

Special - Wind Power Fuses Selection Guide

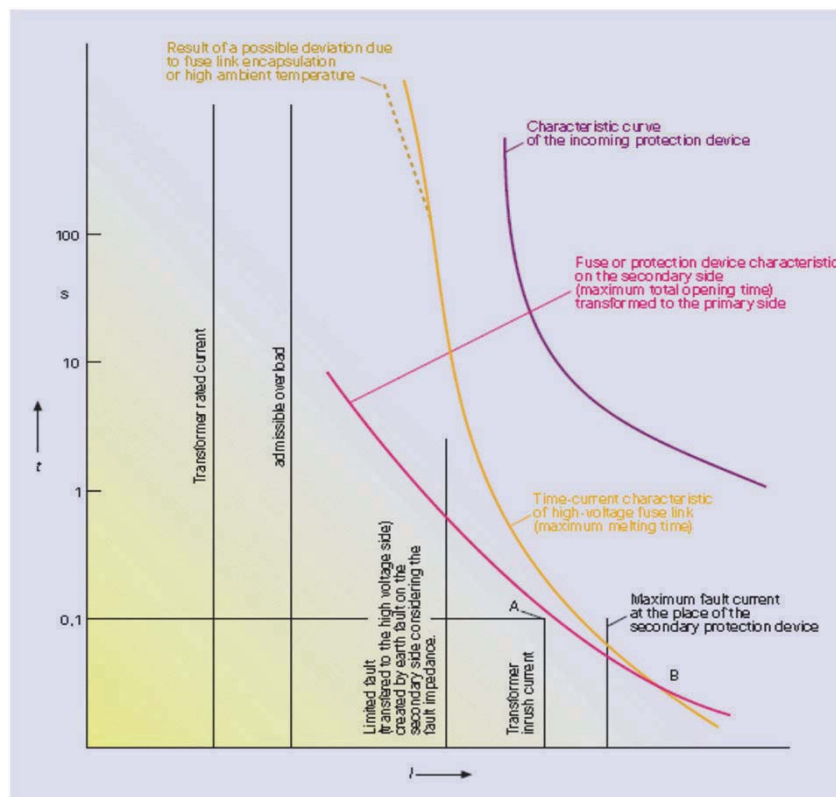
HHD-BSSK, DIN Style Current-Limiting, Back-Up

Current ratings [A]: 63, 80, 100, 125, 160,

E=192mm	Page	E=292mm	Page	E=367mm	Page	E=442mm	Page	E=537mm	Page
6 / 12kV									
		3001243.63 - 100	80			3010243.80 - 100	82		
		3002043.125	80			3010343.125 - 160	82		
10 / 24kV									
						3001443.63 - 80	84		
						3002243.100 - 140	84		
20 / 36kV									
								3002443.50 - 80	86
40.5kV									
								3034243.80	88

Special Fusing for Wind-Power Transformer Applications

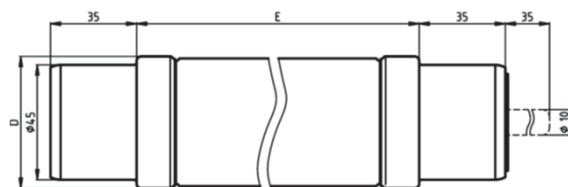
SIBA SSK high voltage fuses have Improved **Cyclic Stability (ICS®)** for applications with increased cyclic loading conditions, typically windfarms and photovoltaic systems. The range of fuse usage has also been extended to accommodate increased transformer VA ratings. Fused-switch combinations in conjunction with the temperature sensitive striker pin avoids switchgear damage caused by higher temperatures. The SSK series high voltage fuses is cost effective and allows proper protection of distribution transformers.



Picture 2: Characteristic curves for protection of transformer circuits according to DIN VDE 0670-402 (VDE 0670 Teil 402):1988-05[1] und IEC 60787:1983-01[2]

HHD-BSSK**6/12kV - Rated Voltage****Improved Cyclic Stability****(ICS[®] - ✓)****E=292mm****High Voltage Current-Limiting Fuses****For air & gas-insulated switchgear,
indoor and outdoor applications****Class****Back-Up****Standard(s)****DIN 43 625****IEC 60282-1****VDE 0670-4**

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 @ 10.5kV [A ² s]	Power loss ¹ [W]	Cold resistance [mΩ]
With 80N Striker and Temperature Limiter									
63	3001243.63	2.64 / 67	2.6	63	210	9 300	—	74 000	10
80	3001243.80 ✓	2.64 / 67	2.6	63	280	12 800	—	103 000	8.7
100	3001243.100 ✓	2.64 / 67	2.6	63	320	22 300	—	138 000	6.5
125	3002043.125 ✓	3.35 / 85	3.9	63	450	39 000	—	323 000	4.8

