

X-Energy

IZM 58 Circuit-Breakers Up To 5000A

Controlling, Switching and Managing Power



EATON

Powering Business Worldwide

MOELLER 

An Eaton Brand



- | | |
|---|--|
| <ol style="list-style-type: none"> 1. Open-type circuit-breakers IZM from 630 A to 6300 A 2. Shroud for ON-OFF buttons 3. Closing release, voltage release 4. Withdrawable unit 5. Positioning indicators contact; module for withdrawable units 6. Main connection elements: front, flanged, horizontal or vertical connection | <ol style="list-style-type: none"> 7. Control circuit plug 8. Racking handle 9. Auxiliary contact 10. Motor operator 11. Operating cycle counter 12. Electronic releases (control units) 13. Door Sealing frame |
|---|--|

3-Pole Air Circuit-Breaker

□ insert prefix for selected trip unit; **A, V, U or D**

Fixed and Withdrawable		IZM 5	IZM 6	IZM 7
Short-circuit switching capacity at 400/415V 50/60 Hz $I_{CU}=I_{CS}$	Rated current			
	Uninterrupted current $I_n=I_U$ (A)			
50 kA	630	IZMB5 - □ 630		
	800	IZMB5 - □ 800		
	1000	IZMB5 - □ 1000		
	1250	IZMB5 - □ 1250		
	1600	IZMB5 - □ 1600		
	2000	ZMB5 - □ 2000		
55 kA	2000		IZMB6 - □ 2000	
	2500		IZMB6 - □ 2500	
	3200		IZMB6 - □ 3200	
65 kA	630	IZMN5 - □ 630		
	800	IZMN5 - □ 800		
	1000	IZMN5 - □ 1000		
	1250	IZMN5 - □ 1250		
	1600	IZMN5 - □ 1600		
	2000	IZMN5 - □ 2000		
80 kA	800		IZMN6 - □ 800	
	1000		IZMN6 - □ 1000	
	1250		IZMN6 - □ 1250	
	1600		IZMN6 - □ 1600	
	2000		IZMN6 - □ 2000	
	2500		IZMN6 - □ 2500	
	3200		IZMN6 - □ 3200	IZMN7 - □ 3200
	4000			IZMN7 - □ 4000
	5000			IZMN7 - □ 5000
100 kA	800			
	1000			
	1250			
	1600			
	2000			
	2500			
	3200			IZMH7 - □ 3200
	4000			IZMH7 - □ 4000
	5000			IZMH7 - □ 5000
Rated operational voltage U_e Volt		690	690	690
Rated insulation voltage U_i Volt		1000	1000	1000
Max continuous current $I_n=I_U$ Amp		1600	3200	4000
Degree of protection (with front door gasket)		IP 53	IP 53	IP 53
Number of Poles		3	3	3
Dimensions - Fixed Type				
Width (mm)		347	447	647
Height (mm)		396	396	396
Depth (mm)		355	355	355
Dimensions - Withdrawable Type				
Width (mm)		347	447	647
Height (mm)		433	433	433
Depth (mm)		421	421	421

4-Pole Air Circuit-Breaker

□ insert prefix for selected trip unit; **A, V, U or D**

Fixed and Withdrawable		I _{ZM} 5	I _{ZM} 6	I _{ZM} 7
Short-circuit switching capacity at 400/415V 50/60 Hz $I_{CU}=I_{CS}$	Rated current Uninterrupted current $I_n=I_U$ (A)			
50 kA	630	IZMB4 - 4 - □ 630		
	800	IZMB4 - 4 - □ 800		
	1000	IZMB5 - 4 - □ 1000		
	1250	IZMB5 - 4 - □ 1250		
	1600	IZMB5 - 4 - □ 1600		
	2000	IZMB5 - 4 - □ 2000		
55 kA	2000		IZMB6 - 4 - □ 2000	
	2500		IZMB6 - 4 - □ 2500	
	3200		IZMB6 - 4 - □ 3200	
65 kA	630	IZMN5 - 4 - □ 630		
	800	IZMN5 - 4 - □ 800		
	1000	IZMN5 - 4 - □ 1000		
	1250	IZMN5 - 4 - □ 1250		
	1600	IZMN5 - 4 - □ 1600		
	2000	IZMN5 - 4 - □ 2000		
80 kA	800		IZMN6 - 4 - □ 800	
	1000		IZMN6 - 4 - □ 1000	
	1250		IZMN6 - 4 - □ 1250	
	1600		IZMN6 - 4 - □ 1600	
	2000		IZMN6 - 4 - □ 2000	
	2500		IZMN6 - 4 - □ 2500	
	3200		IZMN6 - 4 - □ 3200	IZMN7 - 4 - □ 3200
	4000			IZMN7 - 4 - □ 4000
	5000			IZMN7 - 4 - □ 5000
100 kA	800			
	1000			
	1250			
	1600			
	2000			
	2500			
	3200			IZMH7 - 4 - □ 3200
	4000			IZMH7 - 4 - □ 4000
	5000			IZMH7 - 4 - □ 5000
Rated operational voltage U_e Volt		690	690	690
Rated insulation voltage U_i Volt		1000	1000	1000
Max continuous current $I_n=I_U$ Amp		1600	3200	4000
Degree of protection (with front door gasket)		IP 53	IP 53	IP 53
Number of Poles		4	4	4
Dimensions - Fixed Type				
Width (mm)		447	581	847
Height (mm)		396	396	396
Depth (mm)		355	355	355
Dimensions - Withdrawable Type				
Width (mm)		447	581	847
Height (mm)		433	433	433
Depth (mm)		421	421	421

