



Moulded Case Circuit Breaker |

DYNAGEAR

Lakshmi Electrical Control Systems Limited

DYNAGEAR



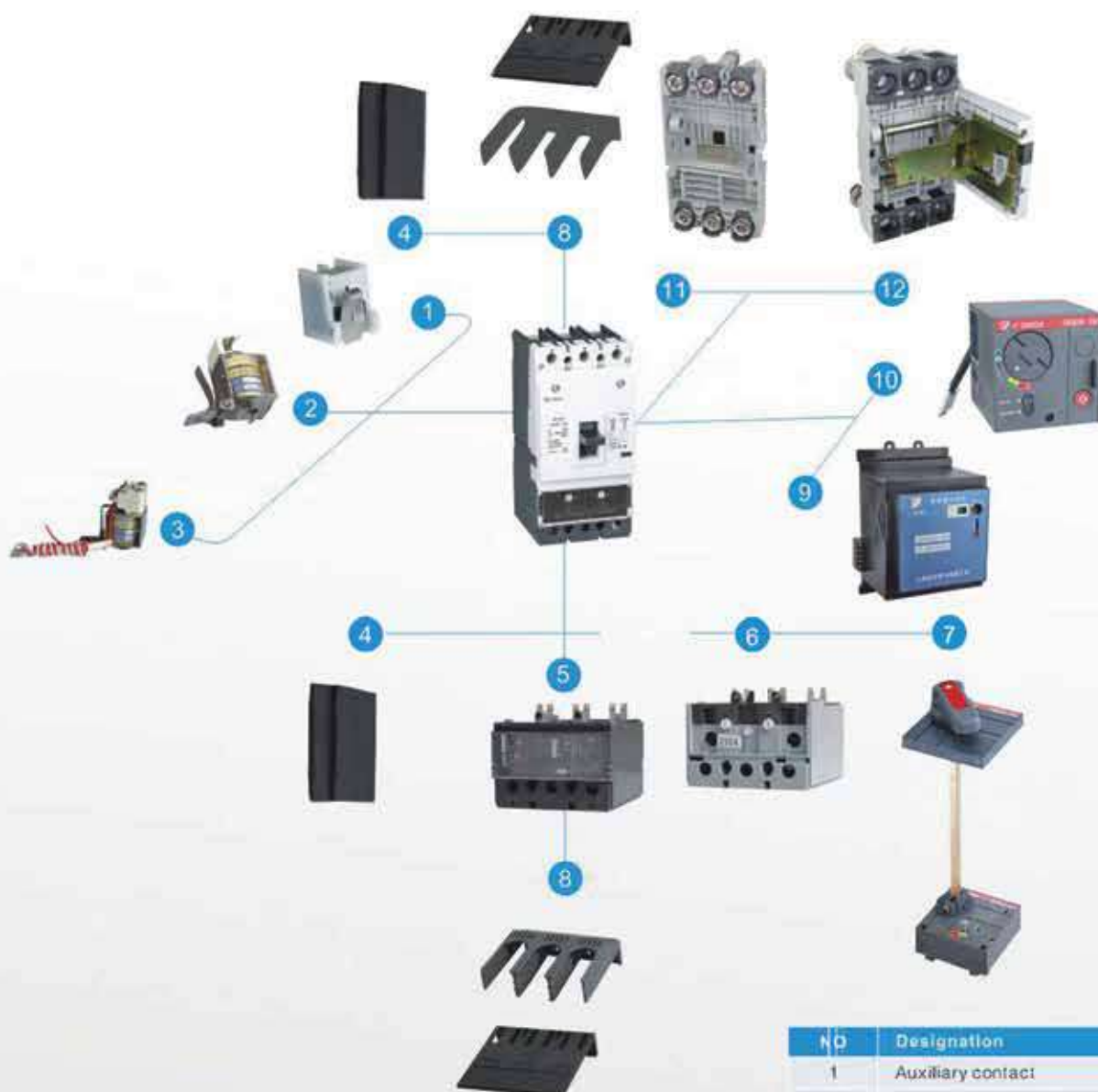
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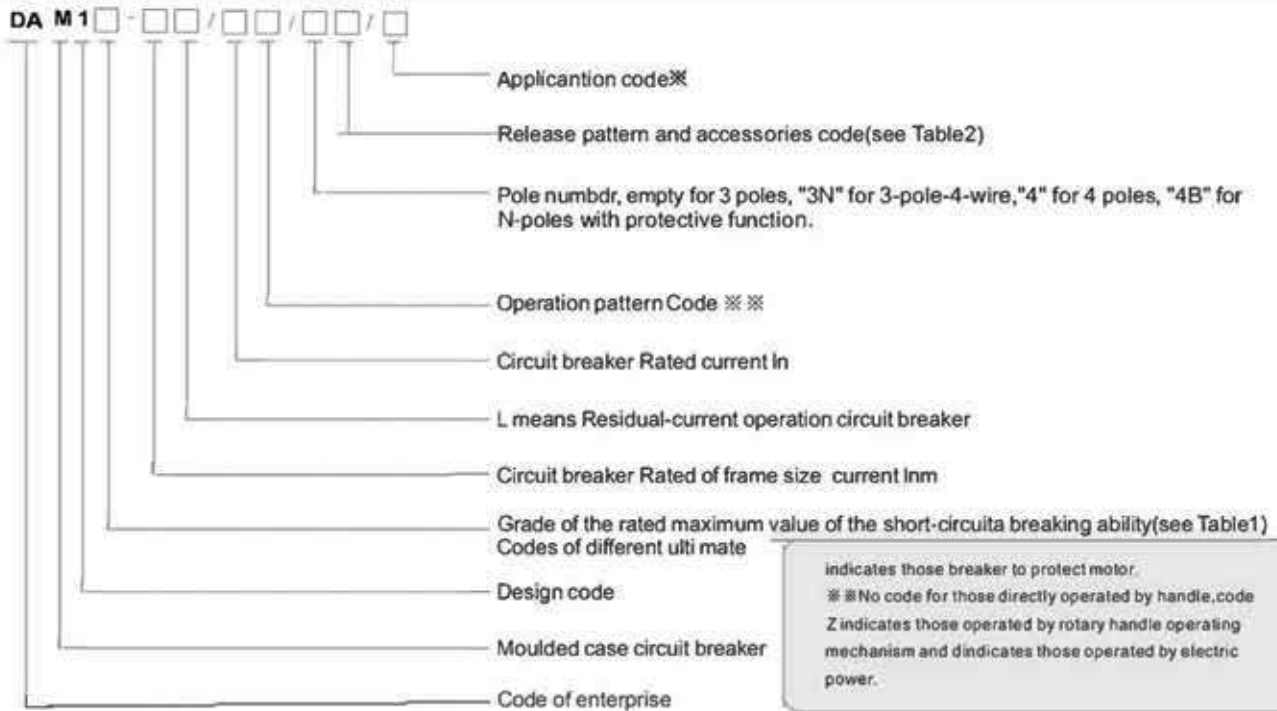
MCCB Accessory

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NO	Designation
1	Auxiliary contact
2	Under-voltage release
3	Shunt release
4	Interface barrier
5	Electronic release
6	Thermo-magnetic release
7	Handle operating mechanism
8	Terminal cover
9	Motor mechanism
10	Electrical operating mechanism
11	Plug-in device
12	Draw-out device

Types and meanings



DAM	1	N	—	160	L	160	3P
company code	Design Code	Breaking capacity code		Rated frame current Inm(A)	Earth leakage protection relay	Rated current In(A)	Poles
		B:25kA		125	4P (A): Neutral unprotected, without on and off	10A...125A	1P
		N:35kA		160	4P (B): Neutral unprotected, on and off	10A...160A	2P
		S:50kA		250	4P (C): Neutral protected, on and off	63A...250A	3P
		H:70kA		400		250A...400A	4P (A): Neutral unprotected, without on and off
				630		250A...600A	4P (B): Neutral unprotected, on and off
				800		400A...600A	4P (C): Neutral protected, on and off
				1600		800A...600A	

Thermal-Magnetic Circuit Breakers



Model			DAM1-160		DAM1-200	
Breaking Capacity Code			B	N	B	N
Rated Current of Frame size-Inm (A)			160A		200A	
Rated Current-In(40,50 or 55°C) (A)			10 - 12,5 - 16 - 20 - 25 - 32 - 40 - 50 - 63 - 80 - 100 - 125-160A		10 - 12,5 - 16 - 20 - 25 - 32 - 40 - 50 - 63 - 80 - 100 - 125-160(200)A	
Rated Insulation Voltage -Ui(a.c.) 50-60Hz (V)			500V		750V	
Rated operation Voltage -Ue(a.c.) 50-60Hz (V)			230V		400V	
Number of Pole			1P		2P	
Rated ultimate short Circuit breaking Capacity kA Icu AC400V/50Hz O-CO (KA)			25	36	25	36
Rated service short Circuit breaking Capacity kA Ics AC400V/50Hz O-CO-CO (KA)			18.75	27	18.75	27
Rated short-circuit breaking capacity Icm(peak)/cos φ AC400V/50Hz O-CO (KA)			40/0.3	135/0.25	40/0.3	
Rated impulse withstand Voltage -Uimp (V)			10000		10000	
Dielectric Property (V)			2500		2500	
Ionization distance (mm)			≤30/0		≤30/0	
Endurance	Total Cycles		20000		15000	
	Electrical Life		3000		2500	
	Mechanical Life		17000		12500	
Over Current trip	Thermal release adjustable		-		-	
	Magnetic release adjustable (5In-10In)		-		-	
	Thermal and Magnetic release fix type		√		√	
Category (EN 60947-2/IEC 60947-2)	Main circuit		A/0		A/0	
	Auxiliary circuit		AC-15		AC-15	
Under Voltage Release			-		√	
Shunt Release			-		√	
Auxiliary Contact			-		-	
Alarm Contact			-		-	
Auxiliary Contact and Alarm Contact			-		-	
Handle Operation Mechanism			-		-	
Electrical Operation Mechanism			-		-	
DIN clips			√		√	
Terminal cover			-		-	
Phase separator			-		√	
Extension Handle			-		-	
Outline dimensions	W (mm)	3P	30	60		
		4P	-	-		
	L (mm)	3P	120	120		
		4P	-	-		
	H (mm)	3P	70	70		
		4P	-	-		
Weight	Fixed version 3P/4P		0.92/1.3		0.92/1.3	
	Plug-in version 3P/4P		-		-	
	Draw out version 3P/4P		-		-	