¹ At rated current per IEC 60282-1**Dimensions [mm]****Accessories**

Article Description	≤ 200A	> 200A	Page(s)
Fuse base, indoor	3100302	—	188
Fuse base, outdoor	3100401	—	189
Fuse clips	3100302.20	—	190
Fuse clips w/ connecting bar	3400201	—	190
Microswitch assembly, * preferred	250mm - 3100116, 660mm - 3100110 & 3100210*, 900mm - 3100114, 1200mm - 3100117		187

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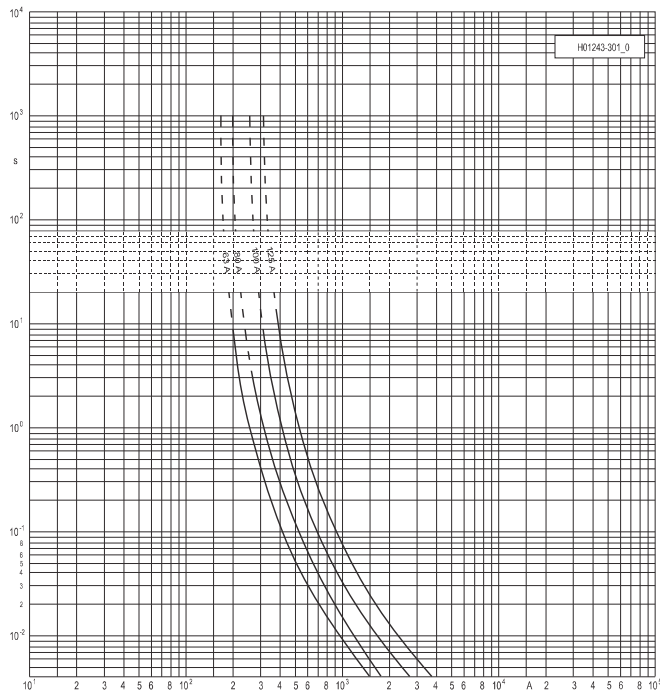
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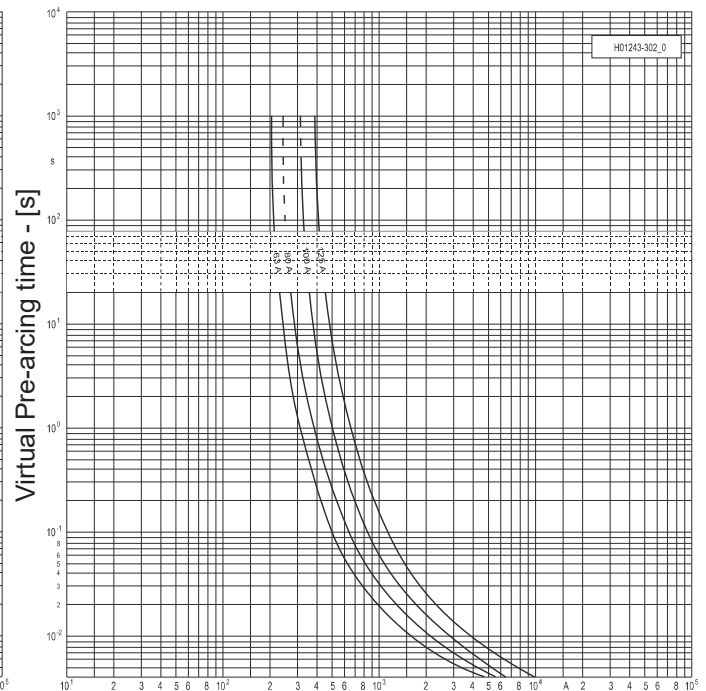
HHD-BSSK Time-Current Characteristics - Minimum Melting and Total Clearing
Cut-Off Current Diagram
 Current-Limiting, Back-Up, 6/12kV, E = 292mm (63A - 125A)

