



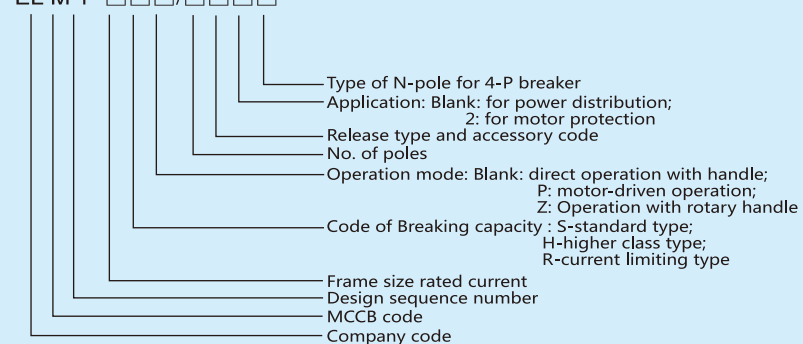
ELM1 series Moulded Case Circuit Breaker

Application

ELM1 series moulded case circuit breaker is one of products developed and manufactured by adopting international advanced technology. It is supplied with rated insulating voltage 690V and used for circuit of A.C. 50/60Hz, rated operating voltage AC 400V (or below), rated operating current up to 1250A for infrequent changing over and starting of the motors. The products conform to IEC60947-2 standard.

Type Designation

EL M 1-□□□/□□□□



Note : There are 4 types of N-pole for 4P breaker
A: Without current release components, N-Pole is always at making status, not makes and breaks with other three poles;
B: Without current release components, N-Pole makes with the other three poles(N-pole first makes then breaks);
C: With current release components, N-Pole makes and breaks with other three poles(N-pole first makes then breaks);
D: With current release components, N-Pole is always at making status, not makes and breaks with other three poles;



Model		ELM1-160		ELM1-200		ELM1-63	
Number of poles		1		2 L=2		3/4 L=4	
Breaking capacity		B	N	B	N	B	N S
Rated current of frame size Inm		160(200)		200	200L	63	63L
Rated Current In		12,5,16,20,25,32,40,50,63,80,100,125,160(200)		12,5,16,20,25,32,40,50,63,80,100,125,160(200)		10,12,5,16,20,25,32,40,50,63	
Rated insulation voltage Ui		500V		500V		400V	
Rated operating voltage Ue		230V		400V	230V	400V	
Rated current of the N pole		=In		=In		=In	
Icu AC400V/50HZ 0-CO (kA)		25	36	25	36	20	30 50
Rated ultimate short-circuit breaking capacity Icu AC400V/50HZ 0-CO (kA)		18.75	27	18.75	27	10	15 37.5
Rated service short-circuit breaking capacity Icm/cos φ Icu AC400V/50HZ 0-CO (kA)		40/0.3	135/0.25	40/0.3	135/0.25	40/0.3	135/0.25 105/0.75
Rated remnant current short-circuit making Capacity (IΔm)KA/cosφ		—		9/0.5		9/0.5	
Rated current of remnant motion IΔn (mA)		—		30 50 100 300		30 100 300	
Rated current of remnant no-motion IΔno (mA)		—		15 25 50 150		15 50 150	
Icm(peat) Icu AC400V/50HZ Is		—		—		—	
Rated short-time withstand current		—		—		—	
Uimp		10000		10000		10000	
Rated impulse withstand voltage		10000		10000		10000	
Dielectric property		2500		2500		2500	
Endurance	Total cycles	20000		15000		10000	
	Electrical endurance	3000		2500		1500	
	Mechanical endurance	17000		12500		8500	
Ionization distance (mm)		≤30/0		≤30/0		≤30/0	
Over current trip unit	Thermal magnetic release	■		■		■	
	Intelligent trip unit	—		—		—	
Utilization category	Main circuit	A/O		A/O		A/O	
	Auxiliary circuit	AC-15		AC-15		AC-15	
Outine dimensions	W(mm)	3P	30(1P)	60(2P)	76		
		4P	—	— 60(2P)	101	101	
	L(mm)	3P	120	120	120		
		4P	—	— 155	120	155	
	H(mm)	3P	70	70	70		
		4P	—	— 70	70	70	
Weight	Fixed version 3P/4P	0.92/1.3	0.92/1.3	—	0.92/1.3	—	
	Plug-in version 3P/4P	—	—	—	1.2/1.5	—	
	Draw-out version 3P/4P	—	—	—	—	—	



