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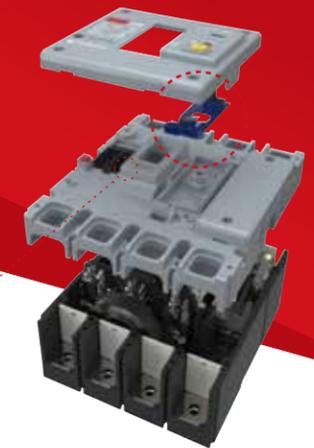
CDM3S 塑壳断路器

The CDM3S series products are a new generation of products that inherit the classic technology platform and are newly created, including CDM3S thermal magnetic molded case circuit breaker, CDM3LS residual current action circuit breaker and CDM3G isolating switch.

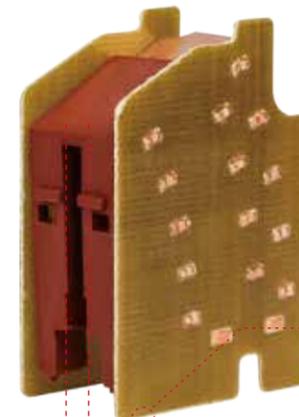
The new series of products fully cover frame currents from 63 to 1600A, with stronger structural design and more diverse accessories. The innovative thermal magnetic molded case circuit breaker communication function improves wiring capabilities and creates higher cost performance and reliability for customers. products to meet the application needs of various customers.



The reinforced rib design of the 160-degree shell frame is stronger and can withstand a load of more than 2000N.

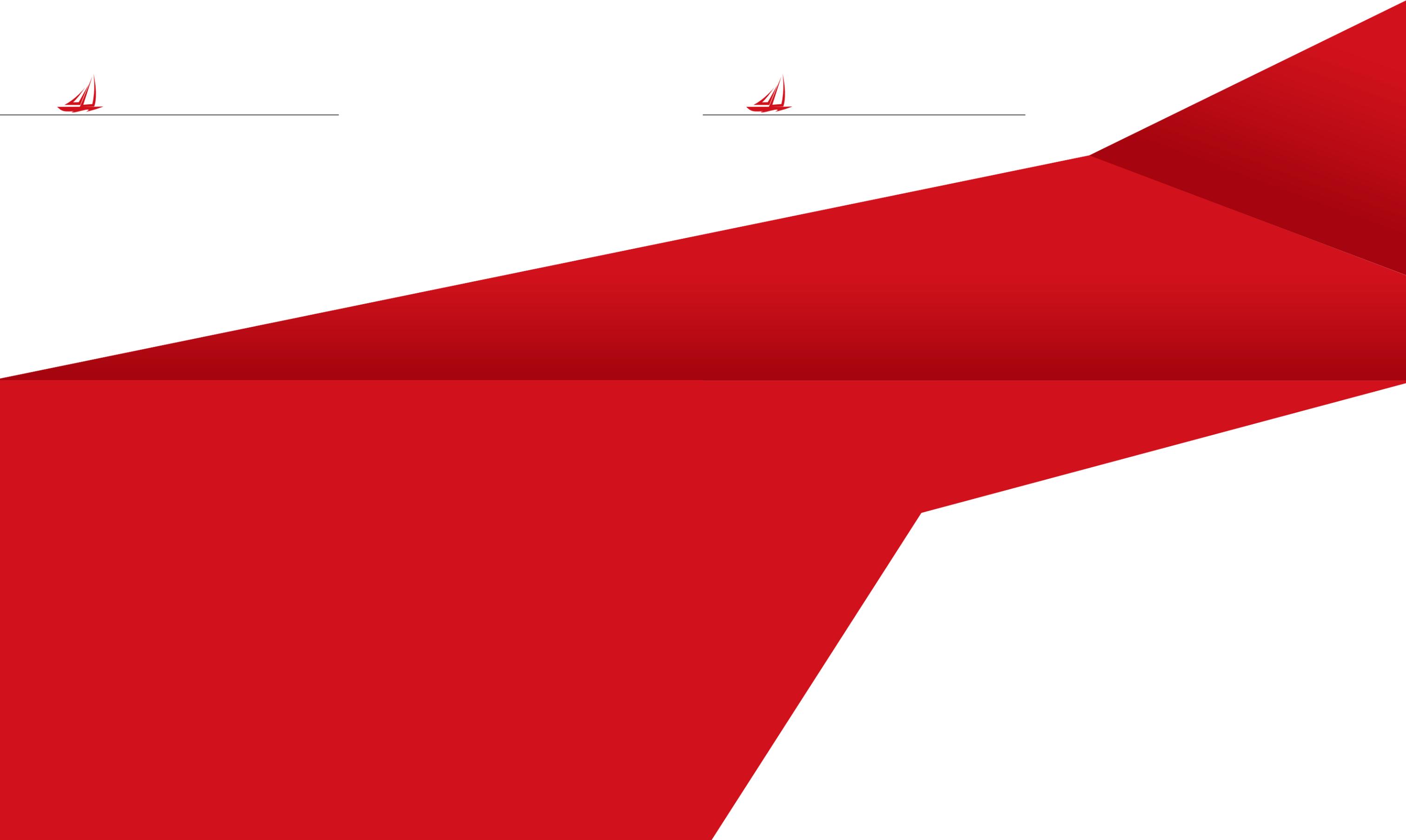


CDM3LS electronic circuit board innovative closed design, stronger protection capability



3.44mm

Patented arc extinguishing chamber design and narrow gap arc extinguishing technology, safe and reliable



Product description

Product introduction

CDM3S series plastic case circuit breaker (hereinafter referred to as: CDM3S), in low-voltage distribution lines, can connect, carry and break current under normal circuit conditions, and can also connect and carry a certain amount of current under specified abnormal circuits. A mechanical switch that time and breaks current, providing protection to lines and equipment when overload, short circuit, or undervoltage occur on distribution lines (accessory function). It is widely used in low-voltage power consumption places such as electric power, construction, industry, and OEM.



- Frame grade: 63AF, 125AF, 160AF, 250AF, 400AF, 630AF, 800AF, 1250AF, 1600AF
- Rated working voltage U_e : 400/415V, 500V, 690V
- Breaking capacity: covers common breaking in the power distribution field: 25kA, 35kA, 50kA, 70kA, 75kA (See the parameter table for details of the specific divisions of each shell frame)
- Number of poles: including 2-pole, 3-pole and 4-pole products
- Release type: single magnetic type, thermal magnetic type
- Installation method: fixed, plug-in, drawer

Standards compliant

Product meets standards:

- GB/T 14048.1 General provisions
- GB/T 14048.2 Circuit breaker
- IEC 60947-1 General principles
- IEC 60947-2 circuit breaker

Extreme environment usage standards:

- IEC 60068-2-1 (low temperature) GB/T 2423.1
- IEC 60068-2-2 (high temperature) GB/T 2423.2
- IEC 60068-2-30 (alternating damp heat) GB/T 2423.2

Pollution level

The operating pollution level of CDM3S is Level 3

In the environment defined by the IEC 60947-1 and 60664-1 standards (industrial environment).

Protection level

The CDM3S body complies with IP protection level: IP30 (except wiring terminals)

CDM3S circuit breaker installed in switch cabinet:
 circuit breaker with toggle handle: IP40
 Circuit breaker with rotary handle: IP40
 Circuit breaker with electric operating mechanism: IP40

Altitude

Normal working altitude: $\leq 2000m$

If it needs to be installed at an altitude of more than 2000m, the change in dielectric strength and the drop in air temperature must be taken into consideration.

Please refer to the altitude derating coefficient table for use, or please contact us

Ambient temperature

Normal working conditions: $-5\sim 40^\circ C$ For $-40^\circ C\sim -5^\circ C$, $40^\circ C\sim 70^\circ C$, please contact us.

If the working environment temperature exceeds $40^\circ C$, please refer to the temperature derating coefficient table for use;

Storage temperature: $-40\sim 70^\circ C$

(If the storage temperature is lower than normal working conditions, the product should be returned to working conditions and left to stand for at least 24 hours before being put into use)

Humidity

Normal operating humidity: When the ambient air humidity is $+40^\circ C$, the relative humidity of the atmosphere cannot exceed 50%;

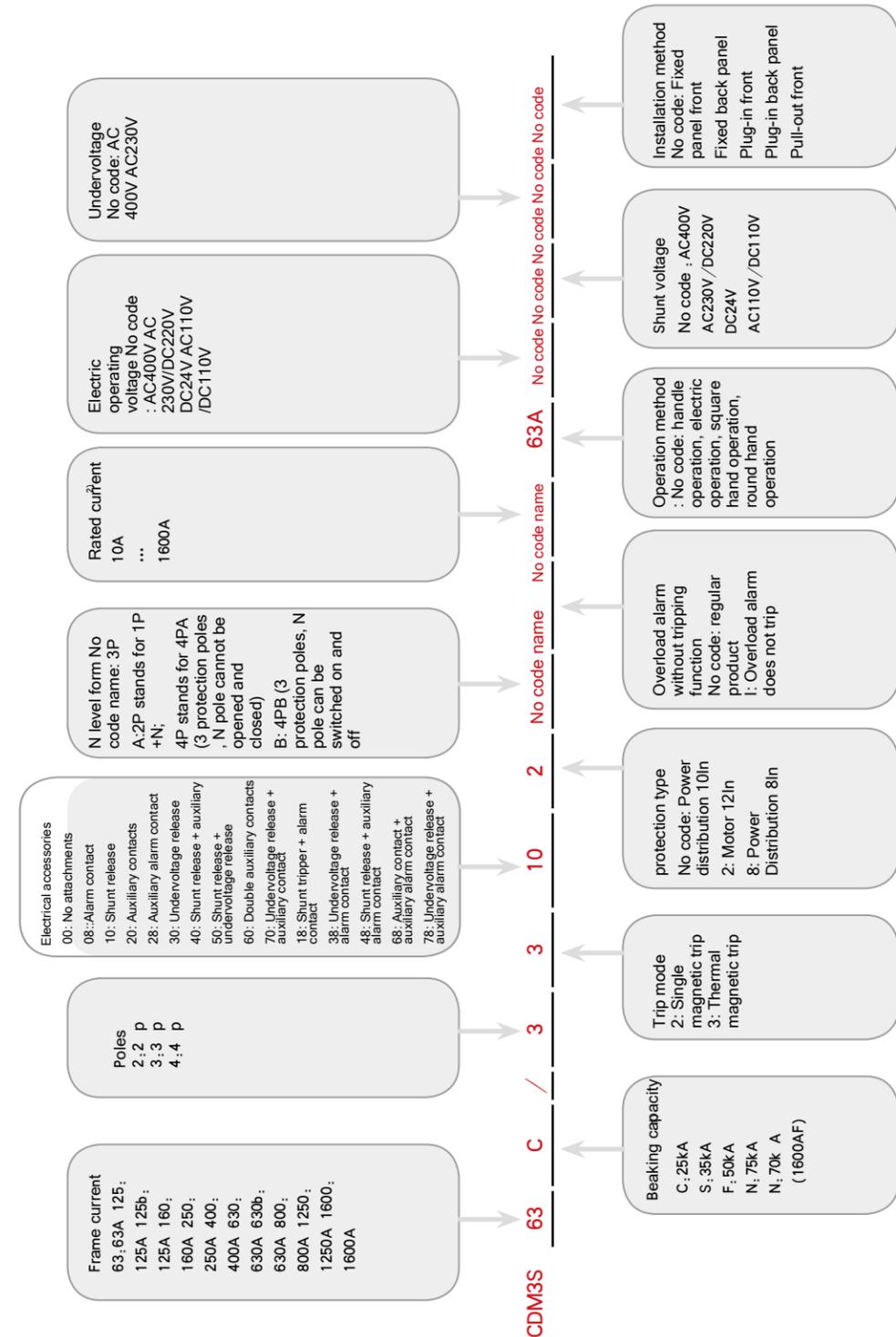
If the temperature is lower, it can be used under higher relative humidity conditions; for example: at $+20^\circ C$, up to 90%. Special measures should be taken for condensation that occasionally occurs due to temperature changes;

Reliable contact indication with isolation function conforms to the isolation defined in IEC standard GB/T 14048.2

- The isolation position corresponds to the O (OFF) position
- Only when the contacts are truly open can the operating handle indicate the "OFF" position
- Rotating handles or electric operating mechanisms do not alter the reliability of the contact indication system

Product model

Item Description



Remarks: 1: Please refer to the technical parameter page for the corresponding breaking capacity of each frame.

