

AM2 Series Moulded Case Circuit Breaker

1. Application

AM2 series moulded case circuit breaker is one of the breakers which adopts international advanced design, manufacture technology to develop. The rated insulating voltage is 750V, suitable for the circuit of AC 50/60Hz, rated working voltage 690V or below, rated working current is 12.5A to 1600A and used in distributing electric energy, and infrequently breaking in the normal conditions, protecting the circuit & equipment from overload & under voltage, circuit breaker with rated frame current 400A or below, can be used in mousecage motor's infrequent start, breaking during working, protecting motor from overload, short circuit & undervoltage, the product conforms to IEC60947-2 standard.

2. Main Technical Specifications

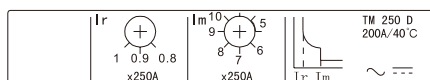
Table 1

Type	Pole	Rated insulating voltage (V)	Rated operating voltage (V)	Rated ultimate short circuit breaking capacity Icu (kA) at 380/415V	Rated service short circuit breaking capacity Ics at 380/415V(kA)	Operation performance		Utilization category
						ON	OFF	
AM2-100N	3, 4 pole	750	690 or below	25	25	1500	8500	A
AM2-100H				70	70			
AM2-100L				150	150			
AM2-160N				36	36	1000	7000	
AM2-160H				70	70			
AM2-160L				150	150			
AM2-250N				36	36	1000	7000	
AM2-250H				70	70			
AM2-250L				150	150			
AM2-400N				45	45	1000	4000	
AM2-400H				70	70			
AM2-400L				150	150			
AM2-630N	3 pole			45	45	1000	4000	
AM2-630H				70	70			
AM2-630L				150	150			
AM2-1250N				50	37.5	1000	4000	
AM2-1600N				50	37.5			

Note:1. The N-pole breaker which closing and opening with the other three poles no protection.

3 Main Technical Parameter of Trip Units

Thermal magnetic release



Type	Rated current In(A)	Note
AM2-100	12.5, 16, 20, 25, 32, 40, 50, 63, 80, 100	T adjustable (0.8~1In) M adjustable (5~10In)
AM2-160	16, 20, 25, 32, 40, 50, 63, 80, 100, 125, 160	
AM2-250	160, 180, 200, 225, 250	
AM2-400	315, 350, 400	
AM2-630	400, 500, 630	
AM2-1250	800, 1000, 1250	T adjustable (0.8~1In) M fixed
AM2-1600	1000, 1250, 1600	



AM2-100N/3P



AM2-250N/3P



AM2-400N/3P



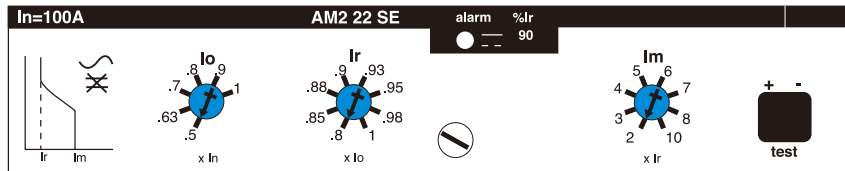
AM2-630N/3P

● Electronic release

AM2 22SE: protection of low-voltage distribution networks for AM2-100\160\250



AM2-250N/4P

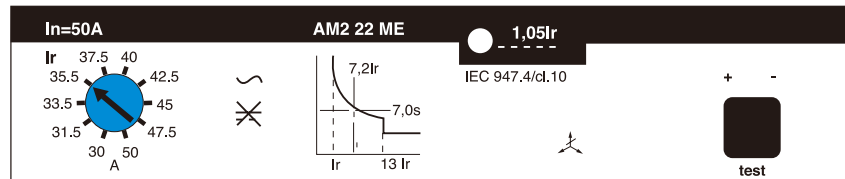


1. Overload protection with adjustable threshold
2. Short-circuit protection with adjustable threshold
3. Load indication : light at 90% of Ir setting threshold;
Flashing at 105% or more of Ir setting threshold

