Kozuka™

DAM1 Series

Moulded Case Circuit Breaker
Earth Leakage Circuit Breaker

Kozuka™

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DAM1 series Moulded Case Circuit Breaker
DAM1L series Earth Leakage Circuit Breaker

Moulded Case Circuit Breaker Application

The DAM1 series Moulded Case Circuit Breaker is a new model which has been designed in accordance to international standards and manufactured using advanced technology. The insulation voltage rating for the DAM1 series circuit breaker is between 400V(Inm≤160A) and 690V (Inm≥250A) and is widely used in AC power distribution for frequencies of 50Hz. DAM1 series circuit breakers range from 10A to 1600A while the voltage rating is between 380V-400V and 660V-690V. Besides being used to protect against overloads, short circuits and under voltage, it also functions as a non-frequent switch for wires, under normal conditions.

Circuit breakers with current ratings below 400V can be used as a non-frequent start-up for squirrel cage motors, breakdowns during running and also protect the motor against overload, short circuit and under voltage.

The DAM1 series Moulded Case Circuit Breaker and DAM1L series Earth Leakage Circuit Breaker can be installed with other electrical and mechanical accessories such as under voltage release, shunt release , auxiliary contacts, alarm contacts, motor operating mechanisms and rotary handle operating mechanisms.

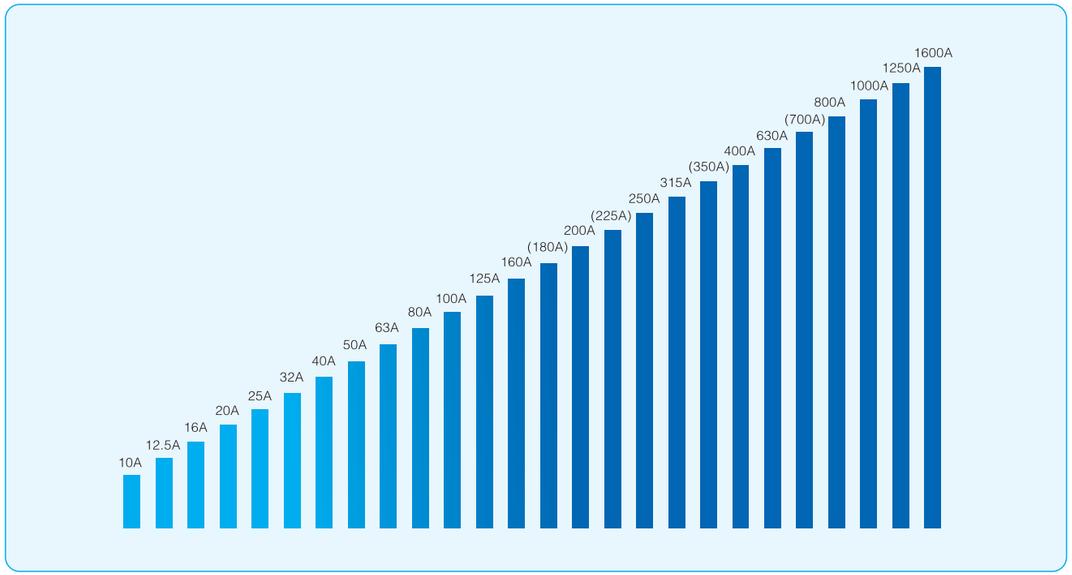
The DAM1L series Residual Current Operation Circuit Breaker, also known as leakage protective circuit breaker, has the ability to protect the human body from electric shock and equipment from electrical leakage; and prevent fires caused by equipment insulation related problems.

Part-Numbering System

DA M 1 □ - □ □

- Optional: L=Residual Current Operation Circuit Breaker
- Circuit Breaker Current Range (Table 1)
- Breaking Capacity Code
  - B=Basic breaking capacity
  - N=Normal breaking capacity
  - S=Standard breaking capacity
  - H=High breaking capacity
  - G=Highest breaking capacity
  - X=Current limit breaking capacity
- 1=Design Code
- M=Moulded Case Circuit Breaker
- DA=Product Range Code

Current Range (A)



