



IKUS 高压高分断熔断器



I KUS

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IKUS 高压高分断熔断器 *IKUS HV HRC fuse-links*



为防止二次破坏，变压器需要由短路电流引起的温度和动态过载保护。金米勒高压高分断熔断器专为此种应用而设计，标准的熔断器特性与其他保护设备配合使用，因此无需复杂的短路计算。

金米勒IKUS高压高分断熔断器按照IEC/EN 60282-1和DIN VDE0670-402标准要求设计

To prevent secondary damage, transformers have to be protected against thermal and dynamical overload caused by short circuit currents. JEAN MÜLLER high-voltage high rupturing capacity fuse-links have particularly been designed for this application. The standardized fuse characteristics are co-ordinated with other protective devices. Consequently, there is no need for complex short-circuit calculations.

JEAN MÜLLER IKUS HV HRC fuse-links are designed according the international standard IEC/EN 60282-1 and national standard DIN VDE 0670-402.

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IKUS 高压高分断熔断器

IKUS HV HRC fuse-links

产品定义

高压高分断熔断器遵照国际标准IEC60282-1和德国标准DIN EN 60282-1 DIN VDE 0670-402

主要用于变压器短路后备式保护, 电压可达36kV。

金米勒IKUS高压熔断器装配有120牛和80牛两种规格的撞击器

实际应用

IKUS高压熔断器适用户内和户外两种情形, 额定电压范围从3.6kV到36kV, 主要用于短路电流引起的温度和动态过载保护。

由于执行DIN VDE标准0670-402, 按照变压器额定功率的熔断器选择会非常容易。如同低压侧的gTr熔断器选择那样, 选择可以自动完成。高压电机的保护可选, 启动电流启动时间和启动频率都需要考虑。

产品特性

金米勒高压熔断器提供高分断能力和超强的限流允通能量电流能力, 低导通压降和低功率损耗。高品质产品保障高可靠性, 高等级的材质确保产品长期使用技术特性的不变性。熔体采用抗老化处理材质。

Product definition

HV HRC fuse links conform to the international standard IEC 60282-1 respectively the german standards DIN EN 60282-1 and DIN VDE 0670-402.

They are available as back-up fuses for short circuit protection of transformers with voltages up to 36kV.

JEAN MÜLLER IKUS HV HRC fuse-links are equipped with strikers type "medium" optionally with 120N withstand force including thermo-release or 80N withstand force

Field of application

IKUS HV HRC fuse-links are equally suitable for indoor and outdoor applications. In the range of rated voltages 3,6kV up to 36kV they mainly cover the protection against thermal and dynamical overload of transformers at short-circuit currents. As the characteristics are defined according to DIN VDE 0670-402 an easy selection of the fuse-link for the respective transformer rated power is possible. While at the same time applying gTr fuse-links on the low voltage side, selectivity is guaranteed automatically.

Application as protection for high voltage motors is optional, the starting current, starting time and starting frequency have to be taken into account.

Product advantages

JEAN MÜLLER HV HRC fuse-links offer a high breaking capacity and an extensive limitation of short circuit current and let-through energy while providing low switching voltages and low power dissipation. High production quality guarantees reliability of the fuse-link. High-grade materials ensure consistent technical characteristics over a long period of time. Non-ageing materials are used for melting elements accordingly.



IKUS熔断器撞击器安装在“中间”执行IEC60282-1和DIN EN60282-1, 标准中的120N撞击器提供热释放保护功能在熔管内温度超出一定限制时。

熔断器结构确保产品在一定湿度或其它恶劣环境下正常使用无论是室内还是室外使用。

产品设计

尺寸执行标准IEC 60282-1和DIN EN 60282-2, 标准中的长度分别根据电压等级不同而不同也可根据要求设计专门尺寸的产品。

熔体采用高提纯纯银环状结构已及石英砂, 砂子用于熄弧。

绝缘管采用褐色的瓷管, 触头铜质表面镀银, 具有良好的导电特性, 防水抗压。

指示部件装有撞击器, 120牛的撞击器有热释放功能。

IKUS HV HRC are equipped with strikers corresponding with the type “medium” according to IEC 60282 respectively DIN EN 60282. IN addition the standard type 120N offers a thermo release function which protects from exceeding temperature limits when applied in fuse canisters of gas-insulated switchgear.

The construction of the fuse-link guarantees effective protection against humidity and other environmental conditions and therefore qualifies for use in indoor and outdoor applications.

Product design

Dimensions are conform with type I according IEC 60282-1 respectively DIN EN 60282-1. As standard the length assigned to the respective rated voltage will be offered, non-standard dimensions are available on request.

Melting elements are produced from fine silver and wound on porcelain star cores. Quartz sand of high purity is used as extinguishing agent. The isolating tube consists of brown varnished porcelain.

Contact caps are made of copper, their surface is galvanically silver plated and therefore provides ideal contact characteristics. They are flanged pressure and water resistant to the isolating tube.

For signalling the fuse tripping the fuse-links are equipped with a striker mechanism. The standard 120N striker additionally offers a thermo-release.

