

HHOZ-G

High Voltage Fuses Special Purpose

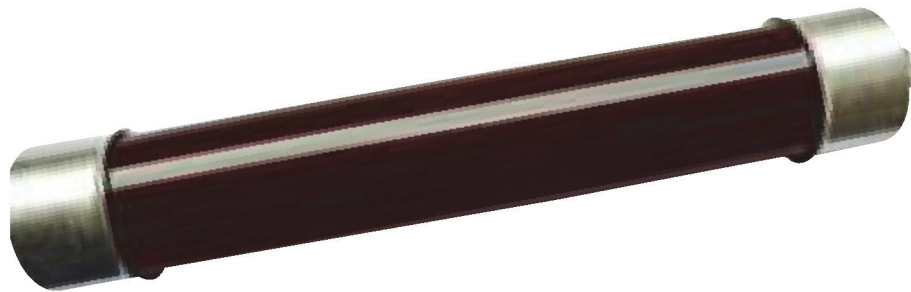
Application Range Types

Fuses for protection of oil insulated transformer mains

SIBA HHOZ-G series of special purpose fuses are current-limiting "General-Purpose" class for protection use inside of oil filled transformers that are so called "intrinsically safe transformers". The fuses provide cut off of the widest possible range of fault currents for the desired protection of the transformer against tank rupture. Fuses equipped with a striker provide a means of fault detection.

The fuses fulfill all requirements regarding oil tightness during the manufacturing phase of the transformer and also during its service operation. The fuses incorporate M8 threaded holes the ends of the contact caps for easy installation inside the transformer.

The fuses are designed for decades of reliable usage and available in voltage ranges of 12kV, 17.5kV and 24kV.



Selection Guide

HHOZ-G, Current-Limiting, General-Purpose, Oil Insulated Transformer Protection

Current ratings [A]; 8, 10, 12, 16, 20, 22, 40, 50, 63

L1=360mm	Page	L1=440mm	Page				
12kV							
3031091.8 - 63	164					M8 / M8 -No Striker	
3031096.8 - 63	164					M8 / G 1/8" w/ Striker	
17.5kV							
3031191.10 - 20	166					M8 / M8 -No Striker	
3031196.10 - 20	166					M8 / G 1/8" w/ Striker	
24kV							
3031291.8 - 20	168					M8 / M8 -No Striker	
3031296.8 - 20						M8 / G 1/8" w/ Striker	
	168	3031391.25 - 40	170			M8 / M8 -No Striker	
		3031396.25 - 40	170			M8 / G 1/8" w/ Striker	



HHOZ-G
12kV - Rated Voltage[U_n]