2: Please refer to the technical parameter page for details of the rated current corresponding to each frame.



Derating factor table

Altitudes below 2000 meters have no effect on circuit breaker performance. Beyond this 2000m, the reduction in air insulation properties and cooling capacity must be considered; corrections must be made according to the coefficients given in the table below.

Altitude (m)	2000	2500	3000	3500	4000	4500	5000
Insulation voltage U_i (V)	800	728	728	664	664	616	616
Impulse withstand voltage U_{imp} (kV)	8	7	7	6.5	6.5	6	6
Maximum operating voltage U_e (V)	690	690	690	660	600	600	550
Power frequency withstand voltage (V)	2000	1820	1820	1660	1660	1540	1540
Rated operating current value I_n (A) in 40°C environment	$1I_n$	$0.98I_n$	$0.94I_n$	$0.92I_n$	$0.88I_n$	$0.86I_n$	$0.85I_n$

Temperature derating coefficient table

The environmental operating temperature of the product is: $-5^{\circ}\text{C}\sim 40^{\circ}\text{C}$. When the temperature exceeds 40°C , the high temperature will have an impact on the performance of the release, and the overload protection will undergo a small change. In the time/current curve of the release, The I_r setting value of the circuit breaker must be corrected according to the following coefficients. If used between $-40^{\circ}\text{C}\sim 25^{\circ}\text{C}$, please contact us.

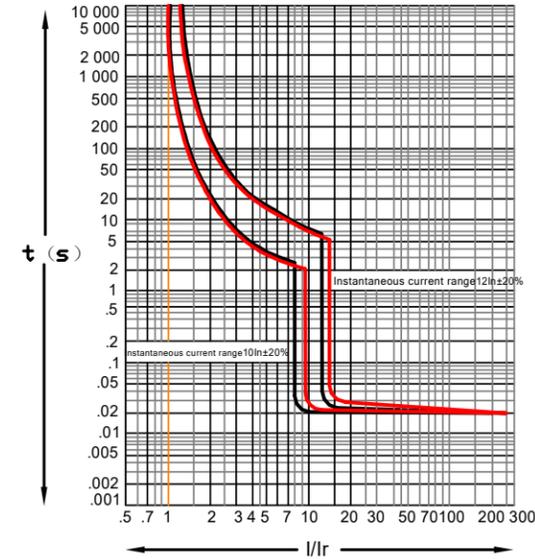
Name	Circuit breaker model	Ambient temperature °C														
		-40°C	-35°C	-30°C	-25°C	-20°C	-15°C	-10°C	-5°C	0°C	40°C	45°C	50°C	55°C	60°C	70°C
CDM3S	63C/S	1.36	1.34	1.33	1.32	1.3	1.29	1.25	1.2	1.15	1	0.96	0.95	0.93	0.91	0.87
	125S	1.35	1.34	1.33	1.32	1.3	1.29	1.25	1.2	1.15	1	0.96	0.95	0.93	0.91	0.86
	125C/S	1.35	1.33	1.31	1.3	1.29	1.19	1.16	1.14	1.12	1	0.96	0.95	0.93	0.91	0.86
	63F/125F/125bF/125bN	1.36	1.35	1.33	1.31	1.3	1.2	1.17	1.15	1.13	1	0.97	0.96	0.94	0.92	0.88
	160S	1.36	1.35	1.34	1.33	1.31	1.25	1.21	1.19	1.15	1	0.92	0.94	0.94	0.91	0.85
	160F/N/H	1.4	1.38	1.37	1.36	1.33	1.27	1.23	1.2	1.16	1	0.93	0.95	0.94	0.93	0.86
	250S	1.43	1.42	1.36	1.32	1.28	1.24	1.17	1.16	1.14	1	0.92	0.96	0.93	0.91	0.81
	250F/N/H	1.48	1.46	1.39	1.35	1.3	1.26	1.19	1.17	1.15	1	0.93	0.95	0.93	0.91	0.88
	400F/N/H	1.59	1.58	1.55	1.52	1.44	1.42	1.4	1.32	1.28	1	0.94	0.94	0.92	0.87	0.87
	630F/N/R	1.41	1.39	1.35	1.31	1.29	1.24	1.21	1.15	1.13	1	0.94	0.93	0.92	0.9	0.86
	630bF/N/R	1.41	1.39	1.35	1.31	1.29	1.24	1.21	1.15	1.13	1	0.94	0.93	0.92	0.9	0.86
	800F/N/R	1.4	1.37	1.35	1.33	1.31	1.29	1.24	1.22	1.18	1	0.95	0.94	0.93	0.91	0.79
	1250F/N	-	-	-	-	-	-	-	-	1.18	1	0.96	0.89	0.83	0.75	-
	1600F/N	-	-	-	-	-	-	-	-	1.16	1	0.98	0.96	-	-	-

* Note that the correction coefficient is an expression of the action value and does not mean that the product can be used for upflow.

Trip curve diagram

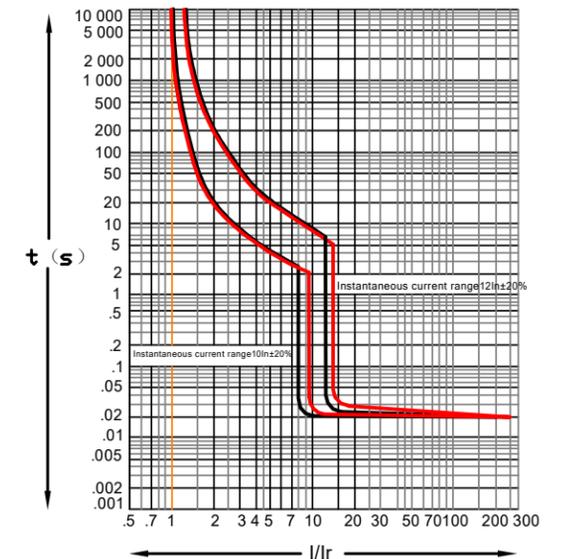
CDM3S -63AF

CDM3S-63AF 40A-63A The black wire is power distribution protection, and the red wire is motor starting protection;
10A-32A Instantaneous operating current is $400A\pm 20\%$



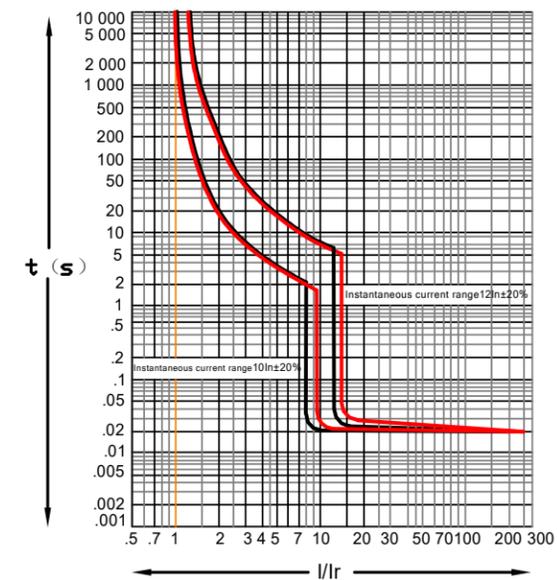
CDM3S-63F, 125AF

CDM3S-63F, 125AF 10~125A The black wire is power distribution protection, and the red wire is motor starting protection;
10~32A Instantaneous operating current is $400A\pm 20\%$



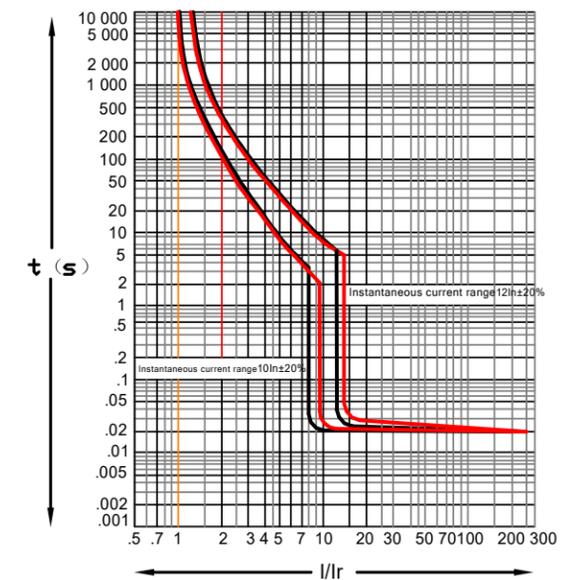
CDM3S-125bAF

CDM3S-125bAF 40A-100A The black wire is power distribution protection, and the red wire is motor starting protection;
16A-32A Instantaneous operating current is $400A\pm 20\%$



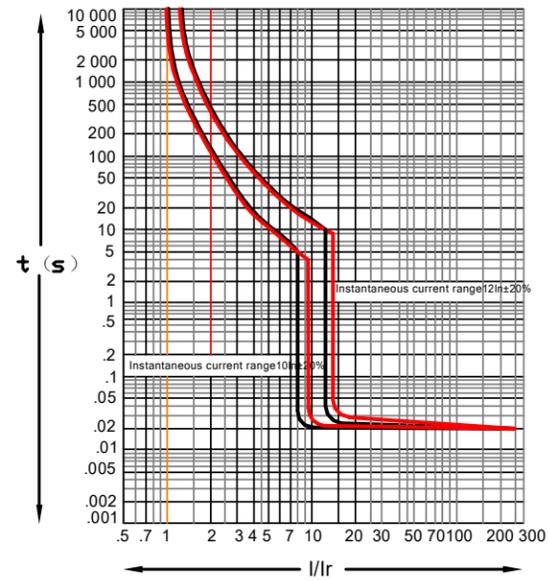
CDM3S-160/250AF

CDM3S-160AF 100A-160A The black wire is power distribution protection, and the red wire is motor starting protection;
CDM3S-250AF 100A-250A The black wire is power distribution protection, and the red wire is motor starting protection;



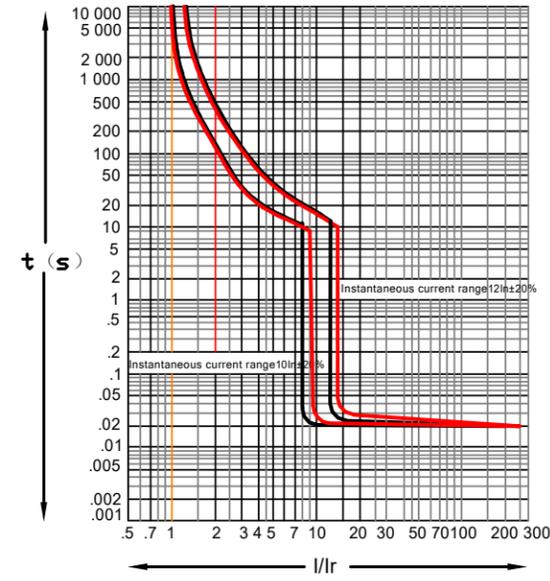
CDM3S-400AF

CDM3S-400AF 250A-400A
The black wire is power distribution protection,
and the red wire is motor starting protection;

