

ACB & MCCB

2

3SW8	Air Circuit Breaker	-----	1
3SM8	Moulded Case Circuit Breaker	-----	2~3
3SM8L	Moulded Case Circuit Breaker with Earth Leakage Protection	-----	4~6
3SM9	Moulded Case Circuit Breaker	-----	7~8
3SM28	Moulded Case Circuit Breaker	-----	9
3SM2	Moulded Case Circuit Breaker	-----	10~11



3SW8 Air Circuit Breaker

■ Protection for:

- Distribution systems supplied by transformers
- Distribution systems supplied by engine generator sets
- Long cables in IT and TN systems.

All circuit breakers in the 3SW8 range are suitable for isolation in compliance with standards IEC 60947-2

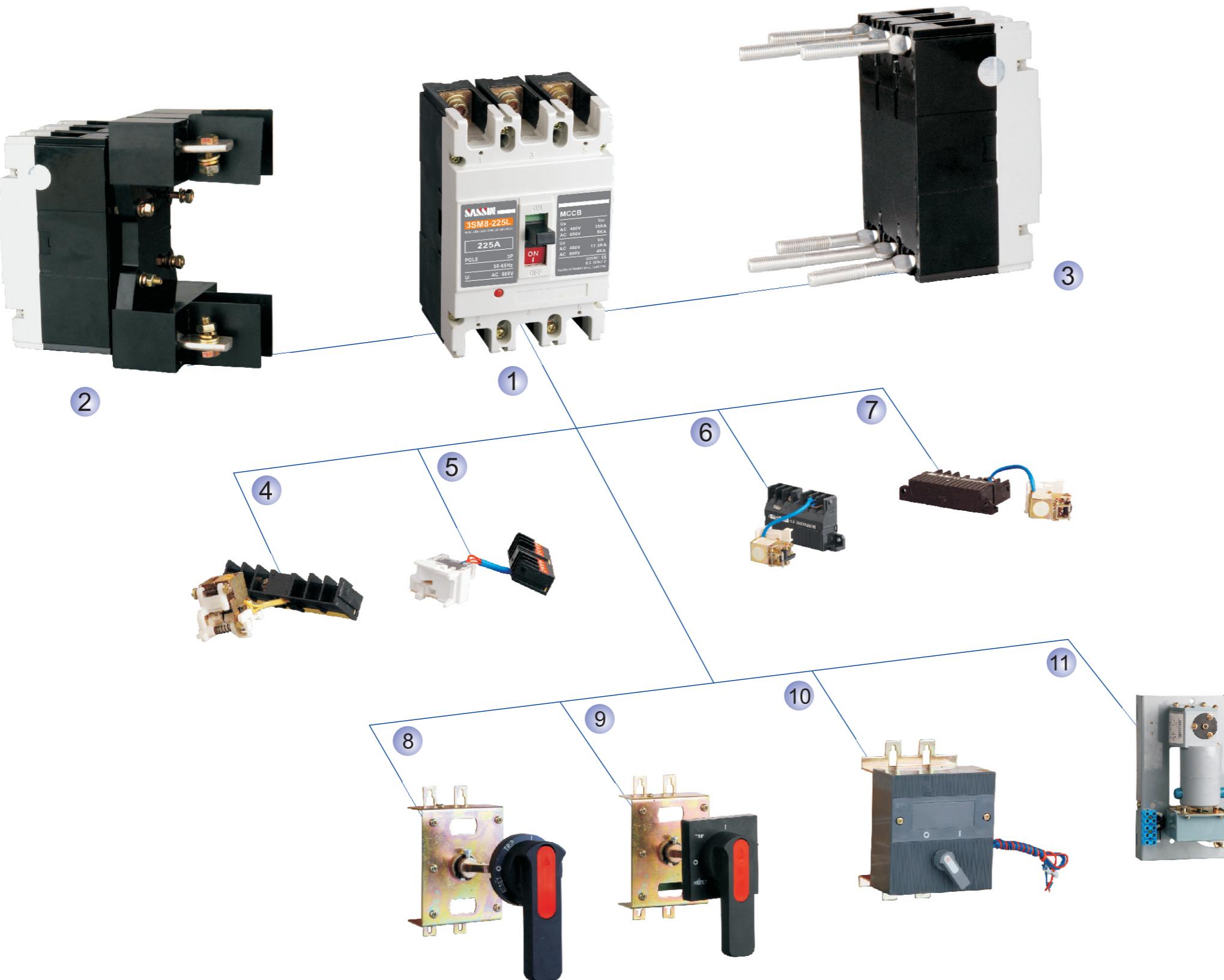
■ Installation :