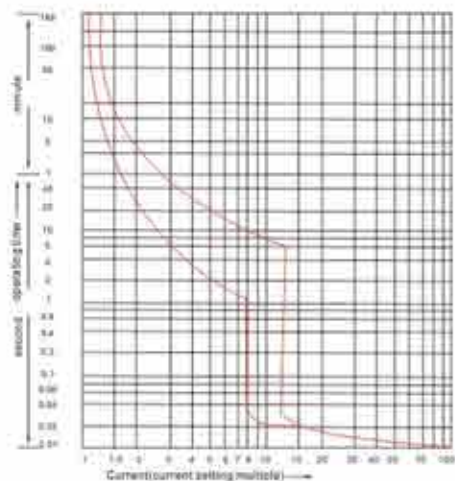


DAM1-125			DAM1-160			DAM1-250			
B	N	S	B	N	S	N	S	H	G
125A			160A			250A			
10 - 12.5 - 16 - 20 - 25 - 32(30) - 40 - 50 - 63(60) - 80 - 100 - 125A			10 - 12.5 - 16 - 20 - 25 - 32 - 40 - 50 - 63 - 80 - 100 - 125 - 160(150)A			63 - 80 - 100 - 125 - 160(180) - 200(225) - 250(320)A			
750V			750V			750V			
400V			400/415V			400/415V			
3P / 4P			3P / 4P			3P / 4P			
25	35	50	25	35	50	35	50	65	80
12.5	17.5	37.5	12.5	26.25	37.5	26.25	37.5	48.75	50
40/0.3	73.5/0.25	105/0.25	41/0.3	73.5/0.25	110/0.25	77/0.25	114/0.25	143/0.2	178/0.2
10000			8000			8000			
2500			3000			3000			
≤30/0			≤30/0			≤30/0			
8000			8000			8000			
1000			1000			1000			
7000			7000			7000			
-			Min:0.8In - Max:1In			Min:0.8In - Max:1In			
-			-			-			
✓			✓			✓			
A/0			A/0			A/B			
AC-15			AC-15			AC-15			
✓			✓			✓			
✓			✓			✓			
✓			✓			✓			
✓			✓			✓			
✓			✓			✓			
✓			✓			✓			
✓			✓			✓			
✓			✓			✓			
✓			✓			✓			
-			-			-			
76			90			105			
101			120			140			
120			120			170			
120			120			170			
70			70			103.5			
70			70			103.5			
0.92/1.3			1.2/1.6			2.7/3.5		41.5/5.5	
1.2/1.5			1.4/1.8			3.2/4.2		4.6/6	
-			-			3.6/4.6		5/6.4	

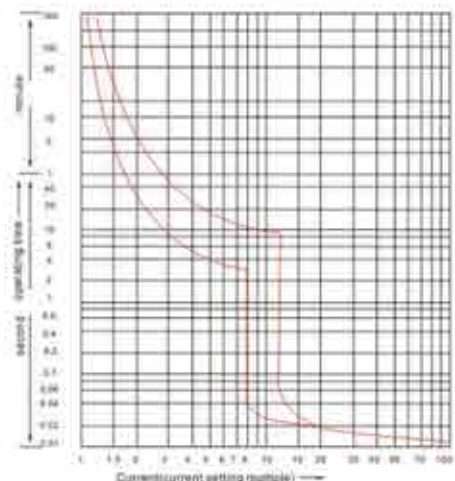
											
	DAM1-630(400)				DAM1-800				DAM1-1600		
	N	S	H	G	N	S	H	G	S	H	G
	400A				800A				1600A		
	250 – 315 (350) – 400 – 500 – 630A				400 – 500 – 630 (700) – 800 – 1000A				800 – 1000 – 1250 – 1600A		
	750V				750V				750V		
	400/415V				400/415V				400V		
	3P / 4P				3P / 4P				3P / 4P		
5	35	50	70	85	35	50	70	85	65	85	100
1	26.25	37.5	52.5	52.5	35	37.5	52.5	52.5	50	50	50
0.2	70/0.25	110/0.25	154/0.2	187/0.2	77/0.25	100/0.25	154/0.2	187/0.2	105/0.25	143/0.2	220/0.2
	8000				8000				8000		
	3000				3000				3000		
	≤60/0.5				≤80/0.5				≤80/0.5		
	5000				5000				3000		
	1000				1000				500		
	4000				4000				2500		
	Min:0.8In –Max:1In				Min:0.8In –Max:1In				Min:0.8In –Max:1In		
	-				-				-		
	✓				✓				✓		
	A/B				A/B				A/B		
	AC-15				AC-15				AC-15		
	✓				✓				✓		
	✓				✓				✓		
	✓				✓				✓		
	✓				✓				✓		
	✓				✓				✓		
	✓				✓				✓		
	-				-				-		
	✓				✓				✓		
	✓				✓				✓		
	✓				✓				✓		
	140				210				210		
	184				280				280		
	254				268				410		
	254				268				410		
	103.5				103.5				138.5		
	103.5				103.5				138.5		
	5.1/7.1				9.6/12.5				17.2/22.2		
	6.5/8.5				-				-		
	6.5/8.7				12.2/15.3				22/30.1		

Protective Curve

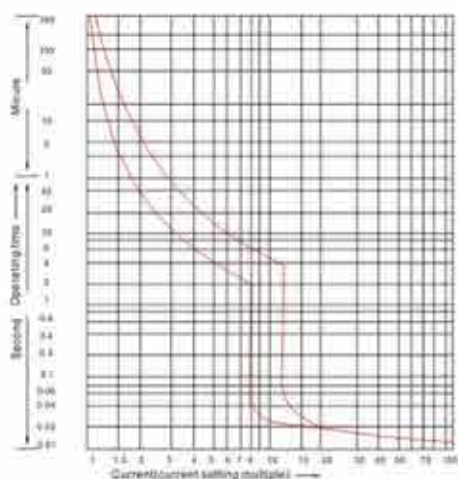
DAM1-160/1P
DAM1-125



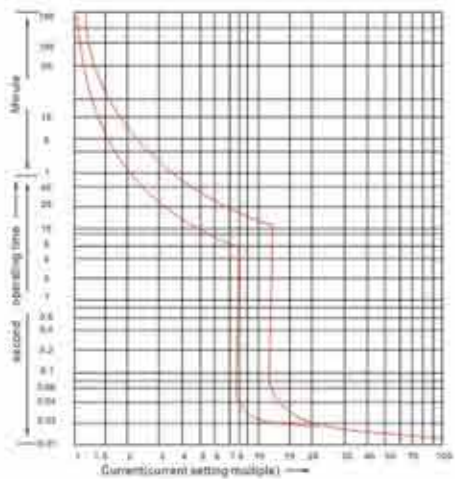
DAM1-200/2P DAM1-160



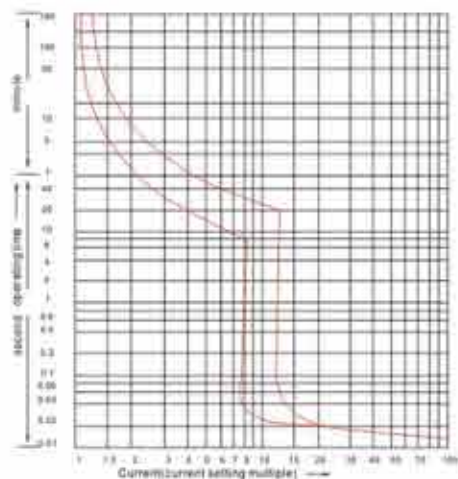
DAM1-250



DAM1-630(400)



DAM1-800



MCCB CBR

Thermal-Magnetic Circuit Breakers

Thermal Adjustable Magnetic adjustable Circuit Breakers (TAMA)