Optional Trip Units and Control Functions for Tailored Solutions

A
Basic
System
Protection



V
Selective
Protection



U
Universal
Protection



D
Digitally
Programmable
Protection



□ **Type Code for The Selected Trip Unit**

Trip Units
Functions available in the control units

- Standard
- Optional
- Not Provided

				Standard functions
•	•	•	•	Overcurrent protection (independent of external power supply)
•	•	•	•	Fault indication (independent of external control supply)
•	•	•	•	True RMS measurement
•	•	•	•	Auto / Manual resetting option
•	•	•	•	Common fault signal
				Protection functions
•	•	-	-	Overload with adjustable current and fixed time
-	-	•	•	Overload and short-circuit with adjustable current and time
-	-	•	•	Neutral Protection against overload
•	-	-	-	Short-circuit protection with adjustable current and fixed time
-	•	•	•	Short-circuit protection with adjustable current and time
-	•	•	•	Instantaneous protection
				Optional Protection functions
-	-	◦	•	Ground fault protection with current and delay time settings
-	-	-	•	Additional protections (reverse power, under/over I, V, f)
				Additional functions
•	•	•	•	Thermal Memory
-	•	•	•	Thermal Memory (Switchable)
				Additional Options
-	◦	◦	•	Ammeter display of phase, neutral and earth currents
-	-	◦	•	Differential trip signals for remote indications
-	-	◦	•	<i>i</i> Discrimination (for zone selective interlocking)
-	-	◦	•	Communication via Modbus RTU using an RS485 serial port
-	-	-	◦	Metering of <i>I, V, f, pF, kW, kWhr</i> , and harmonic content
-	-	-	•	Maintenance indication
-	-	-	•	Breaker failure feedback
-	-	-	•	Trip circuit supervision
-	-	-	•	Thermistor input processing
-	-	-	•	Fault history
-	-	-	•	True graphic protection settings on high resolution display
-	-	-	•	Remotely programmable