High Voltage Current-Limiting Fuses
Oil Insulated-Transformers

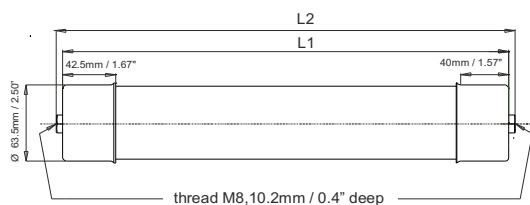
Standard(s)
IEC 60282-1



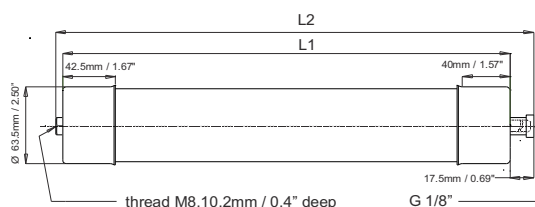
Size L1=360mm **Class**
General-Purpose

Rated Current I _n [A]	Article Number	Diameter	Weight [kg/1]	Rated Breaking Current I ₁ [kA]	Minimum Breaking Current I ₃ [A]	Pre-arcing I ² t [A ² s]	Total I ² t @ 0.87U _n [A ² s]	Power Loss [W]	Cold Resistance [mΩ]	
		D [in/mm]								
L2=371mm W/O Striker										
8	3031091.8	2.50 / 63.5	2.6	63	25	172	—	1 800	8	—
10	3031091.10	2.50 / 63.5	2.6	63	29	250	—	2 800	11	—
16	3031091.16	2.50 / 63.5	2.6	63	37	340	—	3 800	13	—
20	3031091.20	2.50 / 63.5	2.6	63	42	830	—	9 200	17	—
25	3031091.25	2.50 / 63.5	2.6	63	60	1 730	—	17 300	20	—
31.5	3031091.32	2.50 / 63.5	2.6	63	67	2 260	—	22 600	12	—
40	3031091.43	2.50 / 63.5	2.6	63	80	3 530	—	35 500	35	—
50	3031091.50	2.50 / 63.5	2.6	63	96	5 490	—	55 000	46	—
63	3031091.63	2.50 / 63.5	2.6	63	123	9 030	—	90 000	62	—
L2=383mm With 50N Striker										
8	3031096.8	2.50 / 63.5	2.6	63	25	172	—	1 800	8	—
10	3031096.10	2.50 / 63.5	2.6	63	29	250	—	2 800	11	—
16	3031096.16	2.50 / 63.5	2.6	63	37	340	—	3 800	13	—
20	3031096.20	2.50 / 63.5	2.6	63	42	830	—	9 200	17	—
25	3031096.25	2.50 / 63.5	2.6	63	60	1 730	—	17 300	20	—
31.5	3031096.31.5	2.50 / 63.5	2.6	63	67	2 260	—	22 600	12	—
40	3031096.40	2.50 / 63.5	2.6	63	80	3 530	—	35 500	35	—
50	3031096.50	2.50 / 63.5	2.6	63	96	5 490	—	55 000	46	—
63	3031096.63	2.50 / 63.5	2.6	63	123	9 030	—	90 000	62	—