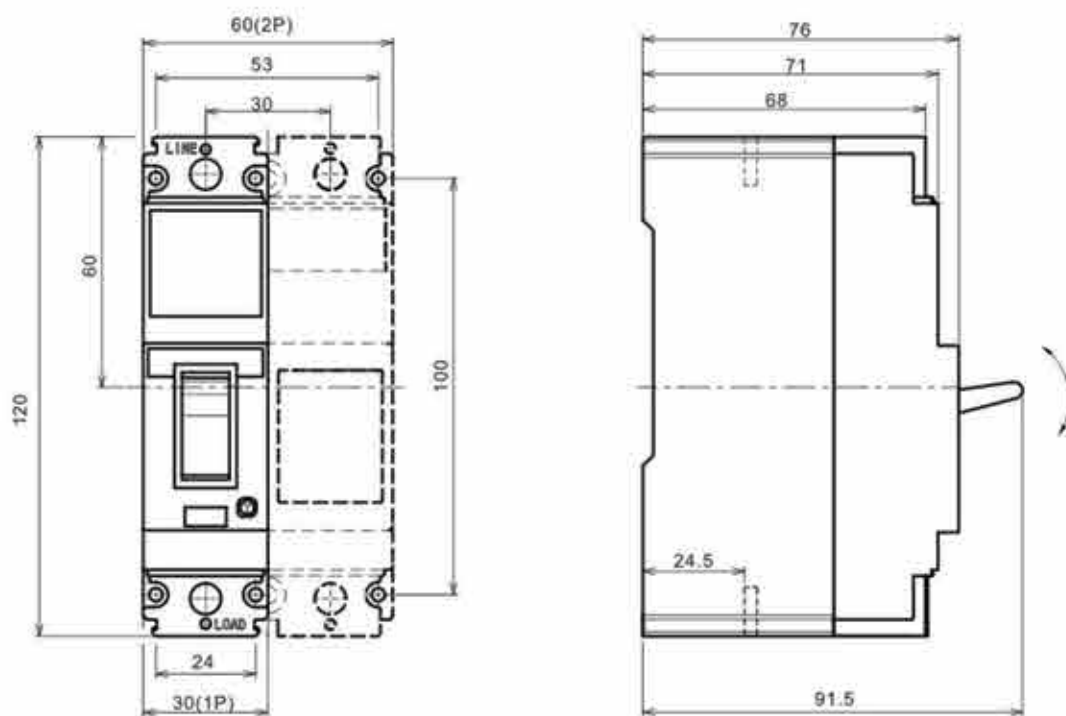
Electronic Circuit Breakers

Earth-Leakage Circuit Breakers(ELCB)