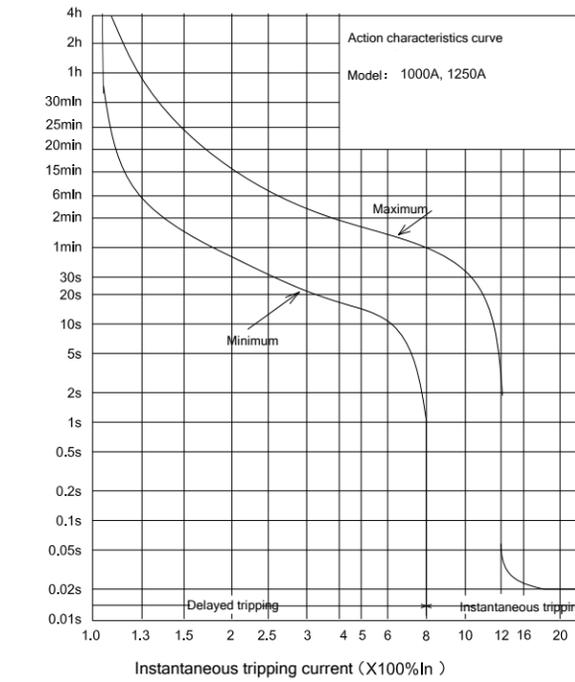


CDM3S-630AF

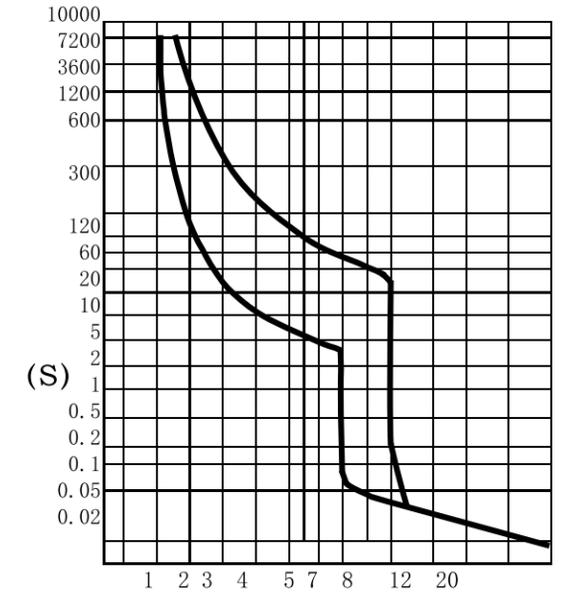
CDM3S-630AF 400A-630A
The black wire is power distribution protection,
and the red wire is motor starting protection;



CDM3S-1250AF

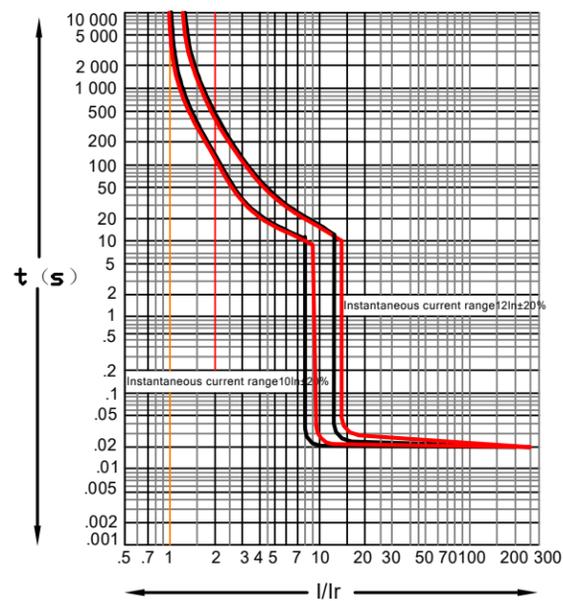


CDM3S -1600AF



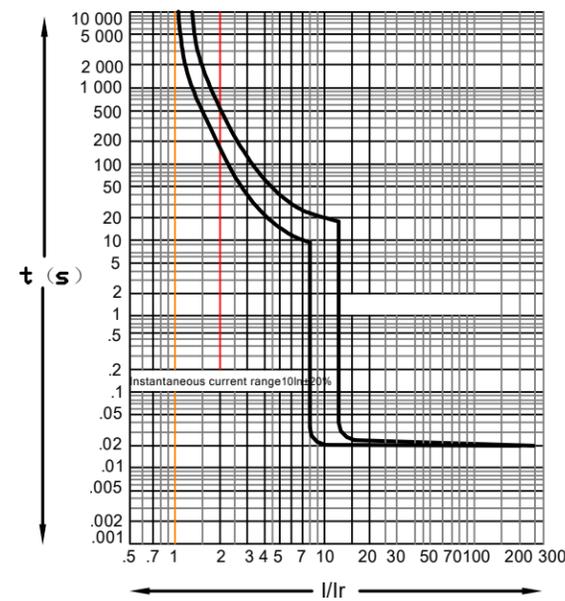
CDM3S-630bAF

CDM3S-630bAF 400A-630A
The black wire is power distribution protection,
and the red wire is motor starting protection;



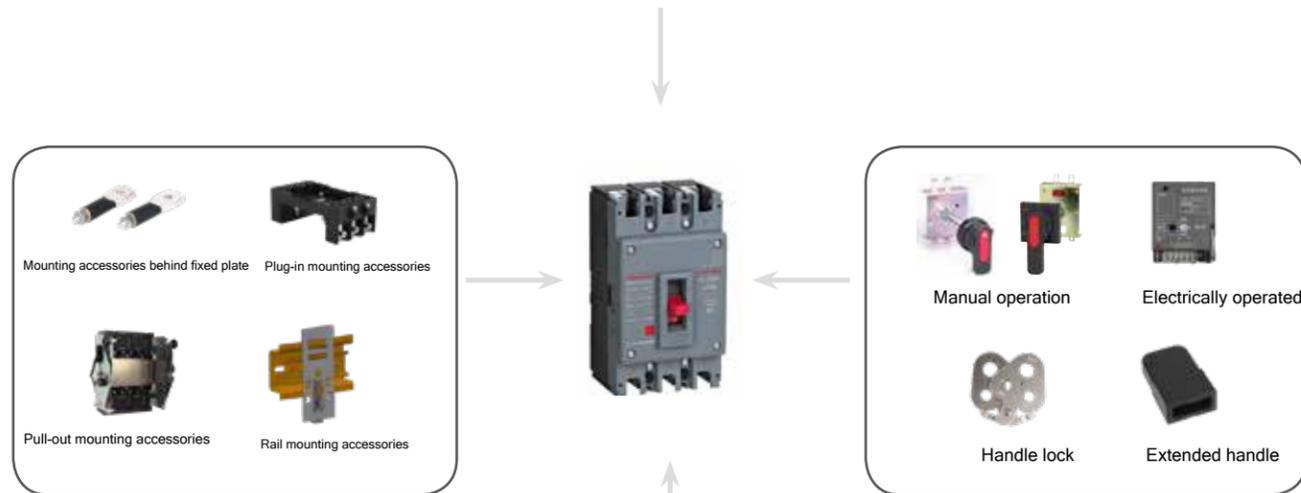
CDM3S-800AF

CDM3S-800AF 630A-800A
The black wire is power distribution protection



Product accessories

- Electrical accessories: shunt release, undervoltage release, auxiliary contacts, alarm contacts, auxiliary alarm integrated module.
- Installation accessories: fixed plate rear mounting accessories, plug-in mounting accessories, pull-out mounting accessories
- Operating accessories: hand operating mechanism, electric operating mechanism, handle lock, extended handle
- Other accessories: zero flashover cover, cable connector, dust cover, phase partition, expansion terminal



Accessory selection

Electrical accessories

CDM3S	Frame current	Installation location	Accessory name	Voltage form (shunt/undervoltage)	Form
	63/125	Left	Shunt tripper	AC230	lead 0.5m (default)
	125b		Alarmcontact	AC400V	lead 1m
	160/250	Right	Undervoltage release	DC24V	lead 1.5m
	400/630		Auxiliary contacts	DC110V/AC110V	lead 2m
	630b		Double auxiliary contacts	DC220V	terminal
	800		Auxiliary alarm contact		
	1250				
	1600				

Note: Except for undervoltage, the electrical accessories are in the form of lead wire 0.5m, optional 1m, 1.5m, 2m; The default form of undervoltage is terminal shunt voltage type: AC400V, AC230V/DC220V, DC24V, DC110V/AC110V Undervoltage voltage type: AC400V, AC230V (only supports left side installation)

Operating accessories

CDM3S	Frame current	Accessory name	Voltage Form
	63/125	Electric exercise	AC230V/DC220V
	125b	square hand exercise	AC400V
	160/250	round hand exercise	DC24V
	400/630	Extended Square Manipulation	DC110V/AC110V
	630b	Extended circular manipulation	
	800	Extended circular manipulation	
	1250		
	1600		

Other attachments

CDM3S	Frame current	Accessory name	Voltage Form
	63/125*	Extension terminal Interphase partitions dividing line column handle position lock Terminal cover	3P
	125b		4P
	160/250		
	400/630		
	630b		
	800		
	1250		
	1600		

Remarks: 125C/S/F breakers currently do not have handle position locks. Accessories are under development, so stay tuned.



Electrical accessories code and installation location

- Alarm contact
- Auxiliary contacts
- Shunt release
- Undervoltage release

Installation form instructions



Accessory name	Attachment code	Electromagnetic release	Thermal magnetic release	CDM3S-63		CDM3S-125		CDM3S-160/250		CDM3S-400/630/800/1250		CDM3S-1600
				3P	4P	3P	4P	3P	4P	3P	4P	3P
00: No internal accessories	200	300										
08: Alarm contact	208	308	□		□		□		□		□	□
10: Shunt release	210	310		●		●		●		●		●
20: Auxiliary contacts	220	320	■		■		■		■		■	■
28: Auxiliary alarm contact	228	328	□	■	□	■	□	■	□	■	□	■
30: Undervoltage release	230	330		○		○		○		○		○
40: Shunt release + auxiliary contact	240	340	■	●	■	●	■	●	■	●	■	●
50: Shunt release + Undervoltage release	250	350		○		○		○		○		○
60: Double auxiliary contacts	260	360	■	■	■	■	■	■	■	■	■	■
70: Undervoltage release + Auxiliary contacts	270	370	○	■	○	■	○	■	○	■	○	■
18: Shunt release + Alarm contact	218	318	□	●	□	●	□	●	□	●	□	●
38: Undervoltage release + Alarm contact	238	338	○	□	○	□	○	□	○	□	○	□
48: Shunt release + Auxiliary contacts + Alarm contact	248	348	■	●	■	●	■	●	■	●	■	●
68: Auxiliary contacts + Auxiliary contacts + Alarm contact	268	368	■	■	■	■	■	■	■	■	■	■
78: Undervoltage release + Auxiliary contacts + Alarm contact	278	378	○	■	○	■	○	■	○	■	○	■
80: Alarm contact Shunt release + Double auxiliary contacts (2K2B)	280	380	■	●	■	●	■	●	■	●	■	●
90: Undervoltage release + Double auxiliary contacts (2K2B)	290	390	○	■	○	■	○	■	○	■	○	■
09: Alarm contact + Alarm contact	209	309	□	□	□	□	□	□	□	□	□	□

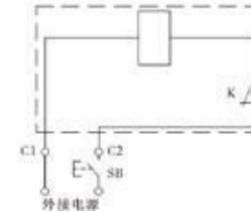
Remarks:

- 1 CDM3S-63C/125C/160S/250S-2P product can only install one accessory on the right cavity. Optional accessories: alarm, shunt, auxiliary, auxiliary alarm, undervoltage.
- 2 The default assembly method of auxiliary, alarm, shunt, double auxiliary and auxiliary alarm is lead wire (0.5m), optional terminals.
- 3 Default lead length of electrical accessories: 0.5m 4 The undervoltage assembly method is terminal.