Circuit breaking capacities (Table 1)

rating current of case frame size(A)	rating ultimate short circuit breaking capacity Icu					
	25kA	35kA	50kA	65kA/70kA	85kA	200kA
63/63L	B	N	S	—/—		
125/125L	B	N	S	—/—		
160/160L	B	N	S	—/X		
250/250L		N	S	H/—	G	X
630/630L		N	S	—/H	G	X
800		N	S	—/H	G	X
1250			S	H/—	G	
1600			S	H/—	G	

Circuit Breaker Protection Features

Variable parmeter of thermal overload protective current setting
Characteristics of Thermal magnetic Over-current release
Characteristics of inverse time delay thermal tripping-Ranges of current settings of inverse time delay thermal

Ranges of current setting of inverse time delay thermal tripping and variable parameter of thermal overload protective current setting

Rated current of fram size Imn	Circumstance temperature						Rated current In	Current settings of inverse time delay		Instantaneous Current (A)Adjustable			Instantaneous Tripping Current	Instantaneous release current multiple selectable(In)
								40℃	Setting Ir1					
	+10℃	+20℃	+30℃	+40℃	+50℃	+60℃		A/B/C Phase	N Pole	5In	7.5In	10In		
160/1P 200/2P 200L/2P 63/63L 125/125L	1.19	1.03	1.06	1.0In	0.93	0.87	10A	10A	10A	-	-	-	500A	-
							12.5A	12.5A	12.5A	-	-	-	500A	-
							16A	16A	16A	-	-	-	500A	10
							20A	20A	20A	-	-	-	500A	10
							25A	25A	25A	-	-	-	500A	10
							32A	32A	32A	-	-	-	500A	10
							40A	40A	40A	-	-	-	500A	10
							50A	50A	50A	-	-	-	500A	10
							63A	63A	63A	-	-	-	630A	12
							80A	80A	80A	-	-	-	800A	12
							100A	100A	100A	-	-	-	1000A	12
							125A	125A	125A	-	-	-	1250A	12
160/160L	1.15	1.10	1.05	1.0In	0.94	0.88	32A	22.4-32A	22.4~32A	-	-	-	500A	10
							40A	28-40A	28~40A	-	-	-	500A	10
							50A	35~50A	35~50A	-	-	-	500A	10
							63A	44.1-63A	44.1~63A	-	-	-	630A	12
							80A	56-80A	56~80A	-	-	-	800A	12
							100A	70-100A	70-100A	-	-	-	1000A	12
							125A	87.5-125A	87.5-125A	-	-	-	1250A	12
							160A	112-160A	112-160A	-	-	-	1600A	12
250/250L (315A)	1.14	1.10	1.05	1.0In	0.95	0.87	125A	87.5-125A	87.5-125A	-	-	-	1250A	12
							160A	112-160A	112-160A	-	-	-	1600A	12
							(180A)	126-180A	126-180A	-	-	-	1800A	12
							200A	140-200A	140-200A	-	-	-	2000A	12
							(225A)	157.5~225A	157.5~225A	-	-	-	2250A	12
							250A	175~225A	175~225A	-	-	-	2500A	12
							(315A)	220.5~315A	220.5~315A	-	-	-	3150A	12
(400) 400L 630	1.13	1.11	1.04	1.0In	0.92	0.85	250A	175~250A	175-250A	1250	1875	2500	2500A	12
							315A	220.5~315A	220.5~315A	1575	2363	3150	3150A	12
							(350A)	245-350A	245-350A	1750	2625	3500	3500A	12
							400A	280-400A	280~400A	1750	2625	4000	4000A	12
							500A	350-500A	350-500A	2500	3750	5000	5000A	-
							630A	441-630A	441-630A	3150	4725	6300	6300A	-
(630) 800	1.10	1.08	1.03	1.0In	0.84	0.77	400A	400A	400A	-	-	-	4000A	-
							500A	500A	500A	-	-	-	5000A	-
							630A	630A	630A	-	-	-	6300A	-
							(700A)	700A	700A	-	-	-	7000A	-
							800A	800A	800A	-	-	-	8000A	-
(1250) 1600	1.08	1.06	1.02	1.0In	0.8	0.73	800A	800A	800A	-	-	-	-	-
							1000A	1000A	1000A	-	-	-	-	-
							1250A	1250A	1250A	-	-	-	-	-
							1600A	1600A	1600A	-	-	-	-	-

Note:400L No instantaneous adjustable current, but with over-load long time delay adjustable current.