IzM 58 Selectivity with NZM moulded case circuit breakers

		$I_n(1)$	[A]	630	800	1,000
		$I_{CU}(1)$	[kA]	B5 = 50, N5 = 65	B5 = 50, N5 = 65, N6 = 80	B5 = 50, N5 = 65 N6 = 80
Incoming ACB(1) Type IZM...-XZA ($I_i=I_{sd}=10 \times I_n; t_{sd}=25ms, fixed$)						
Outgoing MCCB (2)	$I_u(2)$ [A]	$I_t(1)$	[A]	6,300	8,000	10,000
		$I_{cu2}(415V)$ [kA]				
LZM...1-A..	20...160	25...100		T	T	T
LZM...2-A..	20...100	100(150)		T	T	T
	125...250	25...150		T	T	T
LZM...1-M..	20...100	25(50)		T	T	T
LZM...2-M..	20...100	100(150)		T	T	T
	125...200	25...150		T	T	T
LZM...2-VE..	100	50...150		T	T	T
	160	50...150		T	T	T
	250	50...150		T	T	T
LZM...3-E..	250...400	50...150		T	T	T
	630	50...150		--	--	T
LZM...4-E..	630	50(100)		--	--	10
	800	50(100)		--	--	--
	1,000	50(100)		--	--	--
	1,250	50(100)		--	--	--
	1,600	50(100)		--	--	--
Incoming ACB(1) Type IZM...-XZV ($I_i=12 \times I_n / OFF$) or IZM...-XZU ($I_i=12 \times I_n / OFF$)						
Outgoing MCCB (2)	$I_u(2)$ [A]	$I_t(1)$	[A]	7,560	9,600	12,000
		$I_{cu2}(415V)$ [kA]	on/off	on/off	on/off	on/off
LZM...1-A..	20...160	25...100		9/T	16/T	25/T
LZM...2-A..	20...100	100(150)		9/T	16/T	25/T
	125...250	25...150		9/T	16/T	25/T
LZM...1-M..	20...100	25(50)		9/T	16/T	25/T
LZM...2-M..	20...100	100(150)		9/T	16/T	25/T
	125...200	25...150		9/T	16/T	25/T
LZM...2-VE..	100...250	50...150		9/T	16/T	25/T
LZM...3-E..	250...400	50...150		7.5/T	9.6/T	13/T
	630	50...150		--	--	13/T
LZM...4-E..	630	50(100)		--	--	12/T
	800	50(100)		--	--	--
	1,000	50(100)		--	--	--
	1,250	50(100)		--	--	--
	1,600	50(100)		--	--	--
Incoming ACB(1) Type IZM...-XZD ($I_i=I_{cu} / OFF$)						
Outgoing MCCB (2)	$I_u(2)$ [A]	$I_t(1)$	[kA]	B5 = 50, N5 = 65	B5 = 50, N5 = 65 N6 = 80	B5 = 50, N5 = 65 N6 = 80
		$I_{cu2}(415V)$ [kA]	on/off	on/off	on/off	on/off
LZM...1-A..	20...160	25...100		T	T	T
LZM...2-A..	20...100	100(150)		T	T	T
	125...250	25...150		T	T	T
LZM...1-M..	20...100	25(50)		T	T	T
LZM...2-M..	20...100	100(150)		T	T	T
	125...200	25...150		T	T	T
LZM...2-VE..	100...250	50...150		T	T	T
LZM...3-E..	250...630	50...150		T	T	T
LZM...4-E..	630	50(100)		--	--	T
	800	50(100)		--	--	--
	1,000	50(100)		--	--	--
	1,250	50(100)		--	--	--
	1,600	50(100)		--	--	--

	1,250	1,600	2,000	2,500	3,200	4,000
	B5 = 50, N5 = 65 N6 = 80	B5 = 50, N5 = 65 N6 = 80	B6 = 55, N6 = 80 N7 = 100	B6 = 55, N6 = 80 N7 = 100	N7 = 80, H7 = 100	N7 = 80, H7 = 100

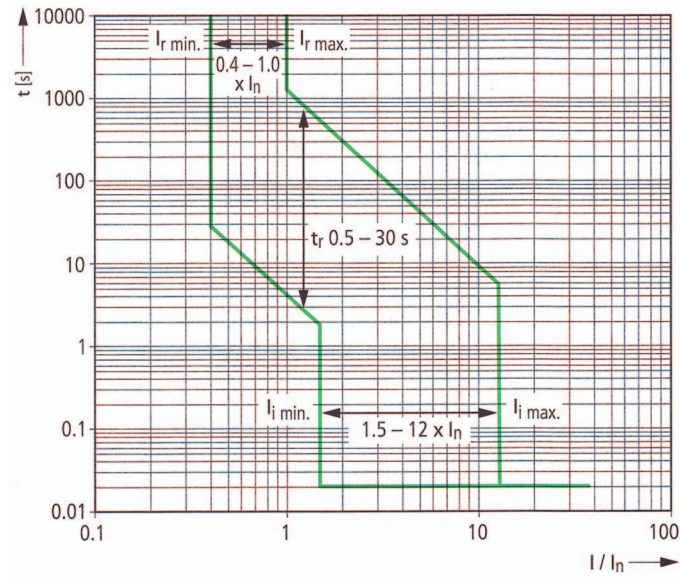
	12,500	16,000	20,000	25,000	32,000	40,000
	T	T	T	T	T	T
	T	T	T	T	T	T
	T	T	T	T	T	T
	T	T	T	T	T	T
	T	T	T	T	T	T
	T	T	T	T	T	T
	T	T	T	T	T	T
	T	T	T	T	T	T
	T	T	T	T	T	T
	T	T	T	T	T	T
	T	T	T	T	T	T
	T	T	T	T	T	T
	12.5	T	20	25	32	40
	12.5	T	20	25	32	40
	--	16	20	25	32	40
	--	--	20	25	32	40
	--	--	--	25	32	40

