

UKM32

系列塑料外壳式断路器

Series Moulded Case Circuit Breaker



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系列塑料外壳式断路器

Product Overview

产品概览

UKM32系列断路器用于低压配电系统和电动机的通断和保护。

The UKM32 series breakers are used for making, breaking, and the protection of low-voltage distribution systems and motors.

一般配电保护用: UKM32-160

UKM32-250

UKM32-630

UKM32-1250

For protection of power distribution:

电动机保护用: UKM32-160M

UKM32-250M

UKM32-630M

For motor protection

隔离开关:

UKM32-160NA

UKM32-250NA

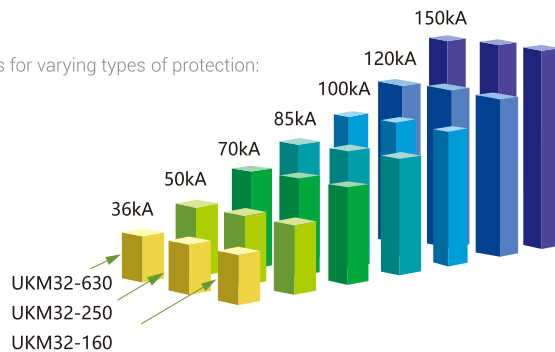
UKM32-630NA

Disconnecter:

对于每种型号断路器, 都有多种分断能力, 应对用户的各种保护需求:

Several breaking capacities exist for each model of circuit breaker, meeting the demands for varying types of protection:

- 标准型 -N ■ Standard type-N
- 高分断型 -H ■ High-breaking capacity type-H
- 限流型 -L ■ Current limiting type-L



对于每种型号的UKM32断路器, 有多个额定电流等级

For each UKM32 circuit breaker, several rated current levels are available.

型号 Type	额定电流(A) Rated current (A)											
UKM32-160	16	20	25	32	40	50	63	80	100	125	160	
UKM32-250	40	50	63	80	100	125	160	200	250	-	-	
UKM32-630	300	400	500	630	-	-	-	-	-	-	-	
UKM32-1250	800	1000	1250	-	-	-	-	-	-	-	-	

注:

UKM32-160仅热保护可调, 范围: $I_r=(0.8-1.0)I_n$

UKM32-250热磁保护均可调, 范围: $I_r=(0.8-1.0)I_n$, $I_i=(5-10)I_n$

UKM32-630同UKM32-250 电子式: $I_r(0.4-1.0)I_n$, $I_{sd}=(2-10)I_r$

UKM32-1250范围: $I_r=(0.4-1.0)I_n$, $I_{sd}=(1.5-10)I_n$

Note:

UKM32-160 is adjustable for thermal protection, range: $I_r=(0.8-1.0)I_n$

UKM32-250 is adjustable for thermal and magnetic protection, range:

$I_r=(0.8-1.0)I_n$, $I_i=(5-10)I_n$

UKM32-630 is equal to UKM32-250 Electronic Type: $I_r(0.4-1.0)I_n$, $I_{sd}=(2-10)I_r$

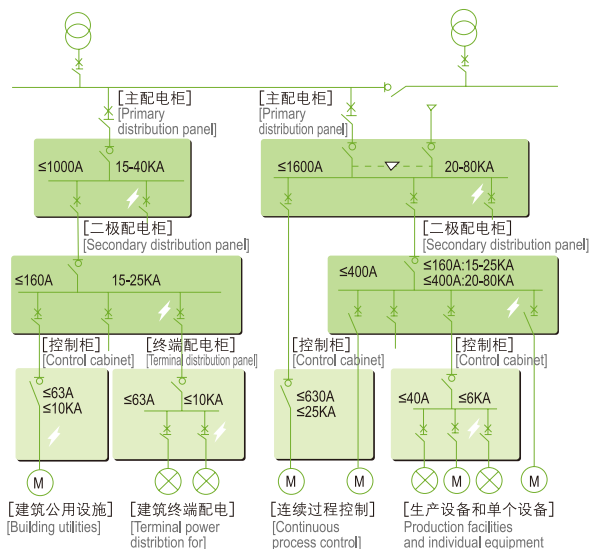
UKM32-1250 Range $I_r=(0.4-1.0)I_n$, $I_{sd}=(1.5-10)I_n$

一种与断路器尺寸相当的产品, 常用在用电设备和不同母线之前的联络与隔离;

不能切断短路电流, 也无保护功能, 可与熔断器组合使用。

A product equal to the size of the circuit breaker, commonly used in the connection and isolation between the power consumers and different busbars.

Cannot cut off the short-circuit current, has no protective functions, and may be used in conjunction with the fuse.



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Product Features

产品特点

轴承式转轴:

Rotating shaft with bearing

创新性的轴承式转轴给断路器带来

The innovative rotating shaft with bearing allows the circuit breaker to:

更小的主拉簧力和机构摩擦力

Have a smaller main tension spring force and mechanism friction force

更少的机构磨损

Have lower mechanism abrasion

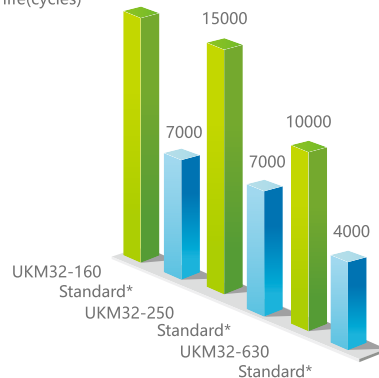
更快更灵活的机构动作

Contain a more quick and flexible mechanism action

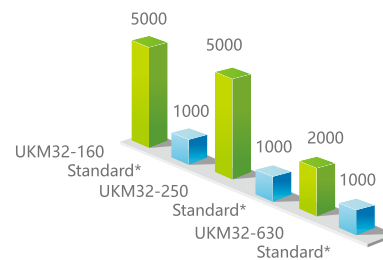
一款经久耐用的高性能断路器更长的产品使用寿命，可降低用户更换断路器的频率和成本

A kind of durable, high-performance circuit breaker, the user will be able to reduce frequency and cost of changing the circuit breaker due to its longer life span.

机械寿命(次)
Mechanical life(cycles)



电寿命(次)
Electric life(cycles)



Snap Action

快速动作

利用气吹原理加快断路器的分断速度，提高断路器的分断能力以及限流能力。

每一型号的UKM32断路器均有多种不同的分断能力，用户可根据实际需求选择一款最适合的。

每一型号的UKM32断路器最大分断能力均已达到150kA。

Gas-Flushing principle

气吹原理

在断路器分断短路电流是地，会产生大量高温高压的气体。

UKM32设计了专门的气体流动通道，将产生的大量气体引入快速动作机构，利用气体的压力使辅助机构动作，整个分断时间可以控制了2ms 以内，大大降低了短路电流对其它电气元件器件及母线的损害。

The breaking speed of the circuit breaker is accelerated (breaking time within 2 ms), and its breaking capacity and current capacity are improved by utilizing a gas-flushing principle.

There are several different breaking capacities for each model of the UKM32 circuit breaker. There fore, users may choose the most optimal bteaker as per theri actual demands.

The maximum breaking capacity of each model of UKM32 circuit breaker is up to 150 kA.

When the circuit breaker breaks the short circuit current, large quantities of high-temperature and high-pressure gas will be generated.

A special gas flow path is designed for the UKM32 breaker, which will lead gas being generated to the fast-actuating mechanism. The auxiliary mechanism is activated by the gas pressure, and the entire breaking time may be controlled within 2 ms. Consequently, the damages caused by the short circuit current to other electric components and the busbar are greatly decreased.