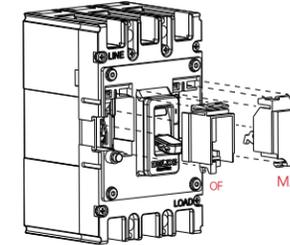
Shunt release

Function: The shunt release is an accessory for remote control of the opening; When the rated control power supply voltage is between 70% and 110%, the shunt release should reliably trip the circuit breaker; after the circuit breaker is tripped by the shunt release, it needs to be reset on site.

Shunt wiring diagram



MX installation diagram



MX shunt tripper



Note: The inside of the dotted line is the wiring diagram of the internal accessories of the circuit breaker.

Electrical characteristics

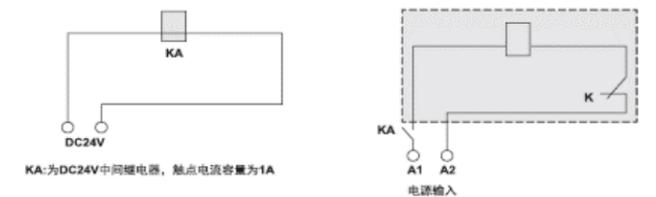
Model CDM3S-	Installation location	Minimum operating power of shunt coil (W)		
		AC400V	AC230V	DC24
63/125	left and right chambers -	155	150	96
125b	left and right chambers -	120	75	115
160/250 (2P)	left and right chambers -	155	150	96
160/250 (3P/4P)	left chamber -	135	165	109
	right chamber -	85	75	90
400/630/800	left and right chambers -	101	60	98
1250	left and right chambers -	101	60	98
1600	left chamber -	175	130	80

*Note: When the rated control power supply voltage is DC24V, there are two solutions:

1: The maximum length of copper conductors must meet the following requirements:

Rated control power supply voltage U _c (DC24V)	Wire area	
	1.5mm ²	2.5mm ²
100%U _c	150m	250m
80%U _c	100m	160m

2: If the requirements in the above table are not met, it is recommended to use the following wiring method for shunt release control circuit design:

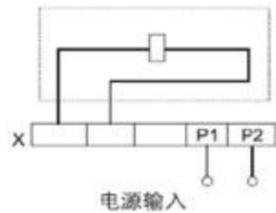


■ Undervoltage release

- Function: realize the under-voltage protection function of the circuit breaker, disconnect the circuit breaker when the power supply voltage is too low, and protect the electrical equipment;

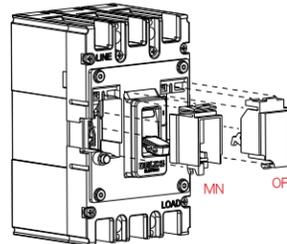
At 35%-70% of the rated operating voltage, the undervoltage release should reliably trip the circuit breaker;
When the rated operating voltage is 80%-110%, the undervoltage release should ensure that the circuit breaker can be closed;
When the rated operating voltage is lower than 35%, the undervoltage release should prevent the circuit breaker from closing;

- Undervoltage wiring diagram
- Undervoltage release installation diagram
- MN undervoltage release



Description: X-terminal block

Note: The inside of the dotted line is the wiring diagram of the internal accessories of the circuit breaker



Electrical characteristics

Model	Undervoltage coil holding power consumption (W)		Minimum suction power of undervoltage coil (W)	
	AC400V	AC230V	AC400V	AC230V
63/125	0.94	0.94	Assisted suction type	Assisted suction type
125b	0.44	0.44	Assisted suction type	Assisted suction type
160/250 (2P)	0.94	0.94	Assisted suction type	Assisted suction type
160/250 (3P/4P)	0.6	0.6	Assisted suction type	Assisted suction type
400/630/800	0.77	0.75	225	190
1250	6	2.3	Assisted suction type	Assisted suction type
1600	1.12	1.08	Assisted suction type	Assisted suction type

■ Alarm contact

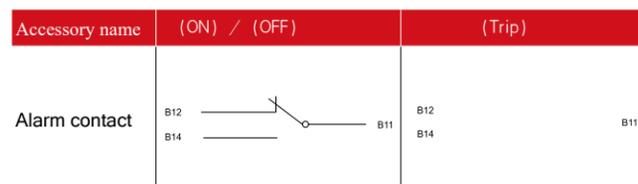
- Function: Accessory used to indicate whether the circuit breaker is in non-trip (ON or OFF) or trip (Trip) state.

When the alarm contact indicates that the circuit breaker is in Trip (trip) state, there are following possibilities:

- Overload or short circuit fault
- Manual test button tripping
- Shunt release action
- Line fault, undervoltage tripping device action



Electrical wiring diagram



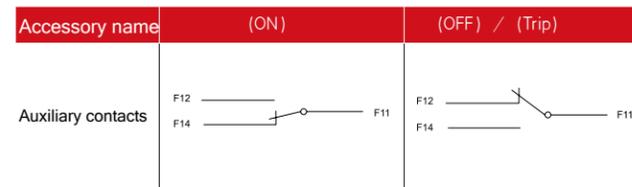
Alarm contact electrical parameters			
Agreed heating current (A)	3A		
Usage categories GB14048.5-1	AC15	DC13	
Operating Voltage 50/60 HZ	AC400V	0.3A	-
	DC220V	-	0.15A

■ Auxiliary contacts

- Function: Connected to the auxiliary circuit of switching equipment, used to indicate whether the circuit breaker is energized (ON) or not energized (OFF or Trip)



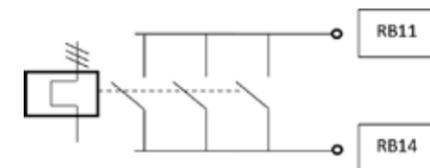
Electrical wiring diagram



Alarm contact electrical parameters:		
Agreed heating current (A)	3A	
Usage category GB14048.5-1	AC15	DC13
Working voltage 50/60 HZ	AC400V	0.3A
	DC220V	0.15A

■ Overload alarm does not trip

- The product uses a set of normally open contacts. When an overload fault occurs on any phase of the product, the product will give an alarm signal within a certain delay time range.



Wiring schematic diagram

Electrical parameters

Rated working voltage	Working current
AC250V	0.5A
DC230V	0.5A

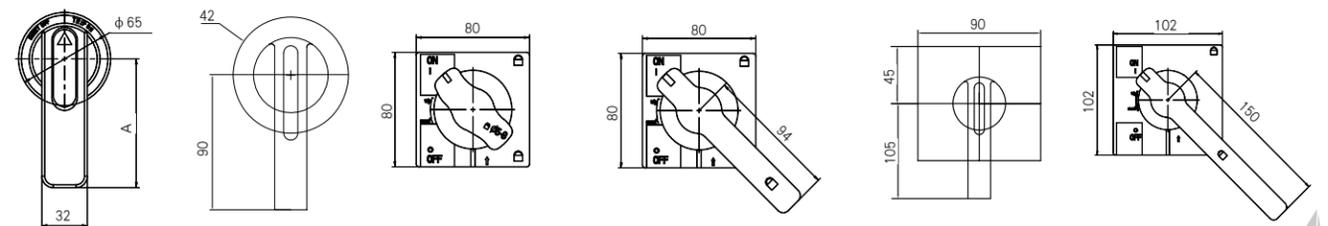
- Products with this function do not have overload protection.
- After the overload fault disappears, the product will continue to maintain the alarm state for a period of time due to thermal effects.
- The product defaults to a lead structure, and the default wire length is approximately 220mm.

■ Manual operating mechanism

- The circuit breaker is operated by rotating the handle. The ergonomically designed rotating handle makes the operation of the circuit breaker more flexible.
- There are two forms of rotary handle operating mechanisms: Direct rotation manual operation (round manual operation, square manual operation) Extended and rotated manual exercises (circular extended manual exercises, square extended manual exercises)
- User visual information, settings
3 position indications: open (OFF), close (ON), trip (TRIP)
When the door is open, the circuit breaker cannot be closed, and when it is closed, the door cannot be opened.
The shaft length of the extension handle can be customized according to the distance from the back of the circuit breaker to the door



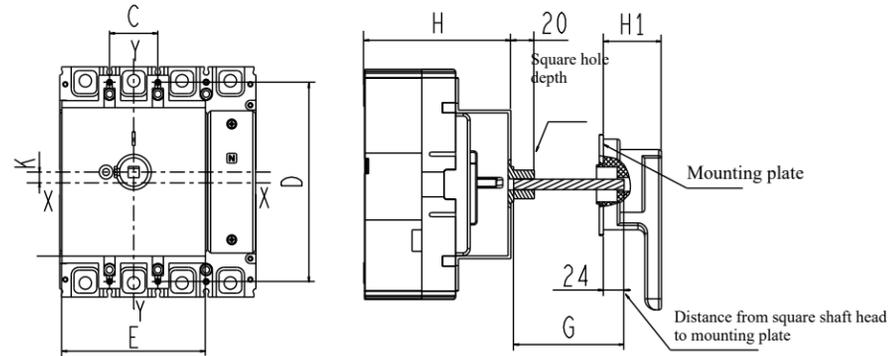
Direct manual size



Round: Suitable for CDM3S-63-800 Square: Suitable for CDM3S-63-250 Square: Suitable for DM3S-400-800 Square: Suitable for CDM3S-1250 Square: Suitable for CDM3S-1600



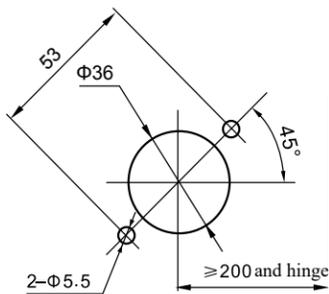
Installation dimensions of manual operating mechanism



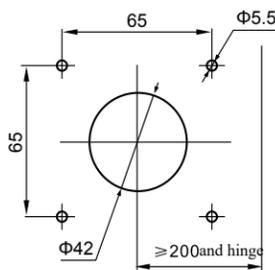
Model CDM3S-	A*	C	D	E	H	G * Direct manual operating mechanism	G* Extended manual operating mechanism (default)	round handle height H1	Square handle height H1	Base center and manual center offset K
63/125C 125S	65	25	111	75	110	40	150	48	48	0
63F, 125F	65	25	111	75	122.5	40	150	48	48	0
125bS	65	30	129	92	106	40	150	48	48	0
125bF/N	65	30	129	92	124	40	150	48	48	0
160/250S	65	35	143	105	107	40	150	48	48	0
160/250F/N/H	65	35	143	105	124	40	150	48	48	0
400F/N/R	95	44	215	150	154	40	150	48	70	5
630F/N/R	95	44	215	150	154	40	150	48	70	5
630bF/N/R	95	58	200	182	155	40	150	48	70	-6
800F/N/R	95	70	243	208	175	40	150	48	70	0
1250F/N	90	70	243	210	173	-	150	47	48	0
1600F/N	-	70	320	193	236	40	150	-	91	-

Note: 1.A*: 63-250 optional 95mm, 400-800 optional 125mm
 2.G*: If you need other lengths and sizes, please contact the manufacturer for customization.
 3. The manual operation of CDM3S-400/630/630b is not centered. Please pay attention to the K value when opening holes.