- In power switchboards
- Fixed type and drawer type

■ Main Technical Parameters

Type	3SW8-2000	3SW8-3200	3SW8-4000	3SW8-6300
Short-circuit breaking capacity				
Rated ultimate short circuit breaking capacity Icu (KA)	400V 690V	80 50	100 65	120 80
Rated operation short circuit breaking capacity Ics (KA)	400V 690V	50 40	80 50	100 70
Rated short time withstand current Icw (KA) 1s	50	65	100	
Rated current In (A)	400,630,800,1000,1250,1600,2000	2000, 2500, 2900, 3200	3200, 3900, 4000	4000, 5000, 6000,6300
Number of poles	3-pole 4-pole		● ●	
Rated insulation voltage Ui (V)			1000V	
Rated current of N-Pole IN (A)			50% In, 100% In	
Fix-disconnection time			23~32ms	
Intelligent controller	Standard type (M) Communication type (H)		● ●	
Operation performance	Electric life time Mechanical life time	Non-maintanance Maintanance	2500 10000	500 2000 8000
Installation type	Horizontal Vertical Fixed Drawer		● ● 0	

3SM8 SERIES PRODUCT OVERVIEW



- 1 Body
- 2 Plug-in connection
- 3 Rear panel connection
- 4 Auxiliary contact
- 5 Alarm contact
- 6 Shunt release
- 7 Under-voltage release
- 8 Rotary handle operating mechanism
- 9 Rotary handle operating mechanism
- 10 Electromagnetic operating mechanism
- 11 Electric motor operating mechanism



3SM8 Molded Case Circuit Breaker

■ Application

3SM8 series molded case circuit breakers are one of the new breakers designed and developed by our company by comprehensively adopting advanced technology.

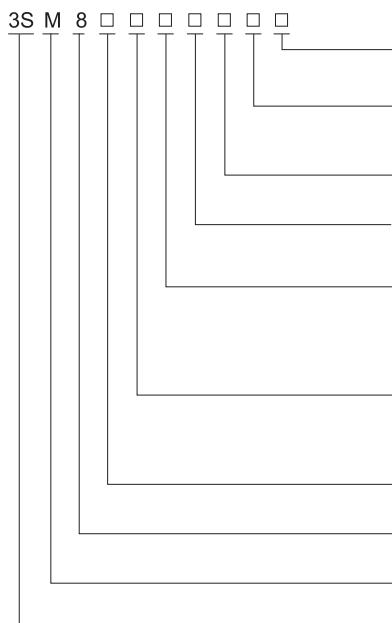
Rated insulation voltage of this series of breakers is up to 800V. It applies to distribution network circuit of AC 50Hz or 60Hz with rated operational voltage up to 690V and rated operational current up to 800A. It is used to protect circuits and power-supply equipment from damage of overload, under - voltage, short-circuit etc which can also be used for infrequent start of motor and to provide overload, short circuit and under-voltage protection for the motor.

This breaker features small volume, high breaking capacity, short arc-quenching time, an ideal product to use.

This breaker can be installed both vertically or horizontally.

This product complies with standard of IEC 60947-2.

■ Type and its meaning



N: neutral of 4-pole breaker

Usage code: no code for circuit protection breaker,
2 for motor protection breaker

Release and accessory code (See the table below)

Number of poles

Operation mode code: no code for direct handle operation,
P for electromotor operation, Z for rotating handle operation

Breaking capacity characteristic code: L-standard breaking capacity,
M-relatively higher breaking capacity ;
H-high breaking capacity