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Current-limiting Capacity

限流能力

限流就是限制回路中的短路电流的上升，使用UKM32系列产品保护回路中，短路电流的峰值以及It能量，都会远远小于预期值。

U型静触头设计

独特的U型静触头可实现分断技术：

所谓预分断技术是指当短路电流流过触头系统时，U型静触头和动触头上产生的电动力是相互排斥的。短路电流越大，相斥的电动力也越大，且与短路电流同时产生。在脱扣动作发生前，电动力就可以使动静触头分离，通过拉长电弧增大它们之间等效电阻，达到抑制短路电流上升的目的。

双断路设计

瞬间电弧电阻增大，电弧电压增大，电路上升率急剧下降，增加预分断技术的限流作用；

降低短路电流对设备和线路的危害和损耗，提高安全性，并可使用级联，降低下级保护设备的成本。

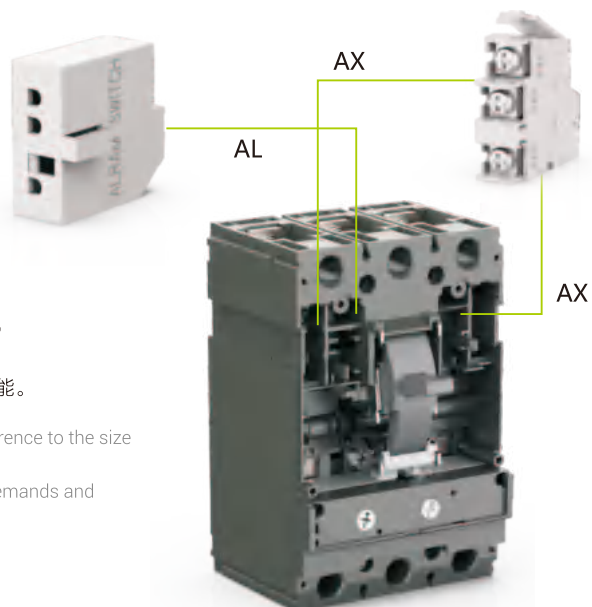
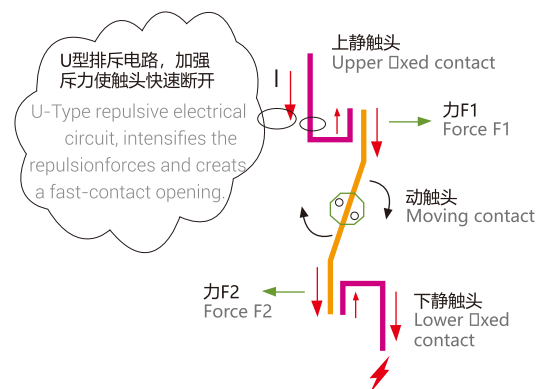
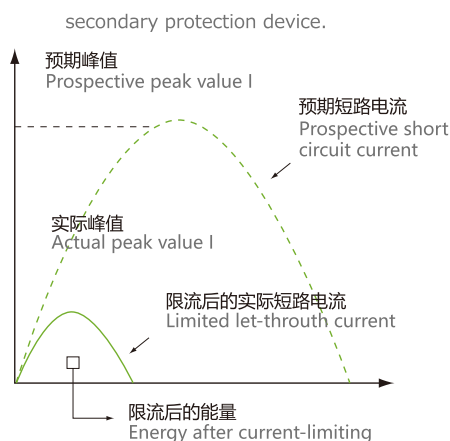
Current limiting means the limiting increase of the short circuit current in a circuit. In a circuit protected by the UKM32 product series, both the peak value and energy $2t$ of the short circuit current generated are far less than expected.

U-Type fixed contact design

The pre-breaking technique may be realised by means of a unique U-Type fixed contact. The pre-breaking technique refers to that of the electrodynamic force generated through the U-Type fixed contact and that which occurs on moving contact system. The higher the short circuit current, the bigger the repulsive electrodynamic forces they generate simultaneously. Prior to releasing, the electrodynamic repulsive forces may separate the moving contact from the fixed contact, and the equivalent resistance between these two contacts is increased by stretching the electrical arc. Therefore, the current limiting function of the pre-breaking technique is enhanced because of increase in instantaneous arc resistance and arc voltage and a fast drop in the current increase rate. Reduces the damage and loss of equipment and the power lines caused by a short circuit current, improves the safety, and cuts down on the cost of a secondary protection device.

Double break design

The current-limiting function of the pre-breaking technique is enhanced because of increase in instantaneous arc resistance and arc voltage and a fast drop in the current increase rate. Reduces the damage and loss of equipment and the power lines caused by a short circuit current, improves the safety, and cuts down on the cost of a secondary protection device.



Modularized Design

模块化设计

断路器：对于同一壳架的断路器，无论分断能力和额定电流的大小，尺寸是唯一的；

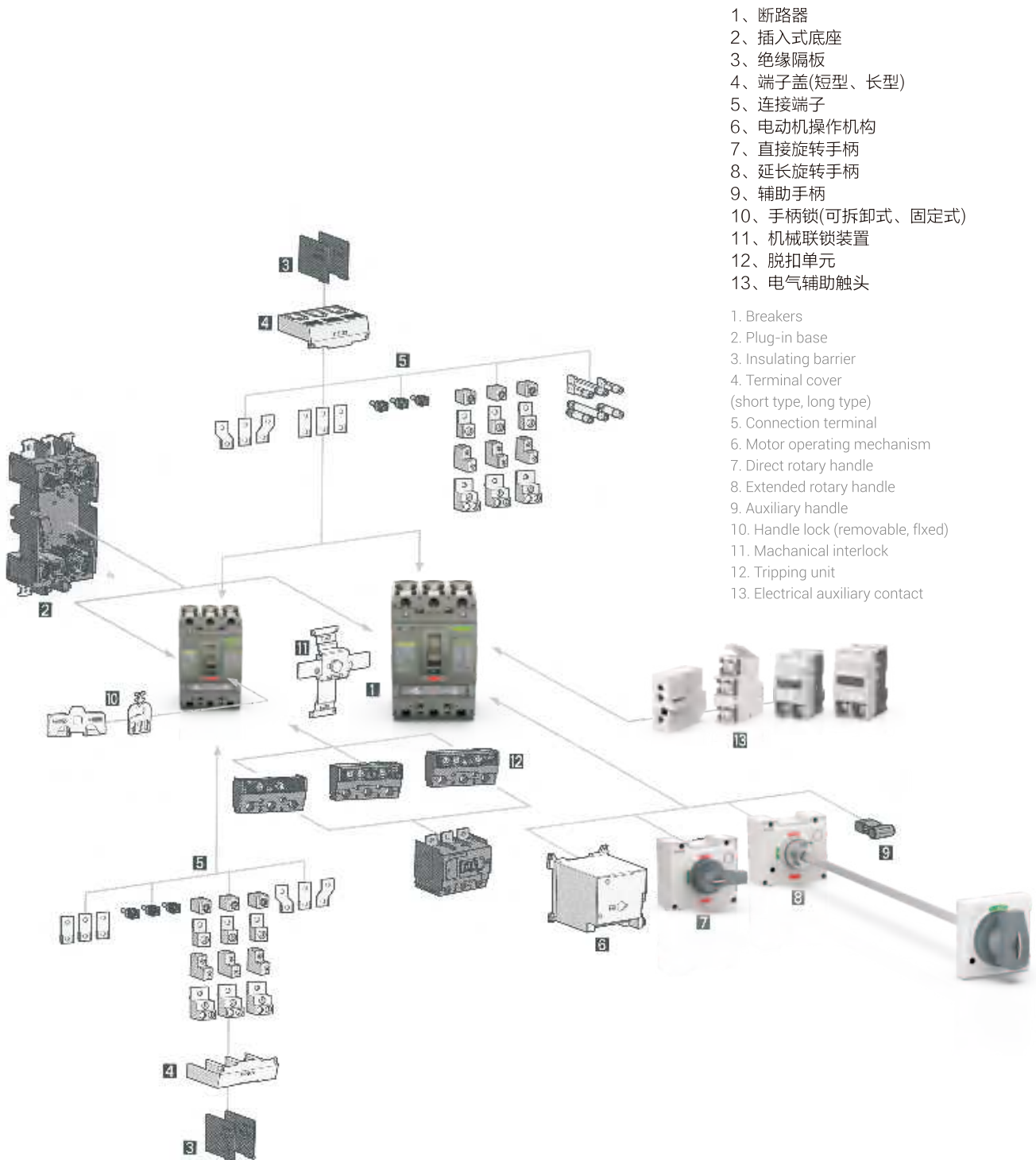
附件：用户可以根据自己的需求任意的选择附件，扩展断路器的功能。

Circuit breakers: For circuit breakers within the same frame, without reference to the size of the breaking capacity and rated current, the dimension is the same.

