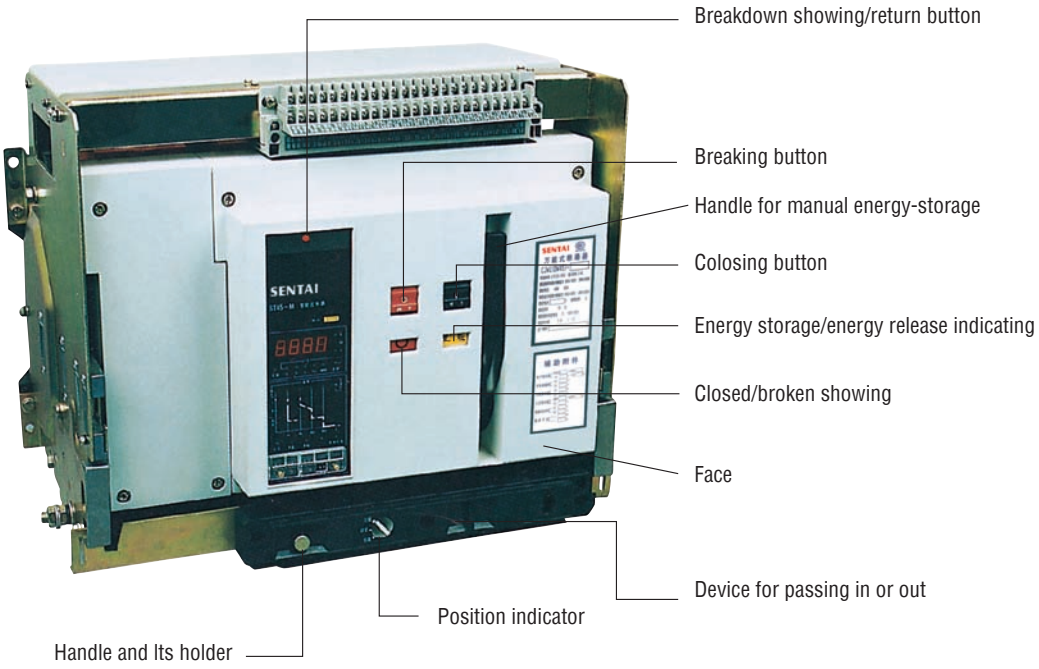
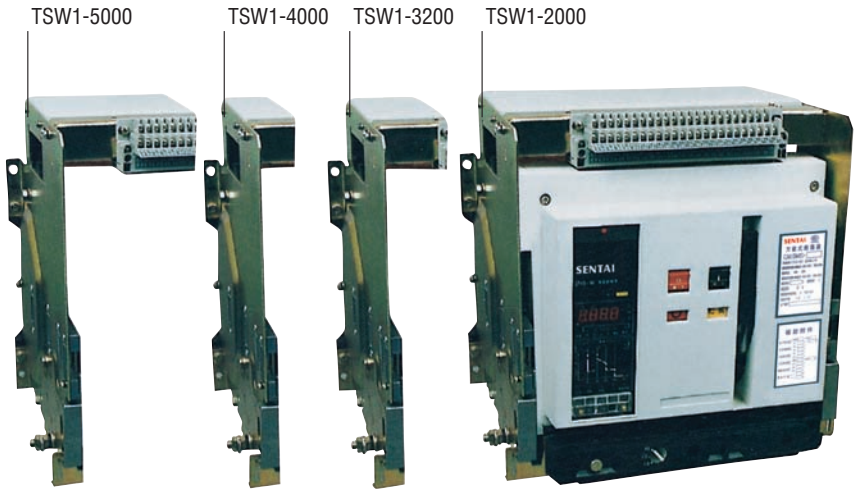
Intelligent Conventional Circuit Breaker

