YGUNION

AC Contactor & Thermal Overload Relay
Motor Protection Switch
Core Balance Current Transformers
Earth Leakage Relay
Surge Protective Device
Double Power Source Auto Switch

UNION ELECTRICS

CONTENTS

Type And Signification

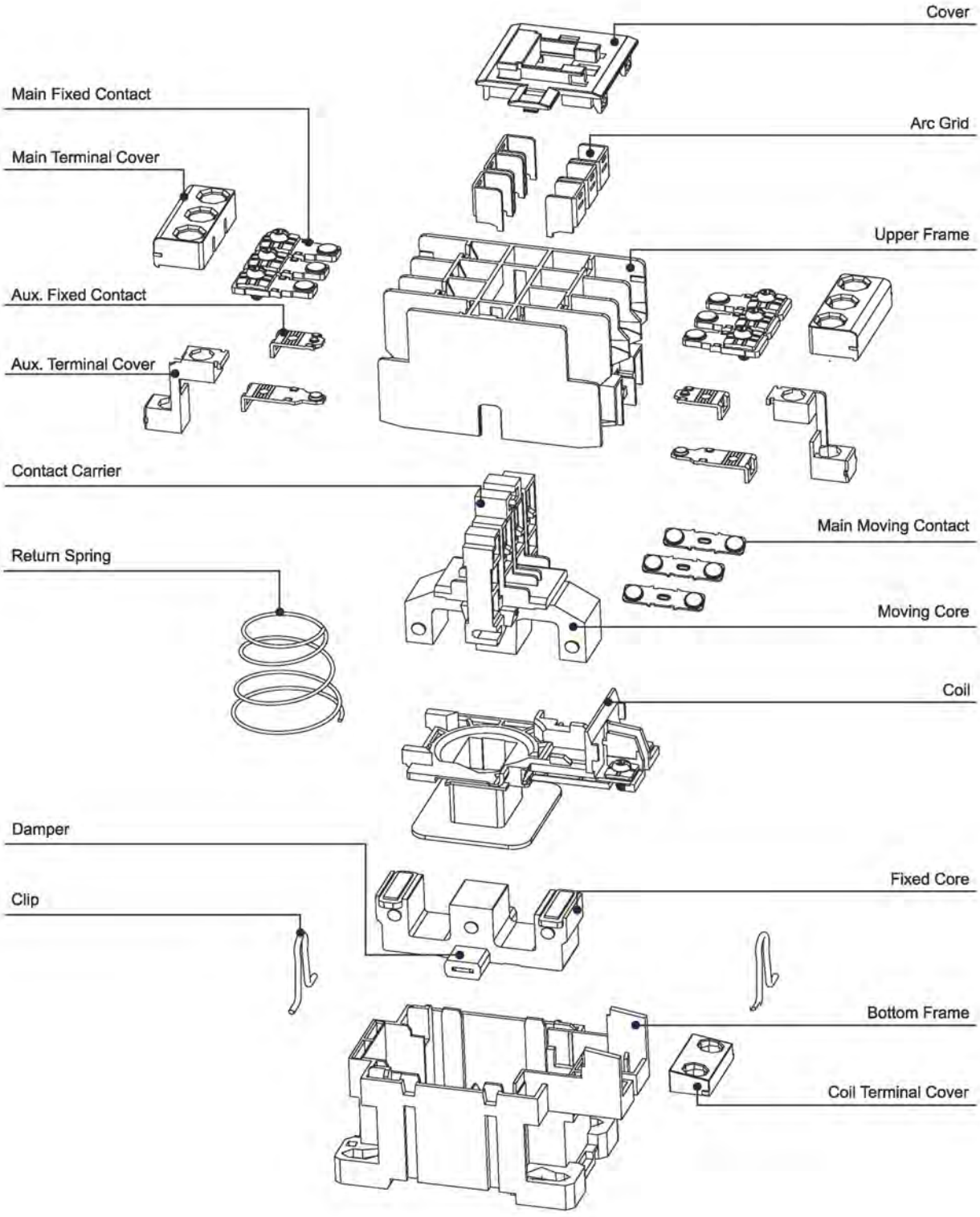
CT	CX	□	□
Company Code	Contactor	Rated Current	10 Aux. Contact NO
		6 6A	01 Aux. Contact NC
		9 9A	004 4-pole Contactor
		: :	
		75 75A	
		85 85A	

Application Range

CTCX series contactor is suitable for using in the circuit up to the rated voltage 600V AC 50Hz or 60Hz,DC voltage 220V rated current 150A,for making and breaking and frequent starting, controlling the AC motor which is combined with the auxiliary contact group, air delayer,machine interlocking device and etc.It is combined into the delay contactor, mechanical interlock contactor, switchover capacitor contactor, star-delta starter, with the thermal JR28 relay; it is combined into the electromagnetic starter.

Aux. Contacts Blocks

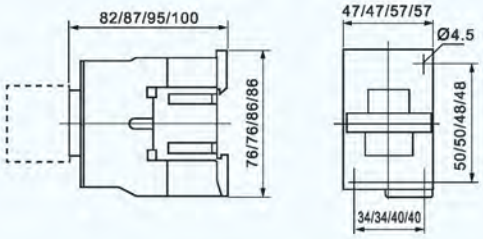
Internal Structure



CTCX Technical Parameters

Type			CTCX-D09	CTCX-D12	CTCX-D18	CTCX-D25	CTCX-D32
Rated Power kW/HP(AC-3) IEC60947-4-1 GB14048.4		200-240V	2.2/3	3/4	4/5.5	5.5/7.5	7.5/10
		380-440V	4/5.5	5.5/7.5	7.5/10	11/15	15/20
		500-550V	5/7	7.5/10	9/12	15/20	18.5/25
		660-690V	5.5/7.5	7.5/10	10/13.5	15/20	18.5/25
Rated Current A(AC-3) IEC60947-4-1 GB14048.4		200-240V	11	15	22	30	40
		380-440V	9	12	18	25	32
		500-550V	7	9	12	18	21
		660-690V	7	9	12	18	21
Conventional Thermal Current Ith:(A)			20	20	32	40	50
Rated Insulated Voltage Ui:(V)					690		
Auxiliary Contact AC-15	Contact Arrangement	Standard			1NO		
		Special			1NC		
	Rated Current A(AC-15) IEC60947-5-1 GB14048.5	200-240V			1.6		
		380-440V			0.95		
	Conventional Thermal Current Ith:(A)				16		
(AC-3)Electrical Life(Million Times)					3		
Mechanical Life(Million Times)					8		

Dimensions(mm)



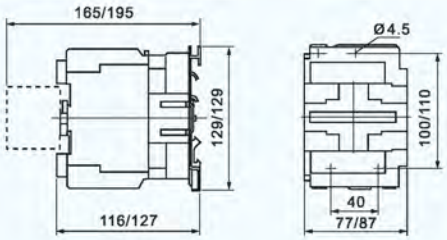
UNTR Technical Parameters

Type	MTR-13					
Current Setting Range	Manual or Auto Return					
	Nominal Rating(A)			Setting Range(A)		
 Thermal Overload Relay	0.16	1.6	8	0.1-0.16	1-1.6	5.5-8
	0.25	2	10	0.16-0.25	1.25-2	7-10
	0.4	2.5	13	0.25-0.4	1.6-2.5	9-13
	0.63	4	18	0.4-0.63	2.5-4	12-18
	1	6	25	0.63-1	4-6	17-25
Contact Arrangement	1NO+1NC					
Model of Matching Contactors	CTCX-D09/D12/D18/D25/D32					

CTCX Technical Parameters

Type			CTCX-D40	CTCX-D50	CTCX-D65	CTCX-D80	CTCX-D95
Rated Power kW/HP(AC-3) IEC60947-4-1 GB14048.4		200-240V	11/15	15/20	18.5/25	22/30	25/35
		380-440V	18.5/25	22/30	30/40	37/50	45/60
		500-550V	30/40	37/50	37/50	45/60	45/60
		660-690V	30/40	37/50	37/50	45/60	45/60
Rated Current A(AC-3) IEC60947-4-1 GB14048.4		200-240V	50	60	75	90	110
		380-440V	40	50	65	80	95
		500-550V	34	39	42	49	59
		660-690V	34	39	42	49	59
Conventional Thermal Current Ith:(A)			60	80	80	100	100
Rated Insulated Voltage Ui:(V)					690		
Auxiliary Contact AC-15	Contact Arrangement	Standard			1NO+1NC		
		Special			-		
	Rated Current A(AC-15) IEC60947-5-1 GB14048.5	200-240V			1.6		
		380-440V			0.95		
	Conventional Thermal Current Ith:(A)				16		
(AC-3)Electrical Life(Million Times)					3		
Mechanical Life(Million Times)					8		

Dimensions(mm)



UNTR Technical Parameters

Type	MTR-23		MTR-33	
Current Setting Range	Contact Arragement			
	Nominal Rating(A)	Setting Range(A)	Nominal Rating(A)	Setting Range(A)
 Thermal Overload Relay	32 36	23-32 28-36	40 70 50 80 65 93	30-40 55-70 37-50 63-80 48-65 80-93
Contact Arrangement	1NO+1NC		1NO+1NC	
Model of Matching Contactors	CTCX-D32/D40		CTCX-D50/D65/D80/D95	

Type and Signification

CM	C	–	□
Company Code	Contactor		Rated Current

6	6A
9	9A
:	:
75	75A
85	85A

Application Range

CMC type contactor is mainly used in the electric system with AC 50Hz/60Hz,the maximum voltage 660 V, and the maximum current 85 A. It is used for long distance switch-on and off circuit and frequently-starting motor. If properly combined with thermal overload relay device, it can work as starter of motor to prevent overload or open-phase. Series of such contactors can be equipped with toy-brick type auxiliary heads, air time-delay heads and interlocking device to act as time-delay contactor,reversing contactor, switching contactor and star-delta starter.

Characteristics

- Auxiliary electrified contact block is used, converient for installation.
- Contactor and thermal relay can be connected directly, without any other fittings.
- Install by using screws or directly install at the standard guide track of 35mm.
- It is easy to replace coil for using drawout type coil structure and unnecessary to dismantle contactor.
- Various accessories.