Model		ELM1-125		ELM1-160		ELM1-250	
Number of poles		3/4 L=4		3/4 L=4		3/4 L=4	
Breaking capacity		B	N	S	X	N	S H G X
Rated current of frame size Inm		125	125L	160	160L	250 (315)	250L 250X
Rated Current In		12,5,16,20,25,32,40,50,63,82,100,125		32,40,50,63,80,100,125,160	16,20,25,32,40,50,63,80,100,(125)	125,160(180),200(225),250(315)	
Rated insulation voltage Ui		400V		690V		690V	
Rated operating voltage Ue		400V		400V		400V	
Rated current of the N pole		=In		=In		=In	
Icu AC400V/50HZ 0-CO (kA)		20	35	50	20	35	50 65 85 200
Rated ultimate short-circuit breaking capacity Icu AC400V/50HZ 0-CO (kA)		10	17.5	37.5	10	17.5	37.5 48.75 51 200
Rated service short-circuit breaking capacity Icm/cos φ Icu AC400V/50HZ 0-CO (kA)		40/0.3	73.5/0.25	105/0.25	41/0.3	73.5/0.25	110/0.25 140/0.25 178/0.25 440
Rated short-circuit making Capacity (IΔm)KA/cosφ		9/0.5		19/0.5		12/0.3	
Rated current of remnant motion IΔn (mA)		30 100 300		100 300		100 300 500	
Rated current of remnant no-motion IΔno (mA)		15 50 150		50 150		50 150 250	
Icm(peat) Icu AC400V/50HZ Is		—		—		—	
Rated short-time withstand current		—		—		—	
Uimp		10000		8000		8000	
Rated impulse withstand voltage		10000		8000		8000	
Dielectric property		2500		3000		3000	
Endurance	Total cycles	10000		8000		8000	
	Electrical endurance	1500		1000		1000	
	Mechanical endurance	8500		7000		7000	
Ionization distance (mm)		≤30/0		≤30/0※		≤30/0※	
Over current trip unit	Thermal magnetic release	■		■		■	
	Intelligent trip unit	—		—		—	
Utilization category	Main circuit	A/O		A/O		A/B	
	Auxiliary circuit	AC-15		AC-15		AC-15	
Outine dimensions	W(mm)	3P	76	90	90	105	105
		4P	101 101	120 120	120	140 140	140
	L(mm)	3P	120	120	120	170	254/339①
		4P	120 155	120 120	120	170 210	254/339①
	H(mm)	3P	70	70	70	103.5	103.5
		4P	70 70	70 70	70	103.5 103.5	103.5
Weight	Fixed version 3P/4P	0.92/1.3	—	1.2/1.6	—	1.2/1.6	2.7/3.5 41.5/5.5 5
	Plug-in version 3P/4P	1.2/1.5	—	1.4/1.8	—	1.4/1.8	3.2/4.2 46/6 8.2
	Draw-out version 3P/4P	—	—	—	—	3.6/4.6	5/6.4 9