Accessories: The users may select accessories randomly as per their demands and expand the functions of the circuit breakers.

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系列塑料外壳式断路器



- 1、断路器
- 2、插入式底座
- 3、绝缘隔板
- 4、端子盖(短型、长型)
- 5、连接端子
- 6、电动机操作机构
- 7、直接旋转手柄
- 8、延长旋转手柄
- 9、辅助手柄
- 10、手柄锁(可拆卸式、固定式)
- 11、机械联锁装置
- 12、脱扣单元
- 13、电气辅助触头

1. Breakers
2. Plug-in base
3. Insulating barrier
4. Terminal cover (short type, long type)
5. Connection terminal
6. Motor operating mechanism
7. Direct rotary handle
8. Extended rotary handle
9. Auxiliary handle
10. Handle lock (removable, fixed)
11. Mechanical interlock
12. Tripping unit
13. Electrical auxiliary contact

Advanced Magnetic Field Analysis

先进的电磁场分析

断路器触头系统内的电磁场的分布对其性能有着直接的影响，但是，电磁场不具备直观性。

UKM32在设计时采用了全面的仿真技术与试验结合的方法，保证了电磁场的合理分布，赋予断路器优异的性能。

For a circuit breaker, the distribution of the magnetic field in its contact system has a direct impact on its performance, but the magnetic field is not visible.

The UKM32 is designed by combining the overall simulation technique with several tests, which enables a rational circuit breaker with excellent performance capabilities.

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保证在短路故障发生瞬间产生强大的电动斥力；

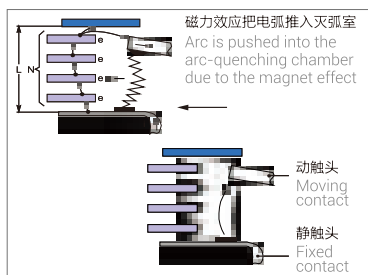
Ensuring that a strong electrodynamic repulsion force will be generated as soon as a short-circuit occurs;

保护电弧在瞬间被吹入灭弧室；

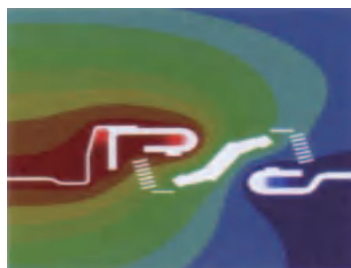
Ensuring that the electrical arc can be blown into the arcing chamber instantly;

保护在断路器正常工作时动静触头之前有足够的压力，两者之间的接触电阻足够小。

Ensuring that there will be sufficient pressures between the moving contact and the fixed one when the circuit breaker functions normally and the contact resistance between the two contacts is sufficiently low.



磁吹灭弧原理
Magnetic-blow quenching principle



触头的电磁场分布
Distribution of magnetic field between contacts

Optimized Dimensions

优化的尺寸

为使用户安装上更加方便，节省空间，UKM32断路器在设计和生产中“浓缩”体积，减轻重量，并保证其依旧拥有优异的性能。

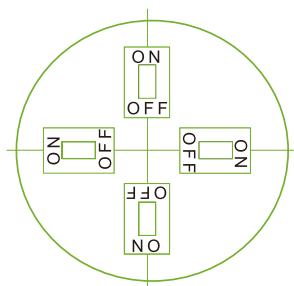
For easier intallation and more space-saving capabilities, the volume of the UKM32 circuit breaker is designed and manufactured in a compact size and light weight, while its excellent performance is maintained.

加之巧妙的零飞弧设计，更有效的节省用户的安装空间

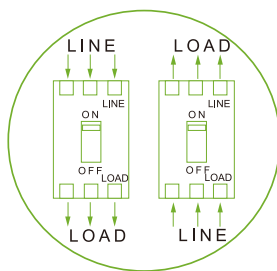
Additionally, the required mounting space is further reduced effectively due to its innovative zero flashover design.

多种安装及进线方式，尊重不同的安装习惯

Several ways for mounting and the introduction of incoming lines allow for better mounting by adapting to different installation practices.



安装方式
Mounting direction



进线方式
Power supply from the top or bottom



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Environmentally-friendly

对环境友好

设计/生产
Design/Manufacturing

UKM32自身不含有毒或有害物质，生产加工过程按ISO14001要求进行。

The UKM32 does not contain any noxious or hazardous substances, and its manufacturing and processing processes are performed in accordance with the requirements of the ISO14001.

配送
Distribution

在配送过程中采用环保材料

Environmentally-protective materials are used in the course of distribution.

运行
Operation

运行时发热量低，功耗小，对周边环境影响小

Low temperature rise, low power consumption, and minor influences to the surrounding environment during operation.

回收
Recycling

80%以上的材料在使用寿命结束后可回收再利用

Over 80% of its component materials can be recycled and reused at the end of its service life.

Standards and Certifications

标准和认证

国际标准 International standards	国家标准 Chinese standards
产品标准 Product standards	
IEC 60947-1 (总则 General provisions)	GB/T 14048.1
IEC 60947-2 (断路器 Circuit breakers)	GB/T 14048.2
IEC 60947-3 (开关、隔离 Switches, isolation)	GB/T 14048.3
IEC 60947-4-1 (电动机启动器 Motor starters)	GB/T 14048.4
极限环境试验标准 Extreme environmental test standards	
IEC 60068-2-1 (低温 Low temperature)	GB/T 2423.1
IEC 60068-2-2 (干热 Dry heat)	GB/T 2423.2
IEC 60068-2-11 (盐雾试验 Salty mist test)	GB/T 2423.17
IEC 60068-2-30 (湿热 Moist heat)	GB/T 2423.4

Operating conditions

运行条件

温度

可以最低-20，最高+75的温度条件下使用；

如需要工作低于-5或者高于+40的环境下，可按温度补偿系数表使用，或请联系我们。

Temperature

May be used in temperatures from -20 C-75°C;

If the necessary working temperature is below -5°C or above +40°C, use it according to those specified in the table of temperature compensation coefficient or please contact for additional information.

海拔

正常工作的安装地点的海拔高不超过2000m；

如需要安装在海拔2000m的情况下，可按海拔温度高度系数降容表使用，或请联系我们。

Altitude

Normally, the altitude above sea level at its installation site must not exceed 2,000m;

If having to install at an altitude above 2,000m use it according to those specified in the table of altitude-derating factors or please contact us if you have any questions and / or concerns.