Rated current of frame

Design serial number

Moulded case circuit breaker code

“**SASSIN**” Company code

■ Main technical parameters

Type	Frame Rated Current (A)	Rated Current (A)	Rated operating voltage (V)	Rated insulation Voltage (V)	Rated ultimate Short circuit Breaking capacity(kA) 400V/690V	Rated service short circuit Breaking capacity(kA) 400V/690V	Number of poles	Flashover distance
3SM8-63L	63	(6), 10, 16, 20, 25, 32, 40, 50, 63	400	500	25	12.5	3	≤ 50
3SM8-63M	63				50	25	3、4	
3SM8-100L	100	16, 20, 25, 32, 40, 50, 63, 80, 100	690	800	35/8	17.5/4	3	≤ 50
3SM8-100M	100				50/10	25/5	3、4	
3SM8-100H	100				85/20	42.5/10	3	
3SM8-225L	225	100, 125, 160, 180, 200, 225	690	800	35/8	17.5/4	3	≤ 50
3SM8-225M	225				50/10	25/5	3、4	
3SM8-225H	225				85/20	42.5/10	3	
3SM8-400L	400	225, 250, 315, 350, 400	690	800	50/10	25/5	3	≤ 100
3SM8-400M	400				65/10	32.5/5	3、4	
3SM8-400H	400				100/20	50/10	3	
3SM8-630L	630	400, 500, 630	690	800	50/10	25/5	3	≤ 100
3SM8-630M	630				65/10	32.5/5	3、4	
3SM8-630H	630				100/20	50/10	3	
3SM8-800M	800	630, 700, 800	690	800	75	37.5	3	≤ 100
3SM8-800H	800				100	50	3	

Note: no overload protection in 6A type

■ Classifications

- According to breaking capacity of MCCB: L (standard type), M (relatively higher breaking type) H (high breaking type)
- According to connection mode of MCCB: front panel connection (basic connection mode), rear panel connection, plug-in connection
- According to operation mode: direct handle operation (basic operation mode), rotary handle operation, motor operation
- According to number of poles: 3 poles, 4 poles

■ Normal working environment

- Ambient air temperature: -5°C ~ +40°C;
- Altitude: $\leq 2000\text{m}$.
- Resistance to moisture
- Resistance to salt spray and oil spray
- Gradient $\leq 22.5^\circ$
- Ambient environment/medium free from explosive danger and air or conductive dust which may cause corrosion of metal or weakness of insulation
- Places free from erosion of rain and snow



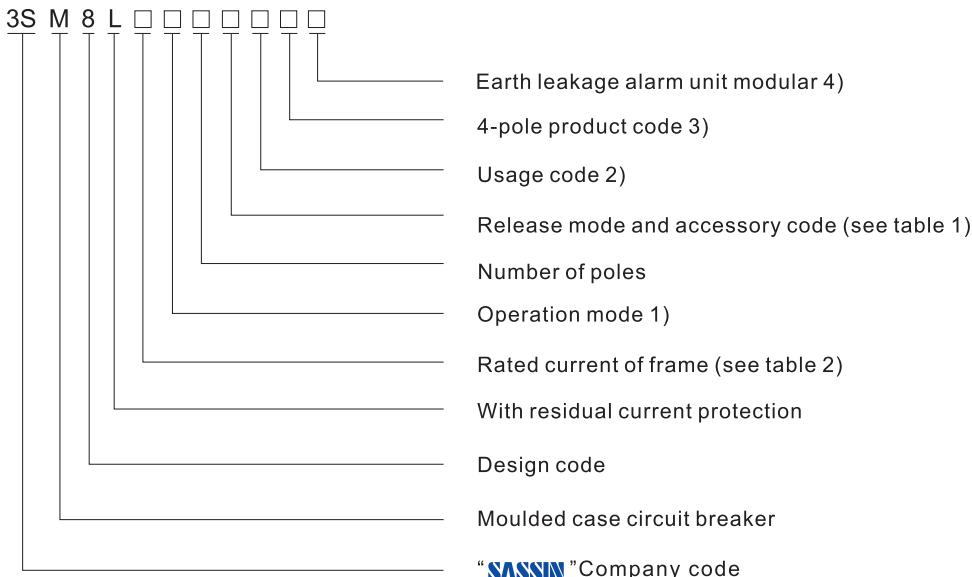
3SM8L Molded Case Circuit Breaker with Earth Leakage Protection

■ Application

3SM8L moulded case circuit breaker with residual current protection. Rated insulation voltage is 800V. It applies to circuit of AC 50Hz, rated operational voltage 400V and rated working current up to 630A for infrequent switch and infrequent start of motor. With overload, short circuit and under-voltage protection, it can protect circuits and power-supply equipment from damage, and can also be used for protection from any potential fire hazard caused by long existing earth fault which can not be detected by over-current protection.