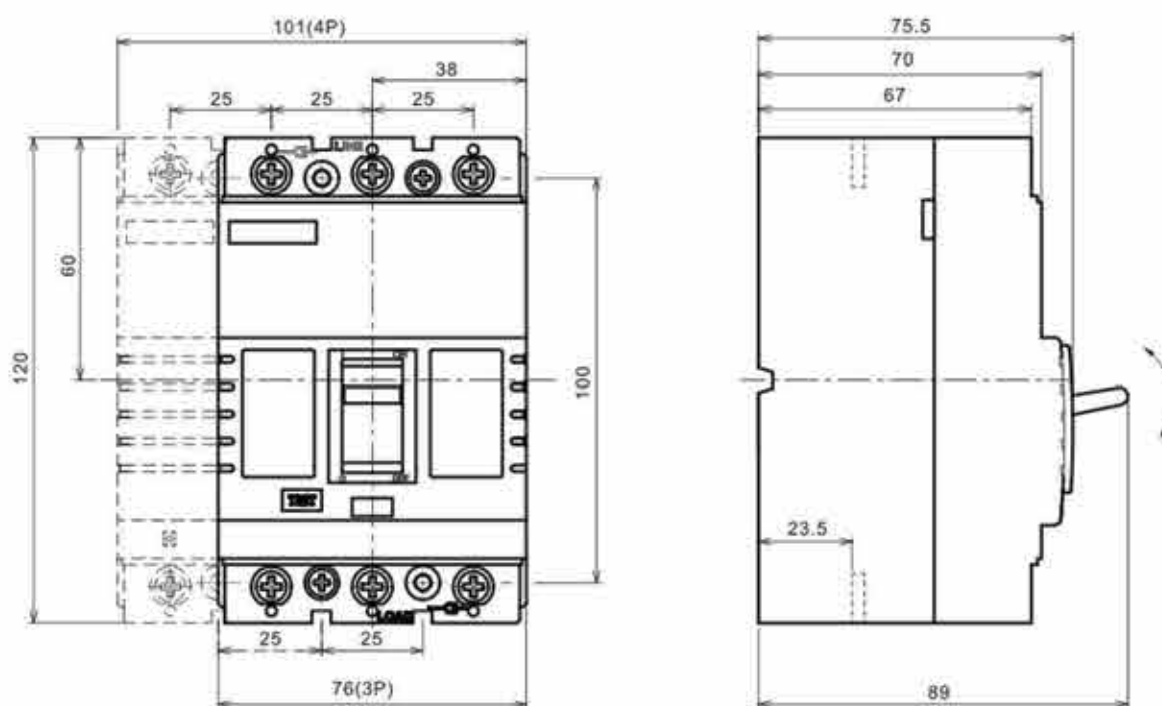


Outline dimension

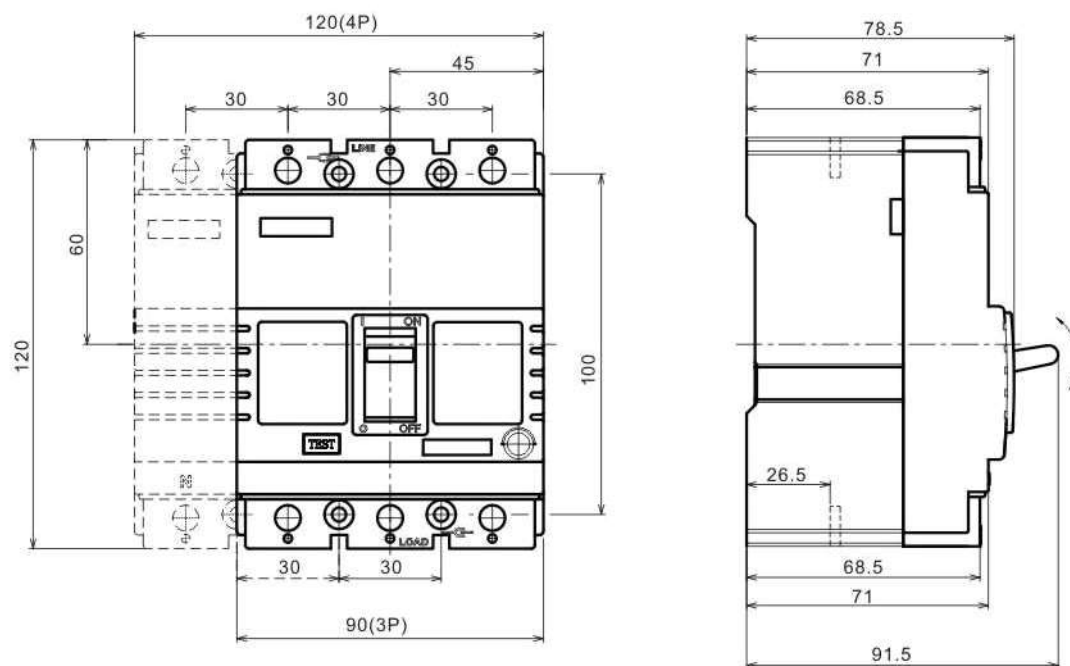
DAM1-160/1P/2P



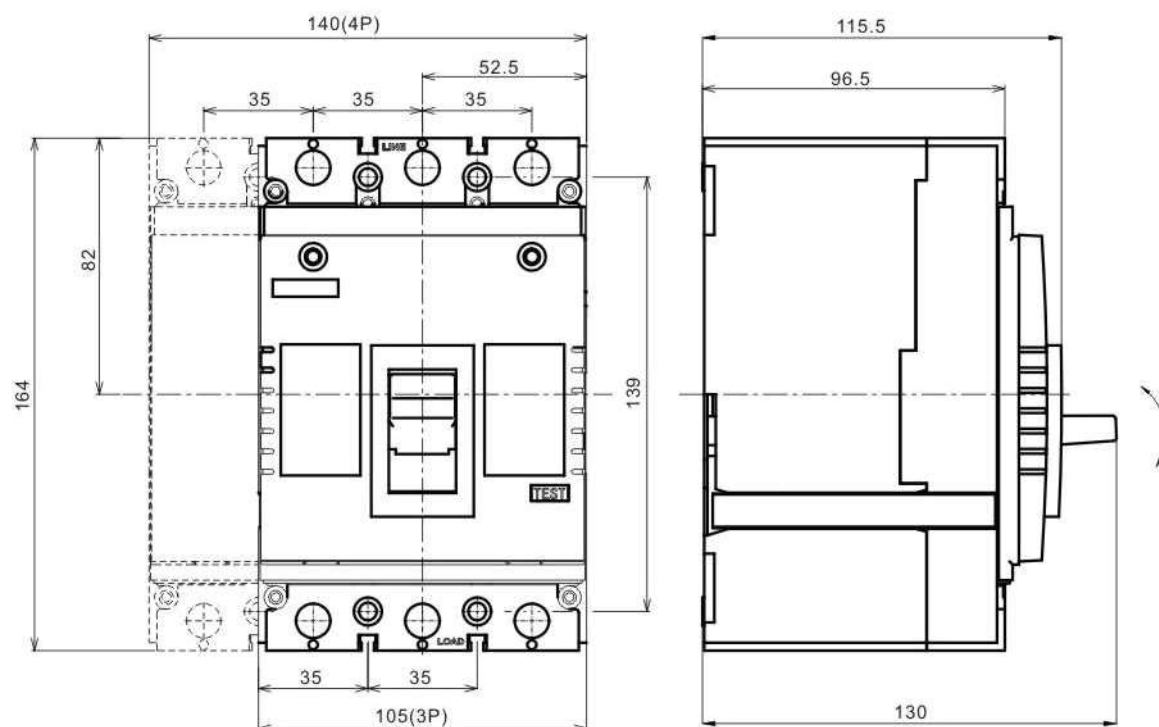
DAM1-125/3P/4P



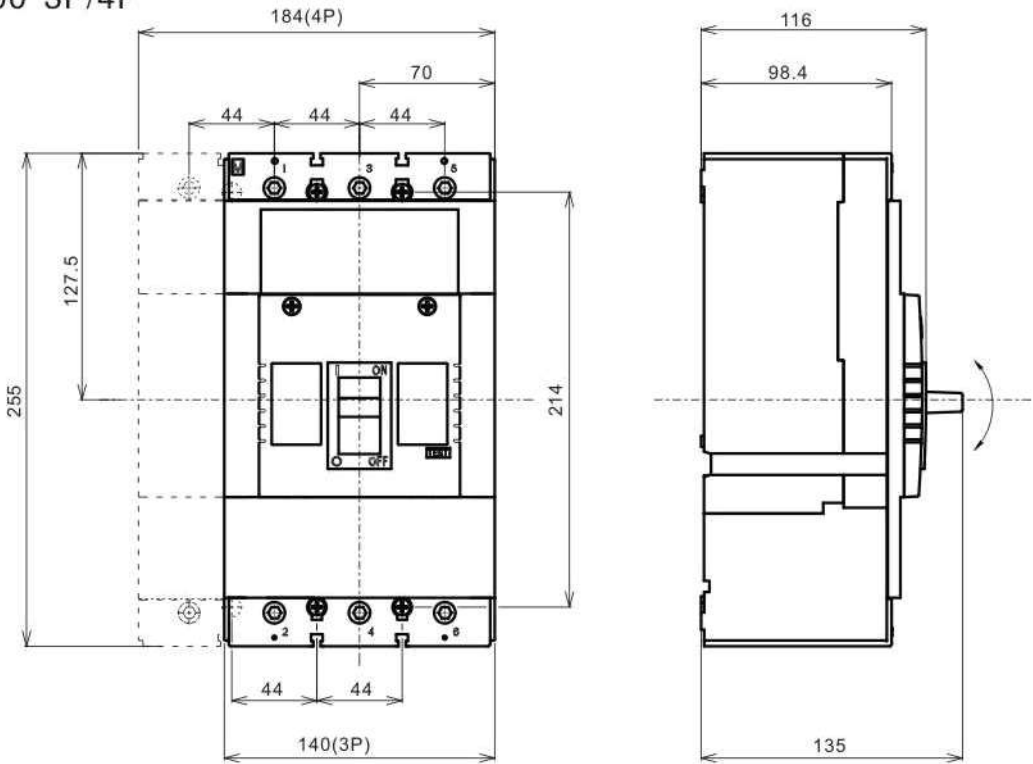
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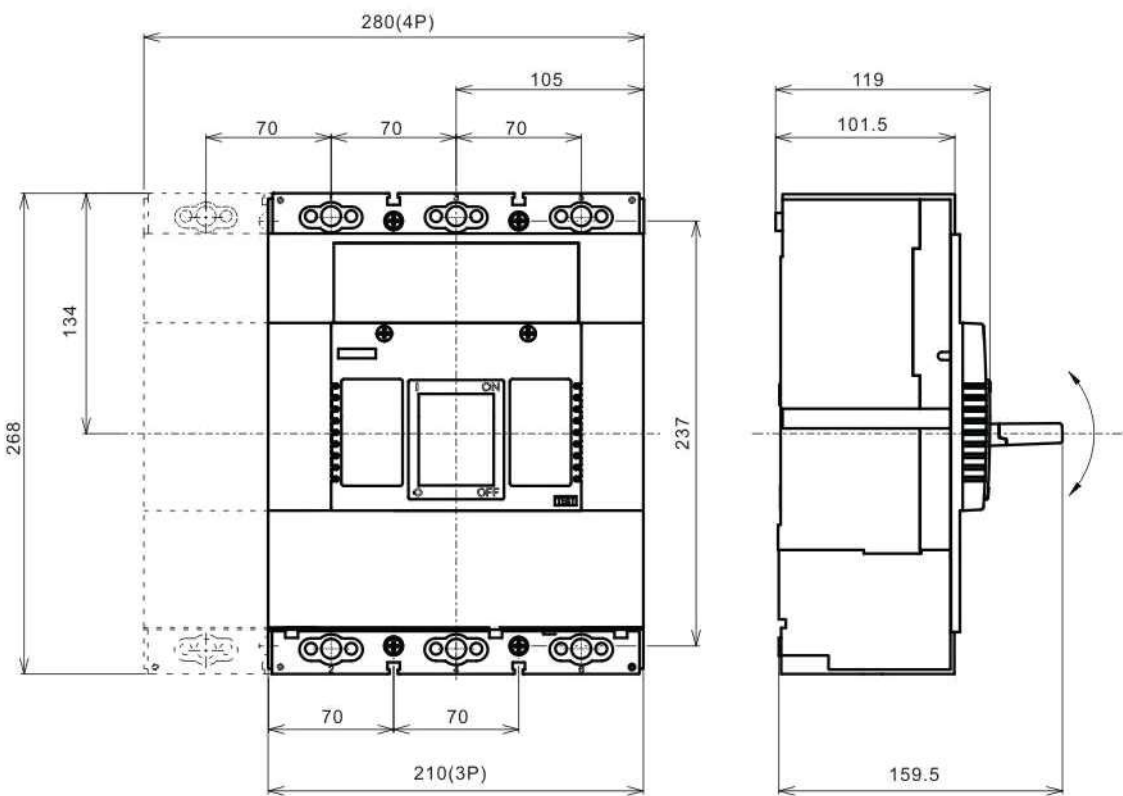
DAM1-250/3P/4P