湿度

正常工作时需满足：

在周围空气温度为+40的条件下，大气相对湿度不能超过50%，如温度较低，则可以在较高温度条件使用；

最湿月份的月平均相对湿度为90%；

需要考虑产品表面产生的凝露对产品性能的影响。

Humidity

The following conditions must be met during normal operation;

If the ambient air temperature is +40°C, the atmospheric relative humidity can not exceed 50%. If the temperature is lower, use it under the conditions for a higher degree of humidity.

The monthly mean relative humidity needs to be below 90% in the dampest month.

The effects of condensation on the product surface impacts its performance and needs to be taken into consideration.

产品已按照GB2423.4/IEC 60068-2-30做了严格的试验

Every product been tested by strictly following the requirements given by IEC60068-2-30/GB2423.4

污染等级

3级

Pollution Level

Level III

UKM32 Series Moulded Case Circuit Breaker

系列塑料外壳式断路器

Technology Specification

技术参数

UKM32系列热磁式一般配电保护用

UKM32 series thermal magnetic type for general power distribution protection

配电用塑料壳断路器 MCCBs for power distribution		160			250			630			1250		
													
壳架等级额定电流 Inm(A)		160			250			630			1250		
额定电流(A) In Rated current, In		16,20,25,32,40,50 63,80,100,125,160			40,50,63,80 100,125,160,200,250			300,400,500,630			800,1000,1250		
极数 No. of poles		2*,3,4			2*,3,4			2*,3,4			3,4		
额定操作电压(V) Ue Rated operational voltage (V) Ue		AC		690			690			690			600
		DC		500			500			500			500
额定冲击耐受电压(kV) Uimp Rated impulse withstand voltage (kV), Uimp		8			8			8			8		
额定绝缘电压 Ui Rated insulation voltage, Ui		750			750			750			750		
额定极限短路分断能力 Icu Rated ultimate short-circuit breaking capacity(V), Icu		N H L			N H L			N H L			N		
AC 50/60Hz(kA)		220/240V		85 100 200			100 120 200			100 120 200			85
		380/415V		50 85 150			50 85 150			65 85 150			50
		440/460V		50 70 130			50 70 130			65 85 130			50
		480/500V		30 50 65			42 65 85			42 65 85			40
		660/690V		5 8 10			10 15 20			10 20 35			20
2极串联 DC(2 poles in series)		250V		42 65 100			50 85 100			50 85 100			20
2极串联 DC(2 poles in series)		500V		42 65 100			50 85 100			50 85 100			20
额定运行短路分断能力(%Icu)Ics Rated service breaking capacity(%Icu), Ics		100%			100%			100%			100%	75%	
额定短路接通能力(kA) Icm Rated short-circuit making capacity(kA), Icm AC 50/60Hz		220/240V		187 220 440			220 264 440			220 264 440			63
		380/415V		105 187 330			105 187 330			143 187 330			37.5
		440/460V		105 154 286			105 154 286			143 187 286			37.5
		480/500V		63 105 143			88 143 187			88 143 187			30
		660/690V		8 14 17			17 30 40			17 40 74			22.5
使用类别 Use category		A			A			A			A		
隔离功能 Isolation		●			●			●			●		
执行标准 Implementation of standards		IEC60947-2			IEC60947-2			IEC60947-2			IEC60947-2		
脱扣单元(脱扣器) Trip unit(release)													
热-磁式 Thermal-Magnetic													
热磁固定式 FTU Thermal-Magnetic fixed		●			●			●			●		
热可调, 磁固定式 FMU Heat adjustable magnetic fixed		●			●			●			●		
热磁可调式 ATU Thermal magnetic adjustable		-			●			●			●		
磁脱扣式 MTU** Magnetic tripping type		●			●			●			●		
电子式 Electronic													
LSI LSI ETS**		-			●			●			●		
LSI LSI ETM**		-			●			●			●		
连接方式 Connection		固定式 Fixed		板前接线 Pre-wiring board		●			●			●	
				板后接线 Rear connection		●			●			●	
		插入式 Plug-in		板前接线 Pre-wiring board		●			●			●	
				板后接线 Rear connection		●			●			●	
机械寿命(操作次数) Mechanical life(Number of operations)		25000			25000			20000			10000		
电气寿命在415VAC Electrical life in 415VAC		10000			10000			6000			5000		
基本尺寸(mm) Basic dimensions(mm) W x H x D		3-极 3P		90 x 140 x 86			105 x 160 x 86			142 x 260 x 110			327 x 199 x 235
(板前接线kg) (Front connection)		4-极 4P		120 x 140 x 86			140 x 160 x 86			188 x 260 x 110			327 x 199 x 235
重量(板前接线kg) Weight (pre-wiring board)		3-极 3P		1.5			2			5.4			12
		4-极 4P		1.8			2.6			7.2			15.6

适用于配有FTU, FMU, ATU的MCCB
Suitable for with FTU, FMU, the ATU MCCB

2极MCCB和3极的外壳尺寸相同
2-pole MCCB and 3-pole housing the same size

适用于3极塑壳断路器
For 3-pole molded case circuit breaker

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Technology Specification

技术参数

UKM32系列热磁式电动机保护用

UKM32 series thermal magnetic type for motor protection

电动机保护用塑壳断路器 Moulded case circuit breaker for motor protection		160			250			630				
												
壳架等级额定电流 Inm(A)		160			250			630				
额定电流(A) In Rated current, In		16,20,25,32,40,50 63,80,100,125,160			40,50,63,80 100,125,160,200,250			300,400,500,630				
极数 No. of poles		3			3			3				
额定操作电压(V) Ue Rated operational voltage (V) Ue		AC		690			690			690		
		DC		500			500			500		
额定冲击耐受电压(kV) Uimp Rated impulse withstand voltage (kV), Uimp		8			8			8				
额定绝缘电压 Ui Rated insulation voltage, Ui		750			750			750				
额定极限短路分断能力 Icu Rated ultimate short-circuit breaking capacity(V), Icu		N	H	L	N	H	L	N	H	L		
AC 50/60Hz(kA)		220/240V	85	100	200	100	120	200	100	120	200	
		380/415V	50	85	150	50	85	150	65	85	150	
		440/460V	50	70	130	50	70	130	65	85	130	
		480/500V	30	50	65	42	65	85	42	65	85	
		660/690V	5	8	10	10	15	20	10	20	35	
额定运行短路分断能力(%Icu)Ics Rated service breaking capacity(%Icu), Ics		100%	100%	100%	100%	100%	100%	100%	100%	100%		
额定短路接通能力(kA) Icm Rated short-circuit making capacity(kA), Icm												
AC 50/60Hz		220/240V	187	220	440	220	264	440	220	264	440	
		380/415V	105	187	330	105	187	330	143	187	330	
		440/460V	105	154	286	105	154	286	143	187	286	
		480/500V	63	105	143	88	143	187	88	143	187	
		660/690V	8	14	17	17	30	40	17	40	74	
使用类别 Use category		A			A			A				
隔离功能 Isolation		●			●			●				
执行标准 Implementation of standards		IEC60947-2			IEC60947-2			IEC60947-2				
脱扣单元(脱扣器) Trip unit(release)												
仅磁脱扣 MTU Only magnetic trip		●			●			●				
热-磁式 Thermal-Magnetic												
热磁固定式 FTU Thermal-Magnetic fixed		●			●			●				
热可调, 磁固定式 FMU Heat adjustable magnetic fixed		●			●			●				
热磁可调式 ATU Thermal magnetic adjustable		-			●			●				
磁脱扣式 MTU** Magnetic tripping type		●			●			●				
电子式 Electronic												
LSI		LSI		ETM		-		●		●		
连接方式 Connection		固定式 Fixed		板前接线 Pre-wiring board		●		●		●		
				板后接线 Rear connection		●		●		●		
		插入式 Plug-in		板前接线 Pre-wiring board		●		●		●		
				板后接线 Rear connection		●		●		●		
机械寿命(操作次数) Mechanical life(Number of operations)		25000			25000			20000				
电气寿命在415VAC Electrical life in 415VAC		10000			10000			6000				
基本尺寸(mm) Basic dimensions(mm) W x H x D 3-极 3P		90 x 140 x 86			105 x 160 x 86			142 x 260 x 110				
重量(板前接线kg) Weight (pre-wiring board) 3-极 3P		1.5			2			5.4				