The value of residual current is selectable.

■ Type and its meaning



■ Main features

Normal sample for earth leakage protection modular working power supply of breaker is on two phases. Breaker of this series is 3-phase and earth leakage protection modular can still work properly if one phase failed.

Rated residual action current, and maximum breaking time can be adjusted on-site according to practical condition.

Earth leakage protection modular can work properly even if the phase voltage drops to 50V.

Equipped with earth leakage alarm output function.

Outline volume is same as corresponding specifications of 3SM8 series breaker with good interchangeability while mounting.

Table 1

Names of Accessories	Release mode	
	Instantaneous release	Thermo-mag release
	Accessories codes	
No accessories	200	300
Alarm contact	208	308
Shunt release	210	310
Auxiliary contact	220	320
Under-voltage release	230	330
Shunt release, auxiliary contact	240	340
Shunt release, under-voltage release	250	350
Two sets of auxiliary contacts	260	360
Auxiliary contact, under-voltage release	270	370
Shunt release, alarm contact	218	318
Auxiliary contact, alarm contact	228	328
Under-voltage release, alarm contact	238	338
Shunt release, auxiliary contact, alarm contact	248	348
Two sets of auxiliary contact, alarm contact	268	368
Auxiliary contact, under-voltage release, alarm contact	278	378

■ Main technical parameters

Rated values of breaker (see table 2)

Table 2

Type	Frame Rated Current Inm(A)	Rated Current In (A)	Rated ultimate Short circuit Breaking capacity Icu (kA)	Rated service short circuit breaking capacity Ics (kA)	Rated residual action current $I_{\Delta n}$ (mA)	Rated residual non-action current $I_{\Delta no}$ (mA)	Breaking time
3SM8L-100	100	16, 20, 32, 40, 50, 63, 80, 100	35	22	100/300/500	1/2 $I_{\Delta n}$	See table 3
3SM8L-225	225	100, 125, 140, 160, 180, 200, 225	35	25			
3SM8L-400	400	225, 250, 315, 350, 400	50	35			
3SM8L-630	630	400, 500, 630	50	35	300/500/1000		

Table 3

Residual current		$I_{\Delta n}$	$2I_{\Delta n}$	$5I_{\Delta n}$	$10I_{\Delta n}$
Non time-delay type	Max. breaking time (s)	0.2	0.1	0.04	0.04
Time-delay type	Max. breaking time (s)	0.5/1.15/2.15	0.35/1/2	0.25/0.9/1.9	0.25/0.9/1.9
	Ultimate non-driving time t (s)	-	0.1/0.5/1	-	-

See table 4 for rated voltage of control circuit

Table 4

Type	Rated working voltage (V)		
	AC 50Hz	DC	
Shunt release	Us	230, 400	110, 220
Under-voltage release	Ue	230, 400	-
Electrical mechanism	Us	230, 400	110, 220

See table 5 for rating of auxiliary contact (alarm contact)

Table 5

Conventional heat current I_{th} (A)	Rated insulating voltage U_i (V)	Rated working current I_e (A)		Rated current of frame I_n (mA)
		AC 400V	DC 220V	
1	400	0.3	0.15	Used as auxiliary contact
3	400	0.3	0.15	≤ 225
3	400	0.4	0.2	≥ 400

■ Outline and installation dimensions (see the diagram and table 6)