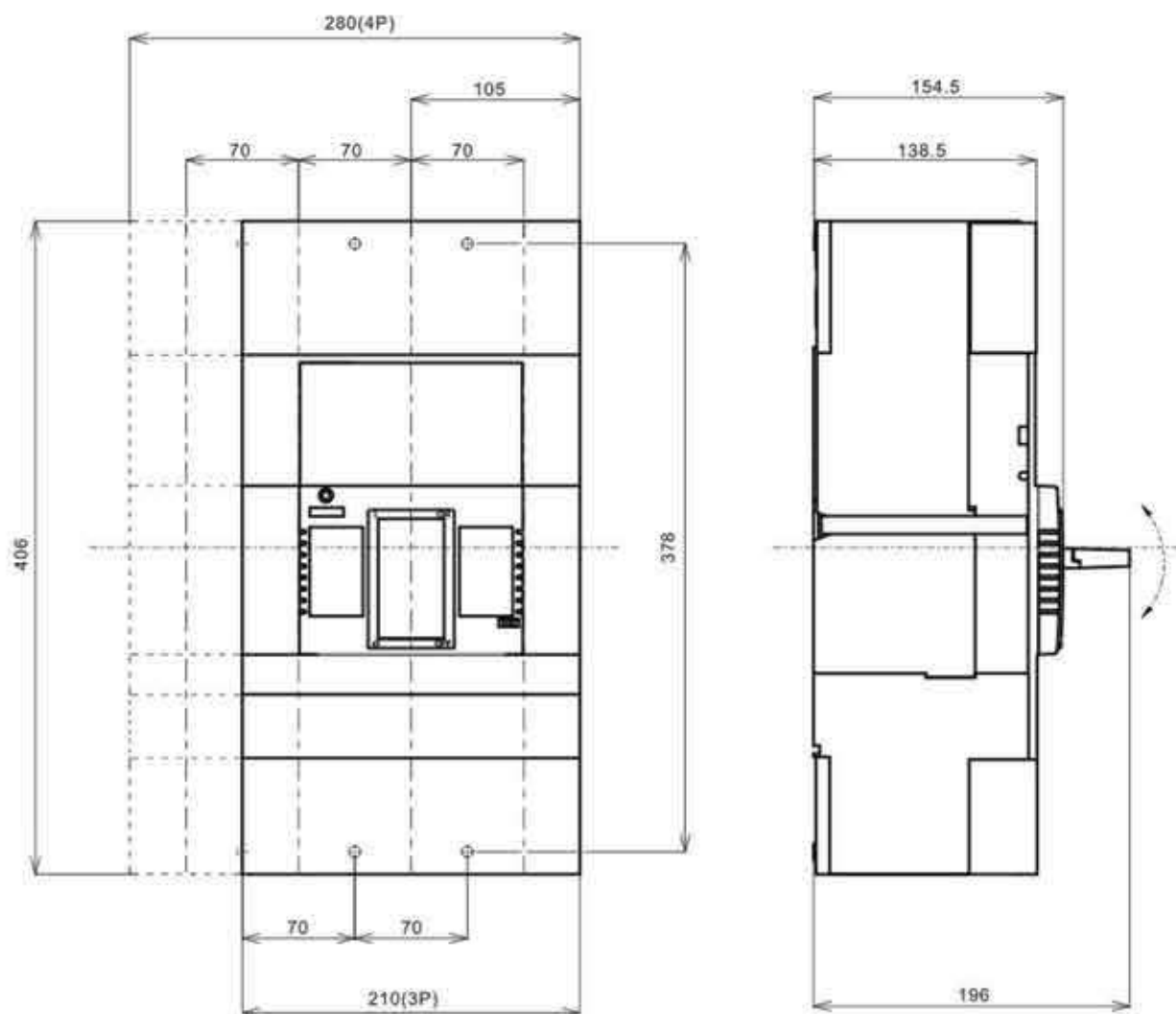
DAM1-400 3P/4P

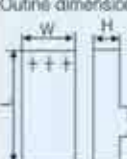


DAM1-800 3P/4P



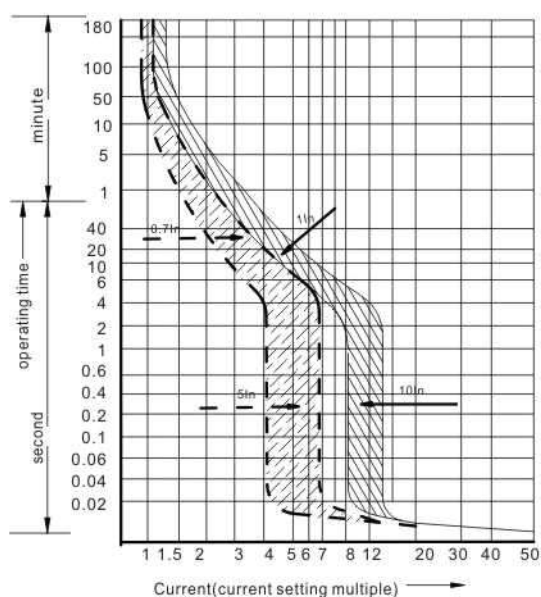
DAM1-1600 3P/4P



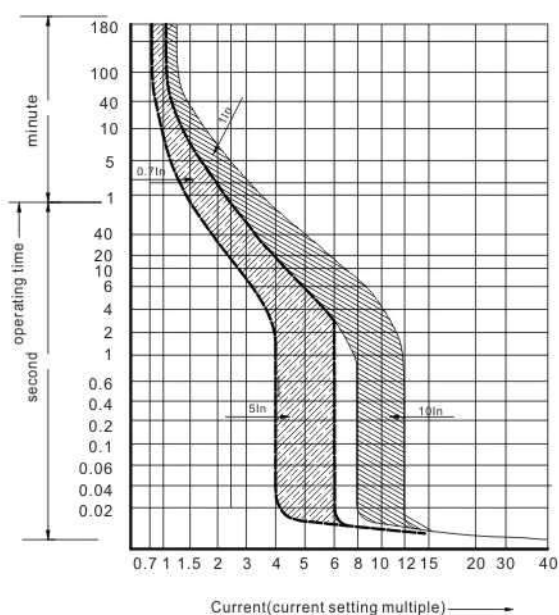
Thermal Adjustable Magnetic adjustable Circuit Breakers (TAMA)																							
Model				DAM1-250				DAM1-630(400)				DAM1-800				DAM1-1600							
Breaking Capacity Code				N	S	H	G	N	S	H	G	N	S	H	G	S	H	G					
Rated Current of Frame size-- Inm (A)				250A				400A				800A				1600A							
Rated Current--In(40,50 or 55°C) (A)				125 - 160(180) - 200(225) - 250 - 320A				250 - 315 (350)- 400 - 500 - 630A				400 - 500 - 630 (700)- 800 - 1000A				800 - 1000 - 1250 - 1600A							
Rated Insulation Voltage -Ui(a.c.) 50-60Hz (V)				750V				750V				750V				750V							
Rated operation Voltage -Ue(a.c.) 50-60Hz (V)				400/415V				400/415V				400/415V				400V							
Number of Pole				3P				3P /4P				3P				3P							
Rated ultimate short Circuit breaking Capacity kA Icu AC400V/50Hz 0-CO (kA)				35	50	65	85	35	50	70	85	35	50	70	85	65	85	100					
Rated service short Circuit breaking Capacity kA Ics AC400V/50Hz 0-CO-CO (kA)				26.25	37.5	48.75	51	26.25	37.5	52.5	52.5	35	37.5	52.5	52.5	50	50	50					
Rated short-circuit breaking capacity Icm(peak)/Icos φ AC400V/50Hz 0-CO (kA)				77/0.25	114/0.25	143/0.2	178/0.2	70/0.25	110/0.25	154/0.2	187/0.2	77/0.25	100/0.25	154/0.2	187/0.2	105/0.25	143/0.2	220/0.2					
Rated impulse withstand Voltage -Uimp (V)				8000				8000				8000				8000							
Dielectric Property (V)				3000				3000				3000				3000							
Ionization distance (mm)				≤30/0※				≤60/0※				≤80/0※				≤80/0※							
Endurance	Total Cycles			8000				5000				5000				3000							
	Electrical Life			1000				1000				1000				500							
	Mechanical Life			7000				4000				4000				2500							
Over Current trip	Thermal release adjustable			Min:0.7In -Max:1In				Min:0.7In -Max:1In				Min:0.7In -Max:1In				Min:0.7In -Max:1In							
	Magnetic release adjustable			5In-10In				5In-10In				5In-10In				5In-10In							
Category (EN 60947-2/IEC 60947-2)	Main circuit			A/B				A/B				A/B				A/B							
	Auxiliary circuit			AC-15				AC-15				AC-15				AC-15							
Under Voltage Release				✓				✓				✓				✓							
Shunt Release				✓				✓				✓				✓							
Auxiliary Contact				✓				✓				✓				✓							
Alarm Contact				✓				✓				✓				✓							
Auxiliary Contact and Alarm Contact				✓				✓				✓				✓							
Handle Operation Mechanism				✓				✓				✓				✓							
Electrical Operation Mechanism				✓				✓				✓				✓							
DIN clips				-				-				-				-							
Terminal cover				✓				✓				✓				✓							
Phase separator				✓				✓				✓				✓							
Extension Handle				✓				✓				✓				✓							
	W (mm)		3P	105				140				210				210							
			4P	-				184				-				-							
	L (mm)		3P	212.5				254				268				385							
			4P	-				254				-				-							
	H (mm)		3P	103.5				103.5				103.5				138.5							
			4P	-				103.5				-				-							
Weight	Fixed version 3P/4P			2.7/3.5				41.5/5.5				5.1/7.1				9.6/12.5				17.2/22.2			
	Plug-in version 3P/4P			3.2/4.2				4.6/6				6.5/8.5				-				-			
	Draw out version 3P/4P			3.6/4.6				5/6.4				6.5/8.7				12.2/15.3				22/30.1			