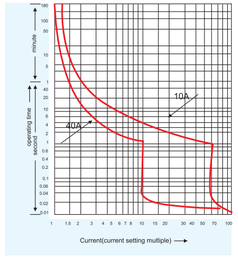
Technical Features

DAM1 series MCCB & ELB																										
																									
Breaking capacity		B	N	S	N	S	X	N	S	H	G	X	N	S	H	G	X	N	S	H	G	X	S	H	G
Rated current of frame size	Inm	125	125L		160	160L	160X	250(315)		250L		250X	630(400)		630L(400L)		400X	800(630)					1600(1250)		
Current range (A)	In	12.5,16,20,25,32,40,50, 63,80,100,125			32,40,50,63,80,100, 125,160		16,20,25,32,40,50, 63,80,100,(125)	125,160(180),200(225),250(315)					250,315(350),400,500,630		250,315(350),400		250,315 (350),400	400,500,630,(700),800				400,500, 630	800,1000,1250,1600		
Rated insulation voltage	Ui	690V			690V			690V					690V					690V				690V	690V		
Rated operating voltage	Ue	400/415V			400/415V			400/415V					400/415V					400/415V				400/415V	400/415V		
Number of poles		3/4	L=4		3/4	L=4		3/4	L=4				3/4	L=4				3/4				3/4	3/4		
Rated current of N pole		=In			=In			=In					=In					=In					=In		
Icu AC400V/50Hz 0-CO Rated unltimate short-circuit breaking capacity	(kA)	25	35	50	35	50	70	35	50	65	85	200	35	50	70	85	200	35	50	70	85	200	65	85	100
Ics AC400V/50Hz 0-CO-CO Rated service short-circuit breaking capacity	(kA)	12.5	17.5	37.5	26.25	37.5	70	26.25	37.5	48.75	51	200	26.25	37.5	52.5	52.5	200	35	37.5	52.5	52.5	200	50	50	50
Icm(peak)/cos ϕ AC400V/50Hz 0-CO Rated short-circuit making capacity	(kA)	40/0.3	73.5/0.25	105/0.25	73.5/0.25	110/0.25	440	77/0.25	114/0.25	143/0.2	178/0.2	440	77/0.25	110/0.25	154/0.2	187/0.2	440	77/0.25	110/0.25	154/0.2	187/0.2	440	105/0.25	143/0.2	220/0.2
Rated the current of remnant short-circuit making Capacity(I△m)KA/cos ϕ		9/0.5			19/0.5			12/0.3					19/0.5												
Rated the current of remnant motion I△n	(mA)	30	100	300	100	300		100	300	500			100	300	500	1000									
Rated the current of remnant no-motion I△no	(mA)	15	50	150	50	150		50	150	250			50	150	250	500									
Icm AC400V/50Hz Is Rated short-time withstand current	(kA)	—			—			—					—					10					20		
Uimp Rated impulse withstand voltage	(V)	10000			8000			8000					8000					8000					8000		
Dielectric property	(V)	2500			3000			3000					3000					3000					3000		
Endurance	Total cycles	10000			8000			8000					8000					5000					3000		
	Electrical endurance	1500			1000			1000					1000					1000					500		
	Mechanical endurance	8500			7000			7000					4000					4000					2500		
Ionization distance	(Mm)	≤30/0			≤30/0※			≤30/0※					≤60/0※					≤80/0※					≤80/0※		
Over current trip unit	Thermal magnetic release	■			■			■					■					■					■		
	Intelligent trip unit	—			—			—					—					■					■		
Utilization category	Main circuit	A/0			A/0			A/B					A/B					A/B					A/B		
	Auxiliary circuit and control circuit	AC-15			AC-15			AC-15					AC-15					AC-15					AC-15		
Outline dimensions 	W(mm) 3P	76			90		90	105				105	140				140	210				406	210		
	W(mm) 4P	101	101		120	120	120	140	140			140	184				184	280				406	280		
	L(mm) 3P	120			120		120	170				254/3390	254				360	268				103.5	406		
	L(mm) 4P	120	155		120	120	120	170	210			254/3390	254				360	268				103.5	406		
	H(mm) 3P	70			70		70	103.5				103.5	103.5				103.5	103.5				15	138.5		
	H(mm) 4P	70	70		70	70	70	103.5	103.5			103.5	103.5				103.5	103.5				—	138.5		
Weight	Fixed version 3P/4P	0.92/1.3	—		1.2/1.6	—	1.2/1.6	2.7/3.5		41.5/5.5		5	5.1/7.1				5	9.6/12.5				25.4			17.2/22.2
	Plug-in version 3P/4P	1.2/1.5	—		1.4/1.8	—	1.4/1.8	3.2/4.2		4.6/6		8.2	6.5/8.5				8.2	—							—
	Dram-out version 3P/4P	—	—		—	—	—	3.6/4.6		5/6.4		9	6.5/8.7				9	12.2/15.3							22/30.1