	15,000	19,200	24,000	30,000	38,400	48,000
	on/off	on/off	on/off	on/off	on/off	on/off
	45/T	50/T	T	T	T	T
	55/T	T	T	T	T	T
	55/T	T	T	T	T	T
	45/T	50/T	T	T	T	T
	55/T	T	T	T	T	T
	55/T	T	T	T	T	T
	55/T	T	T	T	T	T
	17/T	27/T	40/T	T	T	T
	17/T	27/T	40/T	T	T	T
	15/T	19.2/T	24/T	30/T	38.4/T	48/T
	15/T	19.2/T	24/T	30/T	38.4/T	48/T
	--	19.2/T	24/T	30/T	38.4/T	48/T
	--	--	24/T	30/T	38.4/T	48/T
	--	--	--	30/T	38.4/T	48/T

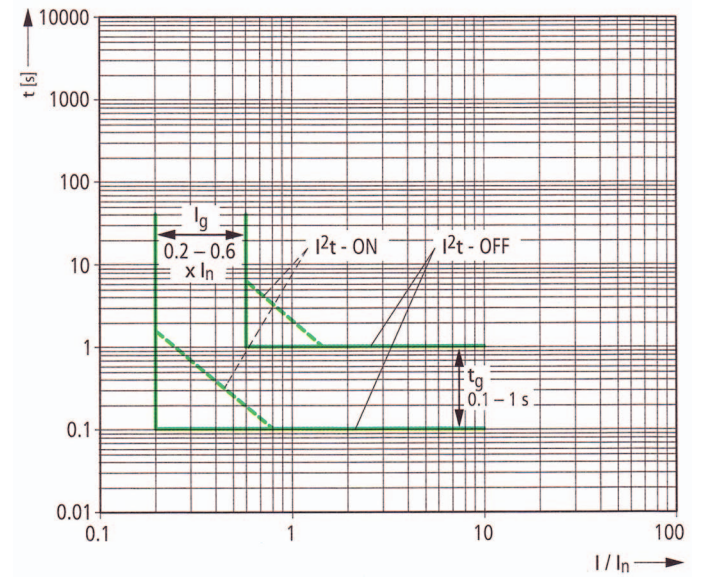
	B5 = 50, N5 = 65 N6 = 80	B5 = 50, N5 = 65 N6 = 80	B6 = 55, N6 = 80 N7 = 100	B6 = 55, N6 = 80 N7 = 100	N7 = 80, H7 = 100	N7 = 80, H7 = 100
	on/off	on/off	on/off	on/off	on/off	on/off
	T	T	T	T	T	T
	T	T	T	T	T	T
	T	T	T	T	T	T
	T	T	T	T	T	T
	T	T	T	T	T	T
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Protection Characteristics

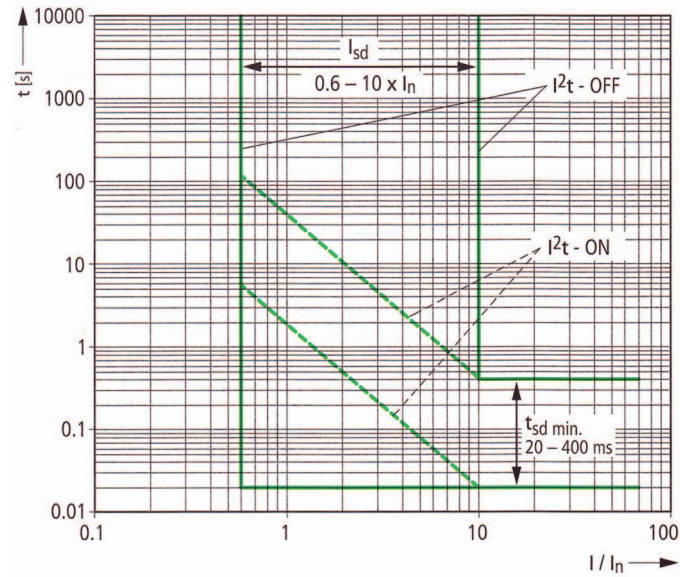
Overload (L-) instantaneous (I-) tripping



Ground fault (G-) tripping



Short-circuit (S-) tripping



Weight

	IZM 5	IZM 6	IZM 7
Fixed			
3-pole kg	39	59	86
4-pole (100% N) kg	48	71	108
Withdrawable			
3-pole	70	88	124
4-pole (100% N) kg	84	106	166

In 2008, Eaton acquired the Moeller Group, strengthening its global IEC control portfolio. Today that broad offering of IEC control components is available globally under the Eaton brand.

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