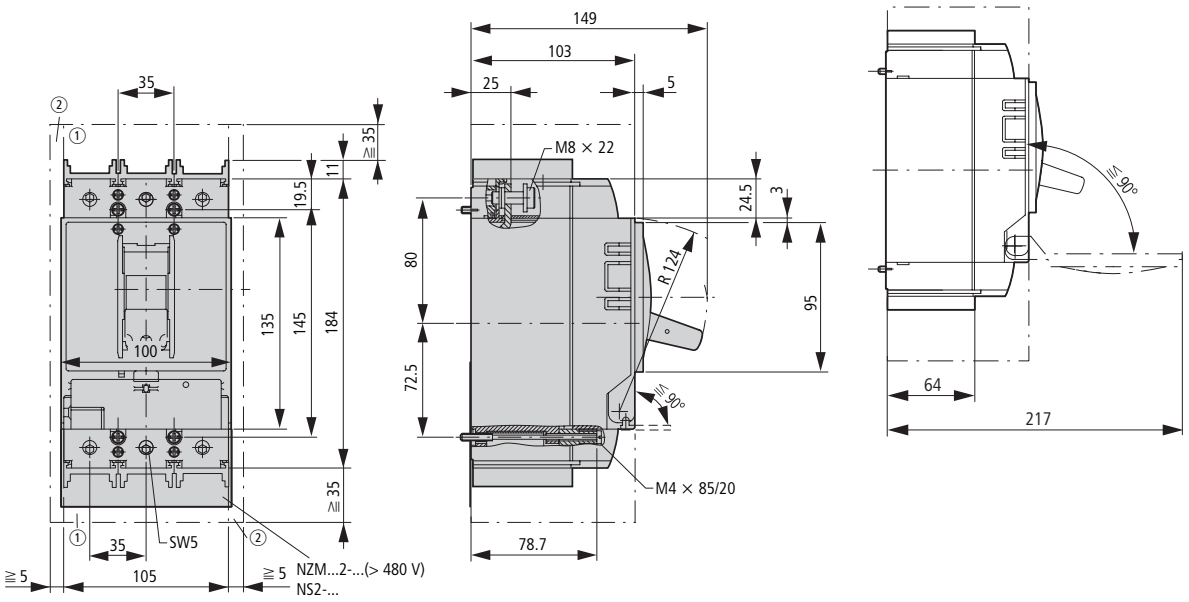
LZM3 630 A	I_n[1] A	LZM4 1600 A	I_n[1] A
Screw terminal		Screw terminal	
Box terminal Tunnel terminal Connection on rear		Tunnel terminal Connection on rear Strip terminal	
2 × 16	500		
1 × (35 – 240) 2 × (25 – 120)			
1 × (25 – 185)	350		
1 × (50 – 240) 2 × (50 – 240)	630 2 x 185	–	–
–	–	4 × (50 – 240)	1400
1 × 16 2 × 16	630 2 x 185		
1 × (25 – 240) 2 × (25 – 240)		1 × (120 … 185) 4 × (50 … 185)	1250
–	–	1 × (120 – 300)	1000
–	–	2 × (95 – 300)	
–	–	2 × (95 – 185)	1400
–	–	4 × (35 – 185)	
2 × 300	630 2 × 185	4 × 300 6 × (95 – 240)	1600 4 × 240
1 × 16	350	–	–
1 × (25 – 185)[2]		–	–
1 × (50 – 240) 2 × (50 – 240)	630	–	–
–	–	4 × (50 – 240)	1400
1 × 16 2 × (10 – 16)	400	–	–
1 × (25 – 120) 2 × (25 – 120)		–	–
–	–	1 × (185 – 240)	pleaes inquire
–	–	2 × (70 – 185)	pleaes inquire
–	–	4 × 50	–
		2 × 240 6 × (70 – 240)	pleaes inquire
6 × 16 × 0.8	630	–	–
10 × 24 × 1.0 + 5 × 24 × 1.0 (2 ×) 8 × 24 × 1.0		–	–
		6 × 16 × 0.8	1100
		(2 ×) 10 × 32 × 1.0	
–	–	(2 ×) 10 × 50 × 1.0	1250 (2 ×) 10 × 40 × 1.0
6 × 16 × 0.8	630	(2 ×) 10 × 50 × 1.0	1600
10 × 32 × 1.0 + 5 × 32 × 1.0		(2 ×) 10 × 50 × 1.0	
(2 ×) 10 × 50 × 1.0		(2 ×) 10 × 80 × 1.0	1600 2 × (10 × 50 × 1.0)
M10		M10	
20 × 5	630	25 × 5	1600
30 × 10 +30 × 5		2 × (50 × 10) 2 × (80× 10)	2000
–	–	25 × 5	1250 2 × (40 × 10)
–	–	2 × (50 × 10)	
–	–	2 × (50 × 10)	1500
–	630 10 × 40	60 × 10	1600 2 × (50 × 10)
2 × (10 × 50)		2 × (80 × 10)	