3001243.63 - 100, 3002043.125

Minimum Melting

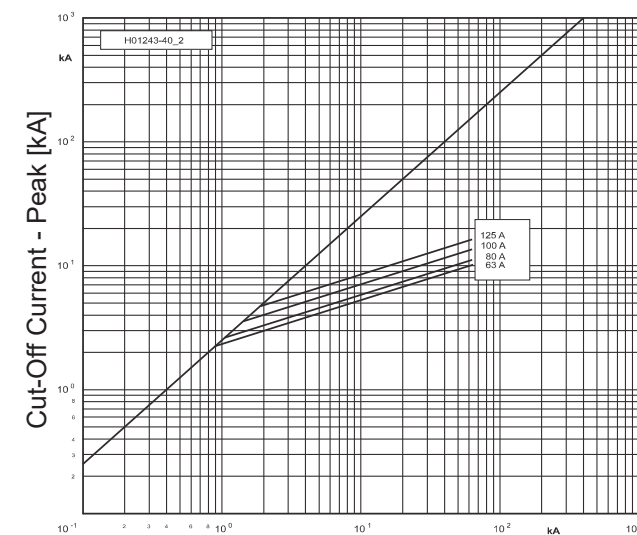


Total Clearing



R.M.S. Prospective Current [A]

Cut-Off Current

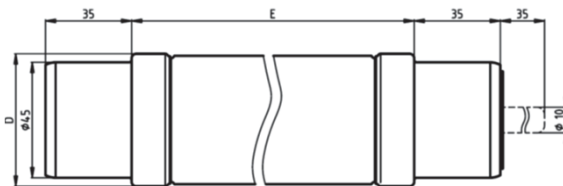


Prospective Short Circuit Current [kA] - (Symmetrical r.m.s.)

Full size graphs available upon request.

HHD-BSSK**6/12kV - Rated Voltage****Improved Cyclic Stability****(ICS® - ✓)****E=442mm****High Voltage Current-Limiting Fuses**For air & gas-insulated switchgear,
indoor and outdoor applications**Class****Back-Up****Standard(s)****DIN 43 625****IEC 60282-1****VDE 0670-4**

Rated current I_n [A]	Article Number	Diameter	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 @		Power loss ¹ [W]	Cold resistance [mΩ]
		D					10.5kV			
		[in/mm]					[A ² s]	[A ² s]		
With 80N Striker and Temperature Limiter										
80	3010243.80 ✓	2.64 / 67	3.7	63	280	12 800	—	103 000	72	8.7
100	3010243.100 ✓	2.64 / 67	3.7	63	320	22 300	—	138 000	93	6.5
125	3010343.125 ✓	3.35 / 85	5.7	63	450	39 000	—	323 000	128	4.8
RC140 [*]	3010343.160 ✓	3.35 / 85	5.7	63	600	50 000	—	405 000	125 ¹	4.5
180 ²	3052043.180 ✓	3.43 / 87	—	63	540	151 000	—	940 000	137	2.8

*Rated current per IEC 60282-1
RC - Please see page 11² Contact SIBA for minimum melt and total clearing curves¹ At rated current per IEC 60282-1**Dimensions [mm]****Accessories**

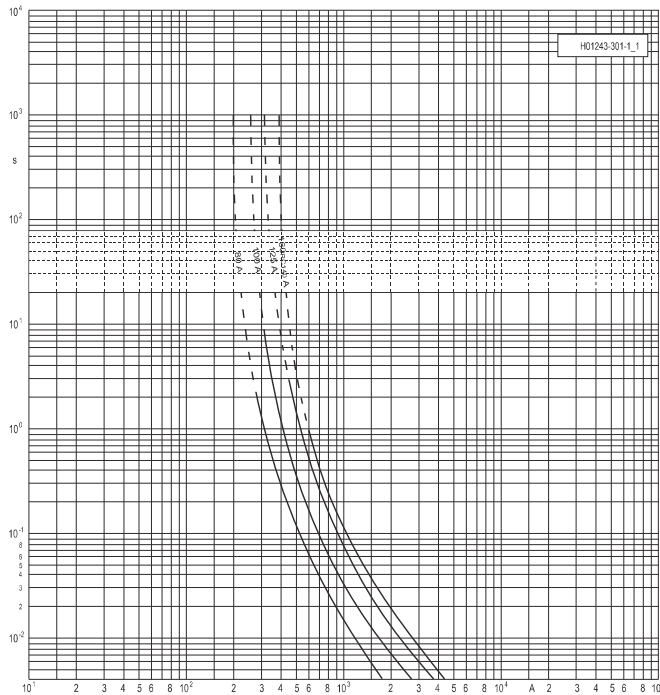
Article Description	≤ 200A	> 200A	Page(s)
Fuse base, indoor	3110102	—	188
Fuse base, outdoor	Contact SIBA	—	189
Fuse clips	3100302.20	—	190
Fuse clips w/ connecting bar	3400201	—	
Microswitch assembly, * preferred	250mm - 3100116, 660mm - 3100110 & 3100210*, 900mm - 3100114, 1200mm - 3100117		187