NH熔断器
NH fuse-links

光伏熔断器
Fuses for photovoltaic applications

半导体保护
熔断器
Fuse-links for semiconductor protection

NH熔断器底座
NH fuse-bases

D型熔断器
D-type fuses

IKUS
高压熔断器
IKUS HV HRC
fuse-links

附录
Appendix

高压后备式熔断器 High voltage HRC back-up fuse-links

产品优势 / *Convincing advantages*

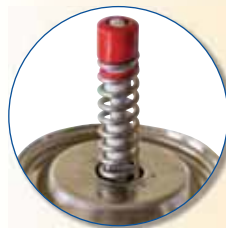


技术声明

- 超过30年的行业经验.
- 高分断能力.
- 高限流能力.
- 低导通压降.
- 低功耗.

选型简单

- 执行标准DIN VDE 0670-402
- 按照变压器额定容量选型, 选型简单 易行
- 低压侧gTr熔断器对应选型



热释放

- 标准120牛撞击器
- 纯粹状态指示额外的功能
- 避免过载情形下热破坏
- 避免熔管过热引起的热损伤

Proven technology

- Experience with this model range for over 30 years
- High breaking capacity
- High current limiting
- Low switching voltages
- Low power dissipation

Simple selection

- Defined characteristics according DIN VDE 0670-402
- Easy selection of rated current according to transformer rated power
- Selection guarantees selectivity with low voltage fuse-link gTr

Thermo-release

- Standard for striker 120N
- Additional feature besides pure signalling
- Prevents thermal destruction of the fuse-link during overload
- Prevents overheating of fuse canister



IKUS 高压熔断器3/7,2kV / IKUS HV HRC fuse-links 3/7,2kV

U _n	尺寸 Dimensions [mmxmm]	I _n [A]	最小分断电流 Min. breaking current I ^b [A]	耗散功率 Power dissipation P _n [W]	包装 PU	型号/Type	撞击器 / Striker		NH熔断器 NH fuse-links
							120N Thermoschutz (.../12N)	80N (.../8N)	
							订货号 Article-No.	订货号 Article-No.	
3/7,2kV	192x53	2	12	3,5	3	IKUS6-2/...	Q3140911	Q3140901	光伏熔断器 Fuses for photovoltaic applications
		4	20	8,9		IKUS6-4/...	Q3141211	Q3141201	
		6	25	10,0		IKUS6-6/...	Q3141411	Q3141401	
		10	46	6,6		IKUS6-10/...	Q3141711	Q3141701	
		16	60	11,8		IKUS6-16/...	Q3142211	Q3142201	
		20	80	15,3		IKUS6-20/...	Q3142411	Q3142401	
		25	105	22,1		IKUS6-25/...	Q3142611	Q3142601	
		32	130	30,1		IKUS6-32/...	Q3142911	Q3142901	
		40	178	36,9		IKUS6-40/...	Q3143411	Q3143401	
	192x68	50	220	25,9	3	IKUS6-50/...	Q3243511	Q3243501	NH熔断器底座 NH fuse-bases
		63	270	42,8		IKUS6-63/...	Q3243811	Q3243801	
		80	360	50,3		IKUS6-80/...	Q3244111	Q3244101	
	192x85	100	540	66,4	3	IKUS6-100/...	Q3344311	Q3344301	D型熔断器 D-type fuses
		125	610	101,0		IKUS6-125/...	Q3344611	Q3344601	
		160	810	135,0		IKUS6-160/...	Q3344911	Q3344901	
	442x53	200	1.260	78,0	1	IKUS6-200/...	Q2645253	-	
		250	1.260	100,0		IKUS6-250/...	Q2645653	-	

可提供其他尺寸 / Other dimensions on request

IKUS
高压熔断器
IKUS HV HRC
fuse-links

附录
Appendix

附件 / Accessories	技术参数 / Technical Data	特性 / Characteristics
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IKUS 高压熔断器6/12kV / IKUS HV HRC fuse-links 6/12kV

U _n	尺寸 Dimensions [mmxmm]	I _n [A]	最小分断电流 Min. breaking current I ^b [A]	耗散功率 Power dissipation P _n [W]	包装 PU	型号/Type	撞击器 / Striker	
							120N Thermoschutz (.../12N)	80N (.../8N)
							订货号 Article-No.	订货号 Article-No.
6/12kV	292x53	2	12	5,9	3	IKUS10-2/...	Q3150912	Q3150902
		4	20	15,1		IKUS10-4/...	Q3151212	Q3151202
		6	25	15,4		IKUS10-6/...	Q3151412	Q3151402
		10	46	10,4		IKUS10-10/...	Q3151712	Q3151702
		16	60	19,4		IKUS10-16/...	Q3152212	Q3152202
		20	80	23,2		IKUS10-20/...	Q3152412	Q3152402
		25	105	33,5		IKUS10-25/...	Q3152612	Q3152602
		32	130	45,6		IKUS10-32/...	Q3152912	Q3152902
		40	178	55,9		IKUS10-40/...	Q3153412	Q3153402
	292x68	50	220	43,6	3	IKUS10-50/...	Q3253512	Q3253502
		63	270	64,8		IKUS10-63/...	Q3253812	Q3253802
		80	360	77,3		IKUS10-80/...	Q3254112	Q3254102
	292x85	100	540	104,0	3	IKUS10-100/...	Q3354312	Q3354302
		125	610	152,0		IKUS10-125/...	Q3354612	Q3354602
		160	810	200,0		IKUS10-160/...	Q3354912	Q3354902