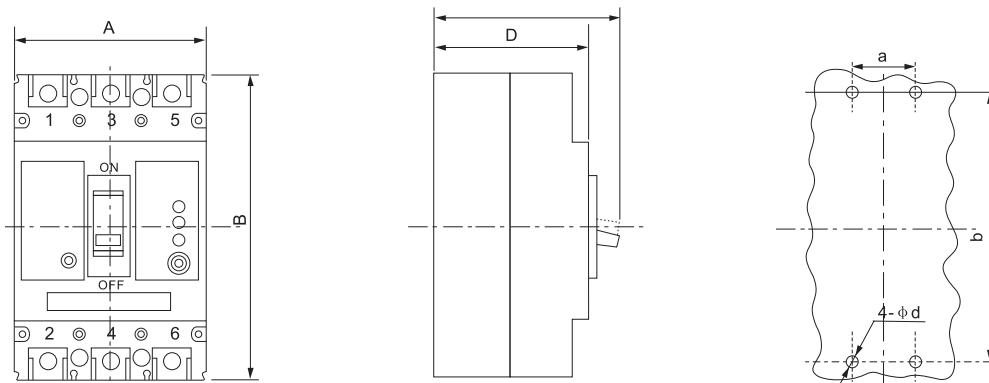


Table 6

Type	Number of poles	Outline dimensions(mm)				Installation dimensions(mm)		
		A	B	C	D	a	b	d
3SM8L-100	3	92	150	110	92	30	129	4.5
	4	122	150	110	92	60	129	4.5
3SM8L-225	3	107	165	110	90	35	126	4.5
	4	142	165	110	90	70	126	4.5
3SM8L-400	3	150	257	146.5	106.5	44	194	7
	4	198	257	146.5	106.5	88	194	7
3SM8L-630	3	210	280	155	115.5	70	243	7
	4	280	280	155	115.5	70	243	7



■ Application

3SM9 moulded-case low-voltage circuit-breakers offer performance features that meet the full spectrum of application requirements, from small users to large industrial electricity distribution installations. Innovation, technology and quality have always been the principles guiding the development of 3SM9.

Through special technical solutions, such as two fixed contacts for each arcing chamber, it offers excellent performance in terms of breaking, fault current limiting and specific tripping current capacity. The MCCB meets standard of IEC60947-2.

■ Main Technical specifications

TYPE	3SM9	3SM9	3SM9					
Frame size In (A)	125	160	250					
Number of poles Nr	3-4	3-4	3-4					
Rated operating voltage, Ue (AC) 50-60Hz (DC)	500 (V)	690 (V)	690 (V)					
Rated impulse withstand voltage, Uimp (kV)	250 (V)	500 (V)	750 (V)					
Rated insulating voltage, Ui (V)	500	690	800					
Test voltage 1 minute (V)	3000	3000	3000					
Rated ultimate short circuit breaking capacity, Icu	B (AC) 50-60 Hz 220/230V (kA)	N (AC) 50-60 Hz 380/415V (kA)	B (AC) 50-60 Hz 440V (kA)	N (AC) 50-60 Hz 500V (kA)	S (AC) 50-60 Hz 690V (kA)	N (DC) 250V - 2 pole series (kA)	H (DC) 500V - 2 pole series (kA)	L (DC) 500V - 3 pole series (kA)
	25	40	25	50	65	65	100	170
	16	25	16	35(1)	50	35(1)	65	85
	10	16	10	20	25	30	50	65
	8	12	8	12	15	25	40	50
	-	-	6	8	10	14	18	20(5)
	16	25	16	35	50	35	65	85
	-	-	-	-	-	35	50	65
	-	-	16	35	50	-	-	-
	-	-	-	-	-	20	35	50
Rated working short circuit breaking capacity, Ics (2) (%Icu)	50%	50%	100%	75%	75%	100%	75%	75%
Rated short circuit closing capacity (415V) (kA)	32	52.5	32	74	105	74	143	187
Tripping time (415V at Icu) (ms)	8	6	8	7	6	8	7	6
Rated short time withstand current (1 second) Icw (kA)								
Service rating (EN 60947-2)	A		A			A		
Isolation function	■		■			■		
IEC 60947-2 , EN 60947-2	■		■			■		
Release: thermomagnetic	T unadjustable T unadjustable	M unadjustable 5th M unadjustable 10th	■ ■					
	T adjustable T adjustable	M unadjustable 3th M unadjustable 5th				■ ■	■ ■	
						■ ■	■ ■	
						■ ■	■ ■	
Electromagnetic	M unadjustable		■			■	■	■
Micro-processor	PR211/P (L-L)							
	PR212/P (LSI-LSIG)							
Interchangeability								
Type		F-P		F-P		F-P-W		
Terminal type	fixed type	FC-R		EF-FC-FC CuAl-R		F-EF-ES-FC FC CuAl-RC-R		
	Plug-in type	FC-R		FC-R		EF-FC-R		
	Withdrawable type (3)			-		EF-FC-R		