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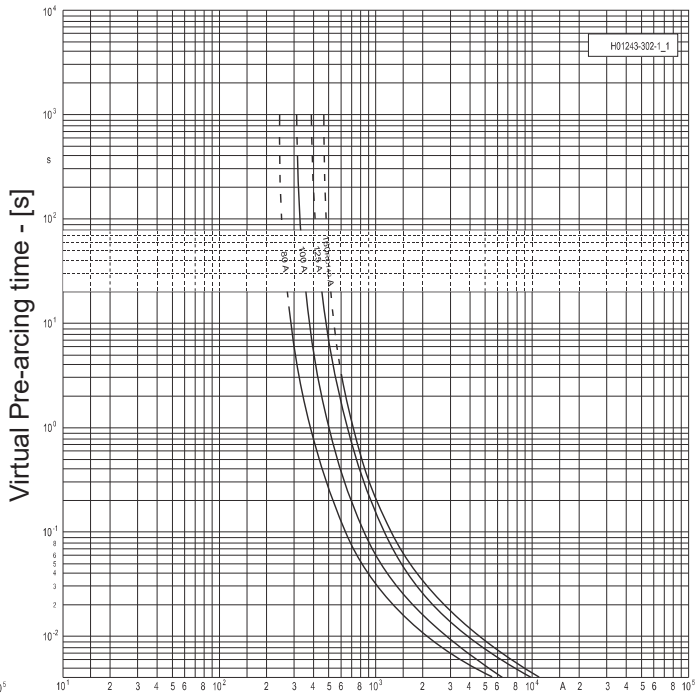
HHD-BSSK Time-Current Characteristics - Minimum Melting and Total Clearing
Cut-Off Current Diagram
 Current-Limiting, Back-Up, 6/12kV, E = 442mm (80A - 160A)

3010243.80 - 100, 3010343.125 - 160

Minimum Melting

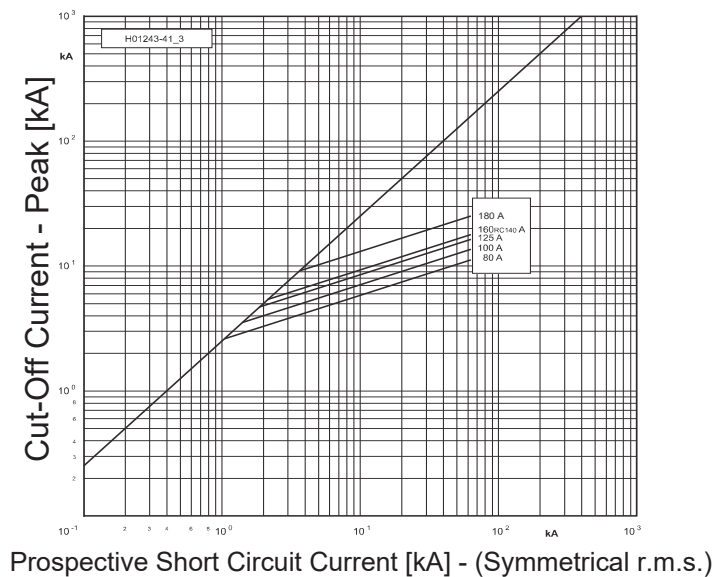


Total Clearing



R.M.S. Prospective Current [A]

Cut-Off Current



Full size graphs available upon request.

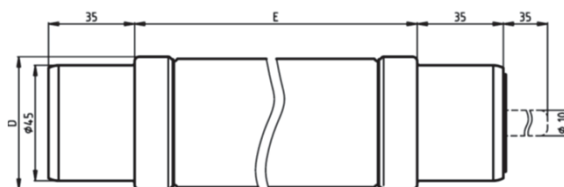
HHD-BSSK**10/24kV - Rated Voltage****Improved Cyclic Stability****(ICS® - ✓)****E=442mm****High Voltage Current-Limiting Fuses****For air & gas-insulated switchgear,
indoor and outdoor applications****Class****Back-Up****Standard(s)****DIN 43 625****IEC 60282-1****VDE 0670-4**

Rated current I_n [A]	Article Number	Diameter	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 @ 21kV		Power loss ¹ [W]	Cold resistance [mΩ]
		D [in/mm]					[A ² s]	[A ² s]		
With 80N Striker and Temperature Limiter										
63	3001443.63	2.64 / 67	3.7	63	210	9 300	—	74 000	117	19
RC75	3001443.80 ✓	2.64 / 67	3.7	63	280	12 800	—	103 000	143 ¹	15
RC80	3002243.100 ✓	2.64 / 67	5.7	63	320	22 300	—	136 000	130 ¹	12
RC95	3002243.125 ✓	3.35 / 85	5.7	63	450	30 300	—	248 000	145 ¹	10
RC112 ²	3002243.140 ✓	3.43 / 87	—	63	400	51 000	—	350 000	155 ¹	8