Accessory Assembly Illustration

2P/4P TOP MOUNTING

AU-2	AU-4
2NO.2NC	4NO.4NC.3NO+1NC
2NO.2NC	2NO+2NC.1NO+3NC

SIDE ON MOUNTING

AU-1
1NO+1NC

AC CONTACTOR

UNMC-32
1NO+1NC

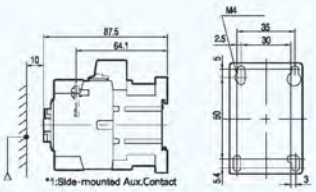
THERMAL OVERLOAD RELAY

UNMR-32
1NO+1NC

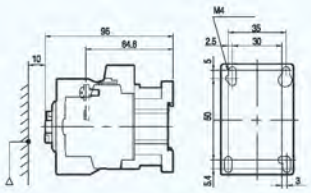
CMC Technical Parameters

Type			CMC-9	CMC-12	CMC-18	CMC-22	CMC-32	CMC-40
Rated Power kW/HP(AC-3) IEC60947-4-1 GB14048.4		200-240V	2.5/3.5	3.5/4.7	4.5/6	5.5/7.5	7.5/10	11/15
		380-440V	4/5.5	5.5/7.5	7.5/10	11/15	15/20	18.5/25
		500-550V	4/5.5	7.5/10	7.5/10	15/20	18.5/25	22/30
		660-690V	4/5.5	7.5/10	7.5/10	15/20	18.5/25	22/30
Rated Current A(AC-3) IEC60947-4-1 GB14048.4		200-240V	11	13	18	22	32	40
		380-440V	9	12	18	22	32	40
		500-550V	7	12	13	22	28	32
		660-690V	5	9	9	18	20	23
Conventional Thermal Current Ith:(A)			20	20	25	32	45	50
Rated Insulated Voltage Ui:(V)			690					
Auxiliary Contact AC-15	Contact Arrangement	Standard	1NO+1NC				1NO+1NC	
		Special	Optional				Optional	
	Rated Current A(AC-15) IEC60947-5-1 GB14048.5	200-240V	1.6					
		380-440V	0.95					
	Conventional Thermal Current Ith:(A)		16					
(AC-3)Electrical Life(Million Times)			3					
Mechanical Life(Million Times)			10					

Dimensions(mm)



CTC-9/12/18/22



CTC-32/40

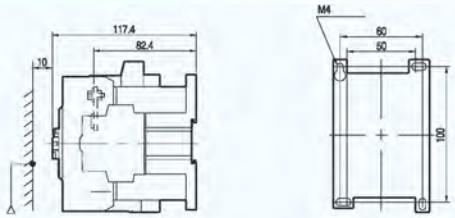
UNMR Technical Parameters

Type	UNTR-32							
Current Setting Range	Manual or Auto Return							
	Nominal Rating(A)				Setting Range(A)			
	0.16	4	22		0.1-0.16	2.5-4	16-22	
	0.25	6	26		0.16-0.25	4-6	18-26	
	0.4	8	36		0.25-0.4	5-8	24-36	
	0.63	9	40		0.4-0.63	6-9	28-40	
	1	10			0.63-1	7-10		
	1.6	13			1-1.6	9-13		
	2.5	18			1.6-2.5	12-18		
Thermal Overload Relay								
Contact Arrangement	1NO+1NC							

CMC Technical Parameters

Type		CMC-50	CMC-65	CMC-75	CMC-85
Rated Power kW/HP(AC-3) IEC60947-4-1 GB14048.4	200-240V	15/20	18.5/25	22/30	25/35
	380-440V	22/30	30/40	37/50	45/60
	500-550V	30/40	33/45	37/50	45/60
	660-690V	30/40	33/45	37/50	45/60
Rated Current A(AC-3) IEC60947-4-1 GB14048.4	200-240V	55	65	75	85
	380-440V	50	65	75	85
	500-550V	43	60	64	75
	660-690V	28	35	42	45
Conventional Thermal Current Ith:(A)		70	80	90	100
Rated Insulated Voltage Ui:(V)		690			
Auxiliary Contact AC-15 Contact Arrangement	Standard	2NO+2NC			
	Special	Optional			
Rated Current A(AC-15) IEC60947-5-1 GB14048.5	200-240V	1.6			
	380-440V	0.95			
Conventional Thermal Current Ith:(A)		16			
(AC-3)Electrical Life(Million Times)		3			
Mechanical Life(Million Times)		8			

Dimensions(mm)



UNMR Technical Parameters

Type	UNTR-65		UNTR-85	
Current Setting Range	Manual or Auto Return			
	Nominal Rating(A)	Setting Range(A)	Nominal Rating(A)	Setting Range(A)
	50	34-50	75	54-75
	65	45-65	85	63-85
			100	80-100
Thermal Overload Relay				
Contact Arrangement	1NO+1NC		1NO+1NC	
Model of Matching Contactors	CTC-50/65		CTC-75/85	

MCTC-K Technical Parameters

Type			MCTC-K06	MCTC-K09	MCTC-K12
Rated Power kW/HP(AC-3) IEC60947-4-1 GB14048.4		200-240V	1.5/2	2.2/3	3/4
		380-440V	2.2/3	4/5.5	5.5/7.5
		500-550V	3/4	4/5.5	4/5.5
		660-690V	3/4	4/5.5	4/5.5
Rated Current A(AC-3) IEC60947-4-1 GB14048.4		200-240V	7	9	12
		380-440V	6	9	12
		500-550V	5	6	7
		660-690V	4	5	5
Conventional Thermal Current Ith:(A)			20	20	20
Rated Insulated Voltage Ui:(V)				660	
Auxiliary Contact AC-15	Contact Arrangement	Standard		1NO/1NC	
		Special		-	
	Rated Current A(AC-15) IEC60947-5-1 GB14048.5	200-240V		1.6	
		380-440V		0.95	
	Conventional Thermal Current Ith:(A)			16	
(AC-3)Electrical Life(Million Times)				1	
Mechanical Life(Million Times)				8	

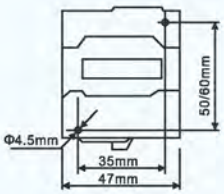
Circuits Characteristic and Terminal Connection

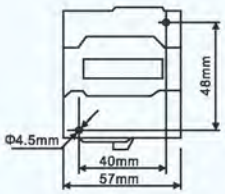
Connection Circuits	Type	MCTC-K06	MCTC-K09	MCTC-K12
Coil Voltage (V)	AC 50Hz/60Hz	24, 36, 48, 110, 220, 230, 240, 380, 400, 415, 440		
	DC	24, 36, 48, 110, 220		
Acting Range	Attraction(Hot)	(85%~110%)Us;+40℃		
	Release(Cold)	AC:(20%~75%)Us,DC:(10%~75%)Us;-5℃		
Installation		35mm DIN rail or screw (M4)		
Connection	Main Contact	Screw(M3) Wire:1~4mm		
	Aux. Contact / Coil	Screw (M3) line-pressed terminal		

UNTC-N Technical Parameters

Type			UNTC-N09	UNTC-N12	UNTC-N18	UNTC-N25	UNTC-N32
Rated Power kW/HP(AC-3) IEC60947-4-1 GB14048.4		200-240V	2.2/3	3/4	4/5.5	5.5/7.5	7.5/10
		380-440V	4/5.5	5.5/7.5	7.5/10	11/15	15/20
		500-550V	5/7	7.5/10	9/12	15/20	18.5/25
Rated Current A(AC-3) IEC60947-4-1 GB14048.4		200-240V	11	15	22	30	40
		380-440V	9	12	18	25	32
		500-550V	7	9	12	18	21
Conventional Thermal Current Ith:(A)			18	18	25	40	40
Rated Insulated Voltage Ui:(V)					660		
Auxiliary Contact AC-15	Contact Arrangement	Standard			1NO+1NC		
		Special			-		
	Rated Current A(AC-15) IEC60947-5-1 GB14048.5	200-240V			1.6		
		380-440V			0.95		
	Conventional Thermal Current Ith:(A)				16		
(AC-3)Electrical Life(Million Times)					1		
Mechanical Life(Million Times)					5		

Dimensions(mm)





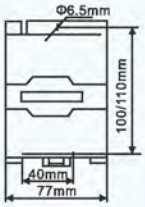
UNTR Technical Parameters

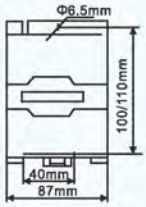
Type	UNTC-13					
Current Setting Range	Manual or Auto Return					
	Nominal Rating(A)			Setting Range(A)		
 Thermal Overload Relay	0.16	1.6	8	0.1-0.16	1-1.6	5.5-8
	0.25	2	10	0.16-0.25	1.25-2	7-10
	0.4	2.5	13	0.25-0.4	1.6-2.5	9-13
	0.63	4	18	0.4-0.63	2.5-4	12-18
	1	6	25	0.63-1	4-6	17-25
Contact Arrangement	1NO+1NC					

UNTC-N Technical Parameters

Type			UNTC-N40	UNTC-N50	UNTC-N65	UNTC-N80	UNTC-N95
Rated Power kW/HP(AC-3) IEC60947-4-1 GB14048.4		200-240V	11/15	15/20	18.5/25	22/30	25/35
		380-440V	18.5/25	22/30	30/40	37/50	45/60
		500-550V	30/40	37/50	37/50	45/60	45/60
Rated Current A(AC-3) IEC60947-4-1 GB14048.4		200-240V	50	60	75	90	110
		380-440V	40	50	65	80	95
		500-550V	34	39	42	49	59
Conventional Thermal Current Ith:(A)			60	80	80	110	110
Rated Insulated Voltage Ui:(V)					660		
Auxiliary Contact AC-15	Contact Arrangement	Standard			1NO+1NC		
		Special			-		
	Rated Current A(AC-15) IEC60947-5-1 GB14048.5	200-240V			1.6		
		380-440V			0.95		
	Conventional Thermal Current Ith:(A)				16		
(AC-3)Electrical Life(Million Times)					1		
Mechanical Life(Million Times)					5		

Dimensions(mm)





UNTR Technical Parameters

Type	UNTR-23		UNTR-33	
Current Setting Range	Contact Arragement			
	Nominal Rating(A)	Setting Range(A)	Nominal Rating(A)	Setting Range(A)
	32 36	23-32 28-36	40 70 50 80 65 93	30-40 55-70 37-50 63-80 48-65 80-93
Thermal Overload Relay				
Contact Arrangement	1NO+1NC		1NO+1NC	
Model of Matching Contactors	UNTC-32,UNTC-40		UNTC-40,UNTC-50,UNTC-65,UNTC-80,UNTC-95	

CTCF Technical Parameters

Type		CTCF-115	CTCF-150	CTCF-185	CTCF-225	CTCF-265	CTCF-330
Rated Current	Ie max AC-3 (Ue≤440V)	115A	150A	185A	225A	265A	330A
	Ie max AC-1 (θ ≤40℃)	200A	200A	275A	280A	350A	360A
Main Contacts(NO)		3、4	3、4	3、4	3、4	2、3、4	2、3、4
Rated Insulated Voltage(Ui)		690V					
Rated Impulse Withstand Voltage(Uimp)		8kV					
Rated Operational Voltage(Ue)max		1000V					
Standards-compliant		IEC60947-4-1, GB14048.4, EN60947-4-1					
Conventional Thermal Current Ith(≤40℃)		200A	200A	275A	280A	350A	360A
Operation Frequency	AC-1, AC-2, AC-3	300	300	120	120	120	120
	AC-4	70A	30A	30A	30A	30A	30A
Rated Power(AC-3)	220/240V	30kW	40kW	55kW	63kW	75kW	100kW
	380/400V	55kW	75kW	90kW	100kW	132kW	160kW
	415V	59kW	80kW	100kW	100kW	140kW	180kW
	440V	59kW	80kW	100kW	110kW	140kW	200kW
	500V	75kW	90kW	110kW	129kW	160kW	200kW
	660/690V	80kW	100kW	110kW	129kW	160kW	220kW
	1000V	65kW	65kW	100kW	100kW	147kW	160kW
Connection/Wiring Operation Voltage (θ≤55℃)	Number of Lines Line Size(mm^2)	20^2×3	25^2×3	25^2×3	32^2×3	32^2×4	30^2×5
	Cable with Splicing (mm^2)	95	120	150	185	240	240
	Cable with Connector (mm^2)	95	120	150	185	240	—
	Screw Diameter	Φ6	Φ8	Φ8	Φ10	Φ10	Φ10
Tightening Torque(N.m)		10	18	18	35	35	35

CTCF Technical Parameters

Type		CTCF-400	CTCF-500	CTCF-630	CTCF-780	CTCF-800
Rated Current	Ie max AC-3 (Ue≤440V)	400A	500A	630A	780A	800A
	Ie max AC-1 (θ ≤40℃)	430A	580A	850A	1200A	850A
Main Contacts(NO)		3、4	3、4	3、4	3	3、4
Rated Insulated Voltage(Ui)		1000V	1000V	1000V	1000V	1000V
Rated Impulse Withstand Voltage(Uimp)		8kV	8kV	8kV	8kV	8kV
Rated Operational Voltage(Ue)max		1000V	1000V	1000V	1000V	1000V
Standards-compliant		IEC60947-4-1, GB14048.4, EN60947-4-1				
Conventional Thermal Current Ith(≤40℃)		430A	880A	850A	1200V	850V
Operation Frequency	AC-1, AC-2, AC-3	120	120	120	120	120
	AC-4	30	30	30	30	30
Rated Power(AC-3)	220/240V	110kW	147kW	200kW	220kW	220kW
	380/400V	200kW	250kW	335kW	400kW	400kW
	415V	220kW	280kW	375kW	425kW	425kW
	440V	250kW	295kW	400kW	425kW	425kW
	500V	257kW	355kW	400kW	450kW	450kW
	660/690V	280kW	330kW	450kW	475kW	475kW
	1000V	185kW	335kW	450kW	450kW	450kW
Connection/Wiring Operation Voltage (θ≤55℃)	Number of Lines Line Size(mm^2)	30^2×5	40^2×5	60^2×5	100^2×5	60^2×5
	Cable with Splicing (mm^2)	2×150	2×240	-	-	-
	Cable with Connector (mm^2)	-	-	-	-	-
	Screw Diameter	Φ10	Φ10	Φ12	Φ12	Φ12
Tightening Torque(N.m)		35	35	58	58	58