可提供其他尺寸 / Other dimensions on request

IKUS 高压熔断器10/17,5kV / IKUS HV HRC fuse-links 10/17,5kV

U _n	尺寸 Dimensions [mmxmm]	I _n [A]	最小分断电流 Min. breaking current I ^b [A]	耗散功率 Power dissipation P _n [W]	包装 PU	型号/Type	撞击器 / Striker	
							120N Thermoschutz (.../12N)	80N (.../8N)
							订货号 Article-No.	订货号 Article-No.
10/17,5kV	367x53	2	12	8,4	3	IKUS17-2/...	Q3160916	Q3160906
		4	20	21,6		IKUS17-4/...	Q3161216	Q3161206
		6	25	23,4		IKUS17-6/...	Q3161416	Q3161406
		10	46	15,6		IKUS17-10/...	Q3161716	Q3161706
		16	60	26,4		IKUS17-16/...	Q3162216	Q3162206
		20	80	37,9		IKUS17-20/...	Q3162416	Q3162406
		25	105	49,2		IKUS17-25/...	Q3162616	Q3162606
		32	130	65,7		IKUS17-32/...	Q3162916	Q3162906
		40	178	78,1		IKUS17-40/...	Q3163416	Q3163406
	367x68	50	220	65,2	3	IKUS17-50/...	Q3263516	Q3263506
		63	270	101,0		IKUS17-63/...	Q3263816	Q3263806
		80	360	122,0		IKUS17-80/...	Q3264116	Q3264106
	367x85	100	540	166,0	3	IKUS17-100/...	Q3364316	Q3364306
		125	610	219,0		IKUS17-125/...	Q3364616	Q3364606

可提供其他尺寸 / Other dimensions on request

IKUS 高压熔断器10/24kV / IKUS HV HRC fuse-links 6/12kV

U _n	尺寸 Dimensions [mmxmm]	I _n [A]	最小分断电流 Min. breaking current I ^b [A]	耗散功率 Power dissipation P _n [W]	包装 PU	型号/Type	撞击器 / Striker	
							120N Thermoschutz (.../12N)	80N (.../8N)
							订货号 Article-No.	订货号 Article-No.
10/24kV	442x53	2	12	11,8	3	IKUS20-2/...	Q3170913	Q3170903
		4	20	30,0		IKUS20-4/...	Q3171213	Q3171203
		6	25	28,9		IKUS20-6/...	Q3171413	Q3171403
		10	46	19,2		IKUS20-10/...	Q3171713	Q3171703
		16	60	32,6		IKUS20-16/...	Q3172213	Q3172203
		20	80	46,9		IKUS20-20/...	Q3172413	Q3172403
		25	105	60,7		IKUS20-25/...	Q3172613	Q3172603
		32	130	81,1		IKUS20-32/...	Q3172913	Q3172903
		40	178	96,4		IKUS20-40/...	Q3173413	Q3173403
	442x68	50	220	80,5	3	IKUS20-50/...	Q3273513	Q3273503
		63	270	125,0		IKUS20-63/...	Q3273813	Q3273803
		80	360	151,0		IKUS20-80/...	Q3274113	Q3274103
	442x85	100	540	228,0	3	IKUS20-100/...	Q3374313	Q3374303
		125	610	301,0		IKUS20-125/...	Q3374613	Q3374603

可提供其他尺寸 / Other dimensions on request

NH熔断器
NH fuse-links

光伏熔断器
Fuses for
photovoltaic
applications

半导体保护
熔断器
Fuse-links for
semiconductor
protection

IKUS 高压熔断器20/36kV / IKUS HV HRC fuse-links 20/36kV

U _n	尺寸 Dimensions [mmxmm]	I _n [A]	最小分断电流 Min. breaking current I ^b [A]	耗散功率 Power dissipation P _n [W]	包装 PU	型号/Type	撞击器 / Striker	
							120N Thermoschutz (.../12N)	80N (.../8N)
							订货号 Article-No.	订货号 Article-No.
20/36kV	537x53	2	12	17,4	3	IKUS30-2/...	Q3180915	Q3180905
		4	20	44,9		IKUS30-4/...	Q3181215	Q3181205
		6	25	40,5		IKUS30-6/...	Q3181415	Q3181405
		10	46	26,9		IKUS30-10/...	Q3181715	Q3181705
		16	60	45,6		IKUS30-16/...	Q3182215	Q3182205
		20	80	65,7		IKUS30-20/...	Q3182415	Q3182405
	537x68	25	105	84,9	3	IKUS30-25/...	Q3282615	Q3282605
		32	130	113,0		IKUS30-32/...	Q3282915	Q3282905
		40	178	134,0		IKUS30-40/...	Q3283415	Q3283405
	537x85	50	220	112,0	3	IKUS30-50/...	Q3383515	Q3383505
		63	270	175,0		IKUS30-63/...	Q3383815	Q3383805