*Rated current per IEC 60282-1
RC = Please see page 11

² Contact SIBA for minimum melt and total clearing curves

¹ At rated current per IEC 60282-1

**Dimensions [mm]****Accessories**

Article Description	≤ 200A	> 200A	Page(s)
Fuse base, indoor	3100502	—	188
Fuse base, outdoor	3100601	—	189
Fuse clips	3100302.20	—	190
Fuse clips w/ connecting bar	3400201	—	
Microswitch assembly, * preferred	250mm - 3100116, 660mm - 3100110 & 3100210*, 900mm - 3100114, 1200mm - 3100117		187

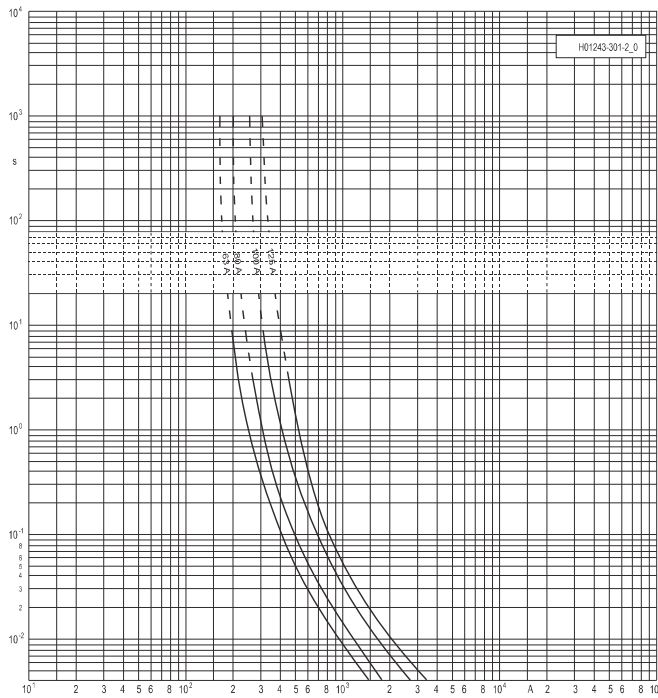
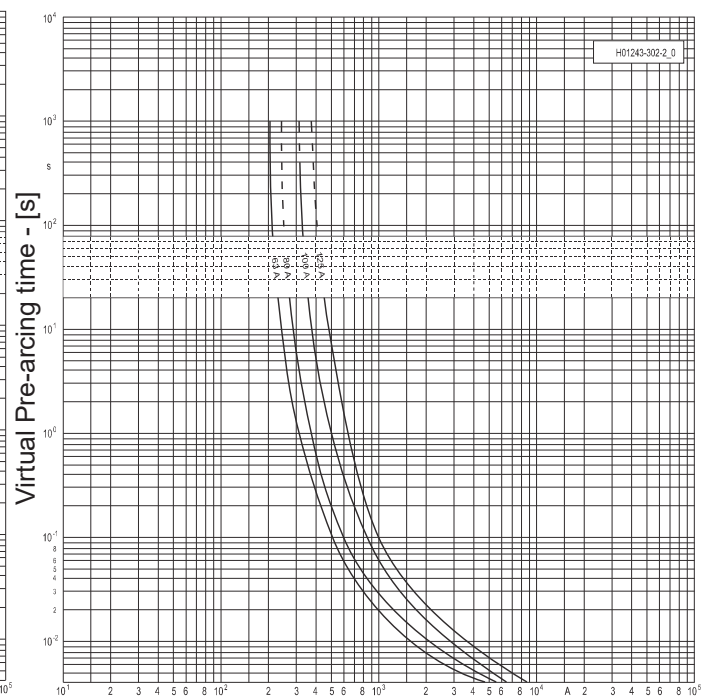
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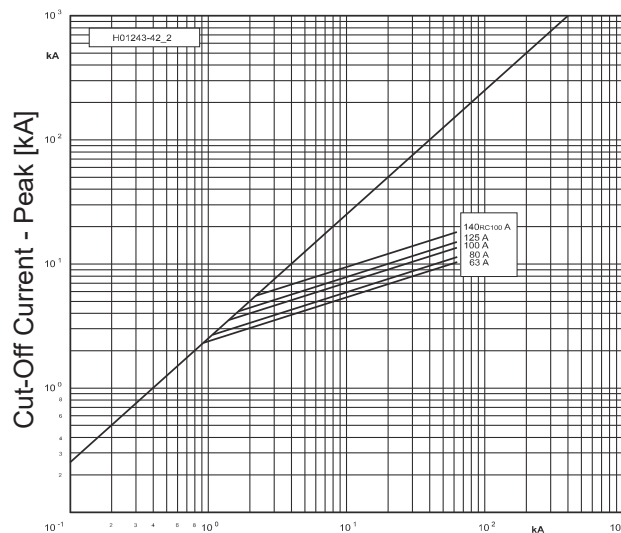
portal: www.siballc.net
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HHD-BSSK Time-Current Characteristics - Minimum Melting and Total Clearing
Cut-Off Current Diagram
Current-Limiting, Back-Up, 10/24kV, E = 442mm (63A - 140A)