CSC Technical Parameters

Type		CSC40 -9A	CSC41 -12A	CSC42 -16A	CSC43 -22A	CSC44 -32A	CSC45 -38A	CSC46 -45A	CSC47 -63A	CSC48 -75A
Mechanical endurance($x10^6$)		10	10	10	8	8	8	8	8	8
Conventional thermalcurrent(A)		20	20	30	30	55	55	80	90	100
Rated insulation voltage(V)						690				
Rated(380V) operating current(A)	AC-3	9	12	16	22	32	38	45	63	75
	AC-4	6.6	8.8	12.2	12.2	27	27	45	63	75
Power of controllable motor(kW) AC-3	400V	4	5.5	7.5	11	15	18.5	22	30	37
	690V	5.5	7.5	11	11	23	23	39	55	67
Power of controllable motor(kW) AC-4	400V	1.5	1.9	3.5	4	7.5	9	12	14	17
	690V	2.4	3.3	6	6.6	13	15.5	20.8	24.3	29.5
Frequency of operation (l/h)	AC-3	1000	1000	750	750	750	600	1200	1000	1000
	AC-4	250	250	250	250	250	200	400	300	300
Electrical endurance ($x10^6$)						1.2				
						0.2				
Rated voltage of	50Hz	24,36,48,110,127,220,380,etc								
	60Hz	24,110,220,440,etc.								

Technical Parameters

Type	UNSR-12.5Z		UNSR-25Z		UNSR-45Z		UNSR-63Z	
Current Setting Range	Contact Arragement							
 Thermal Overload Relay	0.1-0.16 0.16-0.25 0.25-0.4 0.4-0.63 0.63-1 0.8-1.25 1-1.6 1.25-2	1.6-2.5 2.5-4 3.2-5 4-6.3 5-8 6.3-10 8-12.5 10-14.5	0.1-0.16 0.16-0.25 0.25-0.4 0.4-0.63 0.8-1.25 1-1.6 1.6-2.5 2.5-4	3.2-5 4-6.3 5-8 6.3-10 8-12.5 10-16 12.5-20 16-25	0.1-0.16 0.16-0.25 0.25-0.4 0.4-0.63 ... 6.3-10 8-12.5 10-16	12.5-20 16-25 20-32 25-36 30-40 36-45	0.1-0.16 0.16-0.25 0.25-0.4 0.4-0.63 ... 8-12.5 10-16 12.5-20	16-25 20-30 25-40 32-45 40-57 50-63
Contact Arrangement	1NO+1NC				1NO+1NC			
Model of Matching Contactors	CSC-40/41		CSC-42/43		CSC-44/45		CSC-46/47	

CSC Technical Parameters

Type		CSC48 -85A	CSC50 -110A	CSC51 -140A	CSC52 -170A	CSC53 -205A	CSC54 -250A	CSC55 -300A	CSC56 -400A	CSC57 -630A
Mechanical endurance($x10^6$)		8	8	8	8	8	8	8	8	8
Conventional thermalcurrent(A)		100	160	160	210	210	300	300	400	550
Rated insulation voltage(V)						690				
Rated(380V) operating current(A)	AC-3	85	110	140	170	205	250	300	400	475
	AC-4	42	54	68	75	96	110	125	150	150
Power of controllable motor(kW) AC-3	400V	45	55	75	90	110	132	160	200	250
	690V	67	100	100	156	156	235	235	375	375
Power of controllable motor(kW) AC-4	400V	21	27	35	38	50	58	66	81	81
	690V	36	46. 9	60	66	86	100	114	140	140
Frequency of operation (l/h)	AC-3	850	1000	750	700	500	700	500	500	420
	AC-4	250	300	200	200	130	200	130	150	150
Electrical endurance ($x10^6$)						1.2				
						0.2				
Rated voltage of	50Hz	24,36,48,110,127,220,380,etc								
	60Hz	24,110,220,440,etc.								

Technical Parameters

Type	UNSR-80Z	UNSR-135/150F	UNSR-180F	UNSR-630F
Current Setting Range	Contact Arragement			
 Thermal Overload Relay	4.6-6.3 32-50 11-17 40-57 12.5-20 50-63 16-25 57-70 20-32 63-80 25-40 70-88	55-80 63-90 80-110 90-120 110-135 120-150	55-80 63-90 80-110 90-120 110-135 120-150 135-160 150-180	80-125 125-200 160-250 200-320 250-400 320-500 400-630
Contact Arrangement	1NO+1NC		1NO+1NC	
Model of Matching Contactors	CSC-46/47/48/49	CSC-49/50/51	CSC-52/53	CSC-54/55/56/57

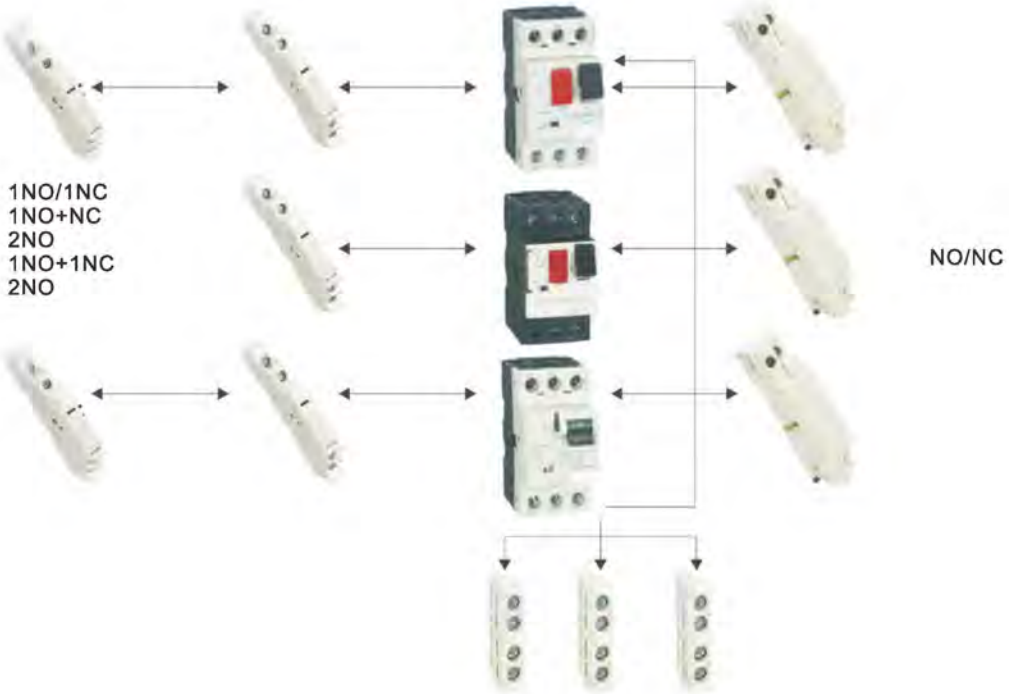
Type And Signification

SP	□
Company Code	M(Moulded case)
	ME(New type)

Application Range

SPM the series electric motor protection circuit breaker, uses the modular design, the contour is artistic, the volume is small, breaks protects, inside sets Hot Relay, thefunction is strong, the versatility is good. The SPM series conforms to IEC60947.2 and IEC60947-4.1 as well as the EN60947-1 standard. The switch and the contact device may compose the electric motor is direct Starts. The UV2,UV3 series outer covering protection rank may achieve IP65. This series pooled three types model product: SPM is the electric motor belt thermomagnetism protection circuit breaker which the button co ntrols;SPM is the electric motor belt themomagentism protection circuit breaker which the change-over switch controls; SPM is the electric motor belt magnetism protection circuit breaker which the change-over switch controls (does not bringhot protection).

Accessories(refer to table 4)



Air Switch Of The Motor

SPM					
M01C	0.1-0.16	RS01C	0.1-0.16		
M02C	0.16-0.25	RS02C	0.16-0.25		
M03C	0.25-0.40	RS03C	0.25-0.40	LS03	0.40
M04C	0.40-0.63	RS04C	0.40-0.63	LS04	0.63
M05C	0.63-1	RS05C	0.63-1	LS05	1
M06C	1-1.6	RS06C	1-1.6	LS06	1.6
M07C	1.6-2.5	RS07C	1.6-2.5	LS07	2.5
M08C	2.5-4	RS08C	2.5-4	LS08	4
M10C	4-6.3	RS10C	4-6.3	LS10	6.3
M14C	6-10	RS14C	6-10	LS14	10
M16C	9-14	RS16C	9-14	LS16	14
M18C	10-16	RS18C	10-16	LS18	16
M20C	13-18	RS20C	13-18	LS20	18
M21C	17-23	RS21C	17-23	LS21	23
M22C	20-25	RS22C	20-25	LS22	25
M32C	24-32	RS32C	24-32		

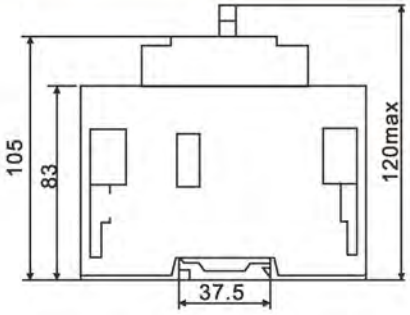
The rated power of three-phase elecrtomotor controlled by breaker

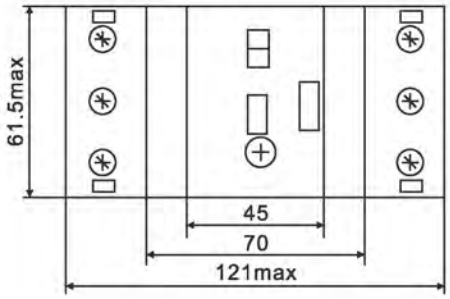
The adjusting range of rated current ie(A)	The standard power of three-phase electromotor KW.AC-3,50Hz/60Hz					
	230/240V	400V	415V	440V	500V	690V
0.1-0.16	-	-	-	-	-	-
0.16-0.25	-	-	-	-	-	-
0.25-0.40	-	-	-	-	-	-
0.40-0.63	-	-	-	-	-	0.37
0.63-1	-	-	-	0.37	0.37	0.55
1-1.6	-	0.37	-	0.55	0.75	1.1
1.6-2.5	0.37	0.75	0.75	1.1	1.1	1.5
2.5-4	0.75	1.5	1.5	1.5	2.2	3
4-6.3	1.1	2.2	2.2	3	3.7	4
6-10	2.2	4	4	4	5.5	7.5
9-14	3	5.5	5.5	7.5	7.5	9
13-18	4	7.5	9	9	9	11
17-23	5.5	11	11	11	11	15
20-25	5.5	11	11	11	15	18.5
24-32	7.5	15	15	15	18.5	23

Electric Disjointing

Type	UV3-M	UV3-ME
SPM-M10	6-10A	6-10A
SPM-M16	10-16A	10-16A
SPM-M20	14-20A	14-20A
SPM-M25	16-25A	16-25A
SPM-M40	25-40A	25-40A
SPM-M63	40-63A	40-63A
SPM-M80	56-80A	56-80A

The External Fixing Dimension





Type And Signification

CD	IN	□	□	□
Company Code	Modular Contactor	Rated Current	2-Pole	Control Voltage
		16A	4-Pole	AC 24V
		20A		AC 110V
		:		AC 230V
		63A		
		100A		

Application Range

The breadth of the ICT contactor range satisfies most application cases. CDIN contactors can be combined with auxiliary control, protection and indication functions.CDIN contactors are available in two versions:

- Contactors without manually–operated.
- Contactors with manually-operated.