FRONT VIEW OF THE CIRCUIT BREAKER



CW1 SERIES INTELLIGENT UNIVERSAL CIRCUIT BREAKER



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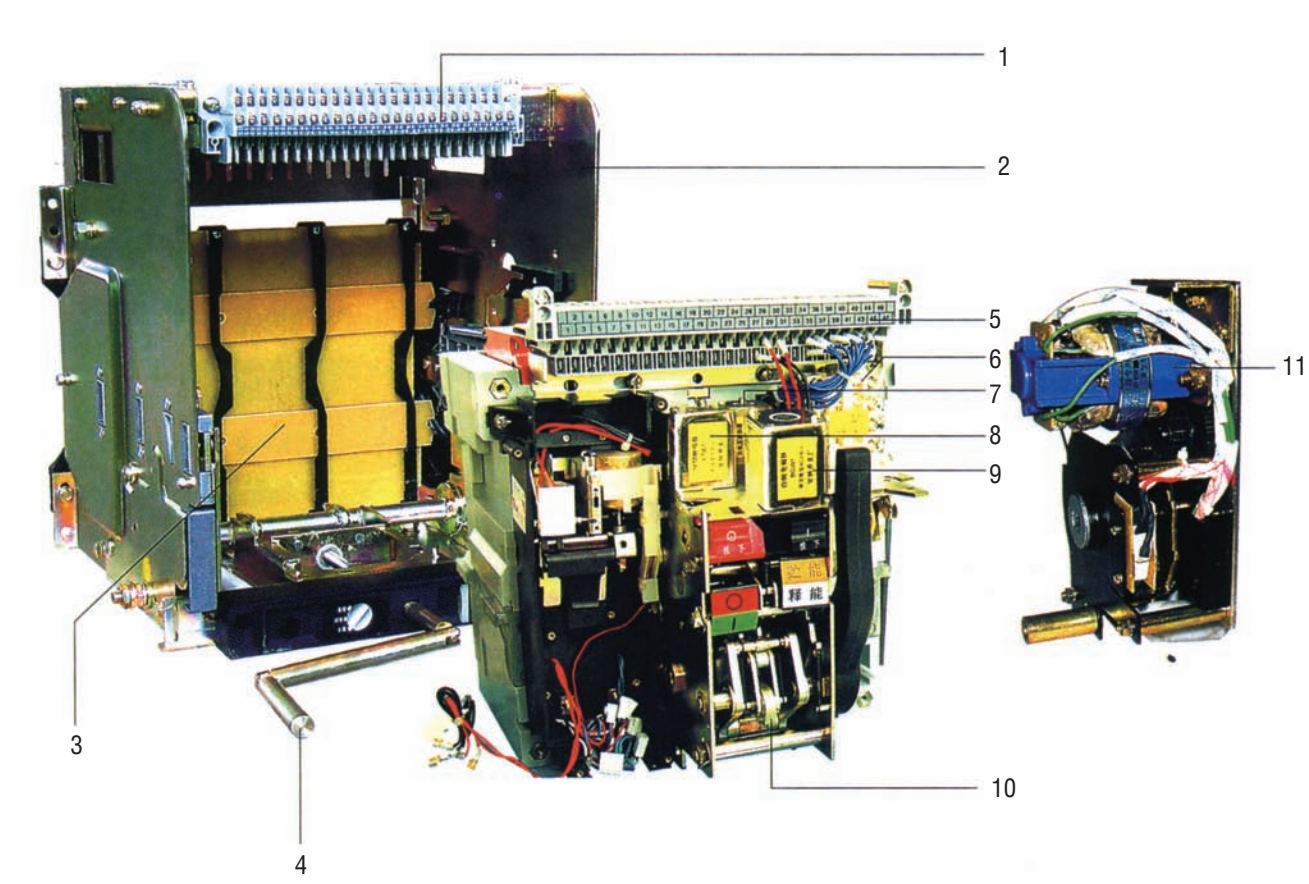
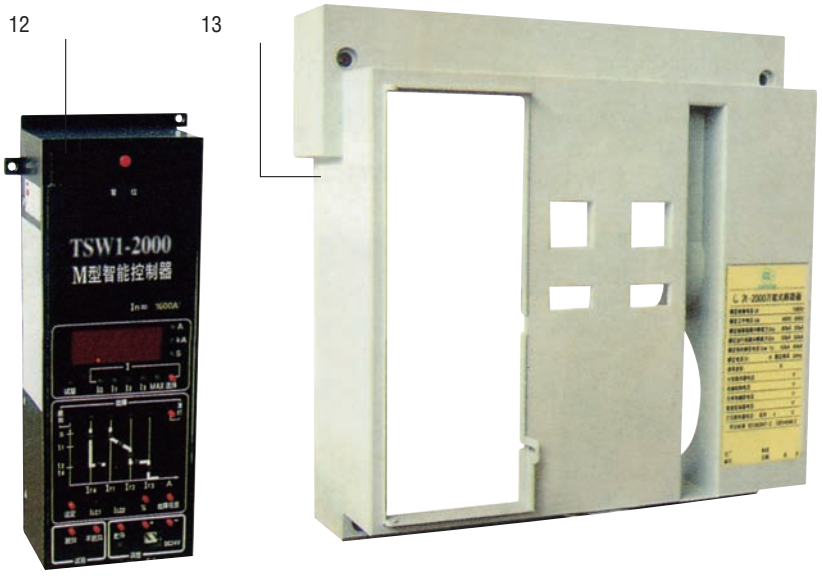
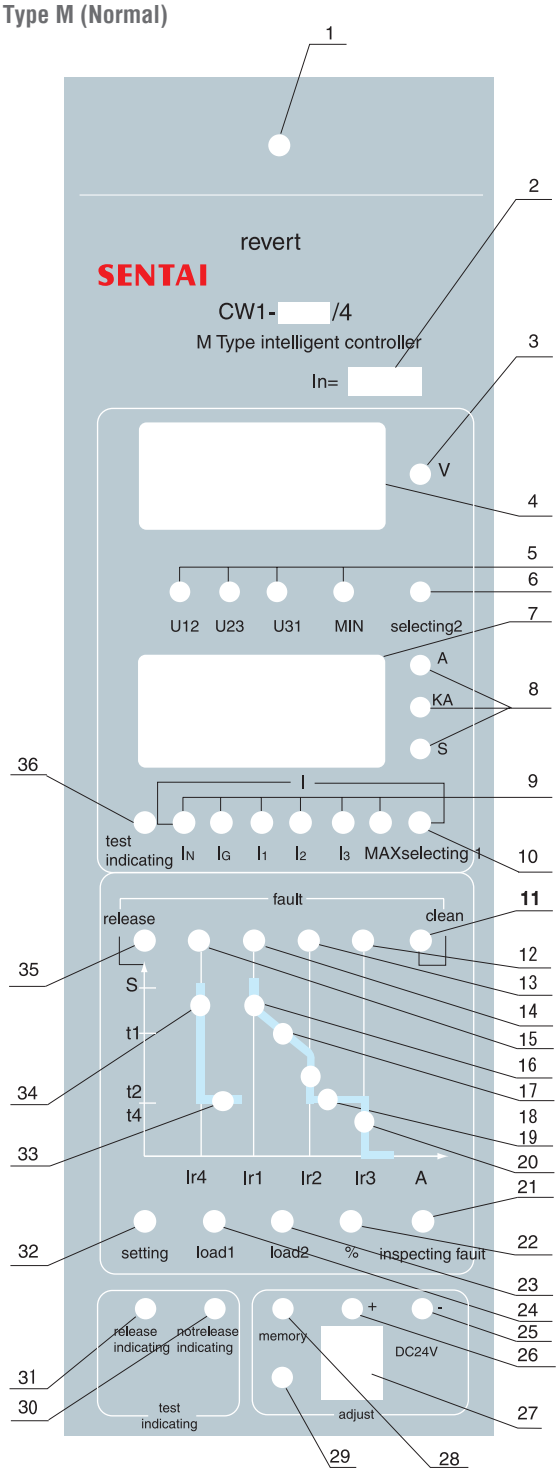