UKM32 Series Moulded Case Circuit Breaker

系列塑料外壳式断路器

Technology Specification

技术参数

UKM32 系列电子式一般配电保护用

UKM32 for protection of power distribution

配电用塑壳断路器 MCCBs for power distribution		250ETS	630ETS	1250ETS
				
壳架等级额定电流 Inm(A)		250	630	1250
额定电流(A) In Rated current, In		40,100,160,250	300,400,500,630	800,1000,1250
极数 No. of poles		3,4	3,4	3,4
额定操作电压(V) Ue Rated operational voltage (V) Ue		750	750	750
额定冲击耐受电压(kV) Uimp Rated impulse withstand voltage (kV), Uimp		8	8	8
额定绝缘电压 Ui Rated insulation voltage, Ui		750	750	750
额定极限短路分断能力 Icu Rated ultimate short-circuit breaking capacity(V), Icu		N	N	N
AC 50/60Hz(kA)	220/240V	100	100	85
	380/415V	50	65	50
	440/460V	50	65	50
	480/500V	42	42	40
	660/690V	10	10	30
额定运行短路分断能力(%Icu)Ics Rated service breaking capacity(%Icu), Ics		100%	100%	75%
额定短路接通能力(kA) Icm AC 50/60Hz Rated short-circuit making capacity(kA), Icm	220/240V	220	220	63
	380/415V	105	143	37.5
	440/460V	105	143	37.5
	480/500V	88	88	30
	660/690V	17	17	22.5
使用类别 Use category		A	A	B
隔离功能 Isolation		●	●	●
执行标准 Implementation of standards		IEC60947-2	IEC60947-2	IEC60947-2
脱扣单元 (脱扣器) Trip unit(release)				
电子式 Electronic				
● LSI		● LSI	ETS**	●
● LSI		● LSI	ETS**	●
● LSI		● LSI	ETS**	●
连接方式 Connection	固定式 Fixed	板前接线 Pre-wiring board	●	●
		板后接线 Rear connection	●	●
	插入式 Plug-in	板前接线 Pre-wiring board	●	●
		板后接线 Rear connection	●	●
机械寿命(操作次数) Mechanical life(Number of operations)		25000	20000	
电气寿命在415VAC Electrical life in 415VAC		10000	6000	
基本尺寸(mm) Basic dimensions(mm) W x H x D		3-极 3P 105 x 160 x 86	142 x 260 x 86	327 x 199 x 235
板前接线(mm) Pre-wiring board(mm)		4-极 4P 140 x 160 x 86	188 x 160 x 86	327 x 265 x 235
重量(板前接线kg) Weight (pre-wiring board)		3-极 3P 2	5.4	12
		4-极 4P 2.6	7.2	15.6

UKM32 Series Moulded Case Circuit Breaker

系列塑料外壳式断路器

Technology Specification

技术参数

UKM32NA系列隔离开关
UKM32NA Disconnector

隔离开关 MCCBs for power distribution		160NA	250NA	630NA	
					
壳架等级额定电流 $I_{nm}(A)$		160	250	630	
约定发热电流(A) I_{th} Conventional free air thermal current		160	250	630	
极数 No. of poles		3,4	3,4	3,4	
额定操作电压(V) U_e Rated operational voltage (V) U_e	AC	690	690	690	
	DC	500	500	500	
额定操作电流 I_e Rated operational current, I_e		160	250	630	
额定冲击耐受电压(kV) U_{imp} Rated impulse withstand voltage (kV), U_{imp}		8	8	8	
额定绝缘电压(V) U_i Rated insulation voltage(V), U_i		750	750	750	
额定短路接通能力(KV peak) I_{cm} Rated short-circuit making capacity(KV peak), I_{cm}		3.1	4.98	8.5	
额定短路耐受电流(A rms) I_{cw} Rated short-circuit withstand current(A rms), I_{cw}	1s	2200	3500	6300	
	3s	2200	3500	6300	
	20s	960	1350	2320	
绝缘性能 Isolation behavior		●	●	●	
脱扣器 Trip unit(release)		●	●	●	
隔离开关(DSU) Disconnector unit(DSU)					
接线 Connection	固定式 Fixed	板前接线 Front-connection	●	●	●
		板后接线 Rear-connection	●	●	●
	插入式 Plug-in	板前接线 Front-connection	●	●	●
		板后接线 Rear-connection	●	●	●
机械寿命(操作次数) Mechanical life (Number of operations)		25000	25000	20000	
电气寿命在415VAC(操作次数) Electrical life in 415VAC (Number of operations)		10000	1000	6000	
基本尺寸 长x高x深(mm) Basic dimensions WxHxD (mm)	3-极 3P	90 x 140 x 86	105 x 160 x 86	140 x 260 x 110	
	板前接线 Front connection	4-极 4P	120 x 140 x 86	140 x 160 x 86	186.5 x 260 x 110
重量(kg) Weight (kg)	3-极 3P	1.5	2	5.4	
	板前接线 Front connection	4-极 4P	1.8	2.6	7.2
参考标准 Reference standard		IEC60947-3	IEC60947-3	IEC60947-3	

隔离开关与断路器不同没有约定保证装置。其外尺寸、接线系列以及附件与应的断路器相同。安装标准要求逆流保护。但由于其优质磁脱扣器, UKM32NA-160Y, UKM32NA-630DSU有自我保护功能。

The switch-disconnectors are different from the circuit-breakers in the absence of the conventional protection unit. They keep the overall dimensions, connection systems and accessories unchanged from the corresponding circuit-breakers. Installation standards require upstream protection. However, than UKM32 to their high-set magnetic release, UKM32NA-160, UKM32NA-630 DSU are self protected.

UKM32 Series Moulded Case Circuit Breaker

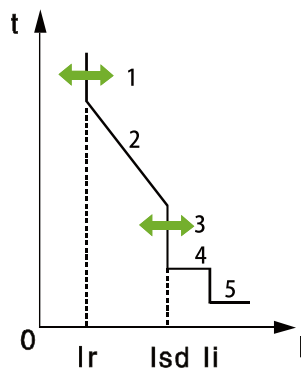
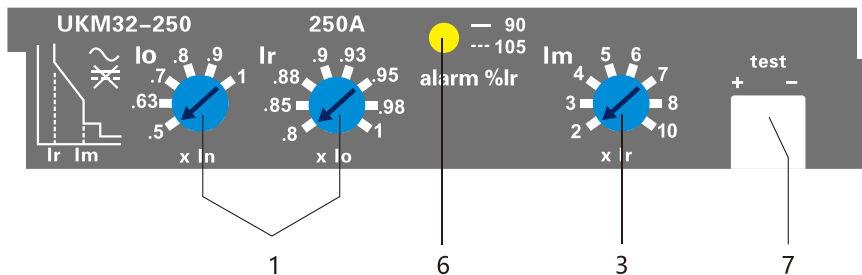
系列塑料外壳式断路器

UKM32-250 Circuit Breaker Can Be Equipped With Electronic Release STK23SE

UKM32-250断路器可装电子脱扣器STK23SE

STK22SE电子式脱扣器特性

STK22SE Electronic Release Characteristics



- 1、长延时保护整定值
- 2、长延时保护延时时间
- 3、短路短延时保护整定值
- 4、短路短延时保护延时时间
- 5、短路瞬时保护
- 6、预警指示灯
- 7、测试灯
- 8、运行指示灯