CDIN contactors can be used to remote control applications in alternative networks:

- lighting, heating,ventilation,roller blinds,sanitary hot water.
- Mechanical ventilation systems, etc.
- load–shedding of non-priority circuits.

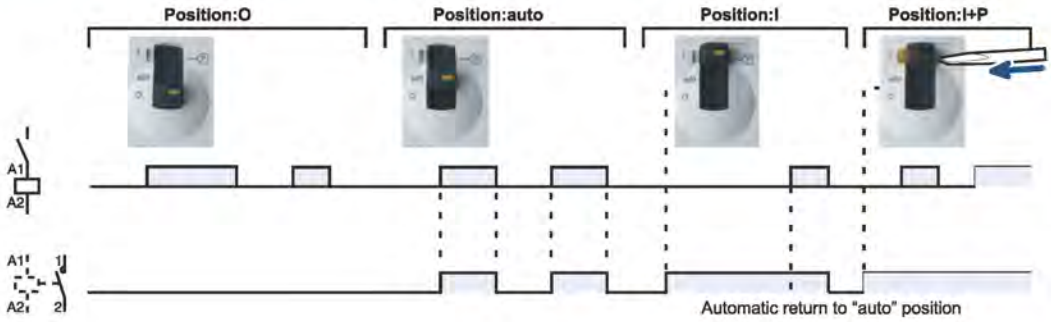
Dual control BACTc

Used to control a contactor in impulse-type mode or to combine latched or impulse-type control orders

Indication BACTs

This auxiliary allows indication or control of the "open"or"closed" postition of the contactor power contacts

Operation(Manual Control Contactor)



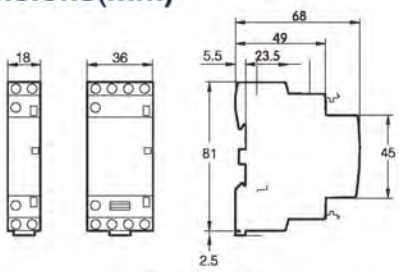
Catalogue numbers

Type	Rating(In) AC-7a	Rating(In) AC-7b	Control voltage (VAC)(50Hz)	Contact	Holding	Inrush	Max. power	Width in 9 mm modules
1P	16A	6A	24	1NO 1NC	3.8VA	15VA	1.3W	2
	20A	7A	110		2.7VA	9.2VA	1.2W	
	25A	8.5A	230		2.7VA	9.2VA	1.2W	
2P	16A	6A	24	2NO 1NO+1NC 2NC	3.8VA	15VA	1.3W	2
	20A	8.5A	110		2.7VA	9.2VA	1.2W	
	25A	8.5A	230		2.7VA	9.2VA	1.2W	
	32A	15A	24		4.6VA	34VA	1.6W	4
	40A	15A	110		4.6VA	34VA	1.6W	
	63A	20A	230		4.6VA	34VA	1.6W	
	100A	–	24		6.5VA	53VA	2.1W	6
			110		6.5VA	53VA	2.1W	
			230		6.5VA	53VA	2.1W	
3P	16A	6A	24	3NO 3NC	4.6VA	34VA	1.6W	4
	20A	8.5A	110		4.6VA	34VA	1.6W	
	25A	8.5A	230		4.6VA	34VA	1.6W	
	32A	15A	24		6.5VA	53VA	2.1W	6
	40A	15A	110		6.5VA	53VA	2.1W	
	63A	20A	230		6.5VA	53VA	2.1W	
4P	16A	6A	24	4NO 4NC 2NO+2NC 3NO+1NC	4.6VA	34VA	1.6W	4
	20A	8.5A	110		4.6VA	34VA	1.6W	
	25A	8.5A	230		4.6VA	34VA	1.6W	
	32A	15A	24		6.5VA	53VA	2.1W	6
	40A	15A	110		6.5VA	53VA	2.1W	
	63A	20A	230		6.5VA	53VA	2.1W	
	100A	–	24		6.5VA	53VA	2.1W	12
			110		6.5VA	53VA	2.1W	
			230		6.5VA	53VA	2.1W	

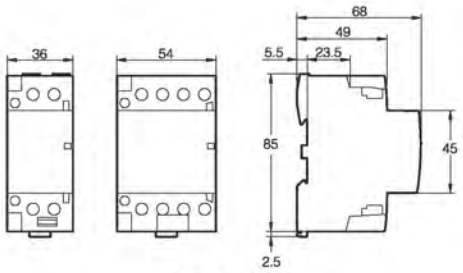
Catalogue Numbers

Type	Rating(In) AC-7a	Rating(In) AC-7b	Control voltage (VAC)(50Hz)	Contact	Holding	Inrush	Max. power	Width in 9 mm modules
2P	16A	6A	24	2NO 1NO+1NC 2NC	2.7VA	9.2VA	1.2W	2
	20A	8.5A	110					
	25A	8.5A	230					
	32A	15A	24		4.6VA	34VA	1.6W	4
	40A	15A	110					
	63A	20A	230					
4P	16A	6A	24	4NO 4NC 2NO+2NC 3NO+1NC	4.6VA	34VA	1.6W	4
	20A	8.5A	110					
	25A	8.5A	230					
	32A	15A	24		6.5VA	53VA	2.1W	6
	40A	15A	110					
	63A	20A	230					

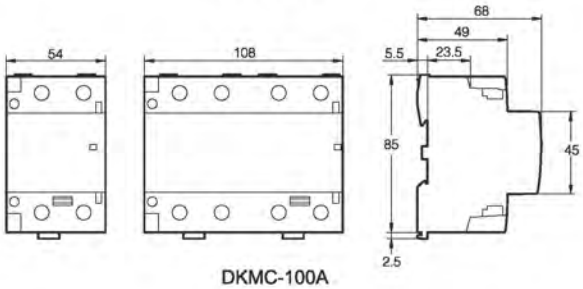
Dimensions(mm)



DKMC-16/25A



DKMC-40/63A



DKMC-100A

CORE BALANCE CURRENT TRANSFORMERS (CBCT)
(To detect Earth Leakage Currents)

Product advantage

The CT series toroidal transformers allow to sense the leaking currents to earth. These transformers have been designed to be coupled to the ELR series earth leakage current relays.

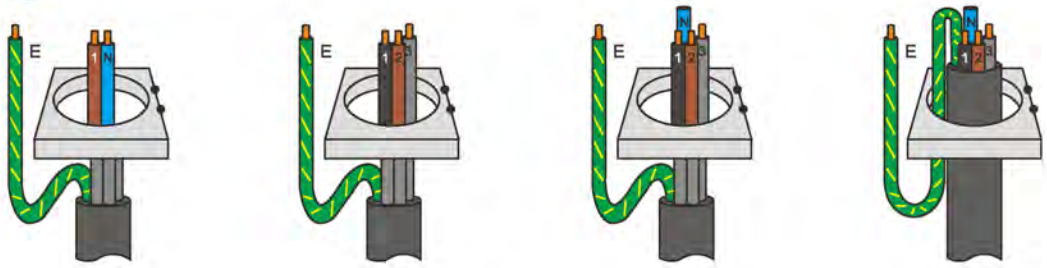
Main Features

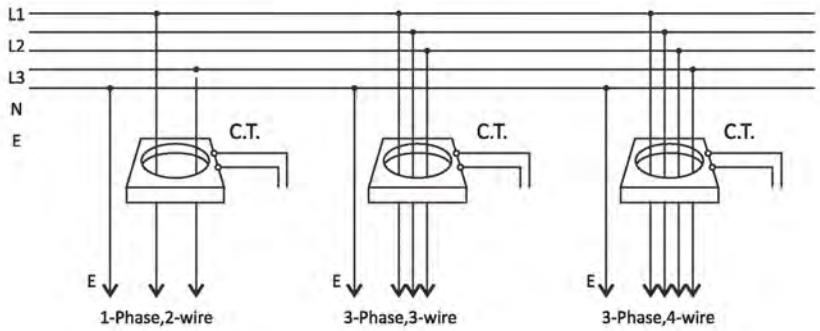
- Measure of detecting Earth Leakge Currents (single phase, three phase with or without neutral applications
- Hole diameters ; Ø 40 mm ; Ø 80 mm ; Ø 120 mm ; Ø 160 mm ; Ø 210 mm
- Surface mounting with fixing slots
- Plug-in mounting for secondary terminals
- Fire Retardant insulated plastic Housing

Technical Specifications

CORE BALANCE CURRENT TRANSFORMERS (CBCT)	
CBCT Type	Closed Toroid
Turns Ratio	200 / 1A
System Voltage	720 V maximum
System Frequency	50 Hz or 60 Hz
Insulation Voltage	3kV for 1 minute
Distance Between CBCT and ELR	< 1 meters
Operating Temperature	0°C to +55°C
Storage Temperature	-25°C to +55°C
Humidty	Up to 95% RH

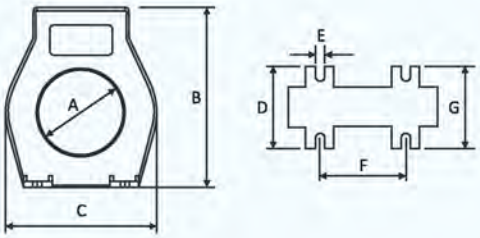
Wiring





Dimensions

CBCT



	CT 40	CT 80	CT 120	CT 160	CT 210
A	41	81	121	161	211
B	88	133	172.5	212.5	262.5
C	74	120	158	188	248
D	40	40	40	40	40
E	4.3	4.3	4.3	4.3	4.3
F	42	85	110	146	186
G	40	40	40	40	40

Ordering

Type	Ø (mm)	Turns Ratio	Order Code
OLE-CT40	40	200:1	OLECT040
OLE-CT80	80	200:1	OLECT080
OLE-CT120	120	200:1	OLECT120
OLE-CT160	160	200:1	OLECT160
OLE-CT210	210	200:1	OLECT210

ELR1 Earth Leakage Relay
(To detect Earth Leakage Currents)

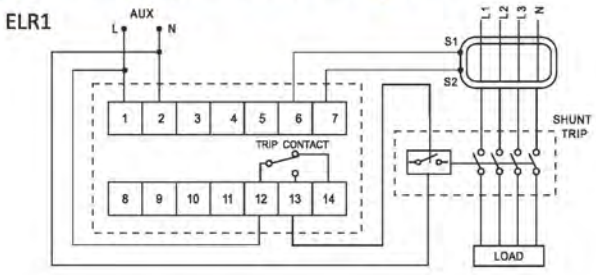
Product advantage

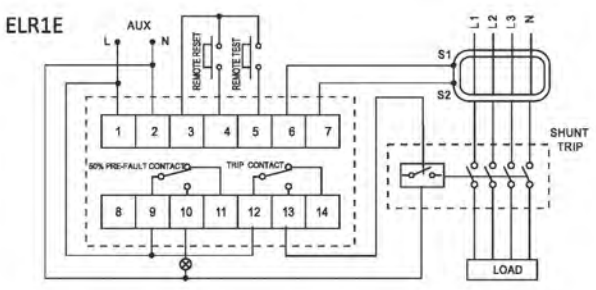
Main Features
- 25 selectable sensitivity settings: 30 mA to 30 A
- 9 selectable time delays: 0 ms to 3s
- Earth leakage level indicators
- Detection of no connection to CT
- Relay tripped indicator
- Trip starting indicator
- Protected against nuisance tripping