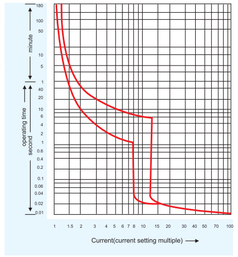
Note:The data in breaker are not normal specifications, the user should specity requirement.

Protective Curve

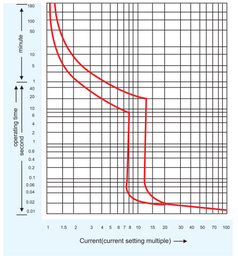
DAM1-63
DAM1-63L



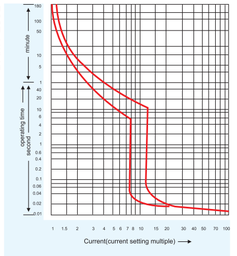
DAM1-125
DAM1-125L



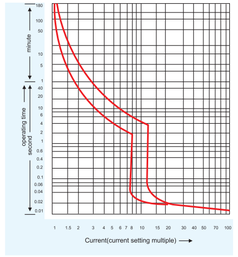
DAM1-160
DAM1-160L



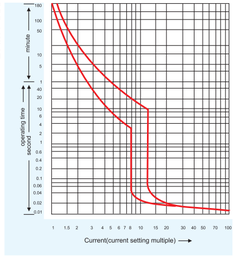
DAM1-250
DAM1-250L



DAM1-630(400)
DAM1-630L(400L)



DAM1-800



Breaking time for residual current operation of non-delay residual current type circuit breaker

Residual current	I△n	2I△n	5I△n	10I△n
Max.breaking time s	0.3	0.15	0.04	0.04

Note: for circuit breaker with I△≤30mA residual current, 0.25A substitutes 5I△n, meanwhile, 0.5A substitutes 10I△n

Operation character of time-delay residual current type circuit breaker

The limit and non drive time \ Max break time / The current of remnant	I△n	2I△n	5I△n	10I△n	
60	0.5	0.2	0.15	0.15	
100	0.8	0.4	1.3	0.3	
300	2	1	1.8	0.8	

Note: The time-delay type only suitable for residual current circuit breaker with I△n＞30mA. This table also suitable for model A, and then the current I△n should multiply by 1.4.

Operation characteristocs of adjustable time delay residual current type circuit breaker

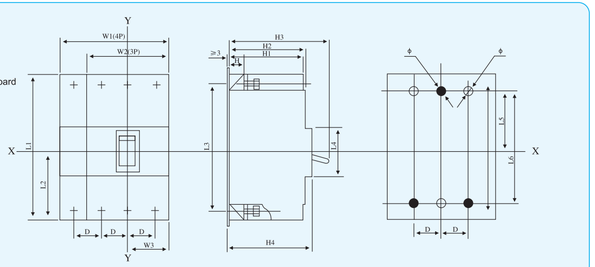
Rated current of frame size	Rated remnant operation current only adjustable	The rated remnant operation current and the limit and adjustable non drive time adjustable	
63	30-100-300mA	0-100-300mA	0-60-100ms
125	30-100-300mA	0-100-300mA	0-60-100ms
160	100-300-500mA	100-300-500mA	0-60-100ms
250	100-300-500mA	100-300-500mA	0-60-100-300ms
630(400)	300-500-1000mA(100-300-500mA)	300-500-1000mA(100-300-500mA)	60-100-300ms(0-60-100ms)