3001443.63 - 80, 3002243.100 - 140

Minimum Melting**Total Clearing**

R.M.S. Prospective Current [A]

Cut-Off Current

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

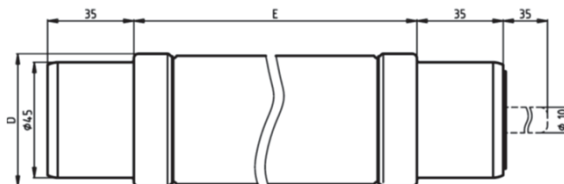
Full size graphs available upon request.

HHD-BSSK**20/36kV - Rated Voltage****Improved Cyclic Stability****(ICS® - ✓)****Size E=537mm****High Voltage Current-Limiting Fuses****For air & gas-insulated switchgear,
indoor and outdoor applications****Class****Back-Up****Standard(s)****DIN 43 625****IEC 60282-1****VDE 0670-4**

Rated current I_n [A]	Article Number	Diameter	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 @ 31.5kV [A ² s]	Power loss ¹ [W]	Cold resistance [mΩ]	
		D [in/mm]								
With 80N Striker and Temperature Limiter										
50	3002443.50 ✓	3.35 / 85	6.8	40	170	6 200	—	49 000	132	36
63	3002443.63 ✓	3.35 / 85	6.8	40	210	9 300	—	74 000	189	30
RC71 [†]	3002443.80 ✓	3.35 / 85	6.8	40	280	18 400	—	138 000	153 ¹	21

*Rated current per IEC 60282-1
RC = Please see page 11

[†] At rated current per IEC 60282-1

**Accessories**

Article Description	≤ 200A	> 200A	Page(s)
Fuse base, indoor	3100702	—	190
Fuse base, outdoor	3100801	—	191
Fuse clips	3100302.20	—	192
Fuse clips w/ connecting bar	3400201	—	
Microswitch assembly, * preferred	250mm - 3100116, 660mm - 3100110 & 3100210*, 900mm - 3100114, 1200mm - 3100117		189