1. Long delay protection setting value
2. Long delay protection delay time
3. Short circuit short delay protection setting value
4. Short circuit short delay protection delay time
5. Short circuit instantaneous protection
6. Warning indicator
7. Test light
8. Running indicator

保护

LT过载保护 (长延时) r可调 (1)

ST短路短延时电流保护

Isd动作值可调

具有固定的短延时时间 (4)

INST短路瞬时电流保护动作值(5)固定

Protect

LT overload protection (long delay) r adjustable (1)

ST short-circuit short-time delay current protection

Isd action value adjustable

With a defined short delay time (4)

INST short-circuit instantaneous current protection action value (5) fixed

指示

过载指示(6)

工作电流大于90%Ir时, 指示灯长亮

工作电流大于105%Ir时, 指示灯闪烁

Indication

Overload indication (6)

When the working current is greater than 90%Ir, the indicator light is on

When the working current is greater than 105%Ir, the indicator light flashes

测试

测试孔(7), 可接16-20V直流电源, 检查断路器是否正常脱扣。

Test

The test hole (7) can be connected to 16-20V DC power supply to check whether the circuit breaker trips normally.

UKM32 Series Moulded Case Circuit Breaker

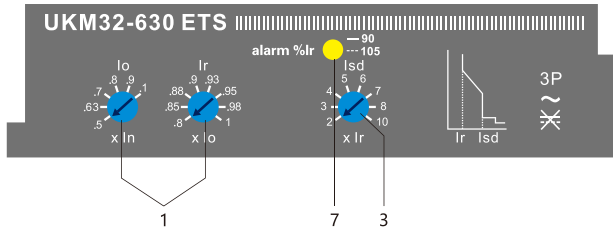
系列塑料外壳式断路器

UKM32-400-630 Circuit Breaker Can Be Equipped With Electronic Release STK23SE

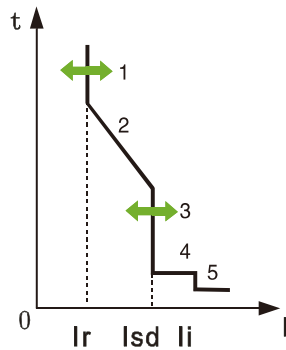
UKM32-400 ~ 630断路器可装电子脱扣器STK23SE

STK23SE电子式脱扣器特性

STK23SE Electronic Release Characteristics



- 1、长延时保护整定值
- 2、长延时保护延时时间
- 3、短路短延时保护整定值
- 4、短路短延时保护延时时间
- 5、短路瞬时保护整定值



保护

保护功能通过整定旋钮来设定。

过载保护

过载长延时保护的门限值可调，脱扣延时时间固定：

粗调（0.5-1，6点可调）

细调（0.8-1，8点可调）

Overload protection

The threshold value of overload long-delay protection is adjustable, and the tripping delay time is fixed:

Coarse adjustment (0.5-1, 6 points adjustable)

Fine tuning (0.8-1, 8 points adjustable)

短路保护

短路短延时的电流整定值可调，脱扣延时时间固定

短路瞬时保护电流整定值固定

Short circuit protection

The current setting value of short-circuit short-time delay is adjustable, and the tripping delay time is fixed

Short-circuit instantaneous protection current setting value is fixed

4极保护

标准4极断路器，中性线保护通过3档来设定，

其中4P3d(无中性线保护)

4P3d+N/2(中性线保护动作值为0.5Ir)，

4P4d(中性线保护动作值为Ir)

4 pole protection

Standard 4-pole circuit breaker, neutral protection is set by 3 gears, of which 4P3d (without neutral protection)

4P3d+N/2 (the action value of neutral line protection is 0.5Ir),

4P4d (the action value of neutral line protection is Ir)

指示

过载指示(7):

大于90%Ir时，LED灯亮

大于105%Ir时，LED闪烁

Indication

Overload indication (7)

When more than 90%Ir, the LED light is on

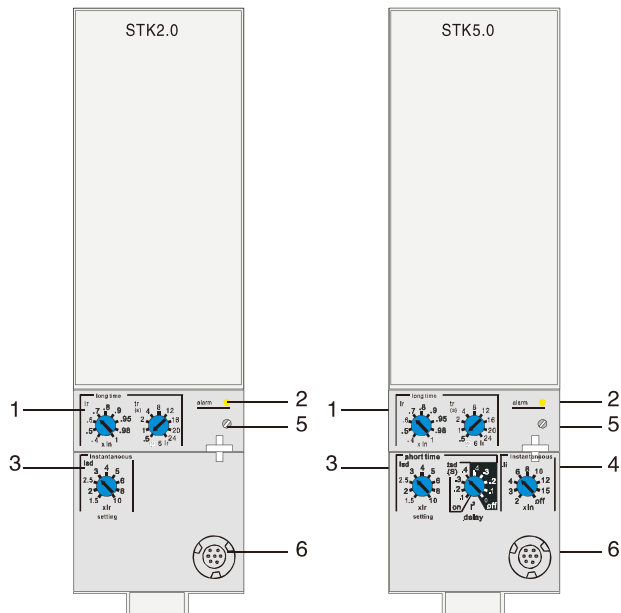
When greater than 105%Ir, the LED flashes

UKM32 Series Moulded Case Circuit Breaker

系列塑料外壳式断路器

UKM32-1250ET STK2.0/5.0 release

UKM32-1250ET STK2.0/5.0脱扣器

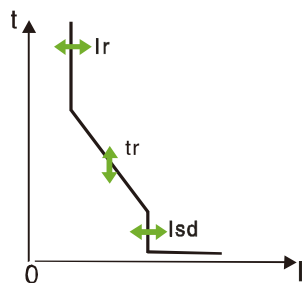


- 1、过载保护(长延时)电流整定和脱扣延时时间整定
- 2、过载信号(LED)
- 3、短路短延时电流整定和短延时时间整定
- 4、短路瞬时电流整定
- 5、长延时整定模块固定螺钉
- 6、测试灯

1. Overload protection (long delay) current setting and trip delay time setting
2. Overload signal (LED)
3. Short circuit short delay current setting and short delay time setting
4. Short-circuit instantaneous current setting
5. Long-time delay setting module fixing screws
6. Test light

STK2.0和5.0控制单元保护电源电路
STK5.0提供短路短延时的时间选择性

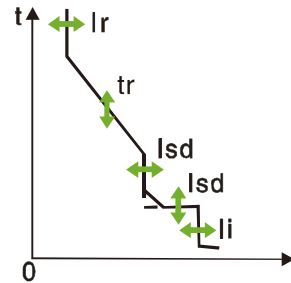
STK2.0 and 5.0 control unit protection power circuit
STK5.0 provides time selectivity of short circuit and short delay



STK2.0电子脱扣器
STK2.0 Electronic release

注：STK2.0电子脱扣器短路短延时延时时间因定不可调。

Note: The STK2.0 electronic release has short-circuit short-time delay, and the delay time is fixed and cannot be adjusted.