Type	Rated current In(A)	Note
AM2-100	40、100	$I_r = 0.4 \dots 1 \times I_n$ (adjustable 48 setting) Tripping between $1.05 \dots 1.3 \times I_r$ (IEC60947-2) (Long-time overload protection) $I_m = 2-3-4-5-6-7-8-10 \times I_r$ (Short-circuit protection)
AM2-160	40、100、160	
AM2-250	40、100、160、250	



AM2-630N/4P



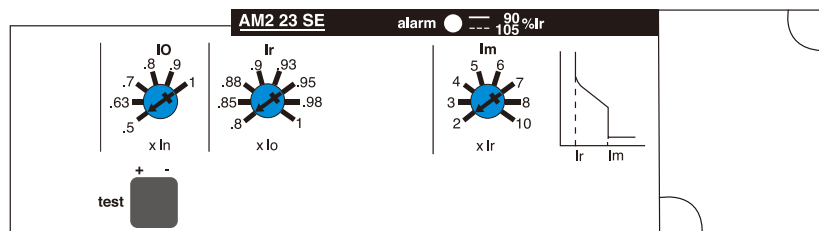
1. Overload protection with adjustable threshold, as defined by IEC60947-4 (2) tripping class 10
2. Short-circuit protection with fixed threshold ($13 \times I_r$)
3. phase failure protection (tripping time delay between 3.5s-6s)
4. Load indication : dark less than 105% of Ir setting threshold;
Flashing at 105% or more of Ir setting threshold

Type	Rated current In(A)	Note
AM2-100	40、50、80、100	$I_r = 0.6-0.63-0.67-0.71-0.75-0.80-0.85-0.90-0.95-1 \times I_n$
AM2-160	40、50、80、100、150	
AM2-250	40、50、80、100、150、220	



AM2-1600N

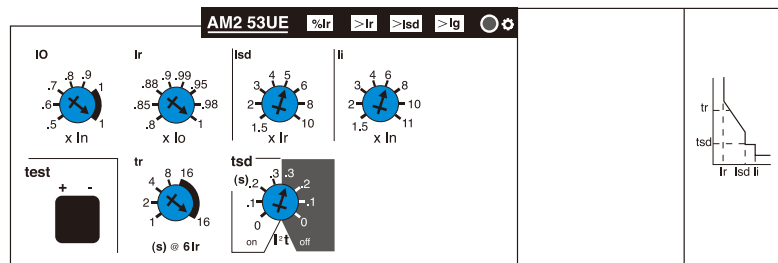
AM2 23SE: protection of low-voltage distribution networks for AM2-400\630



1. Overload protection with adjustable threshold
2. Short-circuit protection with adjustable threshold
3. Load indication : light at 90% of Ir setting threshold;
Flashing at 105% or more of Ir setting threshold

Type	Rated current In(A)	Note
AM2-400	400	$I_r = 0.4 \dots 1 \times I_n$ (adjustable 48 setting) Tripping between $1.05 \dots 1.3 \times I_r$ (IEC60947-2) (Long-time overload protection) $I_m = 2-3-4-5-6-7-8-10 \times I_r$ (Short-circuit protection)
AM2-630	630	

AM2 53UE: protection of low-voltage distribution networks for AM2-400\630



1. Overload protection with adjustable threshold, as defined by IEC60947-2
2. Short-circuit protection with adjustable threshold
3. Instantaneous short-circuit protection
4. Earth fault protection with adjustable threshold
5. Load indication : light at 90% of I_r setting threshold;
Flashing more than I_r setting threshold
6. Fault indication

LEDs indicates the type of fault that caused tripping

Overload (**LT** protection) or abnormal component temperature (**>Ir**);

Short-circuit (**ST** or instantaneous protection)(**>Im**);