Model		ELM1-400					ELM1-630 ELM1-800					ELM1-1250 ELM1-1600		
Number of poles		3/4 L=4					3/4					3/4		
Breaking capacity		N S H G X					N S H G X					S H G		
Rated current of frame size Inm		400(630) 400X					800(630)					1600(1250)		
Rated Current In		250,315(350), 400,500,630 250,315(350),400 (350),400					400,500,630(700),800					400,500 630 800,1000,1250,1600		
Rated insulation voltage Ui		690V					690V					690V		
Rated operating voltage Ue		400V					400V					400V		
Rated current of the N pole		=In					=In					=In		
Icu AC400V/50HZ 0-CO (kA)		35 50 70 85 200					35 50 70 85 200					65 85 100		
Rated ultimate short-circuit breaking capacity (kA)		35 37.552.552.5200					35 37.5 0.25 52.5 200					50 50 50		
Icu AC400V/50HZ 0-CO (kA)		70/ 110/154/187/ 0.25 0.25 0.2 0.2 400					70/ 110/ 0.25 154/0.2 187/0.2 400					105/0.25 143/0.2 220/0.2		
Rated short-circuit making capacity (kA)		19/0.5												
Rated remnant current short-circuit making Capacity (I _{rm})KA/cosφ														
Rated current of remnant motion I _{an} (mA)		100 300 500 1000												
Rated current of remnant no-motion I _{ino} (mA)		50 150 250 500												
I _{cm} (peat) I _{cu} AC400V/50HZ Is		—					10					20		
Rated short-time withstand current (kA)														
U _{imp}		8000					8000					8000		
Rated impulse withstand voltage (V)														
Dielectric property (V)		3000					3000					3000		
Endurance	Total cycles	8000					5000					3000		
	Electrical endurance	1000					1000					500		
	Mechanical endurance	4000					4000					2500		
Ionization distance (mm)		≤60/0※					≤80/0※					≤80/0※		
Over current trip unit	Thermal magnetic release	■					■					■		
	Intelligent trip unit	—					■					■		
Utilization category	Main circuit	A/B					A/B					A/B		
	Auxiliary circuit	AC-15					AC-15					AC-15		
Outline dimensions	W(mm)	3P	140	140	210	406	210							
		4P	184	184	280	406	280							
	L(mm)	3P	254	360	268	103.5	406							
		4P	254	360	268	103.5	406							
	H(mm)	3P	103.5	103.5	103.5	15	138.5							
		4P	103.5	103.5	103.5	—	138.5							
Weight	Fixed version 3P/4P	5.1/7.1	5	9.6/12.5	25.4	17.2/22.2								
	Plug-in version 3P/4P	6.5/8.5	82	—		—								
	Draw-out version 3P/4P	6.5/8.7	9	12.2/15.3		22/30.1								



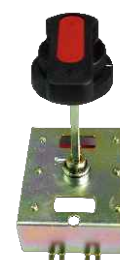
Plug-in base



Magnetic operation device

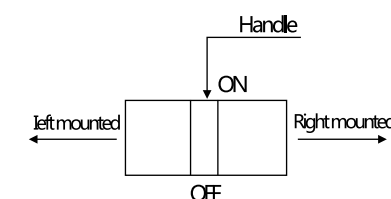


Motor operation device



Rotary handle

Accessory code	Accessory	Model			
		ELM1-125 ELM1-160	ELM1-250 ELM1-400	ELM1-630 ELM1-800	ELM1-1250 ELM1-1600
		3P-4P	3P-4P	3P-4P	3P-4P
200、300	No accessory				
208、308	Alarm contact				
210、310	Shunt release				
216、316					
218、318	Shunt release, Alarm contact				
220、320	Auxiliary contact				
228、328	Auxiliary contact, Alarm contact				
230、330	Under-voltage release				
236、336					
238、338	Under-voltage release, Alarm contact				
240、340					
248、348	Shunt release, Auxiliary contact alarm				
260、360					
268、368	Auxiliary contact, Alarm contact				
270、370					
278、378	Auxiliary contact alarm contact, Under-voltage release				



Auxiliary contact (OF)



Alarm contact



Shunt release (MX)



Under voltage release (MN)