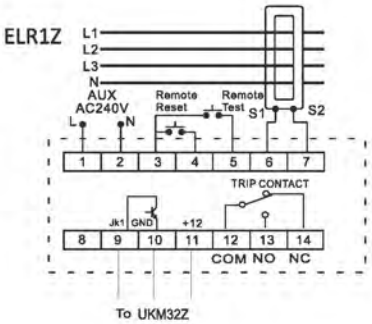
Features for ELR only*
50% pre-fault output contact
Remote test and remote reset functions

Features for ELR only***
UKM32Z with the use of
Remote test and remote reset functions

Typical Application Diagram





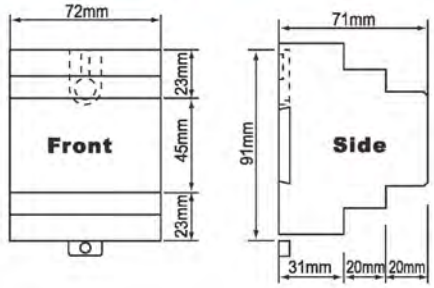


Technical Data

ELR Earth Leakage Relay		
Settings	Sensitivity adjustment	30mA, 50mA, 75mA, 100mA, 125mA, 150mA, 200mA, 250mA, 300mA, 500mA, 750mA,1A, 1.25A, 1.5A, 2A, 2.5A, 3A, 5A, 7.5A, 10A, 12.5A, 15A, 20A, 25A, 30A
	Accuracy	+0%~-15%
	Time delay setting	50ms, 100ms，150ms，250ms，350ms，500ms，1s，3s。
	Accuracy	±5%
Auxiliary supply	Supply voltage	110V AC±10% or 240V 90-120VAC
	Frequency	50 Hz or 60 Hz
	VA rating	Less than 3 VA
Indicators	Auxiliary supply	Green LED
	Time delay	Red LED
	Trip	Red LED
	Leakage current*	5 red LED for leakage levels
Inputs	Remote test/ reset inputs	N.O. dry contact*
	Sensor	OLE-CTX
Outputs	Contacts (Trip / 50% pre-fault*)	
	Contact arrangement	Change over
	Contact rating	6A,250V AC (cos φ=1)
	Contact material	Silver alloy
	Operating time	15 ms max.
	Expected electrical life	100,000 operations at rated current
	Expected mechanical life	5×106 operations
	Approval	UL/CSA, VDE, TUV, SEMKO
NPN-type transistor***	C pole output current	50mA
	DC power output voltage	12V
	DC power output current	50mA
Mechanical	Mounting method	Panel mounted, DIN rail mounted, Screws mounted
	Weight	0.3kg

*Applicable to KLR523E model only **Applicable to KLR523E/Z model only ***Applicable to KLR523Z model only

Case Dimensions



Ordering Information

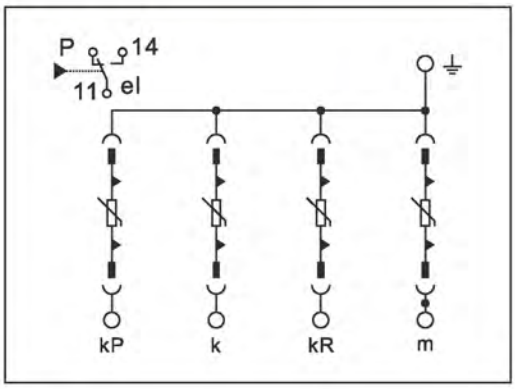
Model	Description
ELR1	With 240 V AC, 50/60 Hz power supply
ELR1-110	With 110 V AC, 50/60 Hz power supply
ELR1E	With 240 V AC, 50/60 Hz power supply
ELR1E-110	With 110 V AC, 50/60 Hz power supply
ELR1Z	With 240 V AC, 50/60 Hz power supply
ELR1Z-110	With 110 V AC, 50/60 Hz power supply

UN-A15/A25

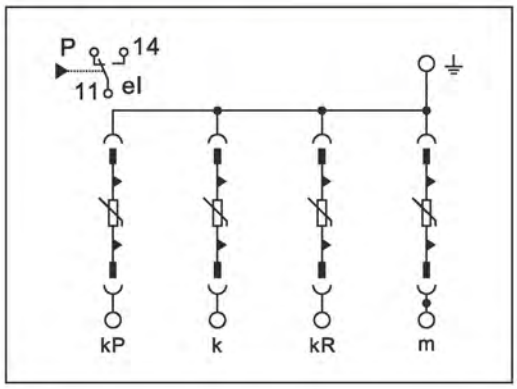
Product advantage

- Multilayer spark gap deviceIntegrated surge protector unit
- Highest to withstand 50kA(10/350us)lightning shock
- Action response time is less than 100ns

L1、L2、L3、N、PE(4+0 circuit)



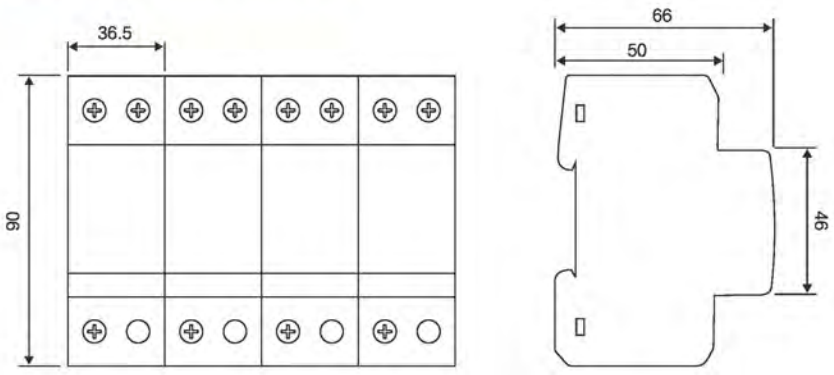
L1、L2、L3、N、PE(3+1 circuit)



Technical Parameters

		UN-A15				UN-A25			
IEC TYPE		I, T1				I, T1			
SPD TYPE		Swtich type				Swtich type			
SPECS		1P	2P	3P	4P	1P	2P	3P	4P
Nominal voltage(Un)		220V AC		380V AC		220V AC		380V AC	
Maximum Continuous Operating Voltage(Uc)	L-N	275V AC	275V AC	385V AC	385V AC	275V AC	275V AC	385V AC	385V AC
	N-PE	275V AC	275V AC	.....	385V AC	275V AC	275V AC	.....	385V AC
	L-PEN	275V AC	.....	385V AC	.....	275V AC	.....	385V AC	.....
Nominal Discharge Current(In)8/20 μ s	L-N	15kA				25kA			
Maximum Discharge Cureent(Imax)8/20 μ s	N-PE	15kA				25kA			
Voltage Protection Level(Up)8/20 μ s	L-N	1.8kV				2.0kV			
	N-PE	1.8kV				2.0kV			
Short-circuit Current Rating(Iscpv)		25kA				25kA			
Response Time	L-N	≤25ns				≤25ns			
Back-up protection for SCB option		WRSCB-100				WRSCB-100			
Indication		Green:Normal Red:Failure				Green:Normal Red:Failure			
Connection cross-section		4-35mm²				4-35mm²			
Din Rail Installation		35mm(EN50022/DIN46277-3)				35mm(EN50022/DIN46277-3)			
Temperature range		-40~70℃				-40~70℃			
Shell Material		Plastic toUL91V-00				Plastic toUL91V-0			
Protect Rating		Ip20				Ip20			
Standard		IEC 61643-1 / GB18802.1				IEC 61643-1 / GB18802.1			
Remote communication alarm		Open/Close Contact Terminals				Open/Close Contact Terminals			
Remote communication wiring		Maximum 1.5mm single/flexible wire				Maximum 1.5mm single /flexible wire			

Outline dimension



UN-B80/B100

Product advantage

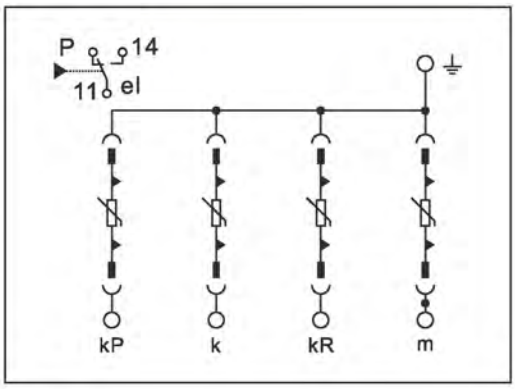
Picture 1

- Consistent pluggability(even for N/PEspark gap)
- Own developed technology to manufacture MOV
- Thermal disconnect device for each individual connector
- Optical,mechanical status indicationfor the individual arresters
- Din rail mountable (35 mm)

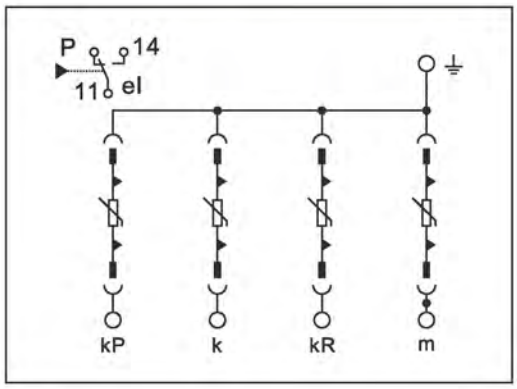
Picture 2

- With or without floating remote indication contact
- Suitable for almost all networkconfigurations
- More stable structure and support larger current

L1、L2、L3、N、PE(4+0 circuit)



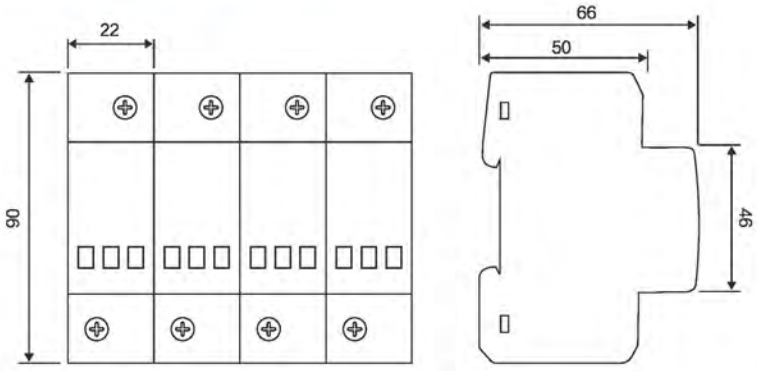
L1、L2、L3、N、PE(3+1 circuit)



Technical Parameters

		UN-B80				UN-B100		
IEC TYPE		II, T2				II, T2		
SPD TYPE		Limiting Voltage				Limiting Voltage		
SPECS		1P	2P	3P	4P	4P	1+NPE	3+NPE
Nominal voltage(Un)		220V AC		380V AC		380V AC	220V AC	380V AC
Maximum Continuous Operating Voltage(Uc)	L-N	275V AC	275V AC	385V AC	385V AC	385V AC	275V AC	385V AC
	N-PE	275V AC	275V AC	.....	385V AC	385V AC	255V AC	255V AC
	L-PEN	275V AC	.....	385V AC	.....	.....	.....	.....
Nominal Discharge Current(In)8/20 μ s	L-N	40kA				60kA		
Maximum Discharge Cureent(Imax)8/20 μ s	N-PE	80kA				100kA		
Voltage Protection Level(Up)8/20 μ s	L-N	2.5kV				2.5kV		
	N-PE	2.5kV				2.5kV		
Short-circuit Current Rating(Iscpv)		25kA				25kA		
Response Time	L-N	≤25ns				≤25ns		
Back-up protection for SCB option		WRSCB-100				WRSCB-100		
Indication		Green:Normal Red:Failure				Green:Normal Red:Failure		
Connection cross-section		4-35mm²				4-35mm²		
Din Rail Installation		35mm(EN50022/DIN46277-3)				35mm(EN50022/DIN46277-3)		
Temperature range		-40~70℃				-40~70℃		
Shell Material		Plastic toUL91V-00				Plastic toUL94V-0		
Protect Rating		Ip20				Ip20		
Standard		IEC 61643-1 / GB18802.1				IEC 61643-1 / GB18802.1		
Remote communication alarm		Open/Close Contact Terminals				Open/Close Contact Terminals		
Remote communication wiring		Maximum 1.5mm single/flexible wire				Maximum 1.5mm single /flexible wire		