Main Technical specifications

	DIN EN 50022	DIN EN 50022	DIN EN 50023
Mechanical life (operation times/operation times per hour)	25000/240	25000/240	25000/120
Electrical life (operation times/operation times per hour)	8000/120	8000/120	10000(160A)-8000(250A)/120
Fixed type circuit breaker 3/4 pole	L (mm) D (mm) H (mm)	78/103 70 120	90/120 70 120
Weight fixed type 3/4 pole	(kg)	0.9/1.2	1.1/1.5
Plug-in type 3/4 pole	(kg)	1/1.4	1.3/1.7
Withdrawable type 3/4 pole	(kg)	-	-

(1) Icu=35Ka all with certifications under 36Ka
 (2) Ics of circuit breaker of S3 N/H/L, S4 N/H/L,
 S5 N/H and S6 N/S/H decrease 25% under 690V

(3) To facilitate installation, withdraw able switch is matched with handle operating mechanism or its substitute accessories (such as rotary handle or motor operating components), withdrawable front flange match

(4) Rated current of S5 plug-in type is only 400A
 S3 circuit breaker with breaking capacity at 690V can only be energized from upper terminal

Tripping Characteristics

Table 1

Rated Current of release (A)	Thermodynamic Release (ambient temp +40°C)		Operational Current of Magnetic Release (A)
	1.05In(cold state) inoperative time(h)	1.30In(heat state) inoperative time(h)	
In≤63	≥1	<1	10-50In±20%
63<In≤250	≥2	<2	10In±20%
25<In≤800	≥2	<2	5-10In±20%

Table 2

Rated Current of release (A)	Thermodynamic Release (ambient temp +40°C)				Operational Current of Magnetic Release (A)
	1.0In(cold state) inoperative time(h)	1.20In(heat state) inoperative time(h)	1.50In(heat state) inoperative time(h)	1.01In(heat state) inoperative time(h)	
12.5<In≤400	≥2	<2	<4min	2S<Tp≤10S	12In±20%