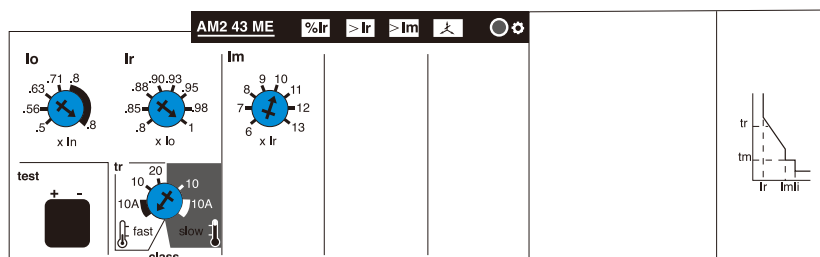
Earth fault (if earth fault protection option is present)(**Ig**);

Microprocessor malfunction (both (**>Ir**) and (**>Im**) LEDs go on ,plus the (**Ig**) LEDs if earth fault protection option is present)

Battery powered. Spare battery are supplied in an adapter box. When a fault occurs , the LED indicating the type of fault ,lights for about 10 minutes . The information is however stored in memory . The LED can be illuminated by pressing the test pushbutton. The LED automatically goes off and the memory is cleared when the circuit breaker is reset .

Type	Rated current In(A)	Note
AM2-400	400	$I_r = 0.4 \dots 1 \times I_n$ (adjustable 48 setting) Tripping between $1.05 \dots 1.3 \times I_r$ (IEC60947-2) at $6 \times I_r$ Trip time: 1s, 2s, 4s, 8s, 16s(adjustable) (Long-time overload protection) $I_{sd} = 1.5-2-3-4-5-6-7-8-10 \times I_r$ Trip time: 0s, 0.1s, 0.2s, 0.3s adjustable+ I^2t (Short-circuit short time delay protection) $I_i = 1.5-2-3-4-6-7-8-10-11 \times I_r$ (Instantaneous short-circuit protection) $I_g = 0.1-0.2-0.3-0.4-0.5-0.6-0.7-0.8-1 \times I_r$ Trip time: 0.1s, 0.2s, 0.3s, 0.4s adjustable+ I^2t (Earth fault protection) (If option is present)
AM2-630	630	

AM2 43ME: protection of motor for AM2-400\630



1. Overload protection with adjustable threshold, as defined by IEC60947-4 (2) tripping class 10A,10 and 20
2. Short-circuit protection with adjustable threshold (6...13xIr)
3. Phase failure protection (built-in electronic release: operates unbalanced single-phase current at 40% and more than)(tripping time delay $4s \pm 10\%$),as defined by IEC60947-4.1
4. Load indication : Flashing more than Ir setting threshold
5. Fault indication

LEDs indicates the type of fault that caused tripping

Overload (**LT** protection) or abnormal component temperature (**>Ir**);

Short-circuit (**ST** or instantaneous protection)(**>Im**);

Phase failure (**right LED**);

Microprocessor malfunction (**>Ir**) (**>Im**) and phase failure LEDs all go on)

Battery powered. Spare battery are supplied in an adapter box. When a fault occurs ,the LED indicating the type of fault ,lights for about 10 minutes . The information is however stored in memory . The LED can be illuminated by pressing the test pushbutton. The LED automatically goes off and the memory is cleared when the circuit breaker is reset .