可提供其他尺寸 / Other dimensions on request

NH熔断器底座
NH fuse-bases

D型熔断器
D-type fuses

IKUS
高压熔断器
IKUS HV HRC
fuse-links

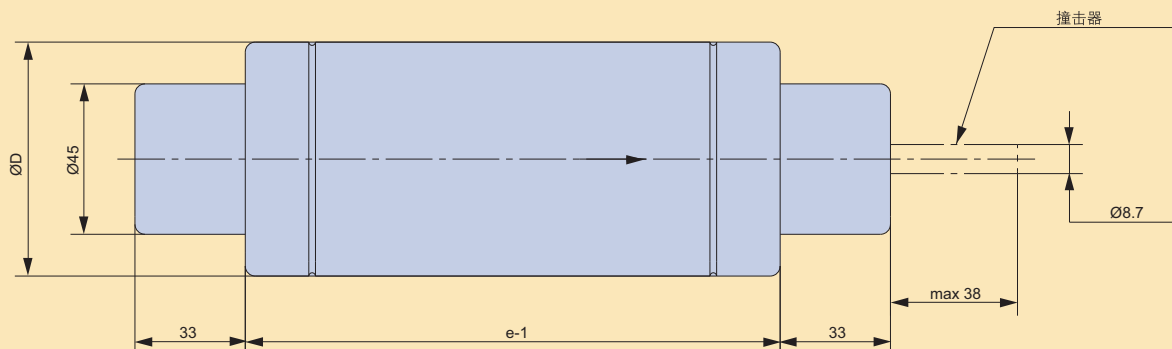
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技术参数 / Technical data

型号 / Type			IKUS6-...			
额定电压 / Rated voltage	U_n	kV	7,2			
允许最小操作电压 Permissible minimum operating voltage	-	kV	3			
额定电流 / Rated current	I_n	A	2-40	50-80	100-160	200-250
额定分断能力 / Rated breaking capacity	-	kA	50			63
等级 / Class	-	-	后备式 / Back-up			
标准 / Standards	-	-	IEC/EN 60282-1			
尺寸 / Dimensions	e	mm	192	192	192	442
	D		53	68	85	88
重量 / Weight	-	kg	1,1	1,7	2,7	5,8

型号 / Type			IKUS10-...		
额定电压 / Rated voltage	U_n	kV	12		
允许最小操作电压 Permissible minimum operating voltage	-	kV	6		
额定电流 / Rated current	I_n	A	2-40	50-80	100-160
额定分断能力 / Rated breaking capacity	-	kA	50		
等级 / Class	-	-	后备式 / Back-up		
标准 / Standards	-	-	IEC/EN 60282-1		
尺寸 / Dimensions	e	mm	292	292	292
	D		53	68	85
重量 / Weight	-	kg	1,6	2,8	4,0

型号 / Type			IKUS17-...		
额定电压 / Rated voltage	U_n	kV	17,5		
允许最小操作电压 Permissible minimum operating voltage	-	kV	10		
额定电流 / Rated current	I_n	A	2-40	50-80	100-125
额定分断能力 / Rated breaking capacity	-	kA	50		
等级 / Class	-	-	后备式 / Back-up		
标准 / Standards	-	-	IEC/EN 60282-1		
尺寸 / Dimensions	e	mm	367	367	367
	D		53	68	85
重量 / Weight	-	kg	1,9	3,1	4,6



技术参数 / *Technical data*

型号 / <i>Type</i>			IKUS20-...		
额定电压 / <i>Rated voltage</i>	U_n	kV	24		
允许最小操作电压 <i>Permissible minimum operating voltage</i>	-	kV	10		
额定电流 / <i>Rated current</i>	I_n	A	2-40	50-80	100-125
额定分断能力 / <i>Rated breaking capacity</i>	-	kA	50		
等级 / <i>Class</i>	-	-	后备式 / <i>Back-up</i>		
标准 / <i>Standards</i>	-	-	IEC/EN 60282-1		
尺寸 / <i>Dimensions</i>	e	mm	442	442	442
	D		53	68	85
重量 / <i>Weight</i>	-	kg	2,3	3,9	5,8

型号 / <i>Type</i>			IKUS30-...		
额定电压 / <i>Rated voltage</i>	U_n	kV	36		
允许最小操作电压 <i>Permissible minimum operating voltage</i>	-	kV	20		
额定电流 / <i>Rated current</i>	I_n	A	2-20	25-40	50-63
额定分断能力 / <i>Rated breaking capacity</i>	-	kA	40		
等级 / <i>Class</i>	-	-	后备式 / <i>Back-up</i>		
标准 / <i>Standards</i>	-	-	IEC/EN 60282-1		
尺寸 / <i>Dimensions</i>	e	mm	537	537	537
	D		53	68	85
重量 / <i>Weight</i>	-	kg	2,8	4,7	7,0