Maximum Torque 132lb•in / 15N•m



3031091



3031096

SIBA LLC

29 Fairfield Place
West Caldwell, New Jersey 07006

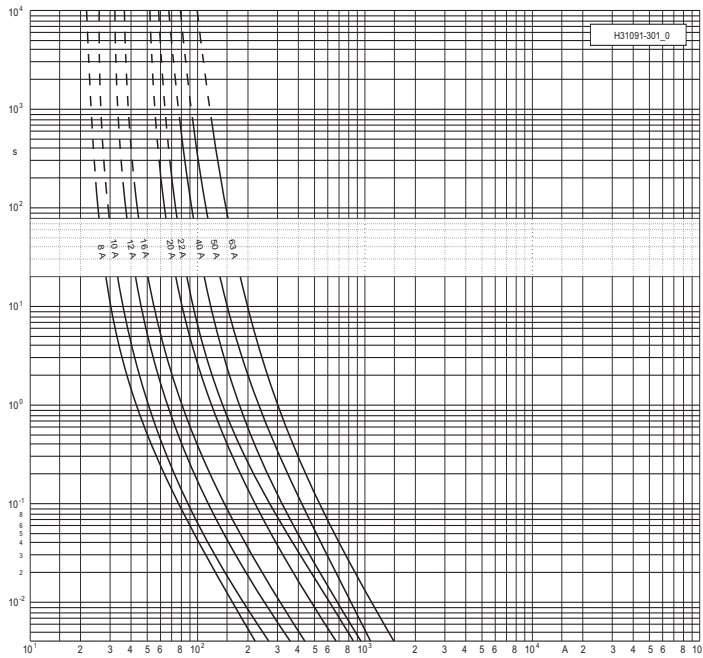
Phone 1-973-575-7422
Fax 1-973-575-5858

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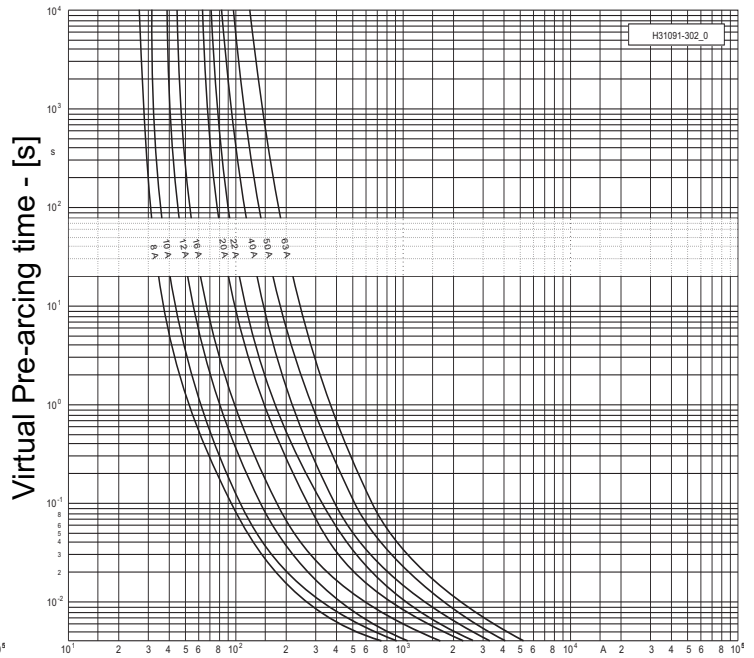
**HHOZ-G Time-Current Characteristics - Minimum Melting and Total Clearing
Cut-Off Current Diagram**
Current-Limiting, General-Purpose, 12kV, L1 = 360mm (6.3A - 63A)

3031091.8 - 63, 3031096.8 - 63

Minimum Melting

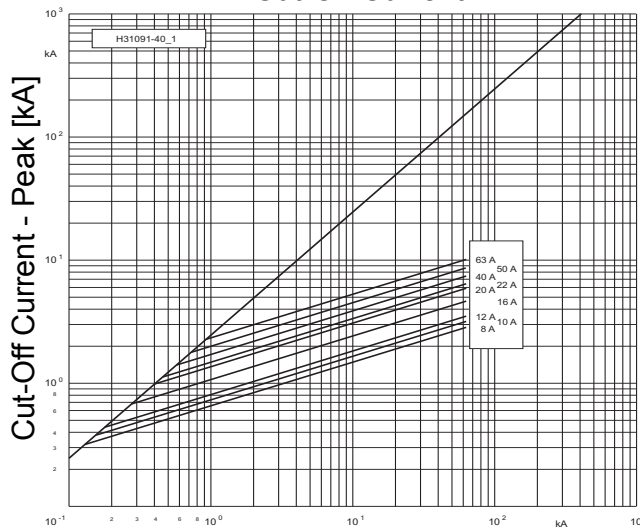


Total Clearing



R.M.S. Prospective Current [A]

Cut-Off Current



Prospective Short Circuit Current [kA] - (Symmetrical r.m.s.)

HHOZ-G

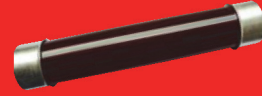
17.5kV - Rated Voltage[U_n]

High Voltage Current-Limiting Fuses

Oil Insulated Transformers

Standard(s)