Outline dimension



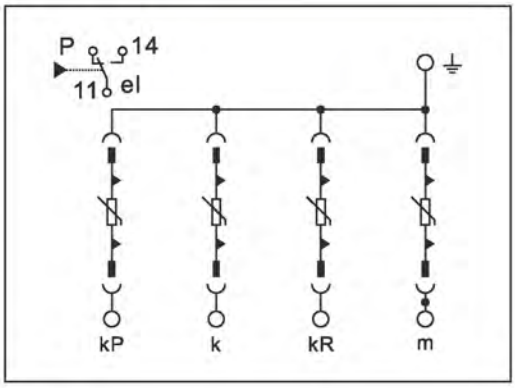
UN-C40

Product advantage

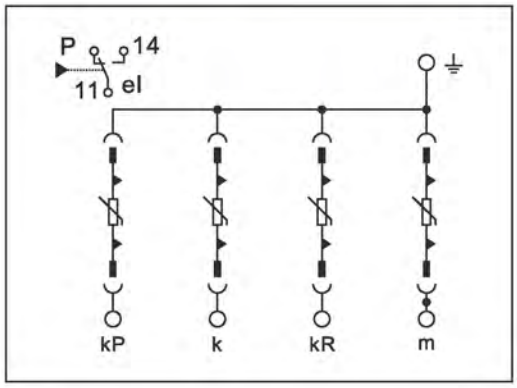
Picture 1
- Consistent pluggability(even for N/PEspark gap)
- Own developed technology to manufacture MOV
- Thermal disconnect device for each individual connector
- Optical,mechanical status indicationfor the individual arresters
- Din rail mountable (35 mm)

Picture 2
- With or without floating remote indication contact
- Suitable for almost all networkconfigurations
- More stable structure and support larger current

L1、L2、L3、N、PE(4+0 circuit)



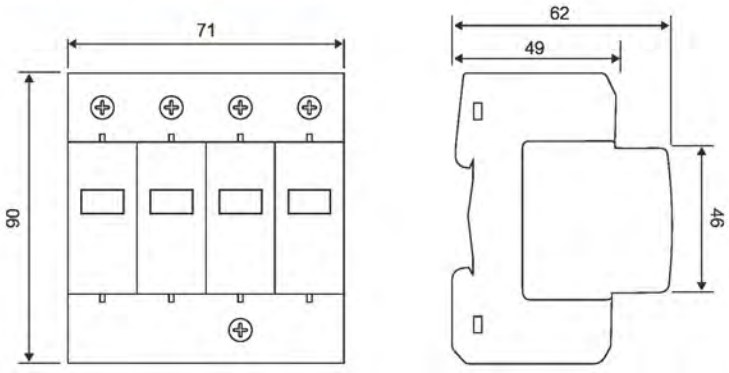
L1、L2、L3、N、PE(3+1 circuit)



Technical Parameters

		UN-C40						
IEC TYPE		II, T1				II, T1		
SPD TYPE		Limiting Voltage				Limiting Voltage		
SPECS		1P	2P	3P	4P	4P	1+NPE	3+NPE
Nominal voltage(Un)		220V AC		380V AC		380V AC	220V AC	380V AC
Maximum Continuous Operating Voltage(Uc)	L-N	275V AC	275V AC	385V AC	385V AC	385V AC	275V AC	275V AC
	N-PE	275V AC	275V AC	.....	385V AC	385V AC	255V AC	255V AC
	L-PEN	275V AC	.....	385V AC	.....	.....	.....	.....
Nominal Discharge Current(In)8/20 μ s	L-N	20kA				20kA		
Maximum Discharge Cureent(Imax)8/20 μ s	N-PE	40kA				40kA		
Voltage Protection Level(Up)8/20 μ s	L-N	1.8kV				1.8kV		
	N-PE	1.8kV				1.5kV		
Short-circuit Current Rating(Iscpv)		25kA				25kA		
Response Time	L-N	≤25ns				≤25ns		
Back-up protection for SCB option		WRSCB-40				WRSCB-40		
Indication		Green:Normal Red:Failure				Green:Normal Red:Failure		
Connection cross-section		4-35mm²				4-35mm²		
Din Rail Installation		35mm(EN50022/DIN46277-3)				35mm(EN50022/DIN46277-3)		
Temperature range		-40~70℃				-40~70℃		
Shell Material		Plastic toUL91V-00				Plastic toUL94V-0		
Protect Rating		Ip20				Ip20		
Standard		IEC 61643-1 / GB18802.1				IEC 61643-1 / GB18802.1		
Remote communication alarm		Open/Close Contact Terminals				Open/Close Contact Terminals		
Remote communication wiring		Maximum 1.5mm single/flexible wire				Maximum 1.5mm single /flexible wire		

Outline dimension

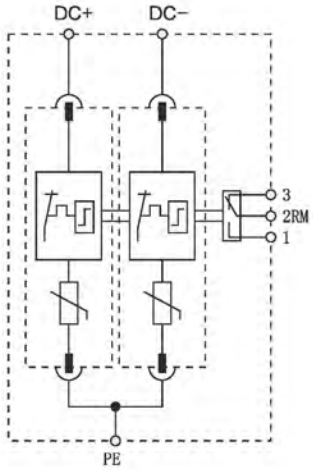


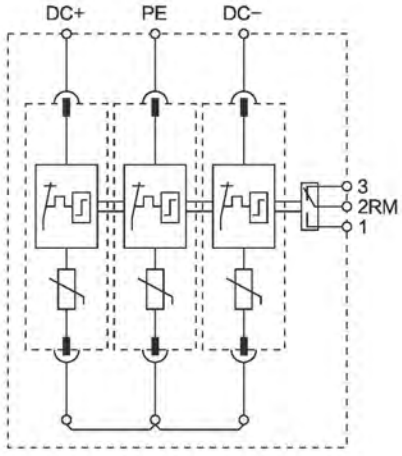
UN-T2-DC

For installation at LPZ OA-1 or higher, protecting d.c power supply system from surge damages.
Applied in pluggable SPD Class I+II(Class B+C) for various d.c.power supply system. Designed according to IEC 61643-1/GB 18802.1.

Product advantage

- Pluggable module, easy for installation and main tenance
- High discharge capacity, quick response
- Double thermal disconnection devices,provide more reliable protection
- Multifunctional terminals for connection of conductorsand busbars
- Green window will change when fault occurs,also provide remote alarm terminal



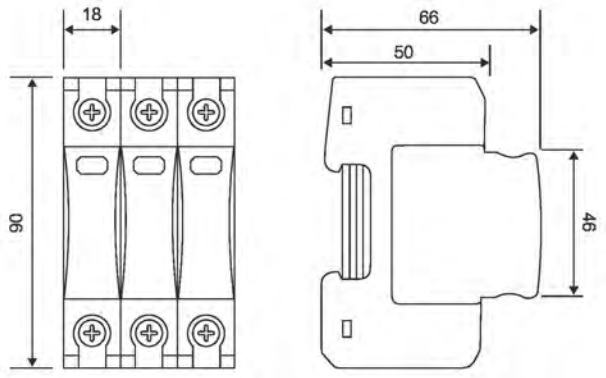


Technical Parameters

Type	UN-T2-DC / 2P	UN-T2-DC / 3P
Rated voltage (max.continuous a.c.voltage) [U_C]	800VDC / 1000VDC / 1200VDC	
Nominal discharge current (8/20) [I_n]	20kA	
Maximum discharge current [Imax]	40kA	
Voltage protection level [U_p]	3.2kV / 4.0kV / 4.4kV	
Response time [t_A]	≤25ns	
Max.backup fuse	125A gL/gG	
Operating temperature range [T_{up}]	-40℃...+60℃	
Cross-sectional area	1.5mm²~2.5mm² solid / 35mm² flexible	
Mounting on	35mm DIN rail	
Enclosure material	Purple (module) / light gray (base) thermoplastic,UL94-V0	
Dimension	1 mods	
Test standards	IEC 61643-1; GB 18802.1; YD/T 1235.1	
Certification	CE ROHS ISO9001 CQC TUV	
Type of remote signalling contact	Switching contact	
Switching capacity a.c	250V / 0.5A	
Switching capacity d.c	250V / 0.1A; 125v/0.2A; 75v/0.5A	
Cross-sectional area for remote signalling contact	Max. 1.5mm² solid / flexible	

Type	WR-T1T2-DC / 2P	WR-T1T2-DC / 3P
Packing unit	1pc(s)	1pc(s)
Weight	206g	283g

Outline dimension



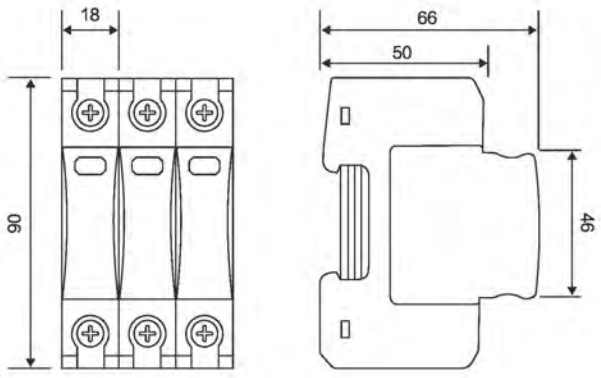
UN-T1T2-DC

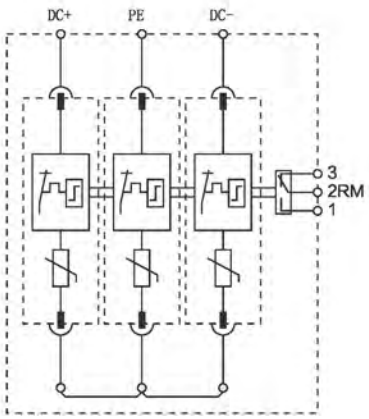
For installation at LPZ OB-1 or higher, protecting d.c power supply system from surge damages.
Applied in pluggable SPD Class II(Class C) for various d.c.power supply system. Designed according to IEC 61643-1/GB 18802.1.