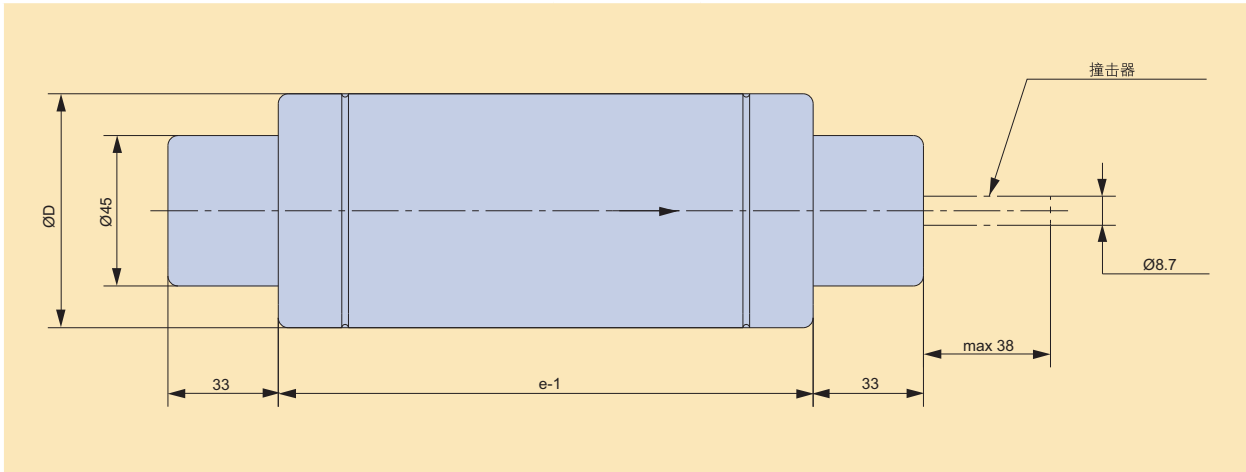
NH熔断器
NH fuse-links

光伏熔断器
Fuses for photovoltaic applications

半导体保护
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D-type fuses

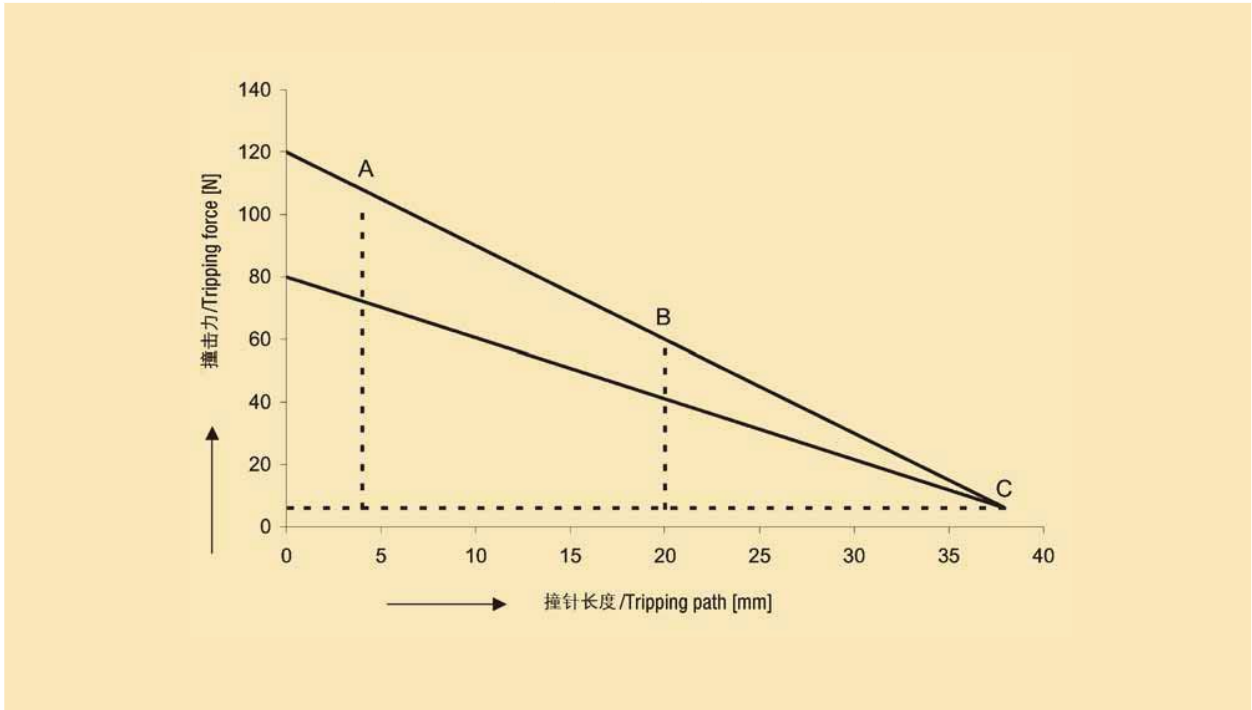


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IKUS HV HRC fuse-links