Characteristic curve for TAMA

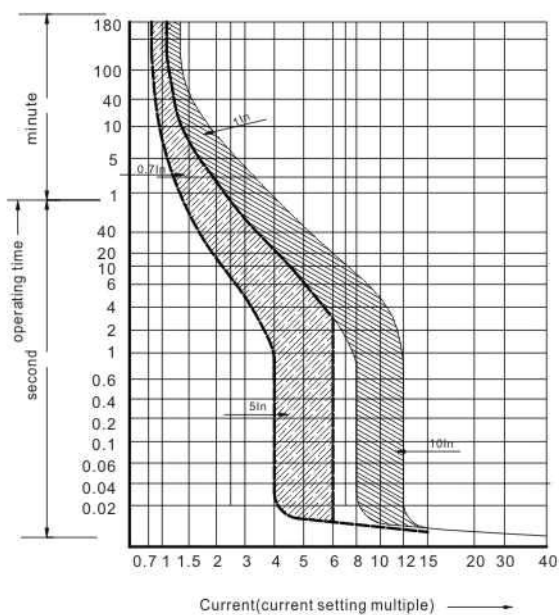
DAM1-250 TAMA



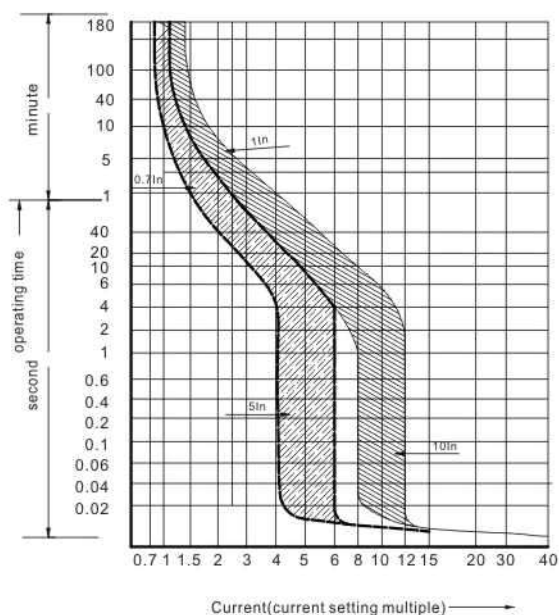
DAM1-400/630 TAMA



DAM1-800/1000 TAMA

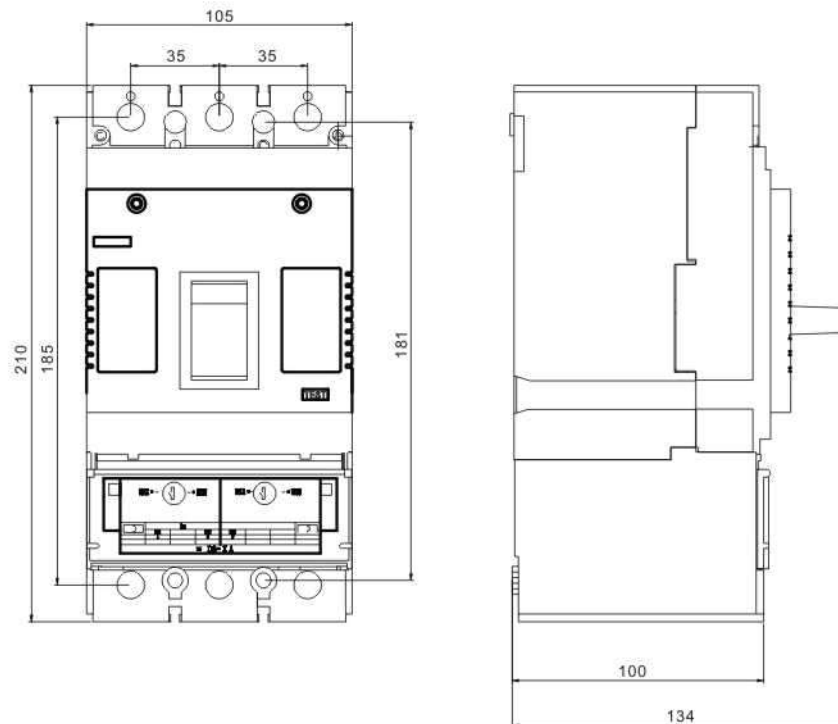


DAM1-1600 TAMA

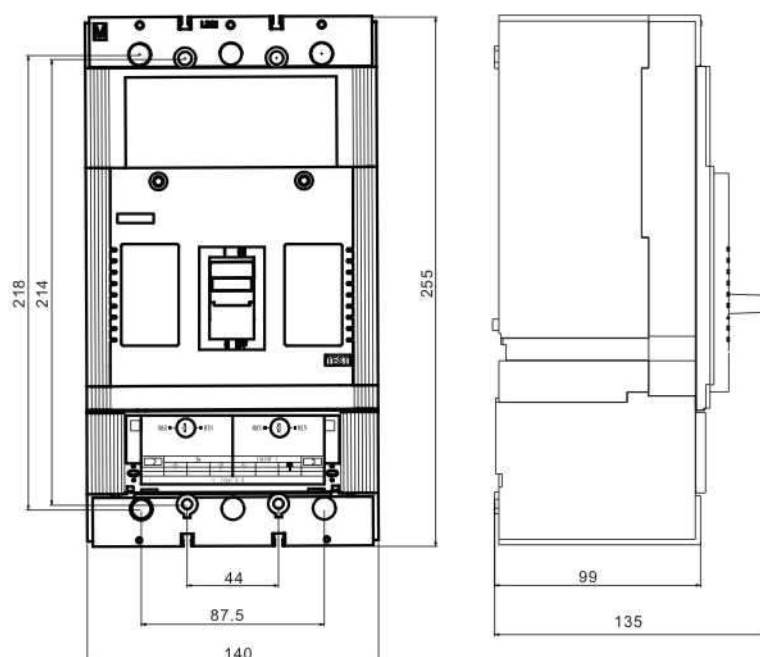


Outline dimension for thermal-magnetic adjustable MCCB

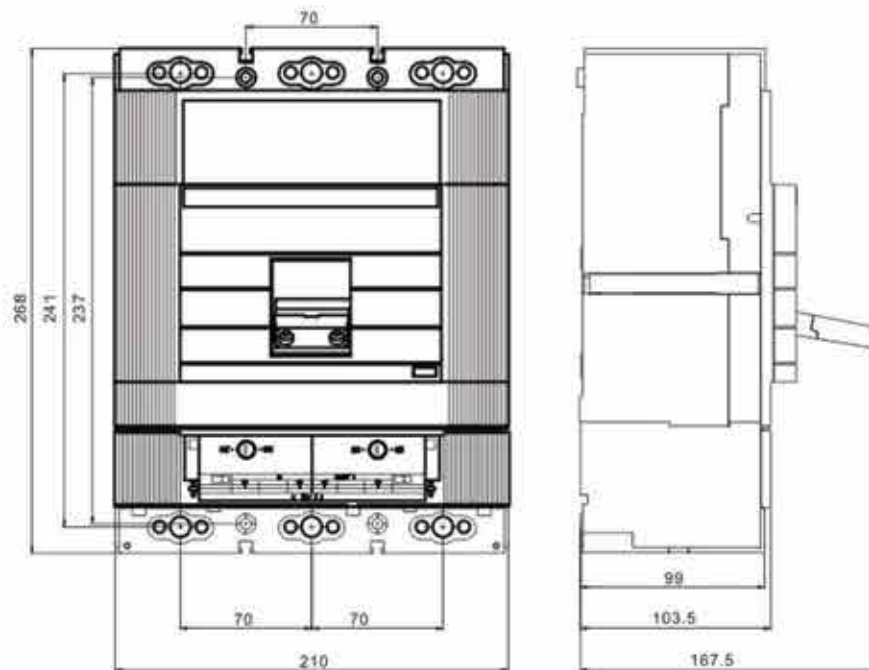
DAM1-250



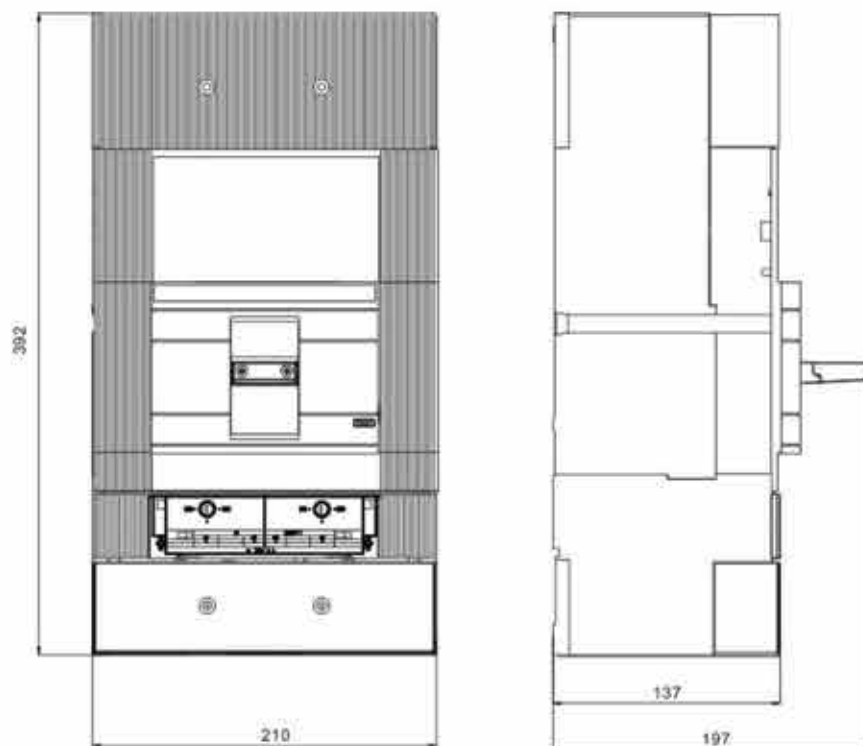
DAM1-630

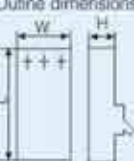


DAM1-800



DAM1-1600

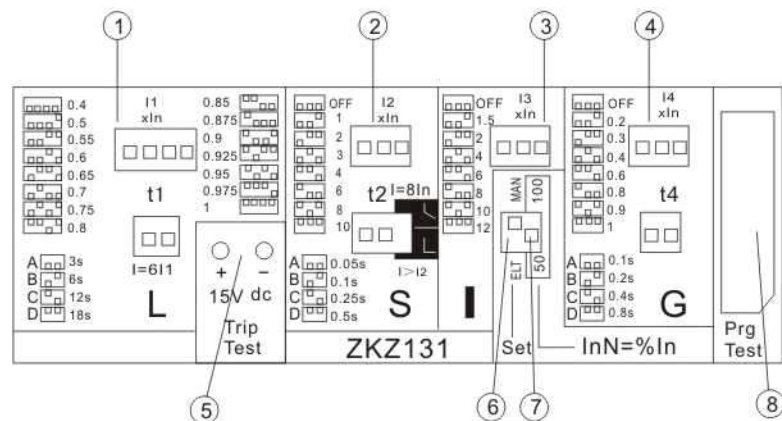


Electronic Circuit Breakers																	
Model			DAM1-250				DAM1-630(400)				DAM1-800				DAM1-1600		
Breaking Capacity Code			N	S	H	G	N	S	H	G	N	S	H	G	S	H	G
Rated Current of Frame size-Inm			(A) 250A				400A				800A				1600A		
Rated Current-In(40,50 or 55°C)			(A) 125 - 160(180) - 200(225) - 250 - 320A				250 - 315 (350) - 400 - 500 - 630A				400 - 500 - 630 (700) - 800 - 1000A				800 - 1000 - 1250 - 1600A		
Rated Insulation Voltage -U _i (a.c.) 50-60Hz			(V) 750V				750V				750V				750V		
Rated operation Voltage -U _e (a.c.) 50-60Hz			(V) 400/415V				400/415V				400/415V				400V		
Number of Pole			3P				3P /4P				3P				3P		
Rated ultimate short Circuit breaking Capacity -kA _{ic} AC400V/50Hz O-CO			(kA) 35	50	65	85	35	50	70	85	35	50	70	85	65	85	100
Rated service short Circuit breaking Capacity -kA _s AC400V/50Hz O-CO-CO			(kA) 26.25	37.5	48.75	51	26.25	37.5	52.5	52.5	35	37.5	52.5	52.5	50	50	50
Rated short-circuit breaking capacity I _{cm} (peak)/cos φ AC400V/50Hz O-CO			(kA) 77/0.25	114/0.25	143/0.2	178/0.2	70/0.25	110/0.25	154/0.2	187/0.2	77/0.25	100/0.25	154/0.2	187/0.2	105/0.25	143/0.2	220/0.2
Rated impulse withstand Voltage -U _{imp}			(V) 8000				8000				8000				8000		
Dielectric Property (V)			3000				3000				3000				3000		
Ionization distance (mm)			≤30/0※				≤60/0※				≤80/0※				≤80/0※		
Endurance	Total Cycles		8000				5000				5000				3000		
	Electrical Life		1000				1000				1000				500		
	Mechanical Life		7000				4000				4000				2500		
Over Current trip	Thermal release adjustable		(0.4-0.5-0.6-0.7-0.8-0.9-1)xI _n				(0.4-0.5-0.6-0.7-0.8-0.9-1)xI _n				(0.4-0.5-0.6-0.7-0.8-0.9-1)xI _n				(0.4-0.5-0.6-0.7-0.8-0.9-1)xI _n		
	Magnetic release adjustable		(1.5-2-4-6-8-10-12)xI _n				(1.5-2-4-6-8-10-12)xI _n				(1.5-2-4-6-8-10-12)xI _n				(1.5-2-4-6-8-10-12)xI _n		
Operating Curve at 6I _r			3S-6S-12S-18S				3S-6S-12S-18S				3S-6S-12S-18S				3S-6S-12S-18S		
Category (EN 60947-2/IEC 60947-2)	Main circuit		A/B				A/B				A/B				A/B		
	Auxiliary circuit		AC-15				AC-15				AC-15				AC-15		
Under Voltage Release			✓				✓				✓				✓		
Shunt Release			✓				✓				✓				✓		
Auxiliary Contact			✓				✓				✓				✓		
Alarm Contact			✓				✓				✓				✓		
Auxiliary Contact and Alarm Contact			✓				✓				✓				✓		
Handle Operation Mechanism			✓				✓				✓				✓		
Electrical Operation Mechanism			✓				✓				✓				✓		
DIN clips			-				-				-				-		