Parameters for pre-alarm type

Rated residual operation current	Initial pre-alarm current	Delay time s	Max. Output current of optical coupler	Max. working voltage of optical coupler
I△n	0.5I△n	0,10,30	50mA	20V DC

Fixed type

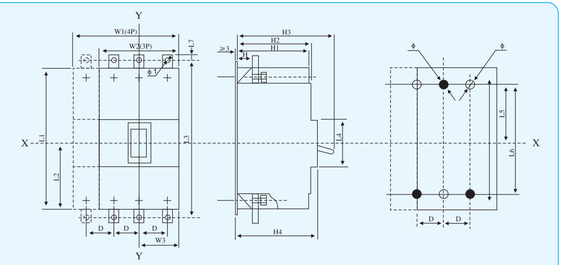
DAM1-63~160(L)
DAM1X-160
Connect wire in front of board



Type	D	L1	L2	L3	L4	L5	L6	W1	W2	H	H1	H2	H3	H ϕ	ϕ
DAM1-63/125	25	120	48	102	45	62	102	101	76	25.5	67.5	70	91	75	4.5
DAM1-63/125L	25	155	83	135	45	62	135	101	-	25.5	67.5	70	91	75	4.5
DAM1-160	30	120	48	102	45	62	102	120	90	27.5	67.5	70	93	75	4.5
DAM1X-160	30	120	48	102	45	62	102	120	90	27.5	67.5	70	93	75	4.5
DAM1-160L	30	155	83	135	45	62	135	120	-	27.5	67.5	70	93	75	4.5

Fixed type

DAM1-250~1600
DAM1-250~630L
DAM1X-250~800
Connect wire in front of board



Type	D	L1	L2	L3	L4	L5	L6	W1	W2	H	H1	H2	H3	H4	ϕ	L7	ϕ 1
DAM1-250	35	170	87.25	206	105	73.75	139	140	105	25	101.5	103.5	135	113	5.5	10.8	ϕ 8.5
DAM1-250L	35	210	112.5	246	105	73.75	179	140	-	25	101.5	103.5	135	113	5.5	10.8	ϕ 8.5
DAM1X-250	35	255	87.25	278.5	105	154.5	224	140	105	25	101.5	103.5	135	113	5.5	10.8	ϕ 8.5
DAM1X-400	43.75	339	125.25	366	105	192.5	299	140	183.75	25	101.5	103.5	135	113	5.5	12.0	ϕ 10.5
DAM1-630(400A)	43.75	254	125.25	281	105	107.25	214	140	183.75	25	101.5	103.5	135	113	5.5	12.0	ϕ 14
DAM1-630L(400L)	43.75	254	117.5	281	105	107.25	214	183.75	-	25	101.5	103.5	135	113	5.5	12.0	ϕ 10.5
DAM1-800	70	268	142.75	241	105	109.75	237	280	210	23	101.5	103.5	167.5	115	5.5	10.0	ϕ 11
DAM1X-800	70	406	142.75	479	105	256.5	375	280	210	23	101.5	103.5	167.5	115	5.5	10.0	ϕ 11
DAM1-1600	70	406	189	513	105	203	378	280	210	39	137	138.5	204.5	152	5.5	13.5	ϕ 11

Shunt release series

■ Shunt release application:

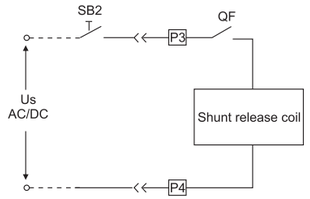
For remote tripping of the breaker.

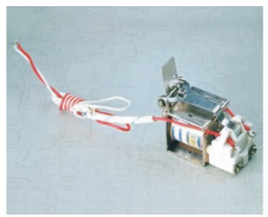
■ Characteristics of Shunt release:

Electrical accessories			Shunt release	
Range of supply voltage			(0.7-1.1)×Us	
Rated control supply voltage us	Power supply	AC 50Hz	220V	380V
		Power loss	150VA	150VA
		DC	110V	220V
		Power loss	150W	150W

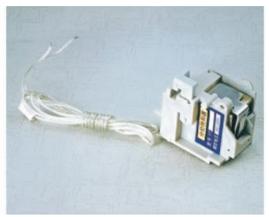
■ Wiring diagram of Shunt release:

SB2-OPening Push-Button(ready by user)
P3, P4-Terminal number
Us-Control power
QF-Auxiliary contact

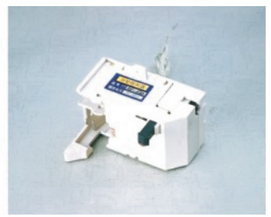




DAM1 circuit breaker series
Shunt release 125, 160FT



DAM1 circuit breaker series
Shunt release 250, 400FT



DAM1 circuit breaker series
Shunt release 630, 800, 1250FT

Under voltage release series

■ Under voltage release application:

Protects circuit and electric equiment when the voltage collapses.

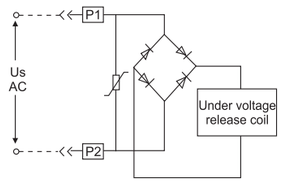
■ Characteristics of Under voltage release:

Ue(V)Rated operational voltage	AC415	AC220	DC110	DC220
Operational voltage	(0.35-0.7)×Ue			
Ensured closing voltage	(0.85-1.5)×Ue			
Ensured non closing voltage	≤0.35Ue			
Power loss	10VA		4W	

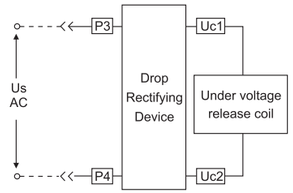
■ Wiring diagram of Under voltage release:

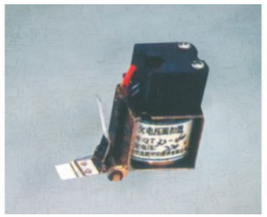
Us-Control Power
P1, P2-Teminal number Uc1, Uc2-Terminal number

63A-1600A Embeded



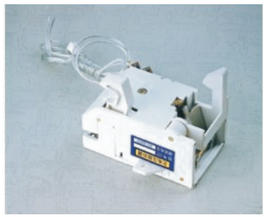
63A-1600A Attached





DAM1 circuit breaker series
Under voltage release 125, 160QT- Ⅱ

DAM1 circuit breaker series
Under voltage release 250, 400QT



DAM1 circuit breaker series
Under voltage release 630, 800, 1250QT

Auxiliary contacts series

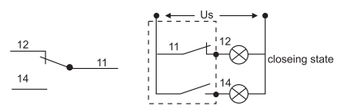
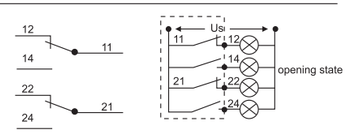
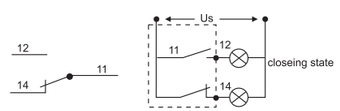
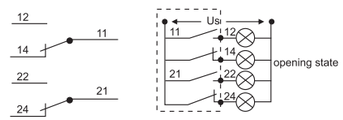
■ Auxiliary contacts application:

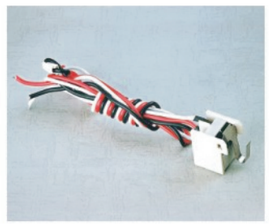
Automatically controls the auxiliary circuit of the MCCB.

■ Auxiliary contacts size:

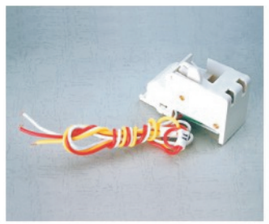
1).1N/O and 1N/C
2).2N/O and 2N/C
3).4N/O and 4N/C

■ Wiring diagram of Auxiliary contacts:

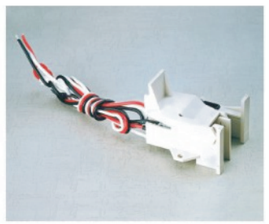
State of MCCB	State of auxiliary contacts	Diagram of Wiring
Close position	◆1 set of auxiliary contacts, with 2 contact points provided ◆For Inm=63A~225A	
	◆2 sets of auxiliary contacts, with 4 contact points provided ◆For Inm=250A~1600A	
Open position	◆1 set of auxiliary contacts, with 2 contact points provided ◆For Inm=63A~225A	
	◆2 sets of auxiliary contacts, with 4 contact points provided ◆For Inm=250A~1600A	