TYPE	3SM9			3SM9			3SM9				
	N	H	L	N	S	H	L	S	H	L	
Frame size In	(A)	400		(630)800				(1250)1600			
Number of poles	Nr	3-4		3-4				3-4			
Rated operating voltage, Ue (AC) 50-60Hz	(V)	690		690				690			
(DC)	(V)	750		750				-			
Rated impulse withstand voltage, Uimp	(kV)	8		8				8			
Rated insulating voltage, Ui	(V)	800		800				800			
Test voltage 1 minute	(V)	3000		3000				3000			
Rated ultimate short circuit breaking capacity, Icu											
(AC) 50-60 Hz 220/230V	(kA)	65	100	200	65	85	100	200	85	100	200
(AC) 50-60 Hz 380/415V	(kA)	35(1)	65	100	35(1)	50	65	100	50	65	100
(AC) 50-60 Hz 440V	(kA)	30	50	80	30	45	50	80	45	55	80
(AC) 50-60 Hz 500V	(kA)	25	40	65	25	35	40	65	35	45	70
(AC) 50-60 Hz 690V	(kA)	20	25	30	20	22	25	30	20	25	35
(DC) 250V - 2 pole series	(kA)	35	65	100	35	50	65	100	-	-	-
(DC) 500V - 2 pole series	(kA)	35	50	65	20	35	50	65	-	-	-
(DC) 500V - 3 pole series	(kA)	-	-	-	-	-	-	-	-	-	-
(DC) 750V 3 pole series	(kA)	20	35	50	10	20	35	50	-	-	-
Rated working short circuit breaking capacity, Ics (2) (%Icu)		100%	100%	75%	100%	100%	100%	75%	100%	75%	50%
Rated short circuit closing capacity (415V)	(kA)	74	143	220	74	105	143	220	105	143	220
Tripping time (415V at Icu)	(ms)	8	7	6	10	9	8	7	22	22	22
Rated short time withstand current (1 second) Icw	(kA)				5(400A)				7.6(630A)-10(800A)		
Service rating (EN 60947-2)		B(400A)-A(630A)				B				B	
Isolation function		■			■				■		
IEC 60947-2 , EN 60947-2		■			■				■		
Release: thermomagnetic	T unadjustable M unadjustable 5th										
	T unadjustable M unadjustable 10th										
	T adjustable M unadjustable 3th										
	T adjustable M unadjustable 5th										
	T adjustable M unadjustable 10th										
	T adjustable M adjustable	■	■	■	■	■	■	■	■	■	
Electromagnetic	M unadjustable										
Micro-processor	PR211/P (I-LI)	■	■	■	■	■	■	■	■	■	
	PR212/P (LSI-LSIG)	■	■	■	■	■	■	■	■	■	
Interchangeability		■			■				■		
Type		F-P(400)-W			F-W				F-W		
Terminal type	fixed type	F-EF(400A)-ES-FC FC CuAl(400A)-RC(400A)-R			F-EF-ES-FC CuAl RC-R				F-EF-ES-FC CuAl RC-R		
	Plug-in type	EF-FC-R			-				-		
	Withdrawable type (3)	EF(400A)-ES-FC-(400A) R-VR(630A)			EF-HR-VR				EF-HR-VR		
Fixed on DIN track		DIN EN 50023									
Mechanical life (operation times/operation times per hour)		20000/120			20000/120				20000/120		
Electrical life (operation times/operation times per hour)		7000(400A)-5000(630A)/60			7000(630A)-5000(800A)/60				7000(1250A)-5000(1600A)/20		
Fixed type circuit breaker 3/4 pole	L (mm)	140/184			210/280				210/280		
	D (mm)	103.5			103.5				138.5		
	H (mm)	254			268				406		
Weight fixed type 3/4 pole	(kg)	5/7			9.5/12				17/22		
Plug-in type 3/4 pole	(kg)	6.1/8.4			-				-		
Withdrawable type 3/4 pole	(kg)	6.4/8.7			12.1/15.1				12.8/29.2		

Type code
 F=fixed type
 P=plug-in type
 W=withdrawable type

Terminal code
 F= front terminal
 EF=lengthened front terminal
 ES=extended front terminal

FC=copper cable front terminal
 FC CuAl= copper/aluminum front terminal
 R=bolt rear terminal

RC=copper/aluminum cable rear terminal
 HR=rear horizontal busbar terminal
 VR=rear vertical busbar terminal

3SM28 Molded Case Circuit Breaker

■ Application

3SM28 series moulded case circuit breaker is one of the most advanced type breakers in the world. They are suitable for short circuit and overload protection for circuit of AC 690V 50/60Hz, rated current from 12.5A to 630A. Its rated insulation voltage is 690V. It can be used as switch to make and break the circuit infrequently in the normal conditions. It offers protection when squirrel cage motors infrequently start, stop and protecting overload, short circuit and under voltage.

■ Tripping Characteristics

Table1

Rated Current of release (A)	Thermodynamic Release (ambient temp +40°C)		Operational Current of Magnetic Release (A)
	1.05In(cold state) operative time(h)	1.30In(heat state) operative time(h)	
In≤63	≥1	<1	10In±20%
63<In≤100	≥2	<2	10In±20%
100<In≤630	≥2	<2	5-10In±20%

Table2

Rated Current of release (A)	Thermodynamic Release (ambient temp +40°C)				Operational Current of Magnetic Release (A)
	1.0In(cold state) operative time(h)	1.20In(heat state) operative time(h)	1.50In(heat state) operative time(h)	1.01In(heat state) operative time(h)	
12.5In≤400	≥2	<2	≥4min	2S<Tp≤10S	12In±20%