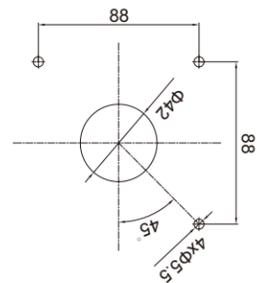
Cabinet door installation opening size



Round handle cabinet door opening
CDM3S-63~1250



Square handle cabinet door opening
CDM3S-63~1250



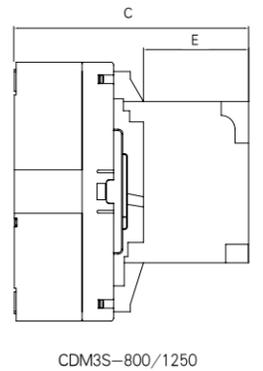
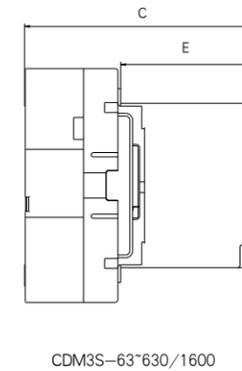
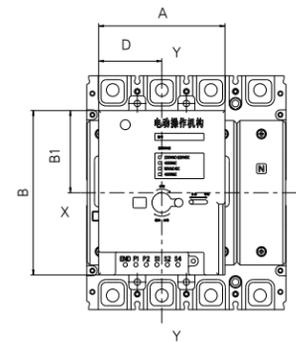
Square handle cabinet door opening
CDM3S-1600

Electric operating mechanism

- Function: Suitable for long-distance electric closing, opening and re-closing of circuit breakers and automatic control occasions; Rated voltage of electric operating mechanism: AC 400V; AC230V/DC220V; AC110V/DC110V; DC24V; Operating voltage range of electric operating mechanism: 80%-110%Ue
- Electric operating voltage and tolerance range
 63A-250A: The operation frequency is no more than 180 times per hour, and the action time is ≤0.7s
 400A-1600A: The operation frequency is no more than 60 times per hour, and the action time is ≤1s
- After a circuit breaker with an electric operating mechanism trips, the electric operating mechanism must first open and then close.



Electric operation size



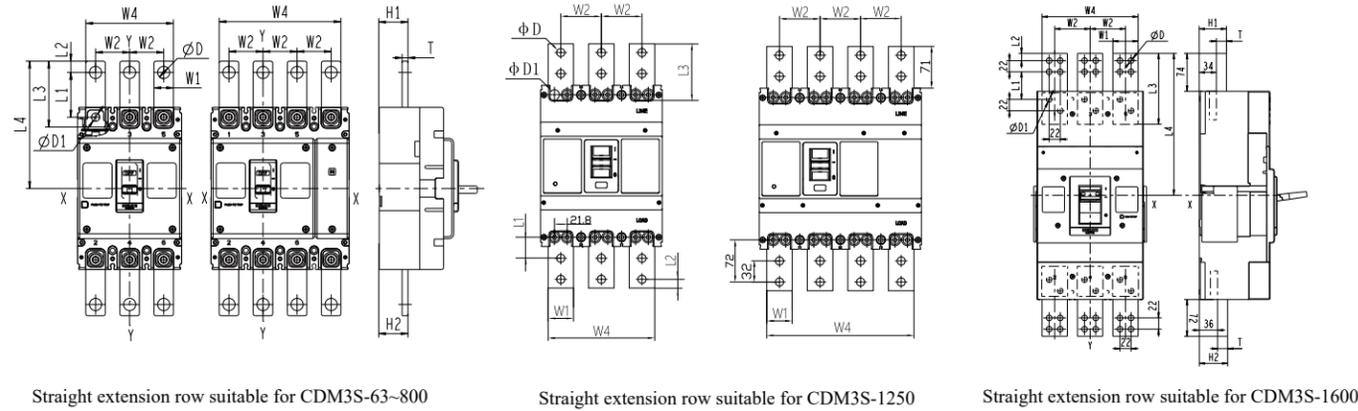
Model CDM3S-	A	B	B1	C	D	E
63/125C 125S	75	112	56	151	37.5	93
63F/125F	75	112	56	163.5	37.5	93
125bS	91	116	58	159	45.5	92
125bF/N	91	116	58	177	45.5	92
160/250S	91	118	59	163	45.5	96
160/250F/N/H	91	118	59	180	45.5	96
400F/N/R	131	175	95.5	243.5	65.5	147
630F/N/R	131	175	95.5	243.5	65.5	147
630bF/N/R	131	175	84.5	240	65.5	142
800F/N/R	131	175	99	255	65.5	115
1250F/N	210	174	87	190.3	105	78
1600F/N	131	177	63	281	65.5	141



■ Extension terminal

The extension terminals are connected to the standard terminals of the circuit breaker, thus providing a variety of wiring options in a small space: Busbar, the extension terminal can be connected to the incoming or outgoing side of the circuit breaker.

Straight expansion terminal size



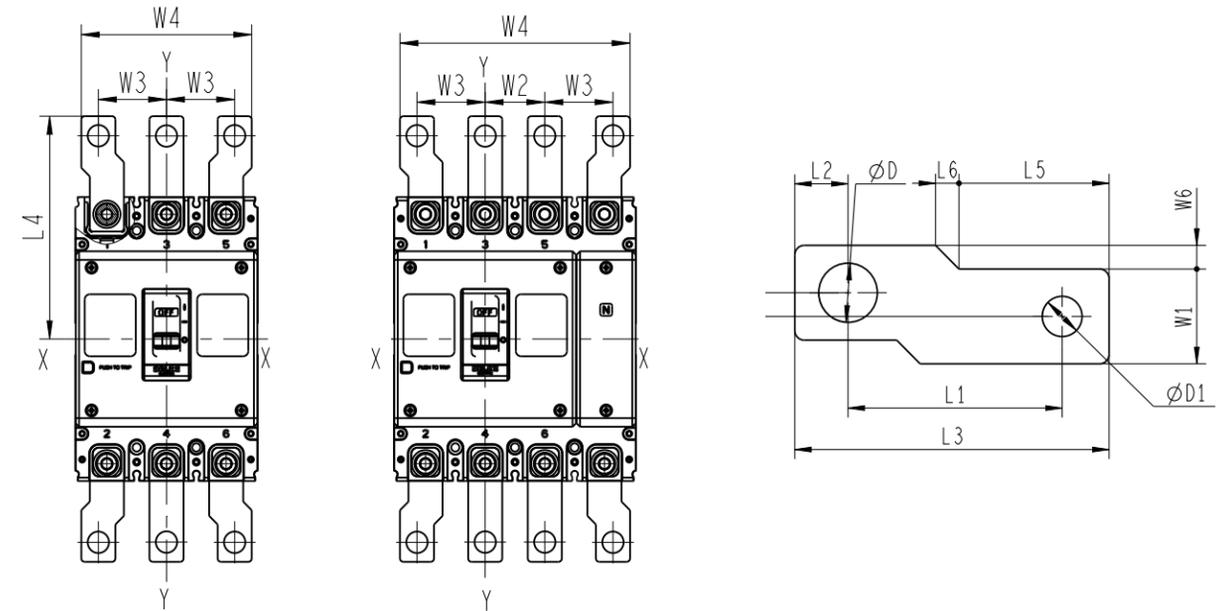
Straight extension row suitable for CDM3S-63~800

Straight extension row suitable for CDM3S-1250

Straight extension row suitable for CDM3S-1600

Model CDM3S-	Poles	Expanded vertical corresponding size											
		L1	L2	L3	L4	W1	W2	W4	H1	H2	T	φ D1	φ D
63/125	3P	24.5	8	40	90.5	16	25	66	26.5	26.5	3	8	8
	4P							91					
125bS	3P	24.5	8	40	98.5	16	30	76	27	26.5	3	8	8
	4P							106					
125bF/N	3P	24.5	8	40	98.5	16	30	76	31.5	31	3	8	8
	4P							106					
160/250S	3P	45.5	11.5	67	129.5	20	35	90	30	30	6	8.5	12.5
	4P							125					
160/250F/N/H	3P	45.5	11.5	67	129.5	20	35	90	29	29	6	8.5	12.5
	4P							125					
400F/N/R	3P	42.5	16.2	70	171.2	29.5	48	125.5	44.5	44.5	8	10.5	12.5
	4P							173.5					
630F/N/R	3P	42.5	16	70	171	30	48	126	48.5	48.5	12	10.5	12.5
	4P							174					
630bF/N/R	3P	86	20	120	217	40	58	156	49.5	49.5	10	13	13
	4P							214					
800F/N/R	3P	71.5	15	97.5	208	44	70	184	50.5	55	10	14	14
	4P							254					
1250F/N	3P	40	28	100	208.8	40	70	184	44/48	51/55	2*8/2*10	10	13
	4P							254					
1600F/N	3P(800A~1250)	53	14	125	278	50	70	190	49	51	15	11	11
	3P(1600A)								54	56	20		

Left and right expansion terminal dimensions



Left and right expansion terminal dimensions

Model CDM3S-	Poles	Alternate left and right extension rows corresponding sizes																
		L1	L2	L3	L4	L5	L6	W1	W2	W3	W4	W5	W6	H1	H2	T	φ D1	φ D
63/125	3P	24.5	8	40	90.5	20	5	16	25	30	76	5	5	26.5	26.5	3	8	8
	4P										101							
125 bS	3P	24.5	8	40	98.5	20	5	16	30	35	86	5	5	27	26.5	3	8	8
	4P										116							
125b F/N	3P	24.5	8	40	98.5	20	5	16	30	35	86	5	5	31.5	31	3	8	8
	4P										116							
160/250S	3P	45.5	11.5	67	129.5	32	5	20	35	40	100	5	5	30	30	6	8.5	12.5
	4P										135							
160/250F/N/H	3P	45.5	11.5	67	129.5	32	5	20	35	40	100	5	5	29	29	6	8.5	12.5
	4P										135							
400F/N/R	3P	42.5	16.2	70	171.2	34	10	29.5	48	58.5	146.5	10.5	10.5	44.5	44.5	8	10.5	12.5
	4P										194.5							
630F/N/R	3P	42.5	16	70	171	26	18	30	48	58.5	147	10.5	10.5	48.5	48.5	12	10.5	12.5
	4P										195							
630bF/N/R	3P	86	20	120	217	40	10	40	58	68	176	10	10	49.5	49.5	10	13	13
	4P										234							



■ Handle position lock

Model CDM3S-	A hole adaptation	B hole adaptation	C hole lead seal	Circuit breaker
	Padlock diameter	Padlock diameter	diameter	Handle lock position
63/125				
125b	φ 3.5 ~ 6.5	φ 3.5 ~ 5	φ 2.6	Opening position (re-buckle) Closing position
160/250				
400/630				
630b	φ 5 ~ 6.5	φ 3.5 ~ 5	φ 2.6	Opening position (re-buckle)
800				

Note: The padlock needs to be prepared by the user

■ Terminal cover

Terminal covers can be used to prevent accidents caused by accidental contact during use of the circuit breaker to ensure safety. There are long terminal covers (P30 after installation), short terminal covers and zero flashover covers for customers to choose from.

