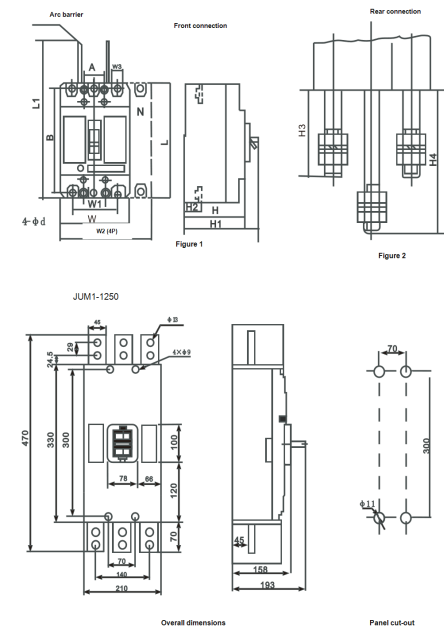




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6. Use and Maintenance

1. The breaker handle has three positions, corresponding to the closed, open and tripped states. When the handle is in the tripped position, move it backwards to reset the mechanism, then close the breaker.
2. All parameters and accessories are set to standard values before despatch. They must not be adjusted arbitrarily in service, and the cover must not be opened during installation.
3. The breaker should be maintained regularly, normally every six to twelve months. During maintenance, remove dust and dirt from the breaker, check that the operating mechanism moves freely, and re-tighten the incoming and outgoing terminal screws.
4. The cross-sectional area of the connecting conductors must suit the rated current of the breaker. See Table 6.

Table 6 Conductor cross-section and rated current

Rated current (A)	10	16-20	32	40-50	63	80	100	125	160	180-225	250	315-350	400
Conductor (mm ²)	1.5	2.5	6	10	16	25	35	50	70	95	120	185	240
Rated current (A)	Cable						Copper busbar						
	Qty	Section (mm ²)		Qty	Size (mm×mm)								
500	2	150		2	30×2								
630	2	185		2	40×5								
800	2	240		2	50×5								
1250	—	—		2	80×5								

7. Documents and Accessories Supplied

1. Certificate of conformity; 2. Instruction manual (this document); 3. Accessory bag

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1. Applications

The JUM1 series moulded case circuit breaker (hereinafter referred to as "the circuit breaker") is a new type of breaker developed by our company using advanced design and manufacturing technology. It is compact in size, has a high breaking capacity, a short arc travel and good resistance to vibration. It is suitable for AC 50 Hz distribution networks with a rated insulation voltage of 1140 V, a rated operational current from 10 A to 1250 A and a rated operational voltage of 400 V / 690 V / 800 V and below, for infrequent making and breaking of circuits and for infrequent starting of motors. The circuit breaker is provided with overload, short-circuit and undervoltage protection and protects cables, supply equipment and motors from damage.

The circuit breaker may be mounted vertically or horizontally.

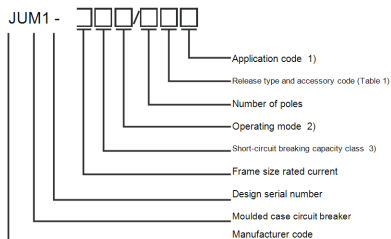
This product conforms to GB/T 14048.2 and IEC 60947-2.

2. Operating Conditions

1. Altitude up to 2000 m.
2. Ambient air temperature not higher than +40 °C (+45 °C for marine products) and not lower than -5 °C.
3. Able to withstand the effects of humid air.
4. Able to withstand the effects of salt mist and oil mist.
5. Able to withstand the effects of mould.
6. Maximum inclination 22.5°.
7. Able to operate reliably under normal shipboard vibration.
8. In a medium free from explosion risk, and free from gases or conductive dust sufficient to corrode metal or subject to rain or snow.
9. In a place not subject to rain or snow.

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3. Classification of the Circuit Breaker



- 1) No code for distribution circuit breakers; "2" denotes a motor-protection circuit breaker.
- 2) No code for direct handle operation; "P" denotes motor operation and "Z" denotes rotary operation.
- 3) "L" denotes the standard type, "M" the higher breaking capacity type and "H" the high breaking capacity type.

