

Mingri Electric

Low Voltage

Selection Guide



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Claire

SJKM1L



*Product Description

SJKM1L Plastic-Cased Circuit Breaker with Residual Current Protection (hereinafter referred to as the circuit breaker) is one of the new-generation breakers developed by our company using advanced design software and manufacturing technology. With a rated insulation voltage of 800V, it is suitable for circuits with 50Hz AC, a rated operational voltage of 400V, and a rated operational current of up to 800A, where it serves for infrequent switching and occasional motor starting.

The circuit breaker provides protection against overload, short circuit, and under-voltage, safeguarding lines and power equipment from damage. It also offers protection against persistent ground faults that may pose a fire hazard and cannot be detected by conventional overcurrent protection devices.

Based on their rated ultimate short-circuit breaking capacity (I_{cu}), the circuit breakers are classified into two types: M-type (higher breaking capacity) and H-type (high breaking capacity). These breakers feature compact size, high breaking capacity, short arc extinguishing distance, and high resistance to vibration.

*Type Designation

SJK M1 L □□□/□□□□□

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

SJK:Enterprise code

M:Molded case circuit breaker type code

1:Design serial number

L:With residual current protection

① Shell - rated current level

② Short - circuit breaking capacity level: "Standard type" is represented by L; "Medium - high breaking type" is represented by M; "High - breaking type" is represented by H.

③ Operation mode: No code for manual direct operation; "Handle operation with rotation" is represented by Z; "Electric operation" is represented by D.

④ Pole number: 3 for three - pole; 4 for four - pole.

⑤ Frame opening method and accessory code: (See the accessory code table [1])

⑥ Graphic code: No code for distribution; "Motor protection" is represented by 2.

⑦ Four - pole product type code (the pole numbers are divided into four types: A, B, C, D), no code for three - pole products.

⑧ Alarm module: "Alarm and trip" is represented by I; "Alarm without trip" is represented by II.

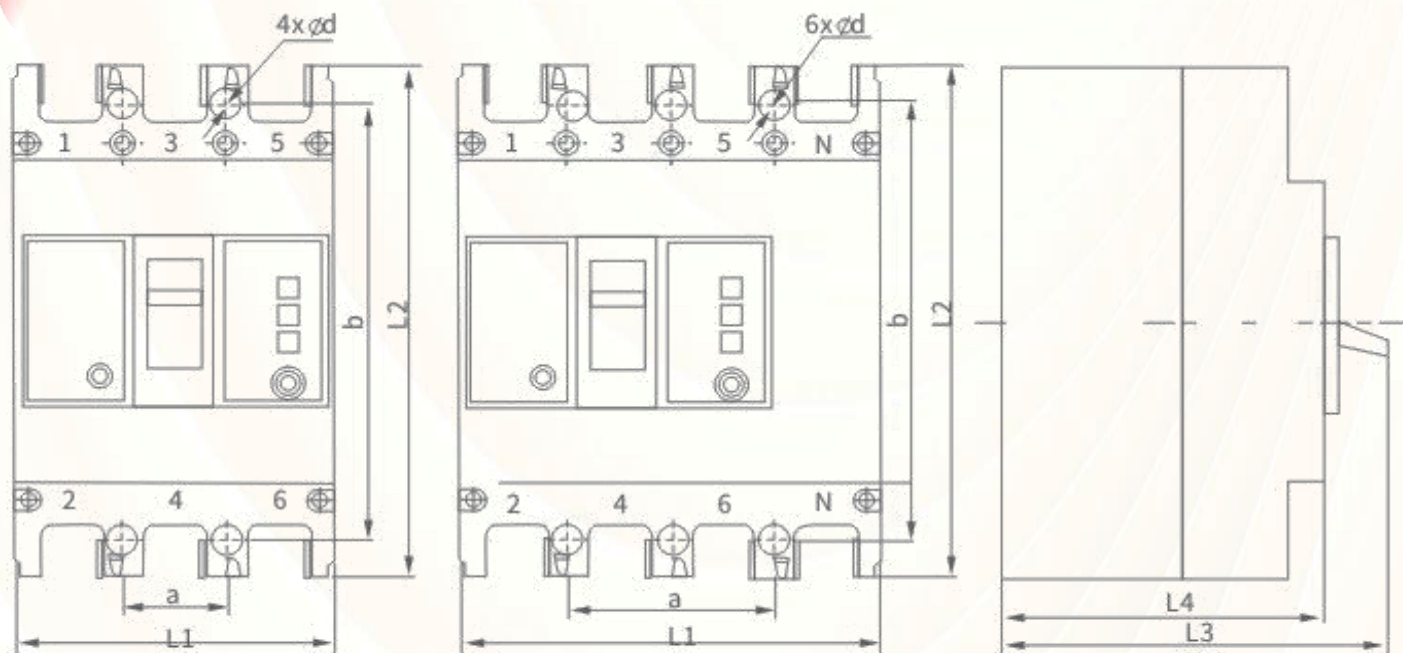
Note:

Shell - rated current codes: 1N25 represents 125A, 2N50 represents 250A, 4N00 represents 400A, 6N30 represents 630A, and 8N00 represents 800A.

* Main Technical Parameters

Model		SJKM1LE-125		SJKM1LE-250		SJKM1LE-400		SJKM1LE-630、800	
Maximum Rated Current of Shell Frame Grade A		125		250		400		800	
Rated Current In A		16 20 25 32 40 50 63 80 100 125		125 160 180 200 225 250		250 315 350 400		400 500 630 700 800	
Number of Poles		3	4	3	4	3	4	3	4
Rated Insulation Voltage Ui V		AC800							
Rated Working Voltage Ue V		AC400							
Rated Impulse Withstand Voltage Uimp V		8000		8000		8000		8000	
Arc - Quenching Distance mm		50		50		100		100	
Breaking Capacity Icu Ics		L	M	L	M	L	M	L	M
	AC400V	35	50	35	50	50	65	50	65
	AC400V	22	35	25	35	35	42	35	42
Rated Residual Short - Circuit Making (Breaking) Capacity Icu/4		8.75		12.5		15.75		16.25	
Rated Residual Operating Current I Δ n (mA)	Non - delay type	30/50/100 100/300/500		30/50/100 100/300/500		100/300/500		300/500/1000	
	Delay type	100/300/500		100/300/500		100/300/500		300/500/1000	
Rated Residual Operating Current I Δ n (mA)		1/2I Δ n		1/2I Δ n		1/2I Δ n		1/2I Δ n	
Number of Operating Performances	Energized	1500		1000		1000		1000	
	De - energized	8500		7000		4000		4000	
	Total number of times	10000		8000		5000		500	
Operating Time of Residual Current Protection		2I Δ n		2I Δ n		5I Δ n		10I Δ n	
Maximum Breaking Time (S)	Non - delay type	0.2		0.1		0.4		0.04	
	Delay type	0.5/1.15/2.1 5		0.35/1/2		0.25/0.9/1.9		0.25/0.9/1.9	

* Installation and Overall dimensions



Circuit breaker front - panel wiring

Model	pole	Overall Dimensions (mm)				Installation Dimensions (mm)		
		L1	L2	L3	L4	a	b	φd
SJKM1L-125	2	65	151	110	75		129	2×φ4.5
	3	93	151	110	92	30	129	4×φ4.5
	4	123	151	110	92	60	129	6×φ4.5
SJKM1L-250	2	75	165	110	90		129	2×φ4.5
	3	107	165	110	90	35	126	4×φ4.5
	4	142	165	110	90	70	126	6×φ4.5
SJKM1L-400	3	154	257	146	106	44	194	4×φ4.5
	4	198	257	146	106	94	194	6×φ4.5
SJKM1L-630 SJKM1L-800	3	210	280	155	116	70	243	4×φ7
	4	280	280	155	116	140	243	6×φ7