Long terminal cover dimensions

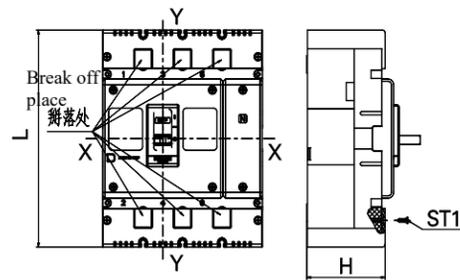
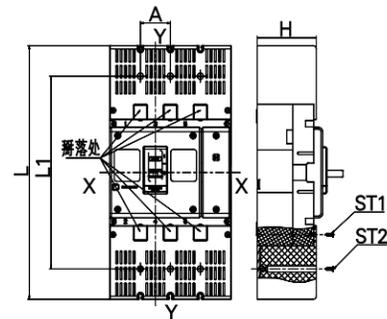
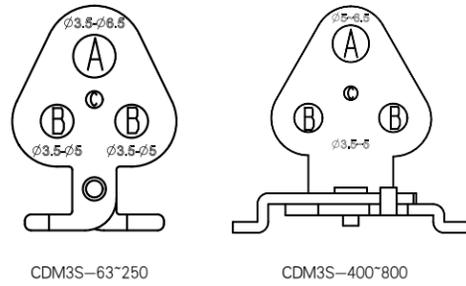
Model CDM3S-	L	L1	A	H	ST1	ST2
63/125C 125S	250	178	25	58	ST 2.6×10	ST 2.6×10
63F/125F	250	178	25	70.5	ST 2.6×10	ST 2.6×10
125bS	270	204	30	68.5	ST 2.9×10	ST 2.9×10
125bF/N	270	204	30	86.5	ST 2.9×10	ST 2.9×10
160/250S	286	217	35	70	ST 2.9×10	ST 2.9×10
160/250F/N/H	286	217	35	87	ST 2.9×10	ST 2.9×10
400F/N/R	477	365	48	99	ST 2.9×10	ST 2.9×10
630F/N/R	477	365	48	99	ST 2.9×10	ST 2.9×10
630bF/N/R	477	365	58	101	ST 2.9×10	ST 2.9×10
800F/N/R	500	388	70	112	ST 3.5×10	ST 2.9×10
1250 F/N	417.2	-	70	103	-	-

Note: There is no need to use the screws in the 125C and 125S terminal accessories. CDM3S-1250 installs the long terminal cover. No screws are required to fix it. It is fixed on the switch middle cover by buckles.

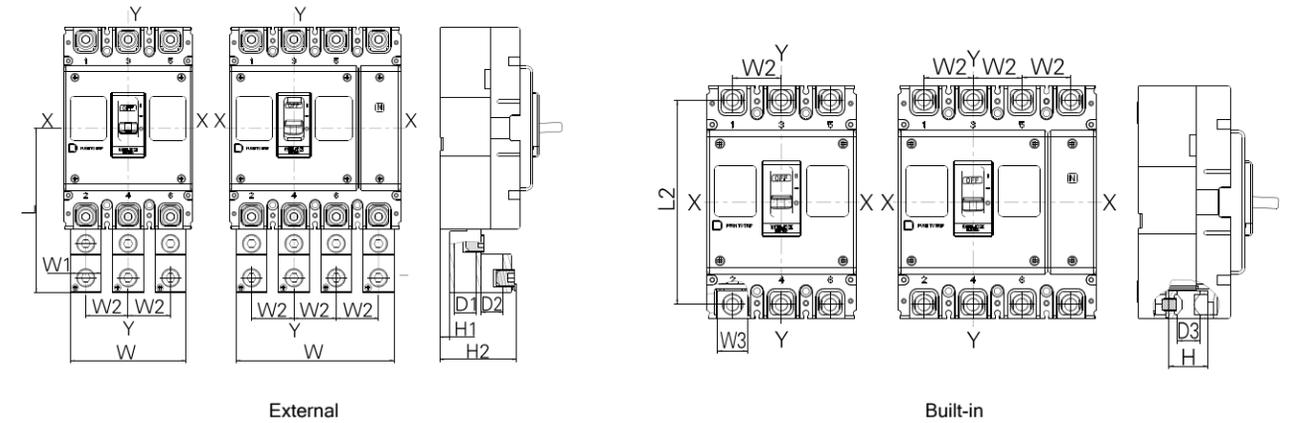
Short Terminal Cover & Zero Flashover Cover Dimensions

Model CDM3S-	L	H	ST1
63/125C 125S	150	58	ST 2.6×10
63F/125F	150	70.5	ST 2.6×10
125bS	169	68.5	ST 2.9×10
125bF/N	169	86.5	ST 2.9×10
160/250S	187	70	ST 2.9×10
160/250F/N/R	187	87	ST 2.9×10
400F/N/R	281	99	ST 2.9×10
630F/N/H	281	99	ST 2.9×10
630bF/N/H	281	101	ST 2.9×10
800F/N/H	304	112	ST 3.5×10

Note: The screws in the 125C and 125S terminal accessories are not required



■ Dividing line column

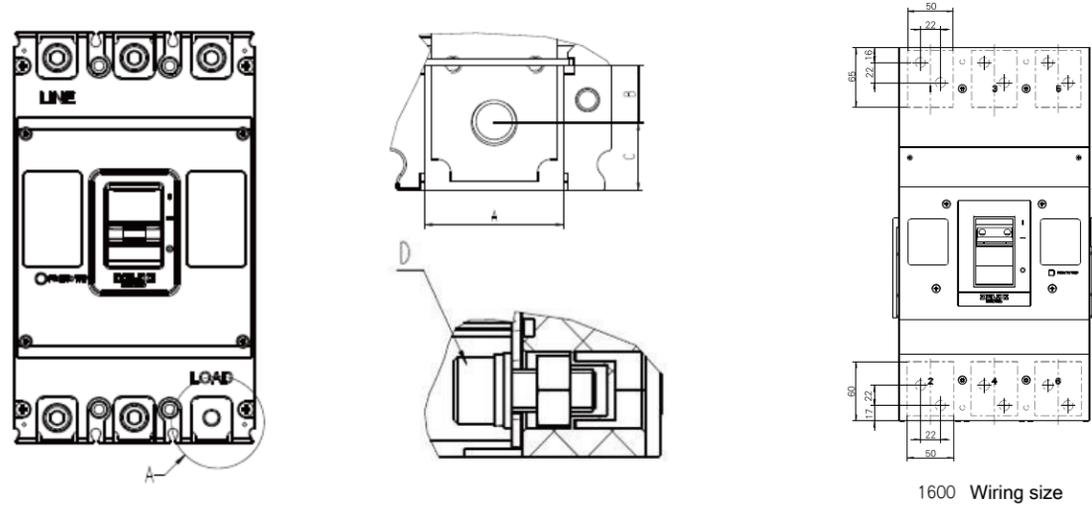


Model CDM3S-	Poles	Installation dimensions											
		L	L2	W1	W2	W3	W	H1	H2	H	D1	D2	D3
63/125	3P	97.5	116	16.6	25	17	66.6	20	46.5	15.8	φ 8.5	φ 8.5	φ 10.5
	4P												
125b s	3P	118	132	17	30	17	77	17	59	22	φ 12	φ 12	φ 12
	4P												
125b F/N	3P	118	132	17	30	17	77	21.5	63.5	22	φ 12	φ 12	φ 12
	4P												
160 S	3P	134.5	145	25.4	35	22	96	9.5	56	28	16.5	16.5	16
	4P												
160F/N/H	3P	134.5	145	25.4	35	22	96	8.5	55	28	16.5	16.5	16
	4P												
250 S	3P	269	-	25.4	35	-	96	11	56	-	16.5	16.5	-
	4P												
250F/N/H	3P	269	-	25.4	35	-	96	10	55	-	16.5	16.5	-
	4P												



Dimensions

Terminal board mounting hole diagram



Frame	A	B	C	D (2P/3P/4P)
63/125 (2P)	18	9	8	M6x16-2
63/125	18	9	8	M6x16-6/8
125bS	19	8	9	M8x16-6/8
125B F/N	19	8	9	M8x16-6/8
160/250 S	26	12.5	10	M8x20-2/6/8
160/250 F/N/H	26	12.5	10	M8x20-6/8
400 F/N/R	33	14	16	M10x25-6/8
630F/N/R	33	14	16	M10x35-6/8
630B F/N/R	44.5	19	17.5	M12x30-6/8
800 F/N/R	45	16	19	M12x35-6/8
1250F/N	45.7	16	19	M10x40-12/16

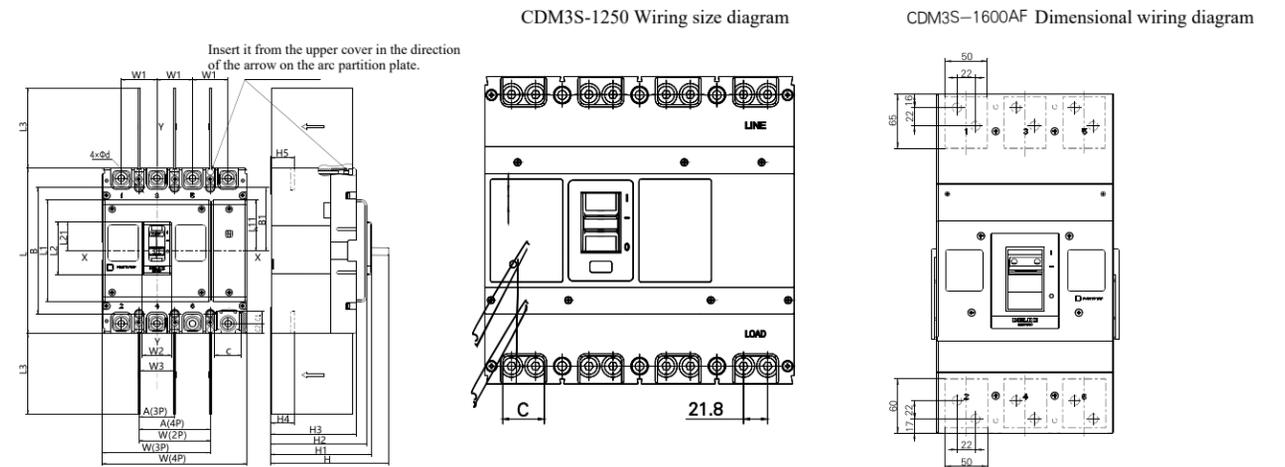
Recommended wiring capacity

Rated current (A)	10	16	25	32	40	63	80	100	125	160	180	250	315	400
		20			50				140		200		350	
Recommended copper conductor cross-sectional area (mm ²)	1.5	2.5	4	6	10	16	25	35	50	70	95	120	185	240
Rated current (A)	500	630	700	800	1000	1250	1600							
Recommended copper conductor cross-sectional area (mm ²)	150 × 2	185 × 2	240 × 2											
Recommended copper conductor cross-sectional area (mm ²)	150 × 2	200 × 2	250 × 2	300 × 2	400 × 2	500 × 2								

Note: Please pay attention to the CDM3S series appearance, installation and wiring dimensions C, C1, C2, and the corresponding wiring screw diameter, and select the appropriate terminal block or busbar to meet the corresponding wiring capacity requirements.