1.Therminals of secondary circuit (fixed)
2.Drawer base
3.Safety separator
4.Handle
5.Therminals of secondary circuit (motional)
6.Auxiliary switch
7.Under-voltage release
8.Shunt release
9.Closing electromagnet
10.Operation mechanism
11.Motor-drive charging device
12.Intelligent controller
13.Panel



Intelligent Conventional Circuit Breaker

Type M (Normal)



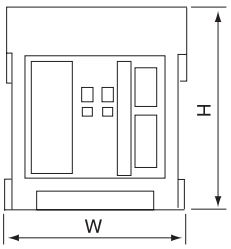
PANEL CAPTION

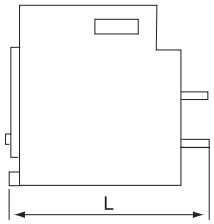
1.Return button for fault releasing
2.Rated current of the breaker
3.Unit of voltage
4.Voltage indicator
5.Voltage of each line and the min.value
6.Key for selecting voltage
7.Current, time indicator
8.Unit of current and time
9.Indication of three phase current.neutral phase current,grounding fault -current and the max. value
10.Key for selecting current
11."clean"key
12.Fault showing for instantaneous
13.Fault showing for short-circuit short-delay
14.Fault showing for over-load long-delay
15.Fault showing for earthed error
16.Showing the long-delay current setting (alarm simul taneously)
17.Showing the long-delay action time setting
18.Showing the short-delay current setting (alarm simul taneously)
19.Showing the short-delay action tune setting
20.Showing the instantaneous current setting (alarm simul taneously)
21.Key for inspecting fault
22.Key for detecting wearing of contacts
23.Load supervision signal 2(alarm simul taneously)
24.Load supervision signal 1(alarm simul taneously)
25.Setting's decrease progressively
26.Setting's increase progressively
27.Supply socket(DC24V) for test power
28.Memory key
29.Memory indicator
30.Non-release test key
31.Release test key
32.Setting key for various protection value
33.Indication of the earthed fault action lime setting
34.Indication of the earthed fault current setting (alarm simul taneously)
35.Release Indicating
36.Test indicating
Other function:
1.Auto-diagnosis
2.Thermo-memory
3.Fault-menory
4.MCR

Note:The panel herein belongs to the circuit breaker of four poles, If the breaker is of three poles, the mark "In" litem "9" indicating current of neutral phase will disappear. Other than the type M intelligent controller with voltage indication, the other one without voltage indication is also available (there aren't items"3", "4", "5" and "6" on the panel in this case)