IEC 60282-1

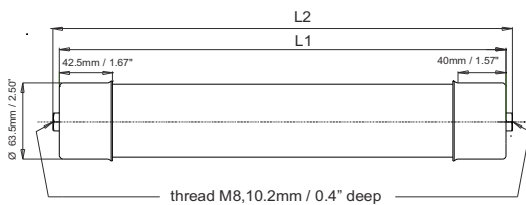


Size L1=360mm

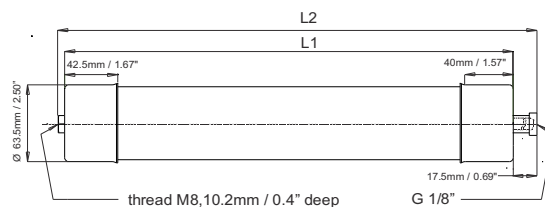
Class
General-Purpose

Rated Current I _n [A]	Article Number	Diameter D	Weight [kg/1]	Rated Breaking Current I ₁ [kA]	Minimum Breaking Current I ₃ [A]	Pre-arcing I ² t [A ² s]	Total I ² t @		Power Loss [W]	Cold Resistance [mΩ]
		[in/mm]					0.87U _n [A ² s]	[A ² s]		
L2=371mm W/O Striker										
10	3031191.10	2.50 / 63.5	2.6	63	33	250	—	2 400	16	—
16	3031191.16	2.50 / 63.5	2.6	63	41	1 100	—	12 000	18	—
20	3031191.20	2.50 / 63.5	2.6	63	57	1 700	—	13 500	18	—
L2=383mm With 50N Striker										
10	3031196.10	2.50 / 63.5	2.6	63	33	250	—	2 400	16	—
16	3031196.16	2.50 / 63.5	2.6	63	41	1 100	—	12 000	18	—
20	3031196.20	2.50 / 63.5	2.6	63	57	1 700	—	13 500	18	—

Maximum Torque 132lb•in / 15N•m



3031191



3031196

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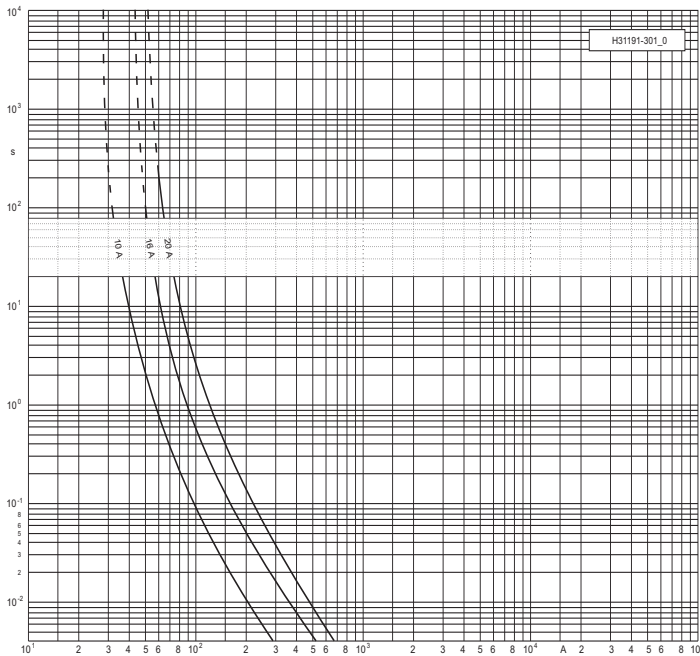
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Fax 1-973-575-5858

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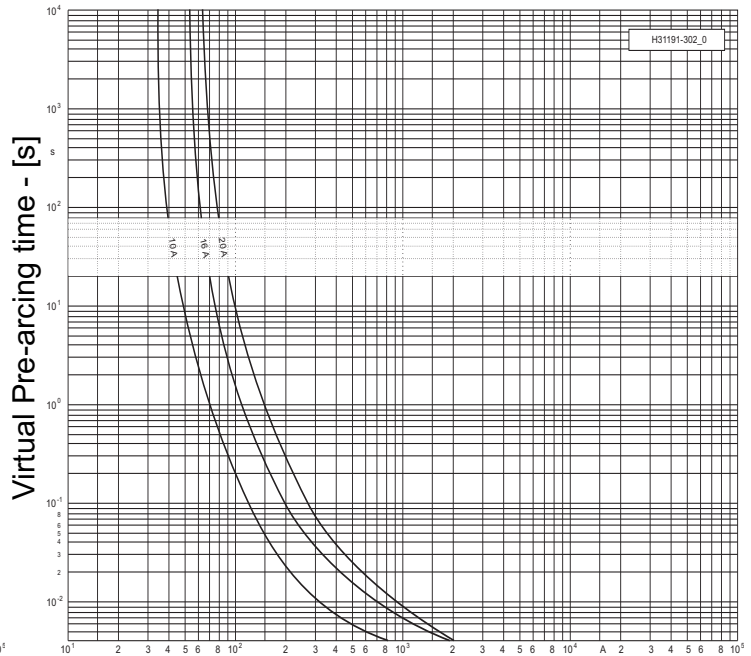
HHOZ-G Time-Current Characteristics - Minimum Melting and Total Clearing Cut-Off Current Diagram
Current-Limiting, General-Purpose, 17.5kV, L1 = 360mm (10A - 20A)