Fixed plate front dimensions

X-X: is the central axis of the base, the same below
Y-Y: is the central axis of the handle, the same below

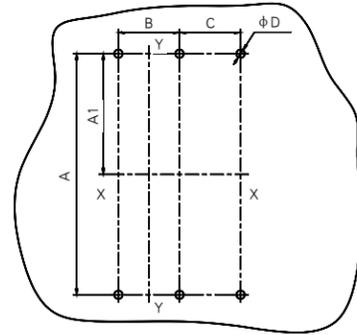


Model	CDM3S-	Poles	Dimension															Installation dimension							
			L	L1	L11	L2	L21	L3	W	W1	W2	W3	H	H1	H2	H3	H4	H5	A	B	B1	C	C1	C2	φD
63/125		2	132	83	41.5	50	18.5	50	56	25	24	23	82	71	66	56	24	24	-	111	55.5	18	8	8	4.2
63/125CS		3	132	83	41.5	50	18.5	50	75	25	24	23	82	71	66	56	24	24	25	111	55.5	18	8	8	4.2
		4							100										50						
63/125F		3	132	83	41.5	50	26	50	77	25	24	23	94.5	83.5	80.5	68.5	24	24	25	111	55.5	18	8	8	4.2
		4							102										50						
125bS		3	150	96	48	53	23.5	50	92	30	28	28	97	80.5	75	66	23.5	24	30	129	64.5	19	8	9	4.5
		4							122										60						
125b F/N		3	150	96	48	53	23.5	50	92	30	28	28	115	98.5	93	84	28	28.5	30	129	64.5	19	8	9	4.5
		4							122										60						
160/250S		2							79										-						
		3	165	102	51	53	29	80	107	35	28	33	100	82	77	66.5	24	24	35	126	63	26	12.5	10	4.8
		4							142										70						
160/250 F/N/H		3	165	102	51	53	29	65	107	35	28	33	117	99	94	83.5	23	23	35	126	63	26	12.5	10	4.8
		4							142										70						
400F/N/R		3	257	150	75	82	41	95	150	48	53	46	146	113	108	96	36.5	36.5	44	215	107.5	33	14	16	6.2
		4							198										44						
630F/N/R		3	257	150	75	82	41	95	150	48	53	46	146	113	108	96	39	38.5	44	215	107.5	33	14	16	6.2
		4							198										44						
630bF/N/R		3	257	150	69	82	41	95	182	58	53	56	148	115	110	98	39.5	39.5	58	200	94	44.5	19	17.5	6.2
		4							240										58						
800F/N/R		3	280	135	67.5	82	41	105	210	70	53	68	158	123.5	118.5	108.5	45	40.5	70	243	121.5	45	16	19	7
		4							280										140						
1250F/N		3	276	150	75	90	45	98	210	70	58	70	155	113	103	97	35	28	70	243	122	45.7	13	16	8
		4							280										140						
1600F/N		3	408	145	52	115	37	140	223	70	81	68	213	154	149	140	36	34	70	378	189	50	-	-	6

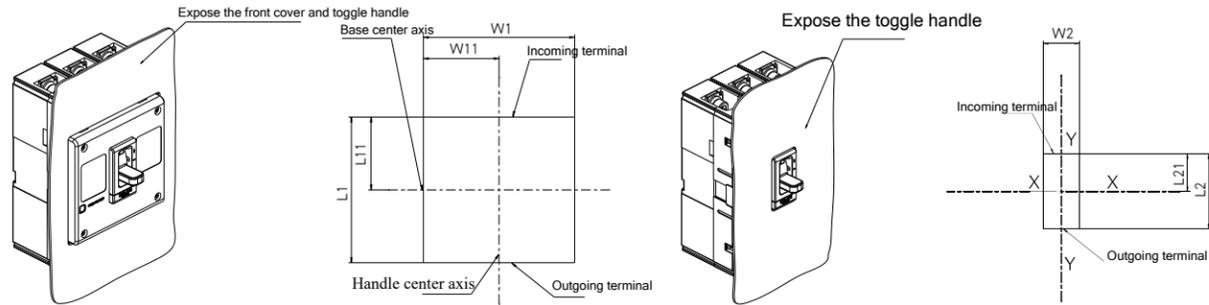


Fixed panel front mounting opening dimensions

Model CDM3S-	Poles	A	A1	B	C	φ D
63/125	2P	111	55.5	-	-	5
	3P					
	4P	111	55.5	25	25	5
125bS/F/N	3P	129	64.5	30	-	5
	4P			30	30	
160/250S/F/N/H	2P			-	-	
	3P	126	63	35	-	5
400F/N/R	3P			-	-	
	4P	215	107.5	44	-	6.5
630F/N/R	3P			-	-	
	4P	215	107.5	44	-	6.5
630bF/N/R	3P			-	-	
	4P	200	94	58	-	6.5
800F/N/R	3P			-	-	
	4P	243	121.5	70	-	7.5
1250 F/N	3P			-	-	
	4P	243	121.5	70	70	6.5
1600F/N	3P	378	189	70	70	6.2

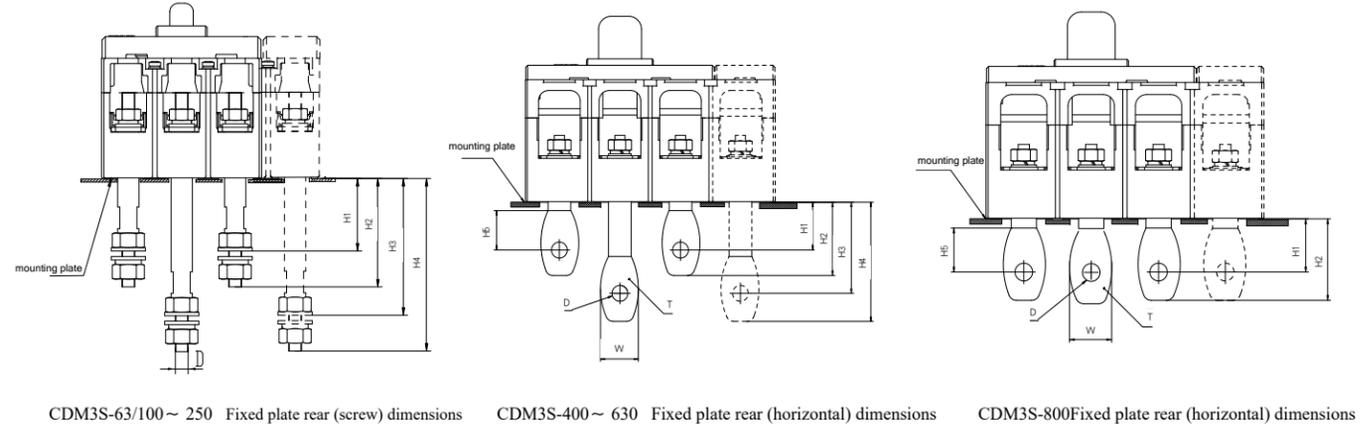


Panel opening size



Model CDM3S-	Poles	Expose the front cover and toggle handle				Expose the toggle handle		
		L1	L11	W11	W1	L2	L21	W2
63/125	2P	86	43	29.5	59	53	20	27
	3P				78			
63/125 C/S	4P	86	43	39	103	53	20	27
	3P				80			
63/125 F	4P	86	43	40	105	53	20	27
	3P				95			
125b S/F/N	4P	99	49.5	47.5	125	56	25	31
	2P				82			
160/250S/F/N/H	3P	105	52.5	55	110	56	30.5	31
	4P				145			
400F/N/R	3P				153			
	4P	153	76.5	76.5	201	85	42.5	56
630F/N/R	3P				153			
	4P	153	76.5	76.5	201	85	42.5	56
630bF/N/R	3P				185			
	4P	153	70.5	92.5	243	85	36.5	56
800F/N/R	3P				213			
	4P	138	69	106.5	283	85	42.5	56
1250F/N	3P				213			
	4P	153	76.5	106.5	283	93	46.5	61
1600F/N	3P	148	53.5	106.5	213	118	38.5	84

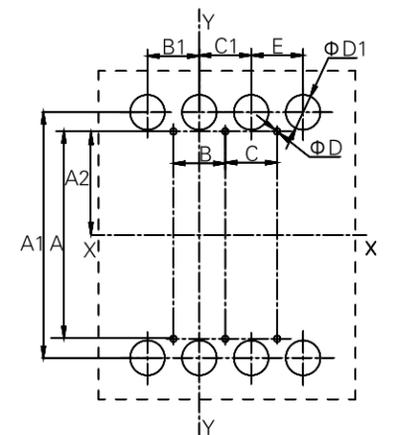
Fixed plate rear dimensions



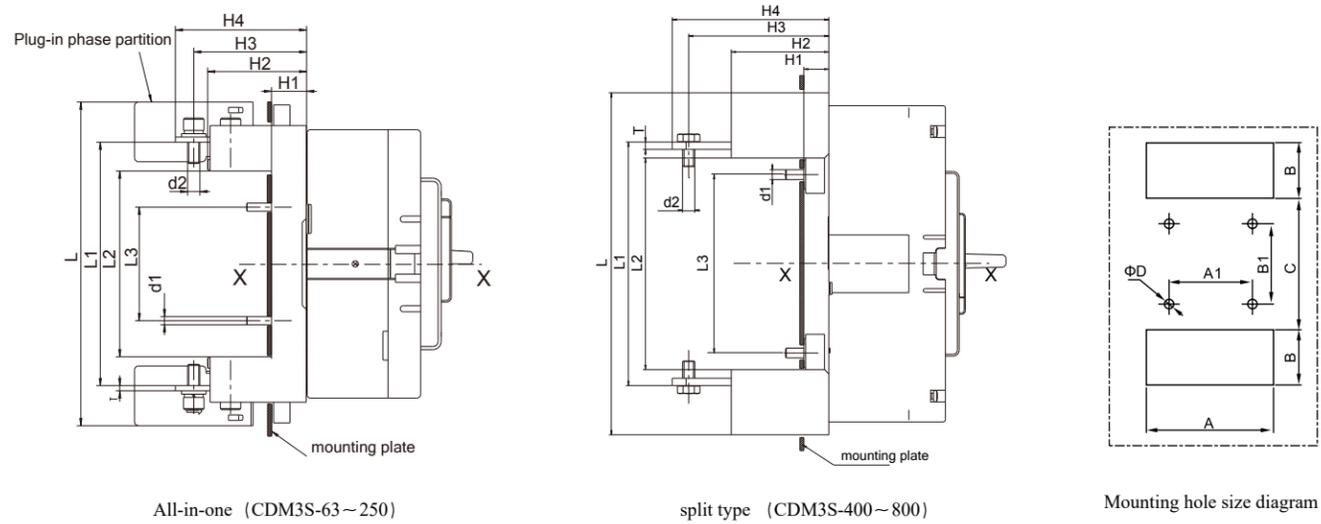
Model CDM3S-	Size position	Fixed plate rear dimension table								
		H1	H2	H3	H4	H5	φ D	W	T	
63/125	Incoming	32	59	73	101	-	M8	-	-	
	Outgoing									
125b S	Incoming	33	60	75	102	-	M8	-	-	
	Outgoing									
125bF/N	Incoming	28	55	70	97	-	M8	-	-	
	Outgoing									
160/250S/F/N/H	Incoming	51	71	81	101	-	M10	-	-	
	Outgoing									
400F/N/R	Incoming	40	60	74	97	30	φ 12.5	31	8	
	Outgoing	38	58	72	95					
630F/N/R	Incoming	40	60	74	97	30	φ 12.5	31	8	
	Outgoing	38	58	72	95					
630bF/N/R	Incoming	52.5	75	86.5	108.5	20	φ 16	35	10	
	Outgoing	51.5	74	85.5	108.5					
800F/N/R	Incoming	70.5	94.5	-	-	27	φ 12.5	34	16	
	Outgoing	66	90	-	-					

Fixed panel rear mounting hole dimensions

Model CDM3S-	Poles	Fixed plate rear horizontal opening size table									
		A	B	C	φ D	A1	A2	B1	C1	E	φ D1
63/125	3										
	4	111	25	25	4.5	116	55.5	25	25	25	12
125bS/F/N	3										
	4	129	30	30	4.5	132	64.5	30	30	30	15
160/250S/F/N/H	3										
	4	126	35	35	4.8	145	63	35	35	35	15
400F/N/R	3										
	4	215	44	-	6.2	225	107.5	48	48	48	36
630F/N/R	3										
	4	200	58	58	6.2	222	94	58	58	58	40
800F/N/R	3										
	4	243	70	70	7.2	243	121.5	70	70	70	40