SIBA LLC

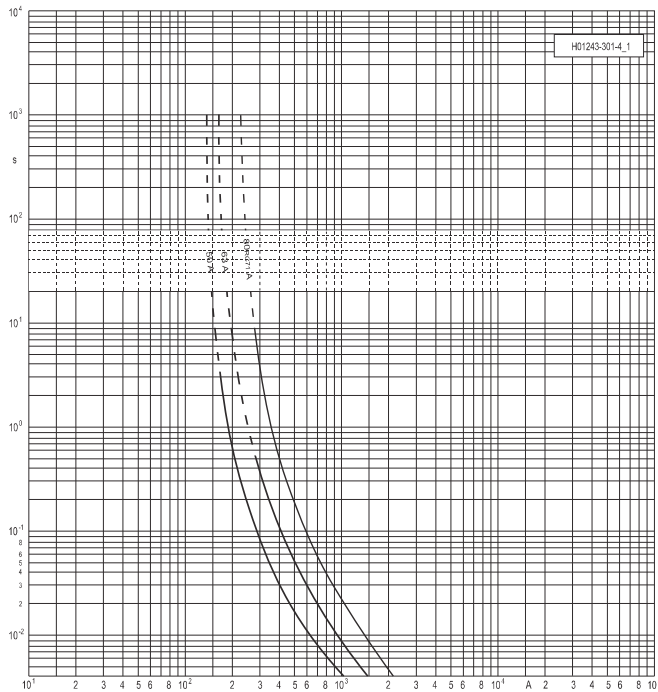
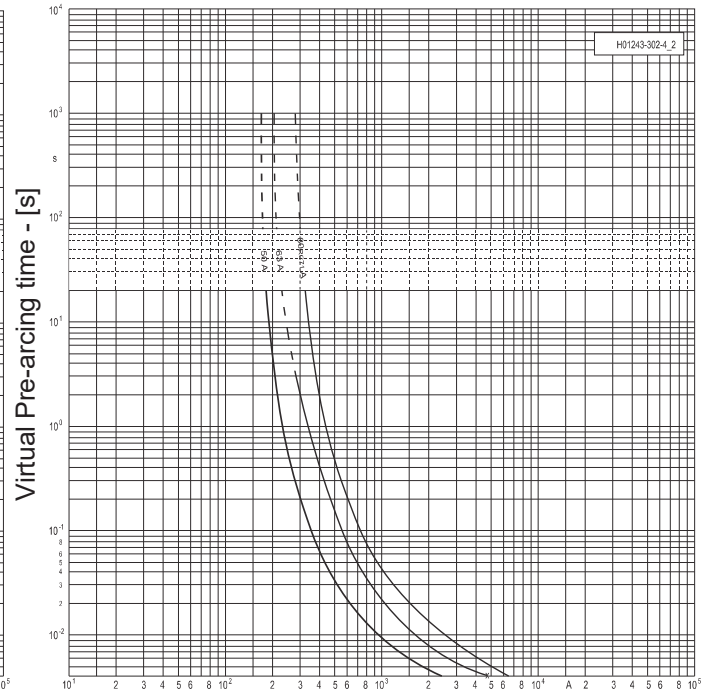
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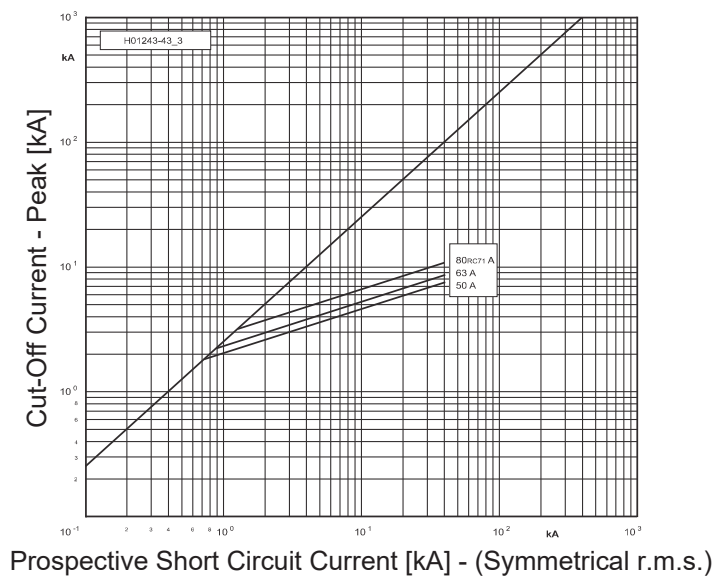
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HHD-BSSK Time-Current Characteristics - Minimum Melting and Total Clearing
Cut-Off Current Diagram
Current-Limiting, Back-Up, 20/36kV, E = 537mm (50A - 80A)

3002443.50 - 80

Minimum Melting**Total Clearing**

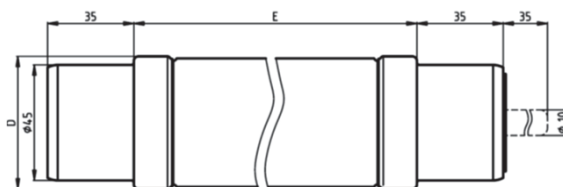
R.M.S. Prospective Current [A]

Cut-Off Current

Full size graphs available upon request.

HHD-BSSK**40.5kV - Rated Voltage****Improved Cyclic Stability****(ICS® - ✓)****Size E=537mm****High Voltage Current-Limiting Fuses**For air & gas-insulated switchgear,
indoor and outdoor applications**Class****Back-Up****Standard(s)****DIN 43 625****IEC 60282-1****VDE 0670-4**

Rated current I_n [A]	Article Number	Diameter	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 @ 35.3kV [A ² s]	Power loss ¹ [W]	Cold resistance [mΩ]	
		D [in/mm]								
With 80N Striker and Temperature Limiter										
RC71*	3034243.80 ✓	3.35 / 85	6.8	25	300	18 400	—	102 000	182 ¹	23
*Rated current per IEC 60282-1 RC = Please see page 11		¹ At rated current per IEC 60282-1								