3031191.10 - 20, 3031196.10 - 20

Minimum Melting

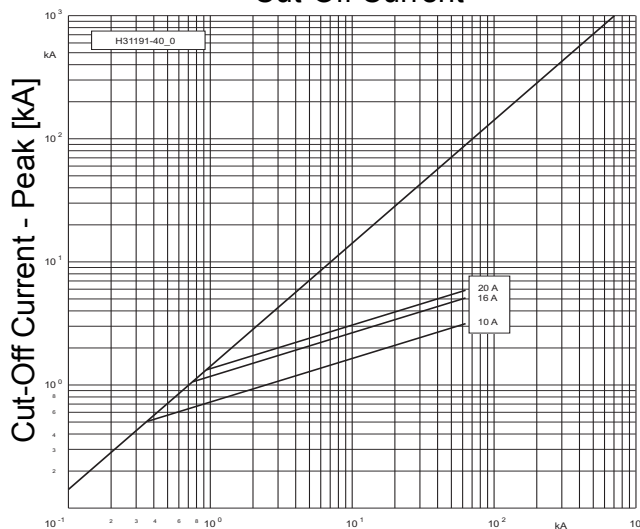


Total Clearing



R.M.S. Prospective Current [A]

Cut-Off Current

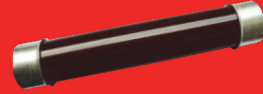


Prospective Short Circuit Current [kA] - (Symmetrical r.m.s.)

HHOZ-G
24kV - Rated Voltage [U_n]

High Voltage Current-Limiting Fuses
Oil Insulated Transformers

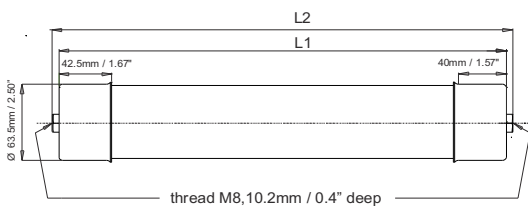
Standard(s)
IEC 60282-1



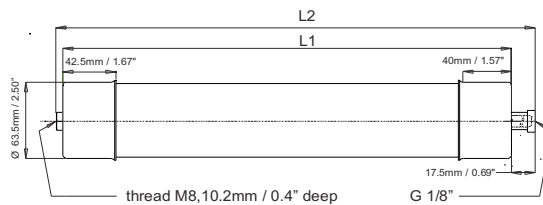
Size L1=360mm
Class
General-Purpose

Rated Current I_n [A]	Article Number	Diameter D	Weight [kg/1]	Rated Breaking Current I_1 [kA]	Minimum Breaking Current I_3 [A]	Pre-arcing I^2t [A ² s]	Total I^2t @ 0.87 U_n [A ² s]	Power Loss [W]	Cold Resistance [mΩ]	
		[in/mm]								
L2=371mm W/O Striker										
8	3031291.8	2.50 / 63.5	2.6	63	25	172	—	1 900	17	—
10	3031291.10	2.50 / 63.5	2.6	63	29	250	—	2 800	21	—
12	3031291.12	2.50 / 63.5	2.6	63	37	460	—	5 100	24	—
16	3031291.16	2.50 / 63.5	2.6	63	42	830	—	8 300	31	—
20	3031291.20	2.50 / 63.5	2.6	63	60	1 730	—	17 300	21	—
L2=383mm With Striker										
8	3031296.8	2.50 / 63.5	2.6	63	25	172	—	1 900	17	—
10	3031296.10	2.50 / 63.5	2.6	63	29	250	—	2 800	21	—
12	3031296.12	2.50 / 63.5	2.6	63	37	460	—	5 100	24	—
16	3031296.16	2.50 / 63.5	2.6	63	42	830	—	8 300	31	—
20	3031296.20	2.50 / 63.5	2.6	63	60	1 730	—	17 300	21	—