Type	Rated current In(A)	Note
AM2-400	400	$I_r = 0.4 \dots 1 \times I_n$ (adjustable 48 setting) Trip degree: class 10A, 10,20(IEC60947-4) (Long-time overload protection) $I_m = 6-7-8-9-10-11-12-13 \times I_r$ (Short-circuit protection)
AM2-630	630	



Under-voltage release
Shunt release



Auxiliary contact
Alarm contact

4. Accessories

Accessories	Rated operating voltage	Consumption		For type
		Pick-up	Seal-in	
Shunt release (MX)	24V 100V 220/230V 380/400V	<10VA	<5VA	AM2-100~630
Under-voltage release(UN)	220/230V 380/400V			

Accessories	Rated operating voltage	Rated operating current		For type
		AC12	AC15	
Auxiliary contact (OF)	380/400V	6	3	AM2-100~630
Alarm contact(AL)	380/400V	6	3	

Rotary handle

● Direct rotary handle

Degree of protection:IP40

Function: 1) suitability for isolation

2) indication of three positions 0(off) I(on) and tripped

3) press "push to trip" button, can trip-free

4) visibility of and access to trip unit settings

5) the circuit breaker can be locked in the off position by one to three padlocks , diameter 5 to 8mm(not supplied)



Rotary handle

● Extended rotary handle

Degree of protection:IP55

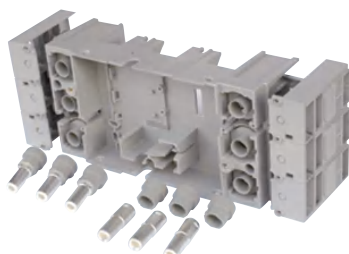
Function: 1) Suitability for isolation

2) Indication of three positions 0(off) I(on) and tripped

3) Visibility of and access to trip unit settings when the door is open

4) Door opening prevented when circuit breaker is on

5) The circuit breaker can be locked in the off position by one to three padlocks , diameter 5 to 8mm(not supplied).Locking prevents opening of the switchboard door



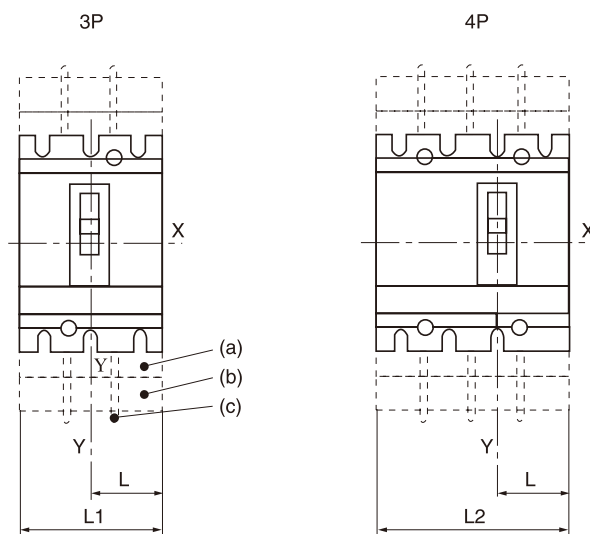
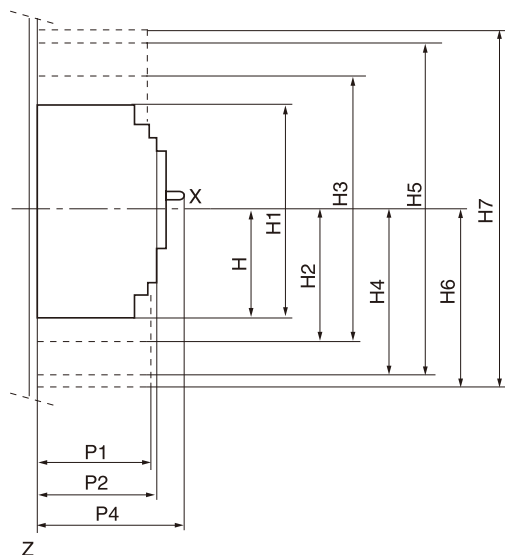
Plug-in base

5. Installation: Circuit breaker may be mounted vertically, horizontally or flat on their back without any derating of characteristics.