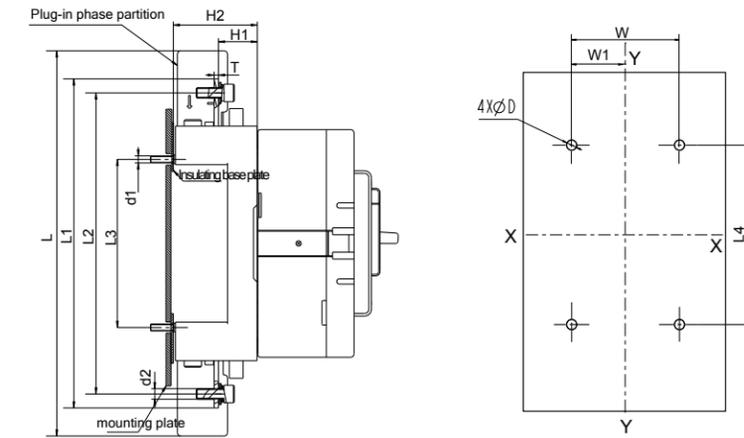


■ Plug-in panel rear appearance and installation opening size (horizontal)



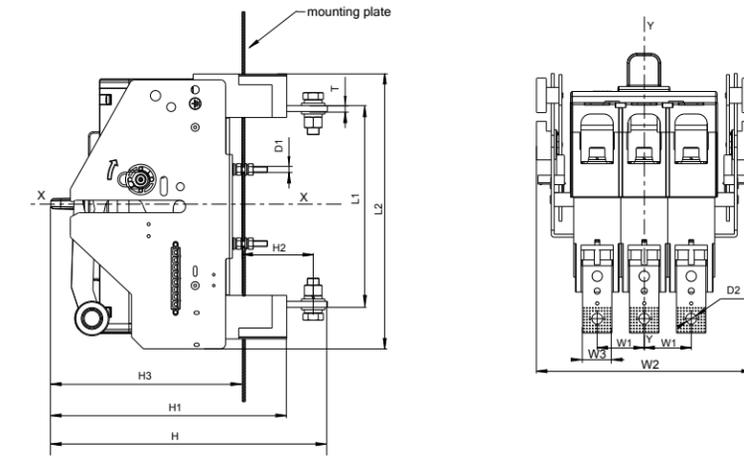
Model CDM3S-	Poles	Plug-in Dimensions																
		H1	H2	H3	H4	L3	L2	L1	L	T	d1	d2	A	C	B	B1	A1	ϕD
63/125	3P	17	47	59	67.5	55	90	117	160	3	M4	M6	79	85	27.5	55	50	5.5
	4P												104				75	
125b	3P	20	56	67	75	60	100	134	186	3	M4	M6	94	90	40	60	60	5.5
	4P												124				90	
160/250	3P	27	73.2	82	92	64	109	162	230	4	M5	M8	110	100	45	64	70	6.5
	4P												145				105	
400	3P	18.5	80	116.5	128.5	145	172	204	279	6	M8	M10	157	167	61.5	145	88	9.5
	4P												205				132	
630	3P	18.5	80	116.5	128.5	145	172	204	279	8	M8	M10	157	167	61.5	145	88	9.5
	4P												205				132	
630b	3P	20	60	89.5	113	112	157	232	285	11.5	M8	M12	185	152	64	112	100	9.5
	4P												247				159	
800	3P	19.3	62	128	145	143	188	262	295	16	M8	M12	214	185	57.5	143	140	9.5
	4P												284				210	

■ Plug-in panel front appearance and installation opening dimensions



Model CDM3S-	Poles	Plug-in board front dimensions mm									Installation opening size mm			
		L3	L2	L1	L	H1	H2	d1	d2	T	W	W1	L4	ϕD
63/125	3P	96	173	189	223	22	47.2	M3	M6	2.5	25	12.5	96	4
	4P										50			
125b	3P	110	198	214	262	26	55	M4	M6	2.5	30	15	110	5
	4P										60			
160/250	3P	150	223	244	310	38	72	M4	M8	3	35	17.5	150	5
	4P										70			

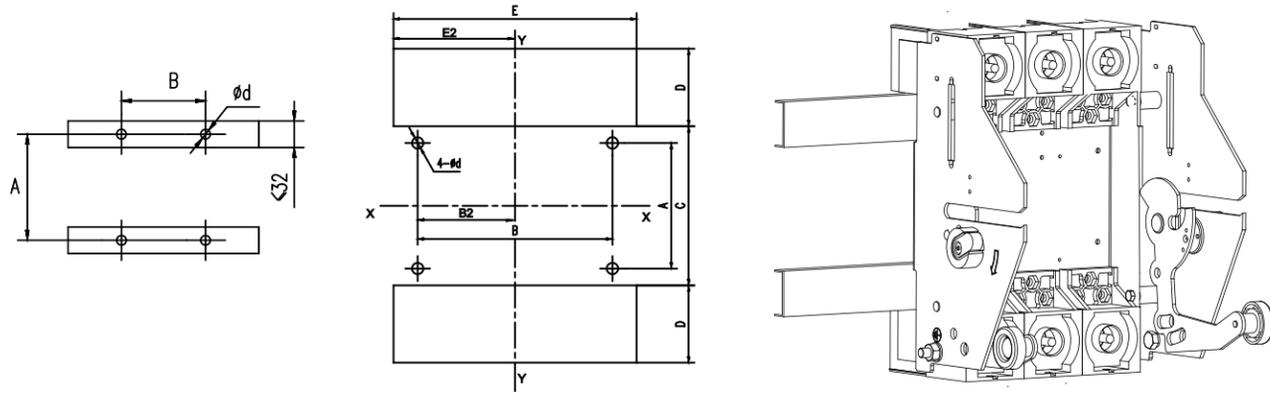
■ Dimensions behind the pull-out panel (horizontal)



Model CDM3S-	Poles	Dimensional drawing of pull-out rear panel											
		H	H1	H2	H3	L1	L2	W1	W2	W3	T	D1	D2
400	3P	295	253	77	203	204	268	48	223	30	6	M6	ϕ11
	4P								271				
630	3P	295	253	77	203	204	268	48	223	30	8	M6	ϕ11
	4P								271				
630b	3P	326	282	92	204	195	282	58	253	40	10	M6	ϕ13
	4P								311				
800	3P	305	255	73	210	242	315	70	288	40	10	M6	ϕ13.5
	4P								358				



■ Dimensions of openings for installation behind pull-out panels



Model CDM3S-	Poles	Hole drawing for horizontal installation behind pull-out panel							
		A	B	B2	C	D	E	E2	d
400	3P	140	96	48	178	47	159	79.5	φ 7
	4P		144				207		
630	3P	140	96	48	178	47	159	79.5	φ 7
	4P		144				207		
630b	3P	128	116	58	163	58	189	94.5	φ 7
	4P		174				247		
800	3P	131	140	70	170	77	213	106.5	φ 7
	4P		210				283		

Selection table

Material coding	Description	Material coding	Description
M3S63C633300	CDM3S-63C/3300 63A	M3S400F4003300	CDM3S-400F/3300 400A
M3S63C63A300	CDM3S-63C/4300A 63A	M3S400F400A300	CDM3S-400F/4300A 400A
M3S63C63B300	CDM3S-63C/4300B 63A	M3S400F400B300	CDM3S-400F/4300B 400A
M3S63S633300	CDM3S-63S/3300 63A	M3S400N4003300	CDM3S-400N/3300 400A
M3S63S63A300	CDM3S-63S/4300A 63A	M3S400N400A300	CDM3S-400N/4300A 400A
M3S63S63B300	CDM3S-63S/4300B 63A	M3S400N400B300	CDM3S-400N/4300B 400A
M3S125BS1253300	CDM3S-125bS/3300 125A	M3S400R4003300	CDM3S-400R/3300 400A
M3S125BS125A300	CDM3S-125bS/4300A 125A	M3S630BF4003300	CDM3S-630bF/3300 400A
M3S125BS125B300	CDM3S-125bS/4300B 125A	M3S630BF400A300	CDM3S-630bF/4300A 400A
M3S125CX1253300	CDM3S-125C/3300 125A NEW	M3S630BF400B300	CDM3S-630bF/4300B 400A
M3S125CX125A300	CDM3S-125C/4300A 125A NEW	M3S630BF6303300	CDM3S-630bF/3300 630A
M3S125CX125B300	CDM3S-125C/4300B 125A NEW	M3S630BF630A300	CDM3S-630bF/4300A 630A
M3S125SX1253300	CDM3S-125S/3300 125A NEW	M3S630BF630B300	CDM3S-630bF/4300B 630A
M3S125SX125A300	CDM3S-125S/4300A 125A NEW	M3S630BN6303300	CDM3S-630bN/3300 630A
M3S125SX125B300	CDM3S-125S/4300B 125A NEW	M3S630BN630A300	CDM3S-630bN/4300A 630A
M3S125F1253300	CDM3S-125F/3300 125A	M3S630BN630B300	CDM3S-630bN/4300B 630A
M3S125F125A300	CDM3S-125F/4300A 125A	M3S630BR6303300	CDM3S-630bR/3300 630A
M3S125F125B300	CDM3S-125F/4300B 125A	M3S630F6303300	CDM3S-630F/3300 630A
M3S160F1603300	CDM3S-160F/3300 160A	M3S630F630A300	CDM3S-630F/4300A 630A
M3S160F160A300	CDM3S-160F/4300A 160A	M3S630F630B300	CDM3S-630F/4300B 630A
M3S160F160B300	CDM3S-160F/4300B 160A	M3S630N6303300	CDM3S-630N/3300 630A
M3S160N1603300	CDM3S-160N/3300 160A	M3S630N6304300A	CDM3S-630N/4300A 630A
M3S160S1603300	CDM3S-160S/3300 160A	M3S630N6304300B	CDM3S-630N/4300B 630A
M3S160S160A300	CDM3S-160S/4300A 160A	M3S630R6303300	CDM3S-630R/3300 630A
M3S160S160B300	CDM3S-160S/4300B 160A	M3S800F8003300	CDM3S-800F/3300 800A
M3S250F2503300	CDM3S-250F/3300 250A	M3S800F800A300	CDM3S-800F/4300A 800A
M3S250F250A300	CDM3S-250F/4300A 250A	M3S800F800B300	CDM3S-800F/4300B 800A
M3S250F250B300	CDM3S-250F/4300B 250A	M3S800N8003300	CDM3S-800N/3300 800A
M3S250N2503300	CDM3S-250N/3300 250A	M3S800N800A300	CDM3S-800N/4300A 800A
M3S250N250A300	CDM3S-250N/4300A 250A	M3S800R8003300	CDM3S-800R/3300 800A
M3S250N250B300	CDM3S-250N/4300B 250A	M3S12XF12503300	CDM3S-1250F/3300 1250A
M3S250S2503300	CDM3S-250S/3300 250A	M3S12XF1250A300	CDM3S-1250F/4300A 1250A
M3S250S250A300	CDM3S-250S/4300A 250A	M3S12XF1250B300	CDM3S-1250F/4300B 1250A
M3S250S250B300	CDM3S-250S/4300B 250A	M3S12XN12503300	CDM3S-1250N/3300 1250A
M3S400F2503300	CDM3S-400F/3300 250A	M3S16XF16003300	CDM3S-1600F/3300 1600A
M3S400F250A300	CDM3S-400F/4300A 250A	M3S16XN16003300	CDM3S-1600N/3300 1600A
M3S400F250B300	CDM3S-400F/4300B 250A		