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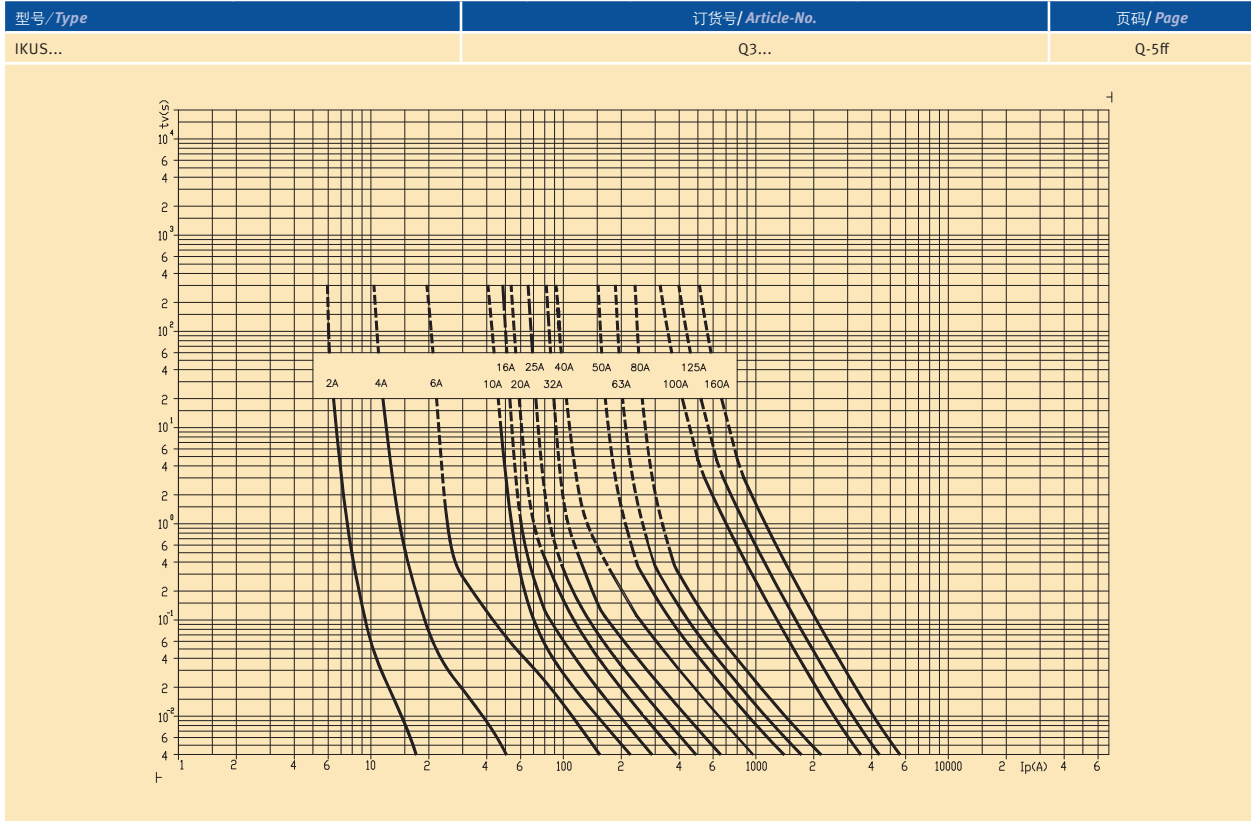
撞击器系统的技术参数 / *Technical Data striker system*

型号 / <i>Type</i>			.../12N	.../8N
撞击力 / <i>Withstand force</i>	-	N	120	80
IEC-型号 / <i>IEC-Type</i>	-	-	类型 / <i>Medium</i>	类型 / <i>Medium</i>
热保护 / <i>Thermo-release</i>	-	-	是 / <i>Yes</i>	否 / <i>No</i>