MAIN TECHNICAL PARAMETERS

Type				TSW1-2000			
Frame rated current Inm(A)				2000			
Rated current In(A)				630	800	1000	1250
Rated working voltage Ue(V)				AC400,690,50Hz			
Rated insulation voltage Ui(V)				AC1000 50Hz			
Rated impulse withstand able voltage Uimp(V)				12000			
Working frequency withstand able voltage U				AC3500V 1min 50Hz			
Quantity of poles				3,4	3,4	3,4	3,4
Rated current of N-pole In (A)				50%In,100%In			
Limited short-circuit breaker capacity Icu(kA)			AC400V	80	80	80	80
			AC690V	50	50	50	50
Operation short-circuit breaking capacity Ics (kA) (effective value)			AC400V	50	50	50	50
			AC690V	50	50	50	50
Rated making capacity of short circuit Icm(kA)(peak)			AC400V	176	176	176	176
			AC690V	105	105	105	105
Rated shand current for short-time (1s) Icw(kA)(effective value)			AC400V	50	50	50	50
			AC690V	40	40	40	40
Applicable catalogy				B			
Full disconnetion time (without additional time-delay)(ms)				25~30			
Closing time (ms)				Max.70			
Intelligent controller	Electronic type			○	○	○	○
	Normal type			○	○	○	○
	Communicative type			○	○	○	○
Operation performance	Electric life		AC400V	1500	1500	1500	1500
			AC690V	500	500	500	500
	Mechanical life		Non-maintainance	5000	5000	5000	5000
			Maintainance	10000	10000	10000	10000
Installation			Connection pattern	Horizontal/vertical	Horizontal/vertical	Horizontal/vertical	Horizontal/vertical
			Pattern Draw-out	○ ○	○ ○	○ ○	○ ○
			Pattern Fixed	○ ○	○ ○	○ ○	○ ○
			H x W x L(mm)	H W L	H W L	H W L	H W L
		Draw-out Horizontal 3P	Front set				
			Back set	438 375 451	438 375 451	438 375 451	438 375 451
		Draw-out Horizontal 4P	Front set				
			Back set	438 470 451	438 470 451	438 375 451	438 375 451
		Draw-out vertical 3P	Front set	494 375 425	494 375 425	494 375 425	494 375 425
			Back set	438 375 446	438 375 446	438 375 446	438 375 446
		Draw-out vertical 4P	Front set	494 470 425	494 470 425	494 470 425	494 470 425
			Back set	438 470 446	438 470 446	438 470 446	438 470 446
		Fixed Horizontal 3P	Front set				
			Back set	395 362 351	395 362 351	395 362 351	395 362 351
		Fixed Horizontal 4P	Front set				
			Back set	395 457 351	395 457 351	395 457 351	395 457 351
		Fixed vertical 3P	Front set	482 362 325	482 362 325	482 362 325	482 362 325
			Back set	395 362 375	395 362 375	395 362 375	395 362 375
		Fixed vertical 4P	Front set	482 457 325	482 457 325	482 457 325	482 457 325
			Back set	395 457 375	395 457 375	395 457 375	395 457 375





MAIN TECHNICAL PARAMETERS

		TSW1-3200				TSW1-4000			TSW1-5000	
		3200				4000			5000	
1600	2000	2000	2500	2900	3200	3200	3600	4000	4000	5000
AC400V,690V,50Hz										
AC1000 50Hz										
12000V										
AC3500V 1Min 50Hz										
3, 4	3, 4	3, 4	3, 4	3, 4	3, 4	3, 4	3, 4	3, 4	3	
50%In, 100%In										
80	80	100	100	100	100	80	80	80	120	
50	50	65	65	65	65	50	50	50	75	
50	50	80	80	80	80	50	50	50	100	
50	50	65	65	65	65	50	50	50	65	
176	176	220	220	220	220	176	176	176	264	
105	105	143	143	143	143	105	105	105	165	
50	50	80	80	80	80	50	50	50	100	
40	40	50	50	50	50	40	40	40	65	
B										
25~30										
Max.70										
○	○	○	○	○	○	○	○	○	○	
○	○	○	○	○	○	○	○	○	○	
○	○	○	○	○	○	○	○	○	○	
1000	1000	500	500	500	500	500	500	500	500	
500	500	500	500	500	500	500	500	500	500	
5000	5000	2500	2500	2500	2500	2000	2000	2000	2000	
10000	10000	10000	10000	10000	10000	8000	8000	8000	8000	
Horizontal/vertical		Hhorizontal				Horizontal			Horizontal	
○ ○	○ ○	○	○	○	○	○	○	○	○	
○ ○	○ ○	○	○	○	○	○	○	○	○	
H W L	H W L	H W L	H W L	H W L	H W L	H W L			H W L	
438 375 451	438 375 451	438 429 492	438 429 492	438 429 492	438 429 492	438 544 492			438 799 492	
438 470 451	438 470 451	438 544 492	438 544 492	438 544 492	438 544 492	438 799 492				
494 375 425	494 375 425									
438 375 446	438 375 446									
494 470 425	494 470 425									
438 470 446	438 470 446									
395 362 351	395 362 351	395 414 371	395 414 371	395 414 371	395 414 371	395 527 424			395 782 424	
395 362 351	395 457 351	395 527 371	395 527 371	395 527 371	395 527 371	395 782 4241				
482 362 325	482 362 325									
395 362 375	395 362 375									
482 457 325	482 457 325									
395 457 375	395 457 375									