Maximum Torque 132lb•in / 15N•m



3031291



3031296

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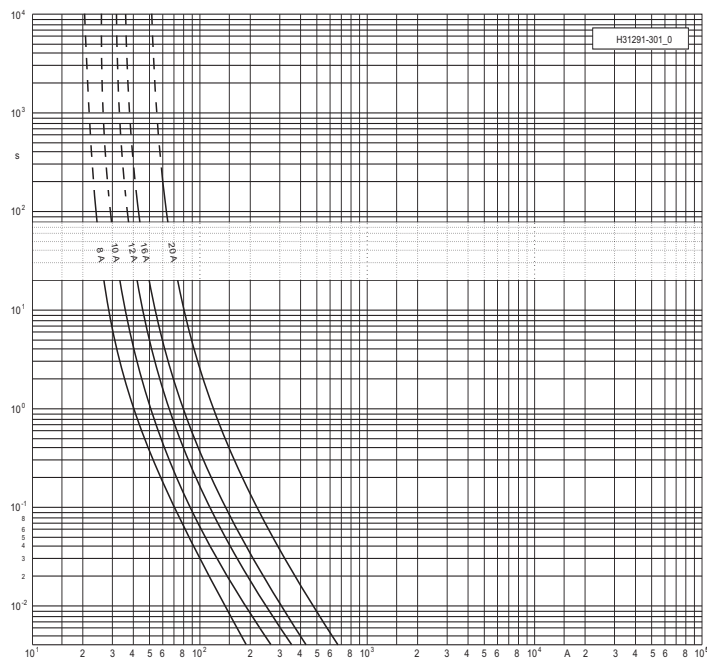
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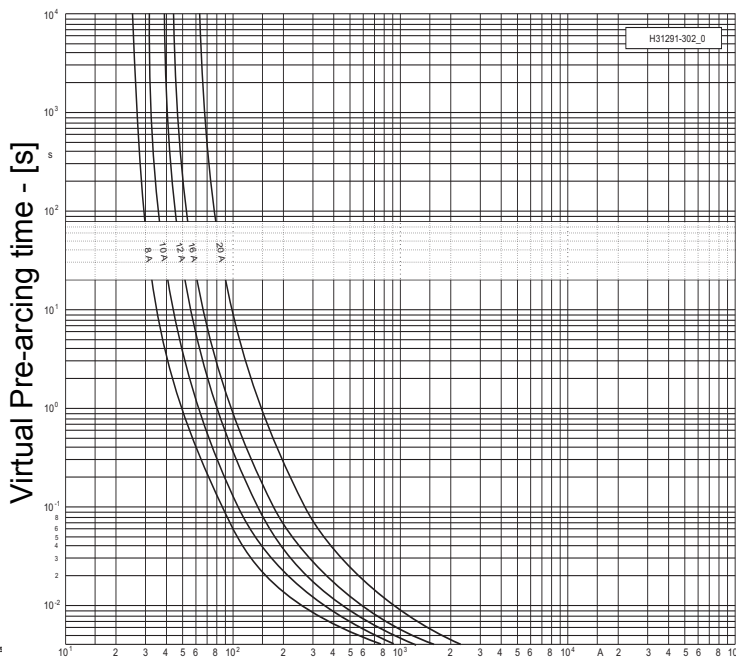
**HHOZ-G Time-Current Characteristics - Minimum Melting and Total Clearing
Cut-Off Current Diagram**
Current-Limiting, General-Purpose, 24kV, L1 = 360mm (8A - 20A)