Product advantage

- Pluggable module, easy for installation and main tenance
- High discharge capacity, quick response
- Double thermal disconnection devices,provide more reliable protection
- Multifunctional terminals for connection of conductorsand busbars
- Green window will change when fault occurs,also provide remote alarm terminal

Outline dimension



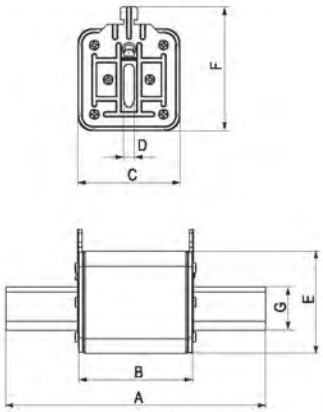


Technical Parameters

Type	UN-T1T2-DC
Rated voltage (max.continuous a.c.voltage) [U_c]	800VDC / 1000VDC / 1200VDC
Lightning impulse current (10/350) [I_{imp}]	7kA
Nominal discharge current (8/20) [I_n]	20kA
Maximum discharge current [Imax]	50kA
Voltage protection level [U_p]	4.2kV / 4.5kV / 5.0kV
Follow current extinguishing capability at U_c [I_f]	32A fuse will not be triggered at 2kA_{rms} 255V
Response time [t_A]	≤100ns
Max.backup fuse(L)	200A gL/gG
Max.backup fuse(L-L')	125A gL/gG
TOV voltage	355V / 5sec
Operating temperature range (parallel wiring) [T_{up}]	-40℃...+80℃
Operating temperature range (through wiring) [T_{us}]	-40℃...+60℃
Cross-sectional area	35mm^2 solid / 50mm^2 flexible
Mounting on	35mm DIN rail
Enclosure material	Purple (module) / light gray (base) thermoplastic,UL94-V0
Dimension	2 mods
Test standards	IEC 61643-1; GB 18802.1; YD/T 1235.1
Certification	CE ROHS ISO9001 CQC TUV
Type of remote signalling contact	Switching contact
Switching capacity a.c	250V / 0.5A
Switching capacity d.c	250V / 0.1A; 125v/0.2A; 75v/0.5A
Cross-sectional area for remote signalling contact	Max. 1.5mm^2 solid / flexible

Type	WR-T1T2-DC / 3P
Packing unit	1pc(s)
Weight	288g

Fuse(with double indicator)



Application Range

Knife type(NH) fuse–links gG class for general use, with top indicator.These high breakingcapacity fuse–links are intended for protection of power lines and equipment, against overloadsand short–circuits with rated voltages up to 690V AC (+5%).The rated breaking capacity is 120kA. The range comprises fuse–links from size NHO0C up to NH1 , with rated currents from 6 Aup to 1250A. Compact versions in low rated currents of every size. Manufactured with ceramic(KER–221) body with high withstand to internal pressure and thermal shock, that allows ahigh breaking capacity. Knife contacts are made of silver plated copper or brass.They are

RT16-00 (NT00/NH00)	In:2A、4A、6A、8A、10A、12A、16A、20A、25A、32A、40A、50A、63A、80A、100A、125A、160A(500VAC/250VDC); In:2A、4A、6A、8A、10A、12A、16A、20A、25A、32A、40A、50A、63A、80A、100A(690VAC)	500VAC 690VAC 250VDC	120kA(500VAC) 50kA(690VAC) 100kA(250VDC)	78±0.5	50	29	6	47	58	15
RT16-1(NT1/NH1)	In:40A、50A、63A、80A、100A、125A、160A、200A、225A、250A (500VAC/440VDC); In:40A、50A、63A、80A、100A、125A、160A、200A(690VAC)	500VAC 690VAC 440VDC	120kA(500VAC) 50kA(690VAC) 100kA(440VDC)	134±0.5	66	46	6	46	60	20
RT16-2(NT2/NH2)	In:80A、100A、125A、160A、200A、250A、315A、350A、400A(500VAC/440VDC); In: 80A、100A、125A、160A、200A、250A、315A (690VAC)	500VAC 690VAC 440VDC	120kA(500VAC) 50kA(690VAC) 100kA(440VDC)	150±0.5	66	59	6	59	72	25
RT16-3(NT3/NH3)	In: 315A、400A、500A、630A (500VAC/440VDC); In: 315A、400A、500A(690VAC)	500VAC 690VAC 440VDC	120kA(500VAC) 50kA(690VAC) 100kA(440VDC)	150±0.5	66	68	6	68	83	32

Power Losses

Size					
00	6	12W	12W	7.5W	1.8W
00	10	12W	12W	7.5W	2.1W
00	16	12W	12W	7.5W	2.4W
00	25	12W	12W	7.5W	2.9W
00	32	12W	12W	7.5W	3.7W
00	40	12W	12W	7.5W	4.3W
00	50	12W	12W	7.5W	4.7W
00	63	12W	12W	7.5W	6.0W
00	80	12W	12W	7.5W	6.8W
00	100	12W	12W	7.5W	8.8W
00	125	12W	12W	7.5W	10.2W
00	160	12W	12W	-	12.0W
00	25	16W	16W	16W	3.5W
00	32	16W	16W	16W	4.1W
00	40	16W	16W	16W	5.1W
00	50	16W	16W	16W	5.8W
00	63	16W	16W	16W	7.4W
00	80	16W	16W	16W	7.6W
00	100	16W	16W	16W	8.7W
00	125	16W	16W	16W	10.2W
00	160	16W	16W	16W	14.2W
1	80	23W	23W	23W	7.7W
1	100	23W	23W	23W	9.2W
1	125	23W	23W	23W	10.2W
1	160	23W	23W	23W	13.1W
1	200	23W	23W	23W	17.6W
1	250	23W	23W	23W	23.0W
2	160	34W	34W	34W	12.3W
2	200	34W	34W	34W	17.8W
2	250	34W	34W	34W	20.5W
2	315	34W	34W	34W	25.4W
2	400	34W	34W	34W	31.0W
3	315	48W	48W	48W	27.0W
3	400	48W	48W	48W	33.0W
3	500	48W	48W	48W	40.0W
3	630	48W	48W	48W	47.0W

Double Power Source Auto Switch

Model and meanings

UN A TS - □ / □ □

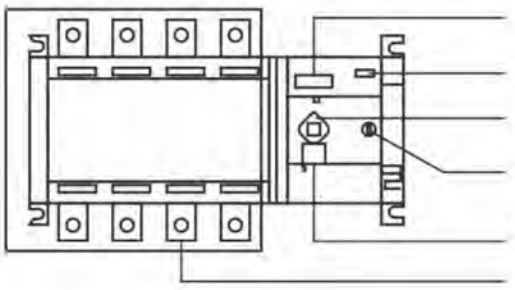
- Rated current
- Number of poles: 3 means three poles, and 4 means four poles
- Shell grade
- Design No.
- Switch electrical TSE
- Enterprise code

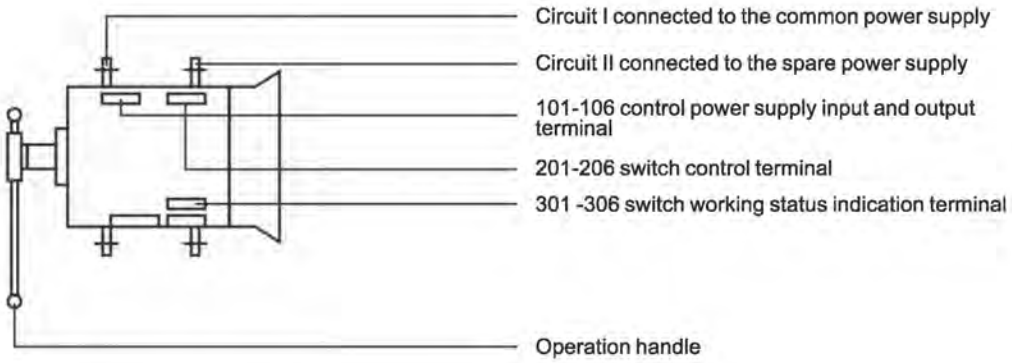
Main technical parameters

UNATS						
Model	UNATS-100	UNATS-160	UNATS-250	UNATS-630	UNATS-1600	UNATS-3200
Rated power	16,20,25,32, 40,50,63,80, 100	100,125, 140,160	160,180,200, 225,250	400,500,630	630,800, 1000,1250, 1600	2000,2500, 3200
Number of poles	2,3,4	2,3,4	2,3,4	3,4	3,4	3,4
Rated insulation voltage	690V				1000V	
Rated impact withstand voltage	8kV				12kV	
Rated working voltage Ue	AC-400V					
Rated power-on and power-off capacity	6Ie					
Rated short-time withstand voltage	5kA	10kA		12.6kA	32kA	50kA
Rated short-circuit power-on current	7.65kA	17kA		32kA	67.2kA	105kA
Switching time	≤2S					
Use category	AC-33iB					
Mechanical life	6000	6000	6000	3000	3000	2000
Electrical life	1500	1000	1000	1000	500	500
Control power voltage	AC230V 50Hz					
Main power return method	Self-investment and self-recovery, self-investment and non-self-recovery (standby each other), non-self-recovery					
Power conversion type	Mains-Mains, Mains-Power Generation					
Control characteristics	Basic type, loss of voltage conversion, return after recovery, digital tube display type, overvoltage, undervoltage conversion, adjustable delay					
Monitoring standby loss	Commonly used abnormal standby loss of pressure, no conversion					
Fire double points	■					
Common standby power supply closing status output	■					
Remote control (basic type)	-	■				

Complied Standard:GB/T 14048.11、IEC 60947-6-1

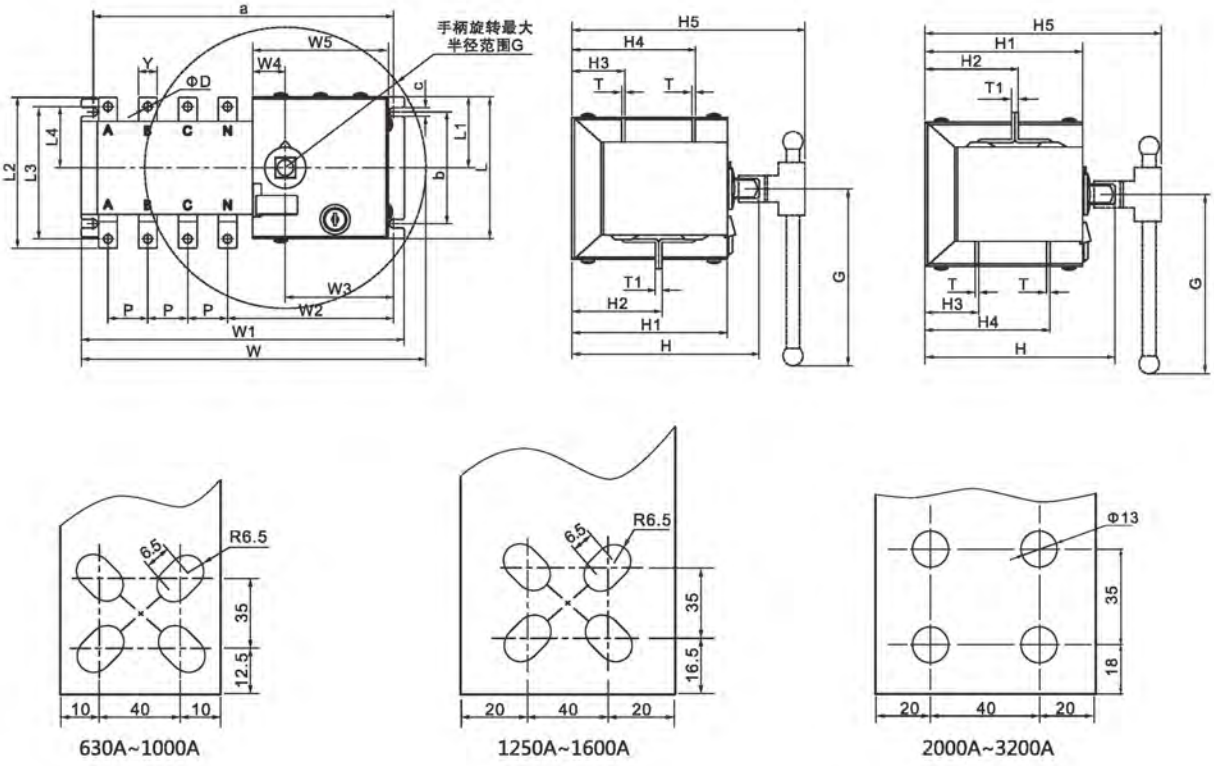
Description on switch structure





- Electrical key lock: When the control line power supply inside the control switch is turned on, the electrical lock is open and switch can be operated automatically and remotely,and when the electrical lock is closed, the switch can be only operated manually.
- Operation handle: Close the electrical lock when using an operation handle to operate the switch;
- Mechanical lock: For inspection, turn the switch to the 0-gear position with an operation handle, and then pull up the locking mechanism for locking; (with the mechanical lock pulled up, the control power inside the switch will be turned off, so the switch can not be operated electrically or manually);
- Position indicator: To indicate the switch working status position(I, 0, II);
- Control voltage: the switch control voltage is 220VAC;
- Switch body: circuit I is located at the front and then connected to the"common power supply"; the circuit II is located at the rear, and then connected to the"spare power supply".