DAM1 circuit breaker series
Auxiliary contacts 125, 160FC



DAM1 circuit breaker series
Auxiliary contacts 250, 400FC



DAM1 circuit breaker series
Auxiliary contacts 630, 800, 1250FC

Alarm contacts series

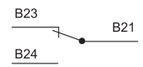
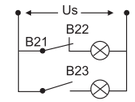
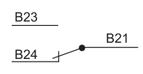
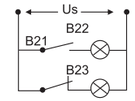
■ Alarm contacts application:

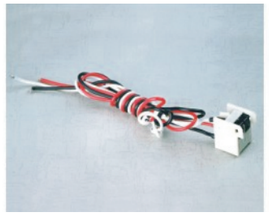
The alarm contacts are used for alarm of open action of current, and under voltage of circuit and equipment.

■ Alarm contacts size:

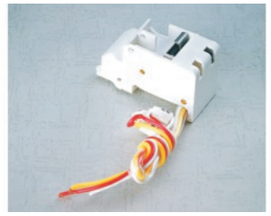
1)1N/O and 1N/C

■ Wiring diagram of Alarm contacts;

State of MCCB	State of alarm contacts	Diagram of Wiring
Close position		
Open position		



DAM1 circuit breaker series
Alarm contacts 125, 160BC



DAM1 circuit breaker series
Alarm contacts 250, 400BC

Auxiliary and alarm contacts series

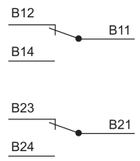
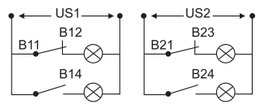
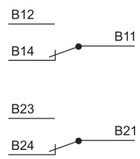
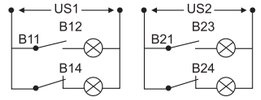
Auxiliary and alarm contacts application:

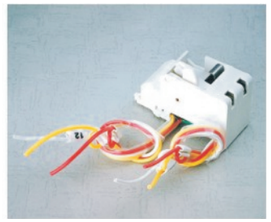
The auxiliary contacts are intended for automatical controlling of the auxiliary circuit of MCCB, and of open action of current, and under voltage of circuit and equipment.

Auxiliary and alarm contacts size:

1).1N/O and 1N/C+1alarm contacts
2).2N/O and 2N/C+1alarm contacts

Wiring diagram of Auxiliary and alarm contacts:

State of MCCB	State of alarm contacts	Diagram of Wiring
Close position		 Explanation:Us1 is auxiliary power Us2 is alarm power
Open position		 Explanation:Us1 is auxiliary power Us2 is alarm power



DAM1 circuit breaker series
Auxiliary and alarm contacts 250、400BC

Rotary handle operating mechanism

CS2 type rotary handle operating mechanism

CS2 type rotary handle
operating mechanism

- Mounted on MCCB.
- Key lock for MCCB in open position.
- Interlock with compartment door.
- Selectable accessories.

A type handle

A-1 type handle

- Short handle structure.
- Mounted on compartment door.
- Fitted with CS1 or CS2 operating mechanism.
- Degree of protection IP30.
- Selectable accessories.

A-2 type handle

- Long handle structure.
- Mounted on compartment door.
- Fitted with CS1 or CS2 operating mechanism.
- Degree of protection IP30.
- Selectable accessories.

Rotary handle operating mechanism

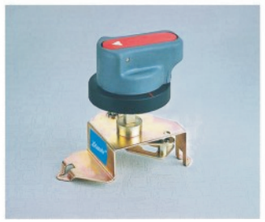
F1-1 type handle:

- Short handle structure.
- Mounted on compartment door.
- Fitted with CS1 or CSS operating mechanism.
- Degree of protection IP30.
  (The handle of IP54 is also availble on request)
- Selectable accessories.

F1-2 type handle:

- Long handle structure.
- Mounted on compartment door.
- Fitted with CS1 or CSS operating mechanism.
- Degree of protection IP30.
  (The handle of IP54 is also availble on request)
- Selectable accessories

CSS type rotary handle operating mechanism



CSS-63A-160A rotary handle operating mechanism

- Mounted on MCCB.
- Fitted with A type or F type handle.
- Interlock with compartment door.
- Selectable accessories.