3031291.8 - 20, 3031296.8 - 20

Minimum Melting

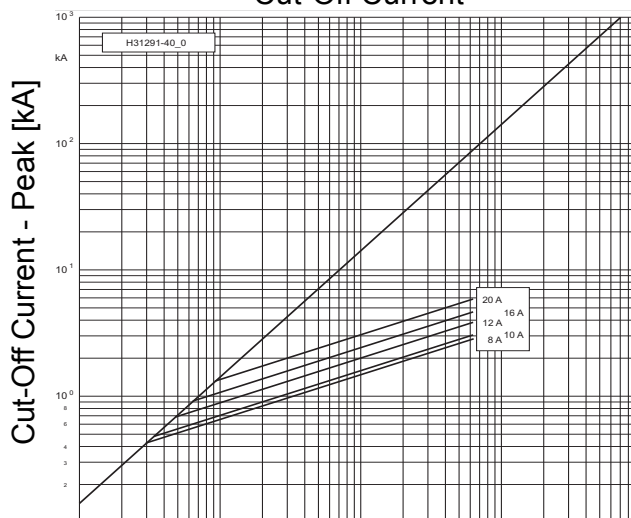


Total Clearing



R.M.S. Prospective Current [A]

Cut-Off Current

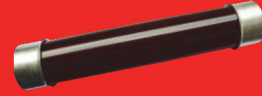


Prospective Short Circuit Current [kA] - (Symmetrical r.m.s.)

HHOZ-G
24kV - Rated Voltage [U_n]

High Voltage Current-Limiting Fuses
Oil Insulated Transformers

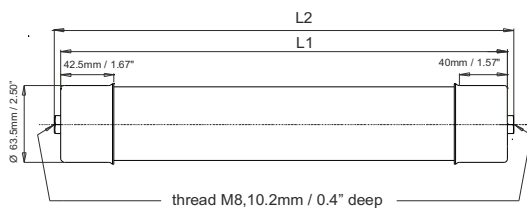
Standard(s)
IEC 60282-1



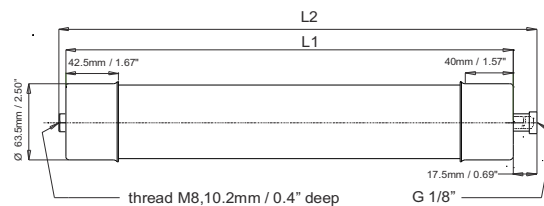
Size L1=440mm
Class
General-Purpose

Rated Current I_n [A]	Article Number	Diameter D [in/mm]	Weight [kg/l]	Rated Breaking Current I_1 [kA]	Minimum Breaking Current I_3 [A]	Pre-arcing I^2t [A ² s]	Total I^2t @ 0.87 U_n [A ² s]	Power Loss [W]	Cold Resistance [mΩ]	
L2=451mm W/O Striker										
25	3031391.25	2.50 / 63.5	3.6	63	57	1 150	—	10 500	40	—
31.5	3031391.31.5	2.50 / 63.5	3.6	63	72	2 100	—	16 500	55	—
40	3031391.40	2.50 / 63.5	3.6	63	84	2 850	—	19 500	71	—
L2=463mm With 50N Striker										
25	3031396.25	2.50 / 63.5	3.6	63	57	1 150	—	10 500	40	—
31.5	3031396.31.5	2.50 / 63.5	3.6	63	72	2 100	—	16 500	55	—
40	3031396.40	2.50 / 63.5	3.6	63	84	2 850	—	19 500	71	—