■ Main Technical specifications

Table3

Type	Rated Current (A)	Ultimate Short Circuit Breaking Capacity (KA)	Services Short Circuit Breaking Capacity (KA)	Operating performance (times)		
				Elec.life	mec.life	
3SM28-100	12.5, 16, 20, 25, 32, 40, 50, 63, 80, 100	18	18	1500	8500	
3SM28-100N		25	25			
3SM28-100H		70	70			
3SM28-100L		150	150			
3SM28-160	16, 20, 25, 32, 40, 50, 63, 80, 100, 125, 160	25	25	1000	7000	
3SM28-160N		36	36			
3SM28-160H		70	70			
3SM28-160L		150	150			
3SM28-250	160, 180, 200, 225, 250	25	25	1000	7000	
3SM28-250N		36	36			
3SM28-250H		70	70			
3SM28-250L		150	150			
3SM28-400	200, 225, 250, 300, 315, 400	35	35	1000	4000	
3SM28-400N		45	45			
3SM28-400H		70	70			
3SM28-400L		150	150			
3SM28-630	315, 350, 400, 500, 600, 630	35	35	1000	4000	
3SM28-630N		45	45			
3SM28-630H		70	70			
3SM28-630L		150	150			
Poles:				3P, 4P		
Rated Insulating Voltage (V):				950		
Rated Operating Voltage (V):				690		
Arcing Over Distance (mm):				0		



■ Application

3SM2 MCCB features good structure, small volume and reliable performance. It can be used on the 50/60Hz, rated voltage to 600V supply. It can protect the cable and equipments from overload or short circuit. It can also be used as switch for infrequently making or breaking of the circuit.

■ Specifications

Model	3SM2-30CS	3SM2-50CS	3SM2-100CS	3SM2-250CS	3SM2-400CS	3SM2-630CS	3SM2-800CS	3SM2-1250CS
Rated insulation voltage(V)	600V							
Rated current(A)	3,5,10, 15,20,30	10,15,20 30,40,50	60,75,100	125,150 175,200 225,250	250,300, 350,400	500,600, 630	600,700, 800	630,700, 800,1000, 1250
Making & breaking capacity	AC380V/ 1.5kA 500V/1.5kA	AC380V/ 5kA 500V/2.5kA	AC380V/ 18kA 500V/7.5kA	AC380V/ 18kA 500V/10kA	AC380V/ 25kA 500V/15kA	AC380V/ 30kA 500V/22kA	AC380V/ 50kA	AC380V/ 50kA
No. of poles	2, 3	2, 3	2, 3	3	3	3	3	3



■ Specifications

Type	Pole number	Rated current (A)	Rated insulation voltage(V)	Circuit breaking capacity (kA)							
				AC (Icu/Ics)		415		500		600	
3SM2-30SS	2	3, 5, 10, 15, 20, 30	600	240	380	415	500	600	660	—	—
	3		600	5/5	5/2.5	2.5/1.5	2.5/1.0	—	—	—	—
3SM2-50SS	3	10, 20, 30, 40, 50	600	5/10	10/7.5	7.5/5	7.5/5	2.5/1.5	—	—	—
3SM2-60SS	3	10, 20, 30, 40, 50, 60	600	5/10	10/7.5	7.5/5	7.5/5	2.5/1.5	—	—	—
3SM2-100SS	3	60, 75, 100	660	50/42	30/20	25/15	15/10	10/5	5/2.5	—	—
	4		660								
3SM2-250SS	3	125, 150, 175 200, 225, 250	660	50/42	30/22	25/20	18/15	15/10	5/2.5	—	—
	4		660								
3SM2-400SS	3	250, 300, 350, 400	660	85/60	50/35	50/30	35/25	25/18	15/10	—	—
	4		660								
3SM2-630SS	3	500, 600, 630	660	85/60	50/35	50/30	35/25	25/18	15/10	—	—
	4		660								
3SM2-800SS	3	600, 700, 800	660	85/60	50/35	50/30	35/25	25/18	15/10	—	—
	4		660								

3SM2-CP Molded Case Circuit Breaker

■ Specifications



3SM2-CP	Pole number	Rated current (A)	Rated insulation voltage(V)	(Icu/Ics) Ica/Ics Breaking capacity(kA)			
				230	400	440	500
50CP	3	5, 10, 15, 20, 30, 40, 50	600	5/2	5/2	2.5/1	2.5/1
60CP	3	60	600	5/2	5/2	2.5/1	2.5/1
100CP	3	60, 75, 100	600	25/13	10/5	10/5	7/4
250CP	3	125, 150, 175, 200, 225, 250	600	30/15	18/9	15/8	10/5
400CP	3	250, 300, 350, 400	600	50/25	36/18	25/13	15/8