Circuit-breaker
LZMC1
LN1



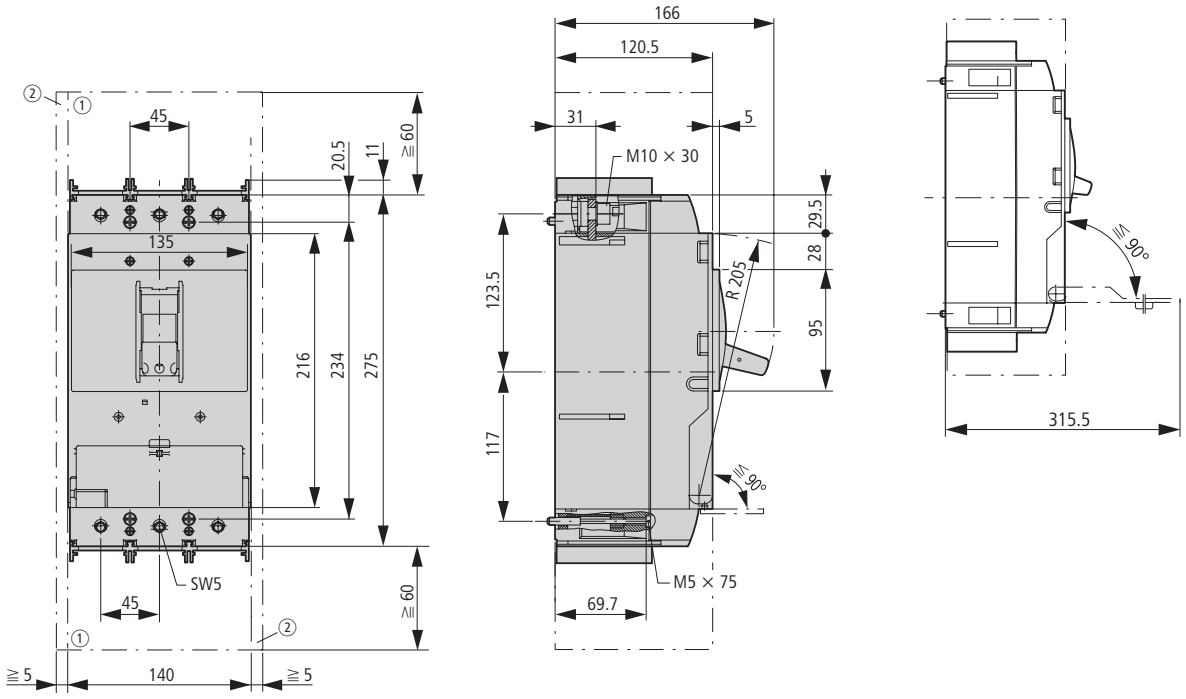
① Blow out area, minimum clearance to other parts ≧ 60 mm

Circuit-breaker
LZMC2
LN2



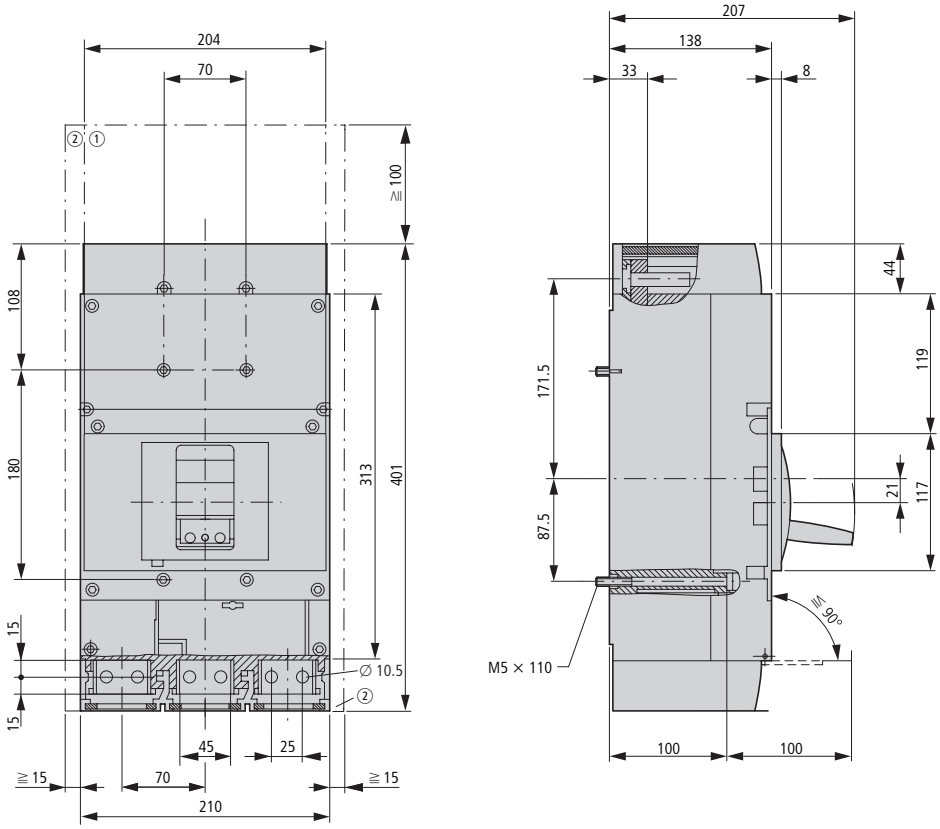
① Blow out area, minimum distance to other parts ≧ 35 mm
② Minimum distance to adjacent parts ≧ 5 mm

Circuit-breaker
LZMN3
LN3



① Blow-out space, minimum distance to other parts ≧ 60 mm
② Minimum distance to adjacent parts ≧ 5 mm

Circuit-breaker
LZMN4
LN4



① Blow out area, minimum distance to other parts ≧ 100 mm
② Minimum distance to adjacent parts ≧ 15 mm

Moeller Elektrotechnika s.r.o.
Komárovská 2406
CZ-193 00 Praha, Czech republic
Tel.: +420 267 990 481
Fax: +420 267 990 489
office.export@moeller.cz
www.moeller.cz

© 2007 by Moeller GmbH
All rights reserved
SK LZM GB Ex/Ak (08/07)
Art. number: 999 200 327
Valid from 09/2007

MOELLER

We keep power under control.