STK5.0电子脱扣器
STK5.0 Electronic release

保护

保护阈值和延时时间全用调节旋钮来整定
提供标准长延时整定模块

Protection

The protection threshold and delay time are all set with the adjustment knob
Standard long delay tuning module available

过载保护

热记忆：在脱扣之前和脱扣之后的热积累

Overload protection

Thermal memory: thermal accumulation before and after tripping

指示

过载指示通过面板上的报警LED来实现。
当电流超过长延时整定阈值时LED点亮

Indication

Overload indication is achieved through the alarm LED on the panel.
LED lights up when the current exceeds the long-time setting threshold

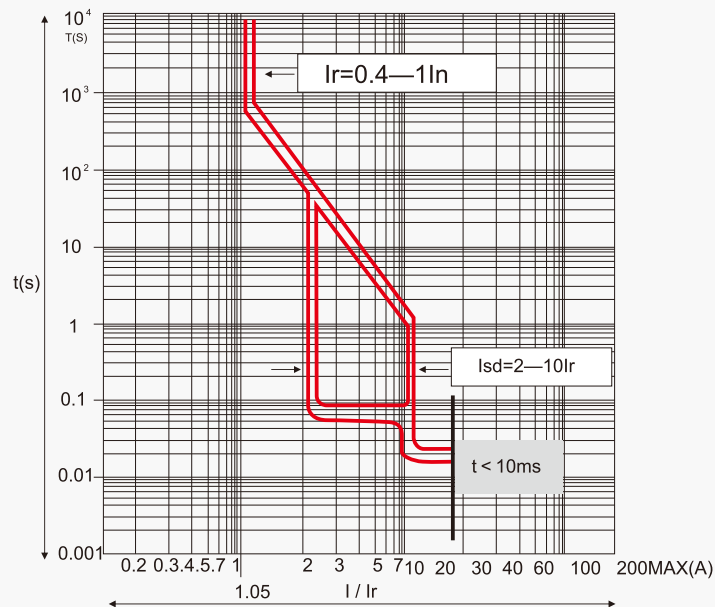
UKM32 Series Moulded Case Circuit Breaker

系列塑料外壳式断路器

脱扣机构 Trip mechanism	STK22SE			
额定值(A) I_n Rating (A) I_n	40	100	160	250
断路器 Breaker	UKM32-250	■	■	■
正常运行指示 Normal operation indication	-	-	-	-
过载保护(长延时) Overload protection (long delay)				
脱扣电流整定值(A) $I_r=I_n \times \dots$ Trip current setting value (A)	0.4...1 可调节(48点) Adjustable (48 points)			
脱扣时间(S) t Tripping time (S) (min...max)	at $1.5 \times I_r$ 90...180 at $6 \times I_r$ 5...7.5 at $7.2 \times I_r$ 3.2...5.0			
短路电流保护(短延时) Short circuit current protection (short time delay)				
脱扣电流整定值(A) $I_{sd}=I_r \times \dots$ Trip current setting value (A)	2...10			
精确度 $\pm 15\%$ Accuracy $\pm 15\%$	可调节(8点) Adjustable (8 points)			
延时时间(ms) Delay time (ms)	固定 Fixed			
最大过流脱扣时间 总断路时间 Maximum overcurrent trip time Total break time	≤ 60 ≤ 100			
短路电流保护(瞬时) Short-circuit current protection (instantaneous)				
脱扣电流值(A) I_i 不可调 Tripping current value (A) I_i is not adjustable	11 I_n			
中性线保护 Neutral protection				
中性线无保护 4P 3d Neutral is unprotected	无保护 Unprotected			

UKM32-250ETS Overcurrent Protection Characteristic Curve

UKM32-250ETS过电流保护特性曲线

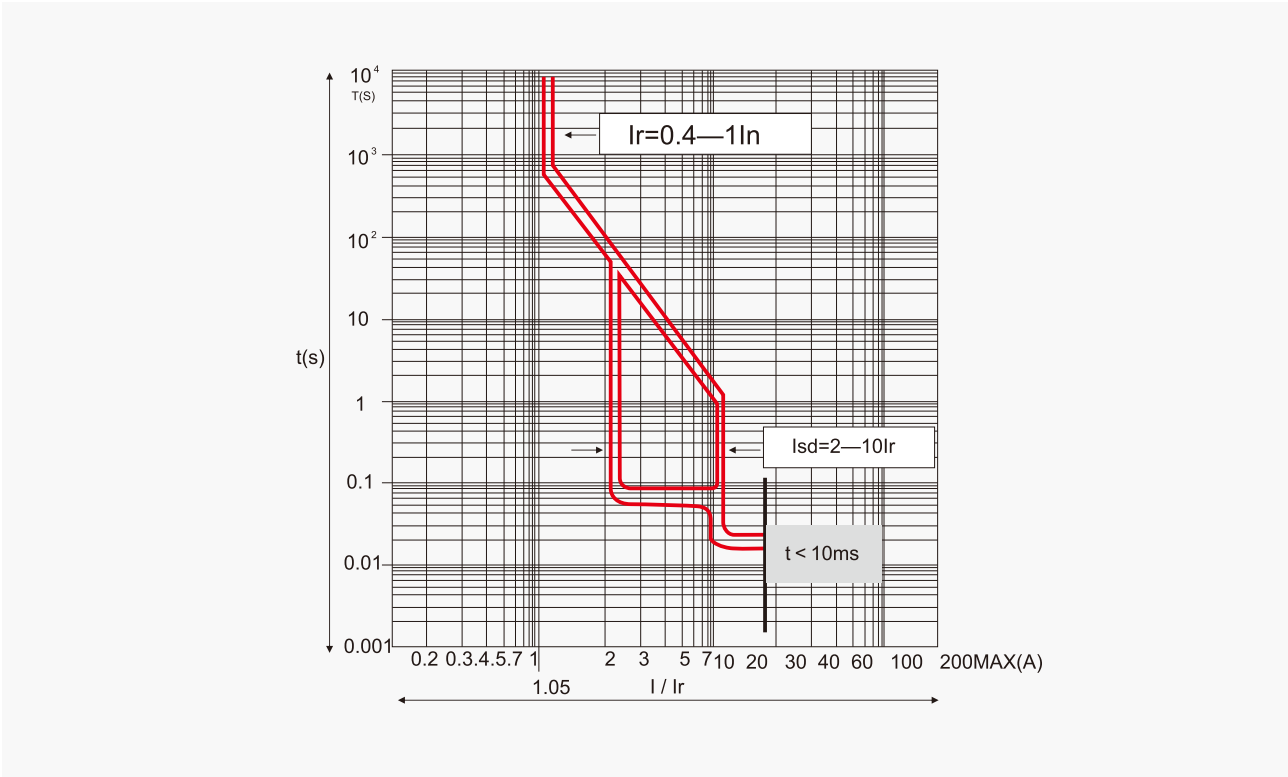


UKM32 Series Moulded Case Circuit Breaker

系列塑料外壳式断路器

UKM32-630ETS Overcurrent Protection Characteristic Curve

UKM32-630ETS过电流保护特性曲线



UKM32 Series Moulded Case Circuit Breaker

系列塑料外壳式断路器



热磁式脱扣器
Thermal magnetic trip unit

脱扣器识别
Trip unit identification


UKM32-250 FMU

塑壳断路器架类型
MCCB frame type

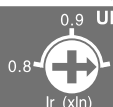
- 一般配电保护用
For protection of power distribution
- 电动机保护用
For motor protection
- 隔离开关
Disconnecter



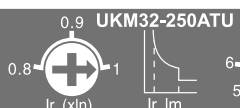
FTU热磁固定式
FTU Fixed-thermal, fixed-magnetic

UKM32-250FTU  $I_m=2500A$ **250A**
40°C
3P

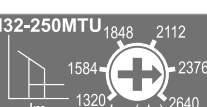
FMU 热可调、磁固定式
FMU Adjustable-thermal, fixed-magnetic

UKM32-250FMU  $I_m=2500A$ **250A**
40°C
3P

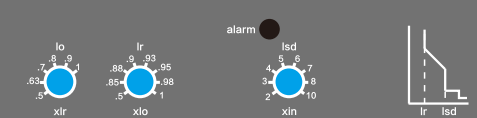
ATU 热磁可调节式
ATU Adjustable-thermal, adjustable-magnetic