Terminal cover			✓				✓				✓				✓		
Phase separator			✓				✓				✓				✓		
Extension Handle			✓				✓				✓				✓		
Outline dimensions 	W (mm)	3P	105				140				210				210		
		4P	-				184				-				-		
	L (mm)	3P	212.5				254				268				406		
		4P	-				254				-				-		
	H (mm)	3P	103.5				103.5				103.5				138.5		
		4P	-				103.5				-				-		
Weight	Fixed version 3P/4P		2.7/3.5		41.5/5.5		5.1/7.1		9.6/12.5		17.2/22.2						
	Plug-in version 3P/4P		3.2/4.2		4.6/6		6.5/8.5		-		-						
	Draw out version 3P/4P		3.6/4.6		5/6.4		6.5/8.7		12.2/15.3		22/30.1						

Electronic release



DAM1 series circuit breaker (Inm 250A and the above) applies the most advanced PR211/PR212. The electronic release has function of intellectual protection.



Electronic Release Settings

Table1 PR211 type

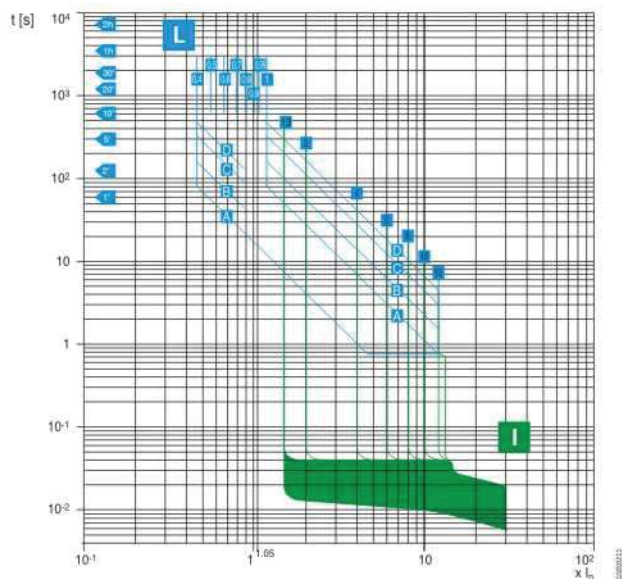
S.No.	Function	Settings	Type	PR211	PR211	PR211	PR211	Factory reset
			Poles Rating (A)	3P 250	3P 400	3P 800	3P 1600	
1	L	Overload Current Setting (A)		(0.4,0.5,0.6,0.7,0.8, 0.9,0.95,1.0)xIn	(0.4,0.5,0.6,0.7,0.8, 0.9,0.95,1.0)xIn	(0.4,0.5,0.6,0.7,0.8, 0.9,0.95,1.0)xIn	(0.4,0.5,0.6,0.7,0.8, 0.9,0.95,1.0)xIn	1.0In
2		Time Delay at Overload Current Setting		3S,6S,12S,18S	3S,6S,12S,18S	3S,6S,12S,18S	3S,6S,12S,18S	3S
3	I	Instantaneous Current Setting		(1.5, 2, 4, 6, 8, 10, 12,OFF)xIn	(1.5, 2, 4, 6, 8, 10, 12,OFF)xIn	(1.5, 2, 4, 6, 8, 10, 12,OFF)xIn	(1.5, 2, 4, 6, 8, 10, 12,OFF)xIn	10In

Table2 PR212 type

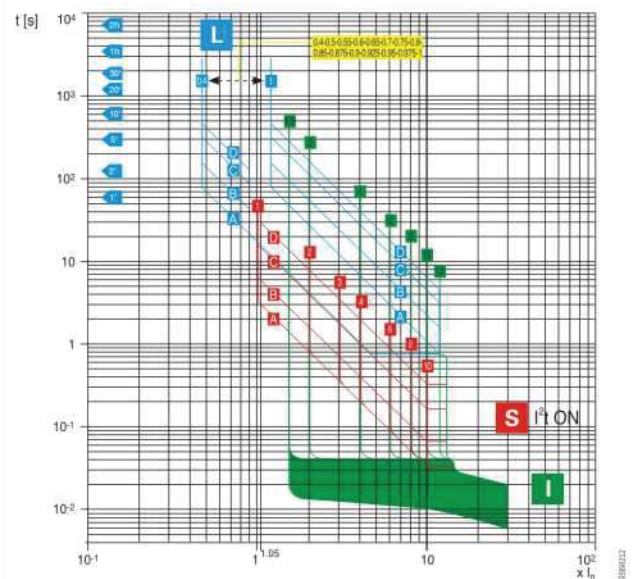
S.No.	Function	Settings	Type	PR212	PR212	PR212	PR212	Factory reset
			Poles Rating (A)	3P 250	3P 400/630	3P 800	3P 1600	
1	L	Overload Current Setting (A)		(0.4,0.5,0.55,0.6, 0.65,0.7,0.75,0.8) xIn	(0.4,0.5,0.55,0.6, 0.65,0.7,0.75,0.8) xIn	(0.4,0.5,0.55,0.6, 0.65,0.7,0.75,0.8) xIn	(0.4,0.5,0.55,0.6, 0.65,0.7,0.75,0.8) xIn	1.0In
2		Time Delay at Overload Current Setting		3S,6S,12S,18S	3S,6S,12S,18S	3S,6S,12S,18S	3S,6S,12S,18S	3S
3	S	Short - Circuit Current Setting (A)		(1, 2, 3, 4, 6, 8, 10, OFF)xIn	(1, 2, 3, 4, 6, 8, 10,OFF)xIn	(1, 2, 3, 4, 6, 8, 10,OFF)xIn	(1, 2, 3, 4, 6, 8, 10,OFF)xIn	6In
4		Time Delay at Short Circuit Current Setting		0.05, 0.1, 0.25, 0.5	0.05, 0.1, 0.25, 0.5	0.05, 0.1, 0.25, 0.5	0.05, 0.1, 0.25, 0.5	0.1S
5	I	Instantaneous Current Setting		(1.5, 2, 4, 6, 8, 10, 12,OFF)xIn	(1.5, 2, 4, 6, 8, 10, 12,OFF)xIn	(1.5, 2, 4, 6, 8, 10, 12,OFF)xIn	(1.5, 2, 4, 6, 8, 10, 12,OFF)xIn	10In
6	G	Ground Fault Current Setting (A)		(0.2,0.3,0.4, 0.6, 0.8,0.9, 1.0, OFF) xIn	(0.2,0.3,0.4, 0.6, 0.8,0.9, 1.0, OFF) xIn	(0.2,0.3,0.4, 0.6, 0.8,0.9, 1.0, OFF) xIn	(0.2,0.3,0.4, 0.6, 0.8,0.9, 1.0, OFF) xIn	1.0In
7		Time Delay at Ground Fault Setting		0.1, 0.2, 0.4, 0.8	0.1, 0.2, 0.4, 0.8	0.1, 0.2, 0.4, 0.8	0.1, 0.2, 0.4, 0.8	0.4S
8		Selection of electric or electronic parameters set		Function SET (switch ELT/MAN)				
9		Used for setting parameters of dip switch of zero line		InN=%In,switch 50/100				
10		Socket for connection measuring device		Panel socket				