Installation size



630A~1000A

1250A~1600A

2000A~3200A

mm

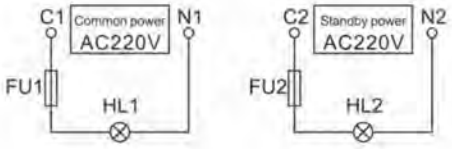
Type	Size																								
	a	b	c	W	W1	W2	W3	W4	W5	P	Y	ΦD	L	L1	L2	L3	L4	H	H1	H2	H3	H4	H5	T	T1	G
UNATS-100/3P	215	83	6.5	255	233	124	82	24.5	102	30	13	7	107	53.5	118	103	45	141	117	40	40	93	170	2.5	2.5	115
UNATS-100/4P	223.5			270	243						14				116	99.5	43			68					5	
UNATS-160/3P	245	102	7	320	265	160	91	30.5	110		20	8.5	140	76.5	142	122	53	195	164	59	57	130	230	3.5	3.5	144
UNATS-160/4P	284			348	305	156.5		34	115					77	147	126	60			55	58					
UNATS-250/3P	292	106	7	362	312	165	94	32	110	50	25	10	140	76.5	176	148	70	210	180.5	64	65	146	224.5	3.5	3.5	144
UNATS-250/4P	347	102		412	370		91	35	115					77	164	140	65	195	163	57	57	130	225			
UNATS-630/3P	350	180	9	525	375	186	88.5	45	124	65	40	12	218	109	262	232	106	268	237	83	83	193	297	6	6	250
UNATS-630/4P	410			590	435	180																				
UNATS-1600 630A-1000A/3P	496	220	11	780	520	190	84.5	44	123	120	60	/	250	125	350	/	/	325	293	255	108	250	385	8	8	360
UNATS-1250A/3P											80				370						109	251		10	10	
UNATS-1600A/3P																										
UNATS-630A-1000A/4P	606			1080	635	188					60				350						108	250		8	8	540
UNATS-1250A/4P											80				370						109	251		10	10	
UNATS-1600A/4P																										
UNATS-3200-2000A/3P	496	220	11	785	510	178	84.5	44	120	120	80	/	248	100	420	/	/	500	476.5	98/445	102/214	332/445	560	10	10	360
UNATS-2500A/3P															432					102/454	101/218	332/450		15	15	
UNATS-3200A/3P															440					98/455	97/222	332/445		20	20	
UNATS-2000A/4P	610			1080	657	188									420					98/445	102/214	332/445		10	10	540
UNATS-2500A/4P															432					102/454	101/218	332/450		15	15	
UNATS-3200A/4P															440					98/455	97/222	332/445		20	20	

UNATS-100A Wiring Method

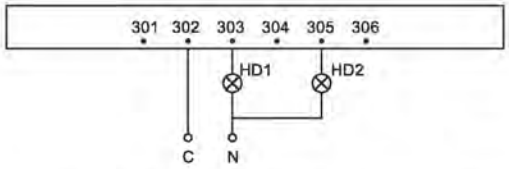
- Auto wiring way
  * The key lock must be turned to the"Auto"model, and the mechanical lock can not be pulled up;
  * When the key lock is turned to the"Auto"model, the fire control can be valid;
  * With the key lock turned to the"Auto"model, the operation handle will be inactivated;

  Four wires of common power supplies A, B, C and N are connected to the common power supply at the product copper bar input position, and four wires of the standby power suppliesA, B, C and N are connected to the standby power terminal.

- Fire control double-separation wiring description:
  When the key lock is turned to the"Auto"" model, short circuit 301and 306, so the product can be turned to the double-separation position.
  a. Common and standby power supply indicators

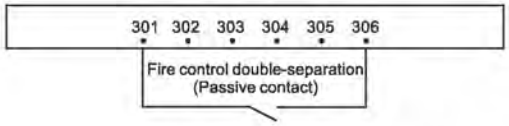


b. Common and standby use indicator



Note: C and N are from the main circuit output of the switch

c. Fire control double-separation



C1 and N1 refer to phases C and N of the common power supply incoming terminal;
C2 and N2 refer to phases C and N of the standby power supply incoming terminal.
HL1 refers to the common power turn-on indicator;
HL2 refers to the standby power turn-on indicator.
HD1 refers to the common power supply working indicator;
HD2 refers to the standby power supply working indicator.
FU1 and FU2 are 2A fuses.
301~306 refer to the switch terminal.

Manual Wiring Way

* Turn the key lock to the"Manual"model and pull up the mechanical lock.
* Turn the key lock to the"Manual"model and operate the lock only with a handle.

UNATS- 100 -3200A wiring method

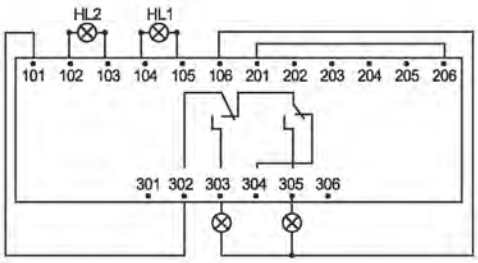
- Auto wiring way
  * Turn the key lock to the"Auto"model and do not pull up the mechanical lock;
  * Turn the key lock to the"Auto"model and disable the operation of the switch with a handle;

  Four wires of common power supplies A, B, C and N are connected to the common power supply at the product copper bar input position, and four wires of the standby power A, B, C and N are connected to the standby power terminal.

- Wiring description on the remote and manual working status:
  Disconnect the wires between 201 and 206, with others same with those of auto working status. Short circuit of 202 and 203 is to turn to the common power supply manually and short circuit of 202 and 205 is to turn to the standby power supply manually, and short circuitof 202 and 204 is to turn to the double-separation position manually.
  When the common power and standby power switches are turned on, the product can start to work.

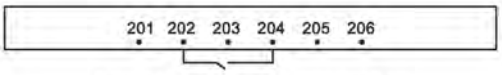
Auto Control Wiring Diagram

Notes: For 3P product, wire N of the common power supply can be connected at 105, and wire N of the standby power supply is connected at 103. For 4P product, no any active wire can not be connected at 102 to 105.



HI1 refers to the indicator of the common power supply;
HL2 refers to the indicator of the standby power supply.
HD1 refers to the turn-on indicator of the common power supply;
HD2 refers to the turn-on indicator of the standby power supply.

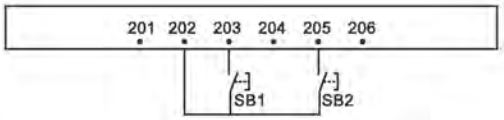
a. Fire control double-separation



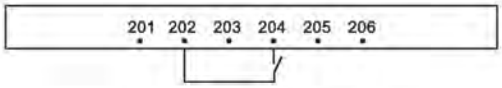
Fire control double-separation
(Passive contact)

- Remote wiring way
  * Turn the key lock to the"Auto"model and do not pull up the mechanical lock.
  * Turn the key lock to the"Auto"model and do not operate the lock only with a handle.
  * For remote wiring, do not short circuit 201 and 206, or the switch will be at the auto wiring mode by default.

a. Remote control wiring



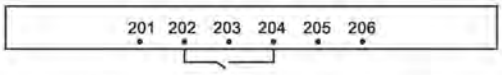
b. Fire control double-separation



Fire control double-separation
(Passive contact)

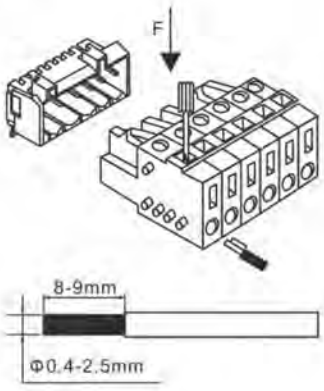
SB1 and SB2 are manual buttons for common power supply and standby power supply (passive contacts)

- Remote wiring way
  * Turn the key lock to the"Manual"model and do not pull up the mechanical lock;
  * Turn the key lock to the"Manual"model and then operate the switch with a handle;
  * Fire control double-separation



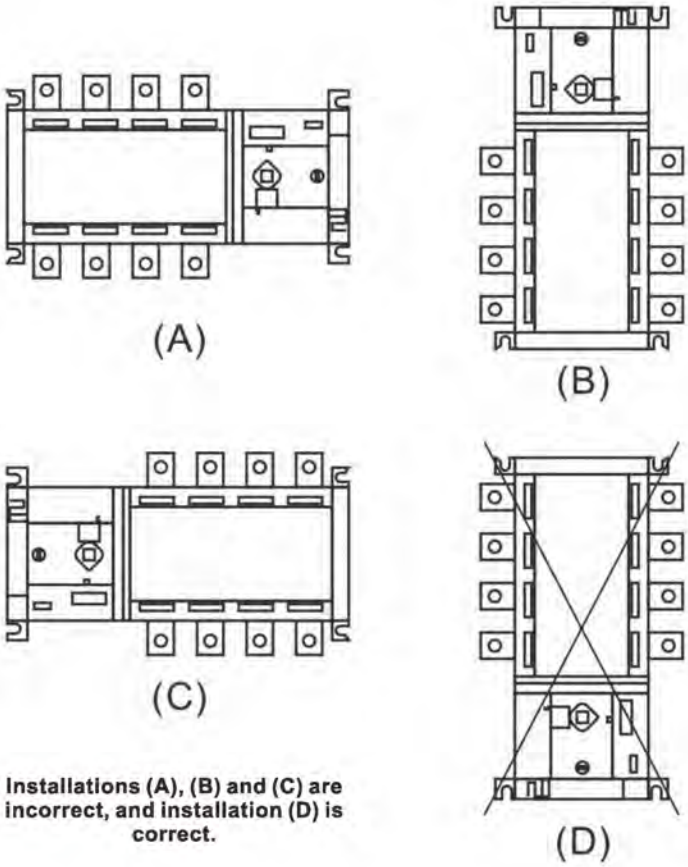
Fire control double-separation
(Passive contact)

6. Terminal wiring way



Force it downwards with a small screwdriver, and embed the wires as shown in figure

Switch installation



Installations (A), (B) and (C) are incorrect, and installation (D) is correct.

Switch wiring description

- From the left to right of the switch, circuits I and II wiring copper bars are connected to the phasesA, B, C and N of the common power supply (front) and standby power supply (rear), respectively.
- Control power supply is from the phases C and N of the common power supply and standby power supply.
- Terminals 101 and 106 are only as the signalindicator control power, with the output voltage of AC220V, and the wire106 is a fire wire.
  * Note: Wires 101 and 106 can not be connected to any line!
- For upper (lower) incoming, the phasesA, B, C and N of circuits I and II at the upper (lower) use copper bar or wires as output.

Switch commissioning description

- Connect the common power supply
  (I) and standby power supply
  (II) to the copper bar of the corresponding wiring board;

  ① Auto commissioning
  With the common power supply turned on and with the standby power supply turned on, the circuit I of the switch will work;with the common power supply turned off and with the standby power supply turned off, the circuit II of the switch will work;with the common power supply turned on, the circuit Iof the switch will work (see the white indicating arrow on the switch panel).

  ② Remote commissioning
  With the button SB1 pressed, the circuit I of the switch will work;
  With the button SB2 pressed, the circuit II of the switch will work;

- When the switch is at the circuit I or circuit II turn-on state,the signal indicator on the panel will work;

- When the commissioning is completed, first turn on the power and then turn the switch to the"0"position with a handle.(when standing at the middle position, see the white indicating arrow on the panel)

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