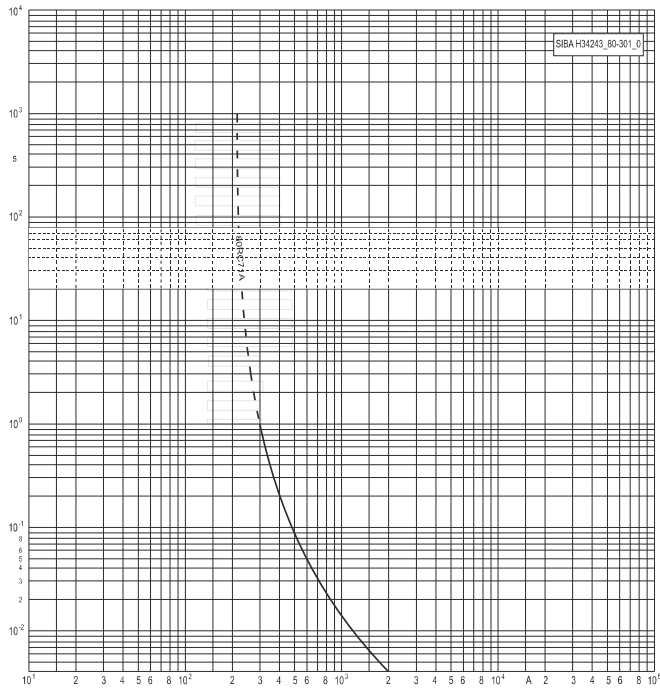
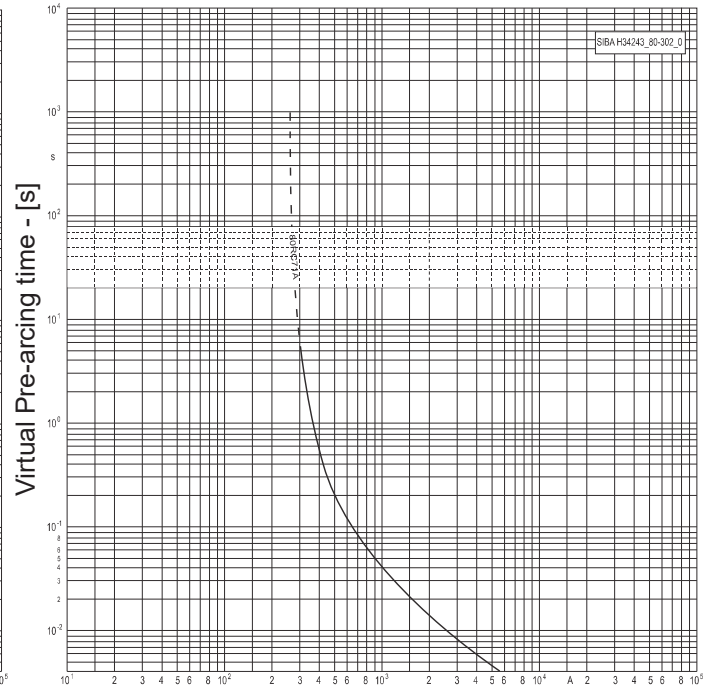
**Dimensions [mm]****Accessories**

Article Description	≤ 200A	> 200A	Page(s)
Fuse base, indoor	Contact SIBA	—	190
Fuse base, outdoor	3134001	—	191
Fuse clips	3100302.20	—	192
Fuse clips w/ connecting bar	3400201	—	
Microswitch assembly, * preferred	250mm - 3100116, 660mm - 3100110 & 3100210*, 900mm - 3100114, 1200mm - 3100117		189

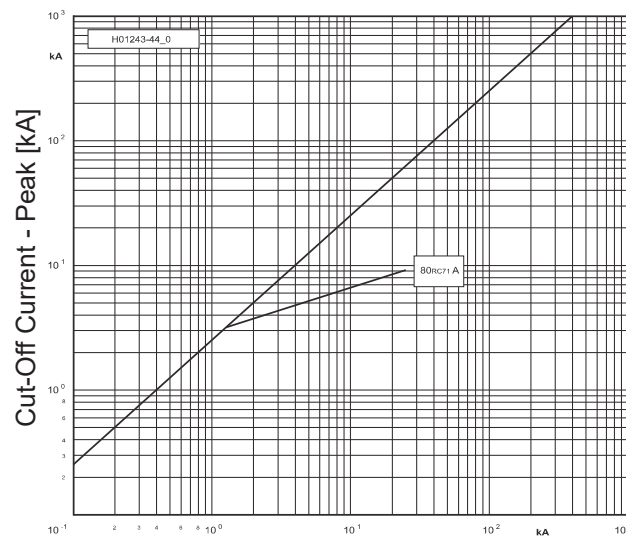
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HHD-BSSK Time-Current Characteristics - Minimum Melting and Total Clearing
Cut-Off Current Diagram
Current-Limiting, Back-Up, 40.5kV, E = 537mm (80A)

3034243.80

Minimum Melting**Total Clearing**

R.M.S. Prospective Current [A]

Cut-Off Current

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

Full size graphs available upon request.