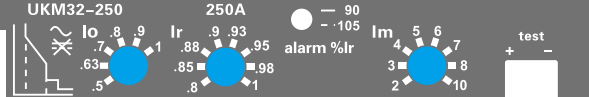
UKM32-250ATU  **250A**
40°C
3P

MTU 仅有磁保护的磁可调型
MTU Magnetic only

UKM32-250MTU  **250A**
3P

ETS 电子式
ETS electronic

UKM32-250 ETS  **250A**

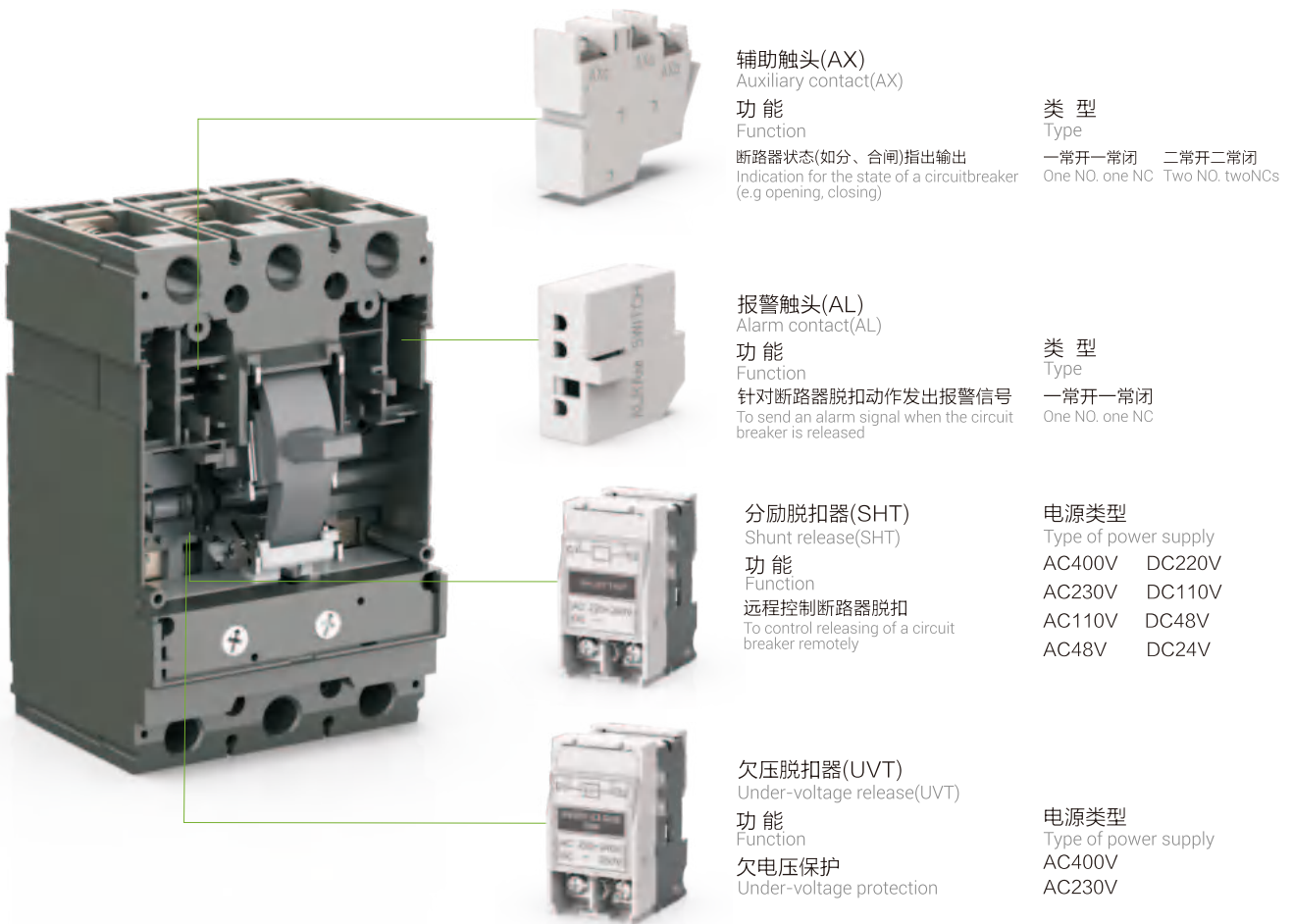
UKM32-250 ETS  **250A**

UKM32 Series Moulded Case Circuit Breaker

系列塑料外壳式断路器

Internal Accessories

内部附件



辅助触头(AX)
Auxiliary contact(AX)
功能
Function
断路器状态(如分、合闸)指出输出
Indication for the state of a circuitbreaker (e.g opening, closing)

类型
Type
一常开一常闭 二常开二常闭
One NO. one NC Two NO. twoNCs

报警触头(AL)
Alarm contact(AL)
功能
Function
针对断路器脱扣动作发出报警信号
To send an alarm signal when the circuit breaker is released

类型
Type
一常开一常闭
One NO. one NC

分励脱扣器(SHT)
Shunt release(SHT)
功能
Function
远程控制断路器脱扣
To control releasing of a circuit breaker remotely

电源类型
Type of power supply
AC400V DC220V
AC230V DC110V
AC110V DC48V
AC48V DC24V

欠压脱扣器(UVT)
Under-voltage release(UVT)
功能
Function
欠电压保护
Under-voltage protection

电源类型
Type of power supply
AC400V
AC230V

External Accessories

外部附件

旋转操作手柄

直接式或加长式的室门上有旋转操作机构。一般配有室门锁，如果客户要求，也提供钥匙锁在断开位置。

Rotary handles

The rotary handle operating mechanism is available in either the direct version or in the extended version on the compartment door. It is always fitted with a compartment door lock and on a request it can be supplied with a key lock in the open position.

Degree of protections

防护等级

类型 Type	防护等级 Degree of protection	等级 Protection
带面框和直接式旋转操作手柄的断路器 Circuit breaker with cover frame and rotary direct handle	1.0mm 直径的接入探针应不能穿透。 The access probe of 1.0mm diameter shall not penetrate	IP40
带面框和加长旋转操作手柄的断路器 Circuit breaker with cover frame and rotary extended handle	完全防尘、防任何角度的喷射水。 Totally protected against ingress of dust and water jets from any direction	IP65



UKM32 Series Moulded Case Circuit Breaker

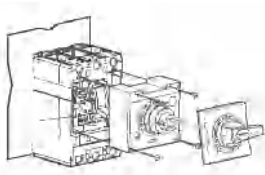
系列塑料外壳式断路器



塑壳断路器 MCCB	旋转操作手柄 Rotary handle
UKM32-160	DH1
UKM32-250	DH2
UKM32-630	DH3

Direct rotary handles with a key lock

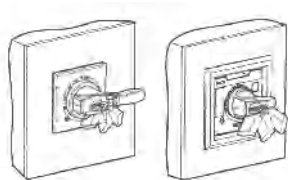
直接式带钥匙锁旋转操作手柄



塑壳断路器 MCCB	旋转操作手柄 Rotary handle	锁功能 Lock function
UKM32-160	DHK1	锁在ON或OFF位置 Lock in On or off position
UKM32-250	DHK2	
UKM32-630	DHK3	

Extended rotary handles

加长旋转操作手柄



塑壳断路器 MCCB	可挂锁装置 Padlockable device
UKM32-160	EH1
UKM32-250	EH2
UKM32-630	EH3

可用挂锁将断路器锁在ON或OFF位置

Padloc UKM32-can be used to lock the breaker in the ON or OFF position

Type and Meaning

型号规格及其含义