Table 1 Accessory codes

Accessory name	No accessory	Alarm contact	Shunt release	Auxiliary contact	Undervoltage release	Shunt release + auxiliary contact	Shunt release + undervoltage release	Two groups of auxiliary contacts	Auxiliary contact + undervoltage release	Shunt release + alarm contact	Auxiliary contact + alarm contact	Undervoltage release + alarm contact	Shunt release + auxiliary contact + alarm contact	Shunt release + undervoltage release + alarm contact	Alarm contact + two groups of auxiliary contacts	Auxiliary contact + undervoltage release + alarm contact
Instantaneous release	200	208	210	220	230	240	250	260	270	218	228	238	248	258	268	278
Thermal-magnetic release	300	308	310	320	330	340	350	360	370	318	328	338	348	358	368	378

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4. Main Technical Data

1. Ultimate breaking capacity — see Table 2

Model	Conventional thermal current (A)	Short-circuit breaking capacity kA (r.m.s.) I_{cs}/I_n	
		AC 400 V	AC 690 V / AC 800 V
		50/35	50/35
JUM1-63L	63	25/18	/
JUM1-63M		50/35	
JUM1-63H		85/50	
JUM1-125L		35/22	
JUM1-125M	125	50/35	/
JUM1-125H		85/50	
JUM1-250L		35/25	
JUM1-250M		50/35	
JUM1-250H	250	85/50	20/20
JUM1-400L		50/35	
JUM1-400M		80/50	
JUM1-400H		100/65	
JUM1-630L	630	50/35	/
JUM1-630M		80/50	
JUM1-630H		100/65	
JUM1-800L	800	50/35	/
JUM1-800M		80/50	
JUM1-800H		100/65	
JUM1-1250L	1250	50/35	/
JUM1-1250M		80/50	
JUM1-1250H		100/65	

2. Inverse time-current characteristics — see Table 3

Release rated current I_n (A)	Distribution duty			Motor protection duty		
	Thermal release (+40 °C)		Magnetic release current (A)	Thermal release (+40 °C)		Magnetic release current (A)
	$1.05 I_n$ (cold) no operation	$1.20 I_n$ (hot) operation	$10 I_n$	$1.05 I_n$ (cold) no operation	$1.20 I_n$ (hot) operation	$12 I_n$
$I_n \leq 63$	≥ 1 h	> 1 h	$10 I_n$	≥ 2 h	> 2 h	$12 I_n$
$63 < I_n \leq 125$	≥ 2 h	< 2 h				
$125 < I_n \leq 1250$						

3. Rated values of auxiliary and alarm contacts — see Table 4

Low-Voltage Component Specialist
Professional manufacturer of low voltage components

JUM1 SERIES

MOULDED CASE CIRCUIT BREAKER

INSTRUCTION MANUAL

Standards: IEC 60947-2
GB/T 14048.2

JUTRION ELECTRIC CO., LTD.

For your personal safety, read this manual carefully before installation and use.

www.jutrition.com | sales@jutrition.com
WhatsApp: +86 150 6847 6965

Table 4 Rated values of auxiliary and alarm contacts

Frame size rated current (A)	Conventional thermal current I_{th} (A)	Rated operational current at AC 380 V (A)
≤ 225	3	0.3
≥ 400		0.4

4. When the voltage applied to the shunt release is between 70 % and 110 % of the rated control supply voltage, the release opens the circuit breaker reliably.
5. When the supply voltage falls to between 70 % and 35 % of the rated operational voltage of the undervoltage release, the release opens the circuit breaker reliably. When the supply voltage is greater than or equal to 85 % of that rated operational voltage, the undervoltage release allows the circuit breaker to close reliably.

5. Overall and Mounting Dimensions

See Figure 1, Figure 2 and Table 5 (page 5). Dimensions in mm.

Table 5 Overall and mounting dimensions

Model	Overall dimensions												Mounting dimensions		
	Front connection						Rear conn.						A	B	d
	W	L	H	W1	W2	W3	L1	H1	H2	H3	H4				
JUM1-63L	76	136	73	50	103	14	156	92	16.5	44	66	25	117	3.5	
JUM1-63MH	76	136	82	50	103	14	156	100	27	44	66	25	117	3.5	
JUM1-125L	91	150	70	60	122	18	200	88	24	68	108	30	129	4.5	
JUM1-125MH	91	150	87	60	122	18	200	105	23	68	108	30	129	4.5	
JUM1-250L	107	165	87	70	142	23	215	110	24	68	110	35	126	5	
JUM1-250MH	107	165	102	70	142	23	215	127	23	68	110	35	126	5	
JUM1-400	150	257	107	96	198	32.5	357	150	37	60	120	44	194	7	
JUM1-430	182	270	112	116	240	44	370	157	40	65	125	58	200	7	
JUM1-600	210	280	117	140	280	44	370	190	32	85	125	70	243	7	
JUM1-1250	210	330	136	140	280	7	552	193	45	65	125	70	290	10	

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