6. Fix: Mounting on backplate , mounting on rails

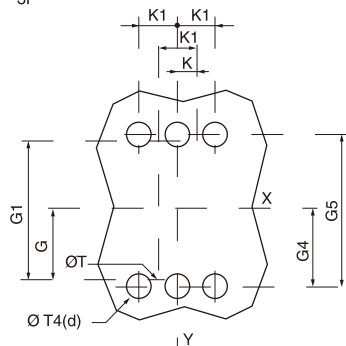
7. Connection: Front panel connection , back panel connection , plug-in connection

8. Outline and Installation Dimension

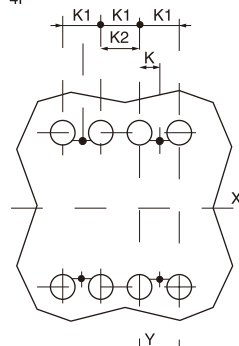


Mounting on backplate

3P

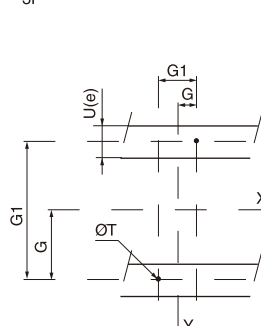


4P

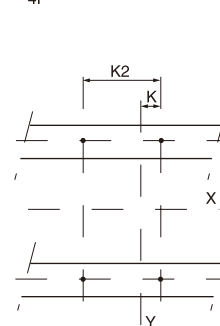


Mounting on rails

3P

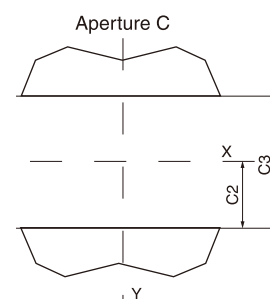
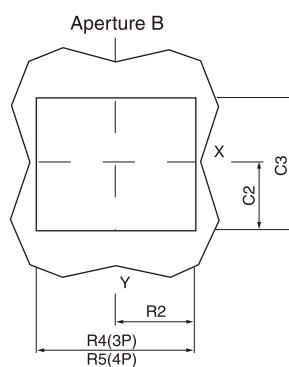
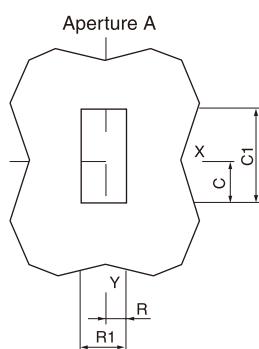
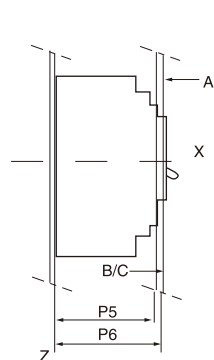


4P



Aperture on a front panel

Fitting to fixed and plug-in circuit breaker



AM2-100~630

Unit: mm

Type	C	C1	C2	C3	G	G1	G4	G5	H	H1	H2
AM2 100/160/250N/H/L	29	76	54	108	62.5	125	70	140	80.5	161	94
AM2 400/630N/H/L	41.5	116	92.5	184	100	200	113.5	227	127.5	255	142.5
AM2 1250/1600N									100	255	

Type	H3	H4	H5	H6	H7	K	K1	K2	L	L1	L2	P1	P2	P4	P5
AM2 100/160/250N/H/L	188	160.5	321	178.5	357	17.5	35	70	52.5	105	140	81	86	111*	83
AM2 400/630N/H/L	285	240	480	237	474	22.5	45	90	70	140	185	95.5	110	168	107
AM2 1250/1600N						99.5	199	209	99.5	199	269	107.5		205	

Type	P6	R	R1	R2	R4	R5	ØT	ØT4	(Ue)
AM2 100/160/250N/H/L	88	14.5	29	54	108	143	6	22	≤ 32
AM2 400/630N/H/L	112	31.5	63	71.5	143	188	6	32	≤ 32
AM2 1250/1600N							6.5		

* P4=126 is suitable for AM2 250N/H/L