Maximum Torque 132lb•in / 15N•m



3031391



3031396

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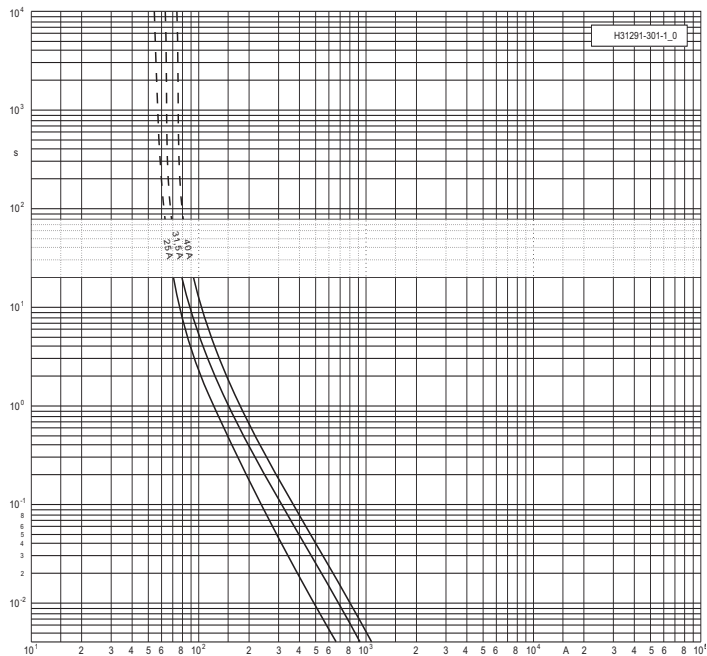
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West Caldwell, New Jersey 07006

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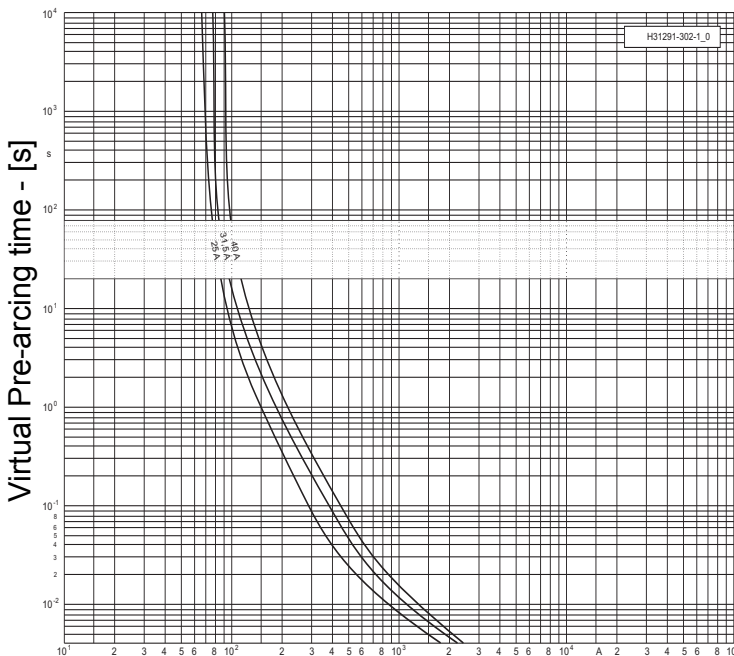
**HHOZ-G Time-Current Characteristics - Minimum Melting and Total Clearing
Cut-Off Current Diagram
Current-Limiting, General-Purpose, 24kV, L1 = 440mm (25A - 40A)**

3031391.25 - 40, 3031396.25 - 40

Minimum Melting

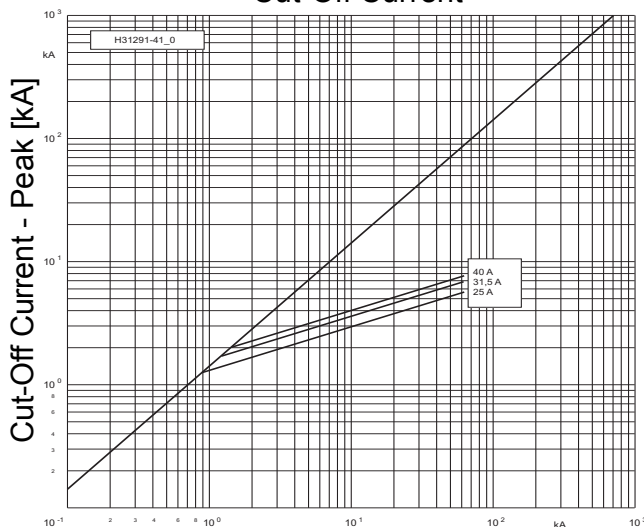


Total Clearing



R.M.S. Prospective Current [A]

Cut-Off Current



Prospective Short Circuit Current [kA] - (Symmetrical r.m.s.)