特性 / *Characteristics*

时间电流特性曲线 / *Time current characteristics*

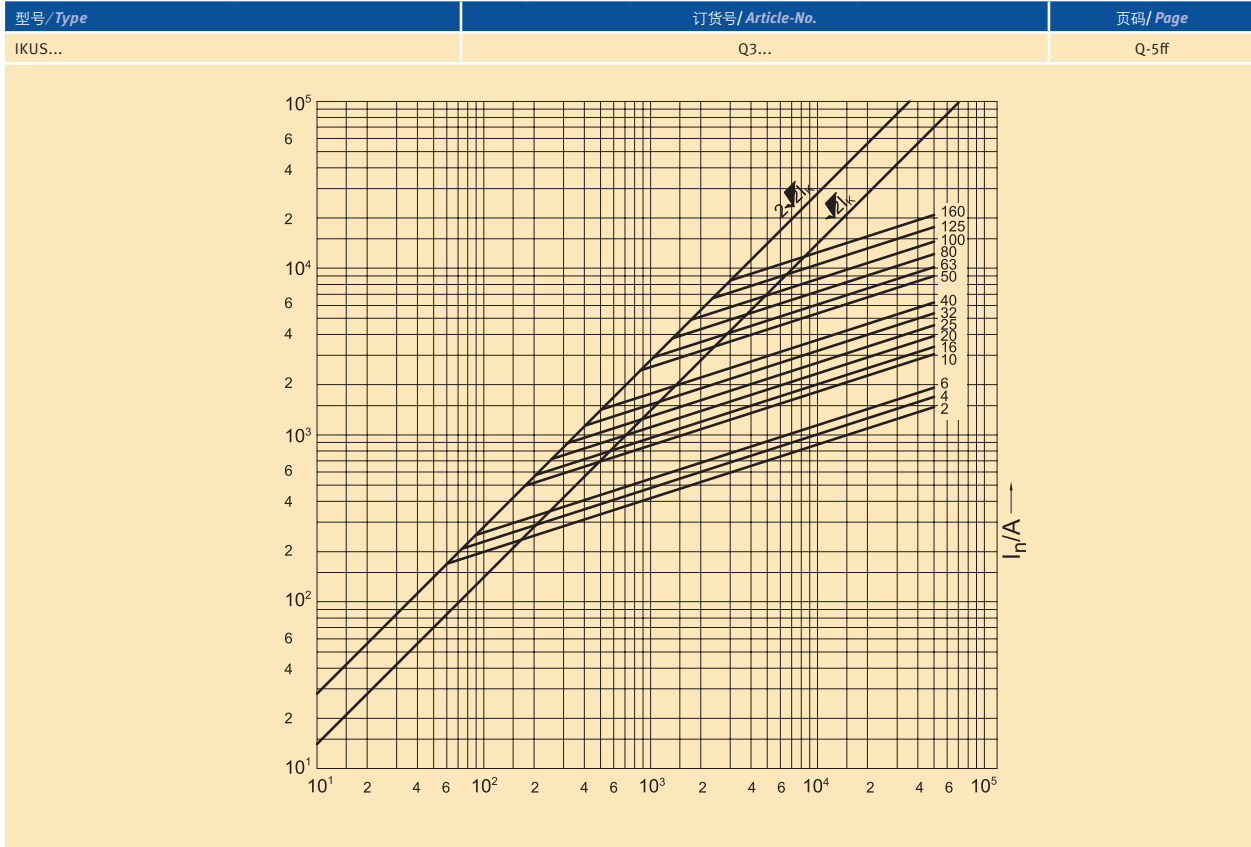


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光伏熔断器
Fuses for photovoltaic applications

半导体保护熔断器
Fuse-links for semiconductor protection

峰值允通电流 / *Peak let-through current chart*




NH熔断器底座
NH fuse-bases

D型熔断器
D-type fuses


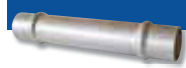

IKUS
高压熔断器
IKUS HV HRC fuse-links

附录
Appendix

高压熔断器底座附件 / Accessories for HV HRC fuse-bases

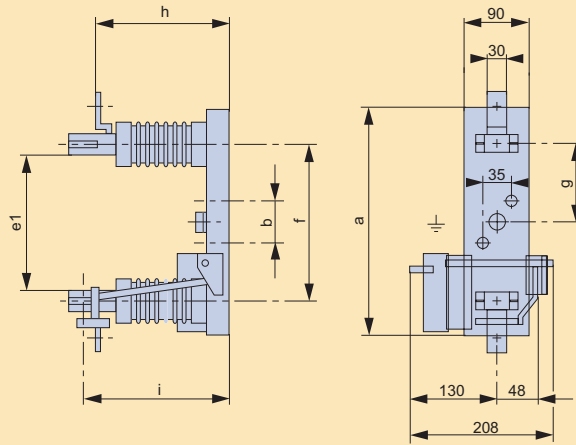
	极数 No. of poles	U _n	„e“ [mm]	包装 PU	型号 / Type	辅助开关 / Auxiliary switch		页码 Page
						无 / without (...-0)	有 / with (...-1)	
						订货号 Article-No.	订货号 Article-No.	
1	12	12	192	1	UH1-12/192...	Q9250100	Q9250101	Q-13
	12	12	292	1	UH1-12/292...	Q9350100	Q9350101	Q-13
	24	24	442	1	UH1-24/442...	Q9470100	Q9470101	Q-13
	36	36	537	1	UH1-36/537...	Q9580100	Q9580101	Q-13
3	12	12	192	1	UH3-12/192...	Q9250300	Q9250301	Q-13
	12	12	292	1	UH3-12/292...	Q9350300	Q9350301	Q-13
	24	24	442	1	UH3-24/442...	Q9470300	Q9470301	Q-13
	36	36	537	1	UH3-36/537...	Q9580300	Q9580301	Q-13

高压熔断器附件 / Accessories for HV HRC fuse-links

	描述 / Description	包装 PU	型号 / Type	订货号 Article -No.	页码 Page
HH扩展适配器 / HH extension adapter					
	扩展 / Extension 100mm - „e“: 192mm > 292mm	1	VR-IKUS6-10	Q8560010	Q-14
	扩展 / Extension 250mm - „e“: 192mm > 442mm	1	VR-IKUS6-20	Q8560011	Q-14
	扩展 / Extension 150mm - „e“: 292mm > 442mm	1	VR-IKUS10-20	Q8560012	Q-14
	扩展 / Extension 95mm - „e“: 442mm > 537mm	1	VR-IKUS20-30	Q8560016	Q-14
HH隔离刀片 / HH solid link					
	„e“ = 192mm	1	TM-IKUS6	Q8500012	Q-14
	„e“ = 292mm	1	TM-IKUS10	Q8500010	Q-14
	„e“ = 442mm	1	TM-IKUS20	Q8500011	Q-14
	„e“ = 537mm	1	TM-IKUS30	Q8500013	Q-14
测试熔断器 / Testing fuse					
	用于检查带有计时器和80N撞击力的安全负荷隔离开关。„e“ = 192mm, 对于其他尺寸使用延长尺寸VR-IKUS... / For testing the tripping of switch-fuse combinations with timer and 80N withstand force. „e“ = 192mm, for other sizes use extension adapter VR-IKUS...	1	PS-IKUS6	Q8084981	-