CSS-250A~400A rotary handle operating mechanism

CSS-630A~1600A rotary handle operating mechanism

DAM1 Electrical operating mechanism

- The electric operating mechanism is available remote close of MCCB.
- The types of electrical operating mechanism are shown in table 2.

Types of electrical operating mechanism:

Rated current of frame size Imn	Types of electrical operating mechanism			
	CD1	CD2	CD3	CD
63A	-	CD2-63	-	-
125A	-	CD2-100	-	-
160A	-	CD2-160	-	-
250A	CD1-250	CD2-250	-	CD-250
400A	CD1-400	-	-	CD-400
630A	-	-	CD3-630	CD-630
800A	-	-	CD3-800	CD-800
1250A	-	-	CD3-1250	CD-1250
1600A	-	-	CD3-1600	CD-1600

Description of selection:

Customer can make selection of the electrical operating mechanism according to the prices and types e.q. If you want to order

CD type 630A electric operating mechanism, having rated operational voltage AC220V with total quantities of 12, you should write in this way in your order: CD-630A/AC220V, 12 sets.

CD1 type electrical operating mechanism

CD1 type electrical operating mechanism

- Direct-acting, and manual close/open of MCCB.
- Equiped with emergency opening button.
- Customer can fit padlock on it for MCCB in open position (up to a Max of 3 pandlocks with max 6mm dia). It can be supplied with:
- One key and one lock for one MCCB.
- One key and tow locks for two MCCB.
- Two keys and three locks for three MCCB.
- Suitable for MCCB:
  ① Inm=250A
  ② Inm=400A

The specific type should be stated clearly in your order.

- Selectable accessories.

Characteristic

Characteristics of CD1 electrical operating mechanism

Electrical accessories				Electrical operating mechanism	
Range of supply voltage				(0.85-1.1) × Us	
Rated control supply voltage	Power supply	AC 50Hz		220V	380V
		Power loss	Irrush power consumption	510VA	510VA
			Normal load	360VA	360VA
		DC		110V	220V
		Power loss	Irrush power consumption	510W	510W
			Normal load	360W	360W
Closing time				0.1S	
Opening time				0.1S	

CD2 Type Electical operating mechanism

1. Direct-acting,and manual clse/open of MCCB.
2. Suitable for MCCBs:
   ①Inm=63A
   ②Inm=100A
   ③Inm=160A
   The specific type should be stated clearly in your order.
3. Selectable accessories.

Electrical accessories				Electrical operating mechanism	
Range of supply Voltage				(0.85-1.1)×Us	
Rated control supply voltage	Power supply	AC 50Hz		220V	380V
		Power loss	Irrupt power loss	220VA	200VA
			Normal power loss	110VA	110VA
		DC		110V	220V
		Power loss	Irrupt power loss	200W	200W
			Normal power loss	110W	110W
Closing time				0.1s	
Opening time				0.1s	

CD3 type energy stored electrical operating mechanism

CD3 type energy stored electrical operating mechanism

- Spring charged by motor and/or manual.
- Close outed by motor (close magnet) and/or manual.
- For closing of MCCB. The procedures are energy stored with spring charged by motor,then closing MCCB.
- Having electrical opening function.
- Equiped with emergency opening button.
- Customer can fit padlock on it for MCCB in open position (up to a Max of 3 pandlocks with max 6mm dia). It can be supplied with:
- One key and one lock for one MCCB.
- One key and two locks for two MCCB.
- Two keys and three locks for three MCCB.
- Suitable for MCCB: ①Inm=630A ②Inm=800A ③Inm=1250A ④Inm=1600A
  The specific type should be stated clearly in your order.
- Selectable accessories.

Characteristic

Characteristics of CD3 electrical operating mechanism

Electrical accessories				Electrical operating mechanism	
Range of supply voltage				(0.85-1.1) × Us	
Rated control supply voltage	Power supply	AC 50Hz		220V	380V
		Power loss	Irrush power consumption	660VA	660VA
			Normal load	180VA	180VA
		DC		110V	220V
		Power loss	Irrush power consumption	600W	600W
			Normal load	180W	180W
Closing time				0.1S	
Opening time				0.1S	