尺寸 / Dimensions

型号 / Type	订货号 / Article-No.	页码 / Page
UH1...	-	-



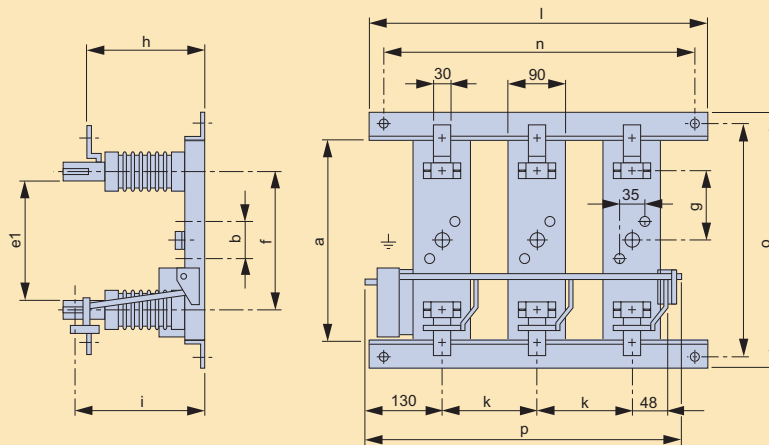
型号 / Type	Art.	e1	a	b	f	g	h	i
UH1-12/192...	Q92501...	193	318	55	224	112	184	209
UH1-12/292...	Q93501...	293	418	180	324	162	184	209
UH1-24/442...	Q94701...	443	568	300	474	237	264	289
UH1-36/537...	Q95801...	538	689	380	569	285	354	379

NH熔断器
NH fuse-links

光伏熔断器
Fuses for
photovoltaic
applications

半导体保护
熔断器
Fuse-links for
semiconductor
protection

型号 / Type	订货号 / Article-No.	页码 / Page
UH3...	-	-



型号 / Type	Art.	e1	k	a	b	f	g	h	i	l	m	n	o	p
UH3-12/192...	Q92503...	193	210	318	55	224	112	184	209	730	408	700	368	622
UH3-12/292...	Q93503...	293	210	418	180	324	162	184	209	730	508	700	468	622
UH3-24/442...	Q94703...	443	320	568	300	474	237	264	289	730	658	700	618	842
UH3-36/537...	Q95803...	538	400	689	380	569	285	354	379	890	779	860	739	1002

NH熔断器底座
NH fuse-bases

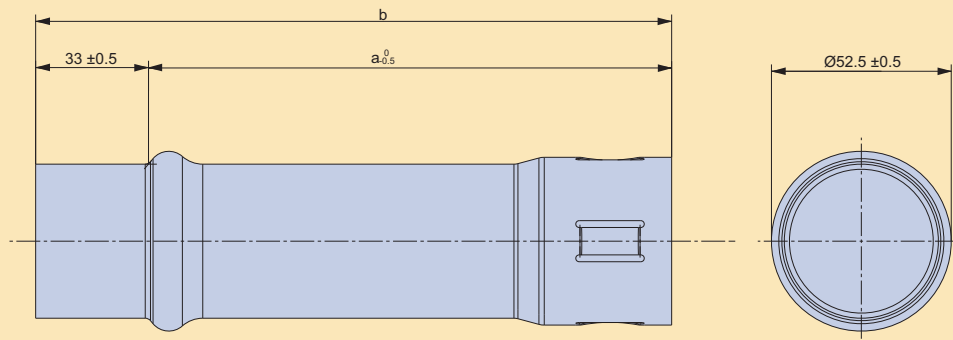
D型熔断器
D-type fuses

IKUS
高压熔断器
IKUS HV HRC
fuse-links

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Appendix

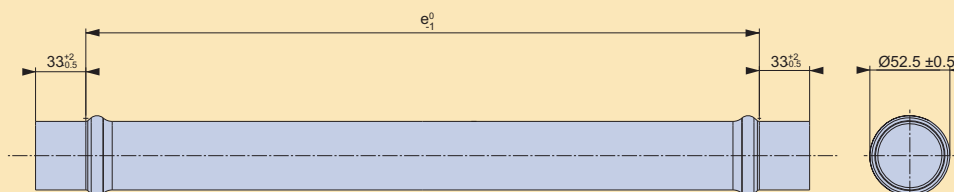
尺寸 / Dimensions

型号 / Type	订货号 / Article-No.	页码 / Page
VR-IKUS...	Q856...	-



型号 / Type	类型	a	b
VR-IKUS6-10/100mm	Q8560010	100	133
VR-IKUS6-20/250mm	Q8560011	250	283
VR-IKUS10-20/150mm	Q8560012	150	183
VR-IKUS20-30/95mm	Q8560016	95	128

型号 / Type	订货号 / Article-No.	页码 / Page
TM-IKUS...	Q850...	-



型号 / Type	类型	e
TM-IKUS10	Q8500010	292
TM-IKUS20	Q8500011	442
TM-IKUS6	Q8500012	192
TM-IKUS30	Q8500013	537