Electronic release characteristic curves

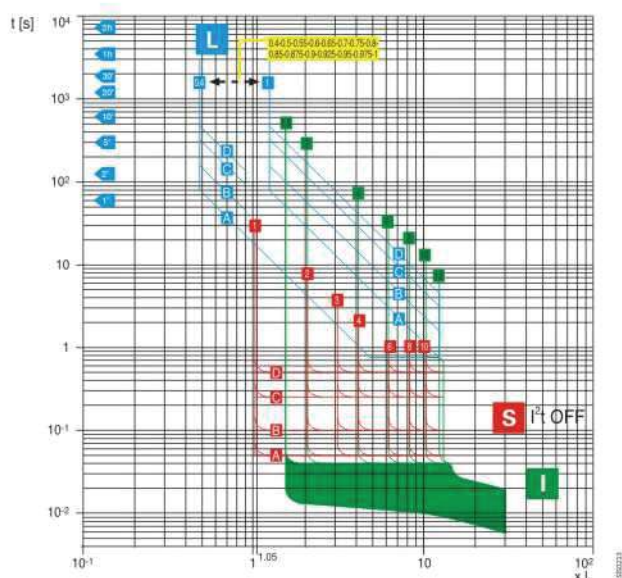
PR211/P
LI-I



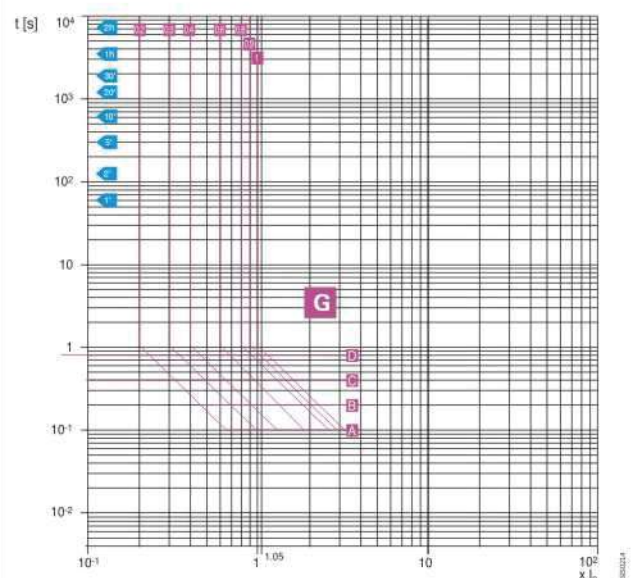
PR212/P

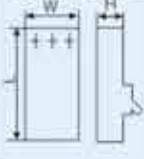


PR212/P



PR212/P



Earth-Leakage Circuit Breakers(ELCB)																				
Model			DAM1-125L			DAM1-160L			DAM1-250L				DAM1-400L							
Breaking Capacity Code			B	N	S	B	N	S	N	S	H	G	N	S	H	G				
Rated Current of Frame size-Inm			(A) 125A			160A			250A				400A							
Rated Current-In(40,50 or 55°C)			(A) 10-12.5-16-20-25-32(30)-40-50-63(60)-80-100-125A			10-12.5-16-20-25-32-40-50-63-80-100-125-160(150)A			63-80-100-125-160(180)-200(225)-250(320)A				250-315 (350)-400-500-630A							
Rated Insulation Voltage -Ui(a.c.) 50-60Hz			(V) 690V			690V			690V				690V							
Rated operation Voltage -Uo(a.c.) 50-60Hz			(V) 400V			400/415V			400/415V				400/415V							
Number of Pole			4P			4P			4P				4P							
Rated ultimate short Circuit breaking Capacity -Icu AC400V/50Hz O-CO			(kA) 25 35 50			25 35 50			35 50 65 85				35 50 70 85							
Rated service short Circuit breaking Capacity -Ics AC400V/50Hz O-CO-CP			(kA) 12.5 17.5 37.5			12.5 26.25 37.5			26.25 37.5 48.75 51				26.25 37.5 52.5 52.5							
Rated short-circuit breaking capacity Icm(peak)/cos φ AC400V/50Hz O-CO			(kA) 40/0.3 73.5/0.25 105/0.25			41/0.3 73.5/0.25 110/0.25			77/0.25 114/0.25 143/0.2 178/0.2				70/0.25 110/0.25 154/0.2 187/0.2							
Rated remnant current short-circuit making capacity(IΔm)KA/cosφ			9/0.5			19/0.5			12/0.3				19/0.5							
Residual current threshold			(mA) 100-300-500			100-300-500			100-300-500				100-300-500							
Time delay			(ms) 50-500-800			50-500-800			50-500-800				50-500-800							
Rated impulse withstand Voltage -Uimp			(V) 10000			8000			8000				8000							
Dielectric Property (V)			2500			3000			3000				3000							
Ionization distance			(mm) ≤30/0			≤30/0			≤30/0※				≤60/0※							
Endurance	Total Cycles		8000			8000			8000				5000							
	Electrical Life		1000			1000			1000				1000							
	Mechanical Life		7000			7000			7000				4000							
Over Current trip	Thermal release adjustable		-			Min:0.8In -Max:1In			Min:0.8In -Max:1In				Min:0.8In -Max:1In							
	Magnetic release adjustable (5In-10In)		-			-			-				-							
	Thermal and Magnetic release fix type		✓			✓			✓				✓							
Category (EN 60947-2/IEC 60947-2)	Main circuit		A/D			A/D			A/B				A/B							
	Auxiliary circuit		AC-15			AC-15			AC-15				AC-15							
Under Voltage Release			✓			✓			✓				✓							
Shunt Release			✓			✓			✓				✓							
Auxiliary Contact			✓			✓			✓				✓							
Alarm Contact			✓			✓			✓				✓							
Auxiliary Contact and Alarm Contact			✓			✓			✓				✓							
Handle Operation Mechanism			✓			✓			✓				✓							
Electrical Operation Mechanism			✓			✓			✓				✓							
Terminal cover			✓			✓			✓				✓							
Phase separator			✓			✓			✓				✓							
	W (mm)	3P	-			-			-				-							
		4P	101			120			140				184							
	L (mm)	3P	-			-			-				-							
		4P	155			120			210				254							
	H (mm)	3P	-			-			-				-							
		4P	70			70			103.5				103.5							
Weight	Fixed version 3P/4P		-			-			-				41.5/5.5				5.1/7.1			
	Plug-in version 3P/4P		-			-			-				4.6/6				6.5/8.5			
	Draw out version 3P/4P		-			-			-				5/6.4				6.5/8.7			

Breaking time for residual current operation of non-delay residual current type circuit breaker

Table 7

Residual current	$I\Delta n$	$2I\Delta n$	$5I\Delta n$	$10I\Delta n$
Max. breaking time s	0.3	0.15	0.04	0.04

Note: for circuit breaker with $I\Delta n \leq 30\text{mA}$ residual current, 0.25A substitutes $5I\Delta n$, meanwhile, 0.5A substitutes $10I\Delta n$.

Operation character of time-delay residual current type circuit breaker

Table 8

The limit and non drive time	Max. break time	The current of remnant	$I\Delta n$	$2I\Delta n$	$5I\Delta n$	$10I\Delta n$	remark
60			0.5	0.2	0.15	0.15	
100			0.8	0.4	1.3	0.3	
300			2	1	1.8	0.8	

Note: The time-delay type only suitable for residual current circuit breaker with $I\Delta n > 30\text{mA}$. This table also suitable for model A, and then the current $I\Delta n$ should multiply by 1.4.

Operation characteristics of adjustable time delay residual current type circuit breaker

Table 9

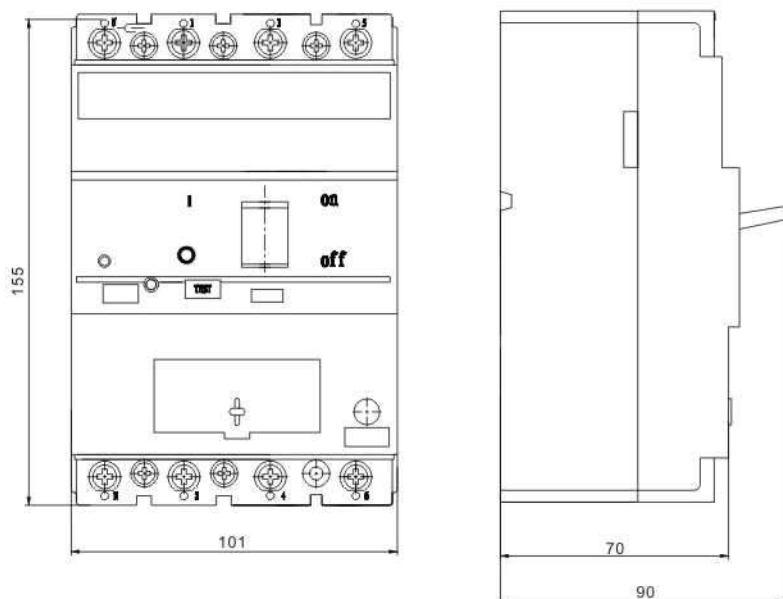
Rated current of frame size	Rated remnant operation current only adjustable	The rated remnant operation current and the limit and adjustable non drive time adjustable	
63	30-100-300mA	0-100-300mA	0-60-100ms
125	30-100-300mA	0-100-300mA	0-60-100ms
160	100-300-500mA	100-300-500mA	0-60-100ms
250	100-300-500mA	100-300-500mA	0-60-100-300ms
630(400)	300-500-1000mA(100-300-500mA)	300-500-1000mA(100-300-500mA)	60-100-300ms(0-60-100ms)

Parameters for pre-alarm type

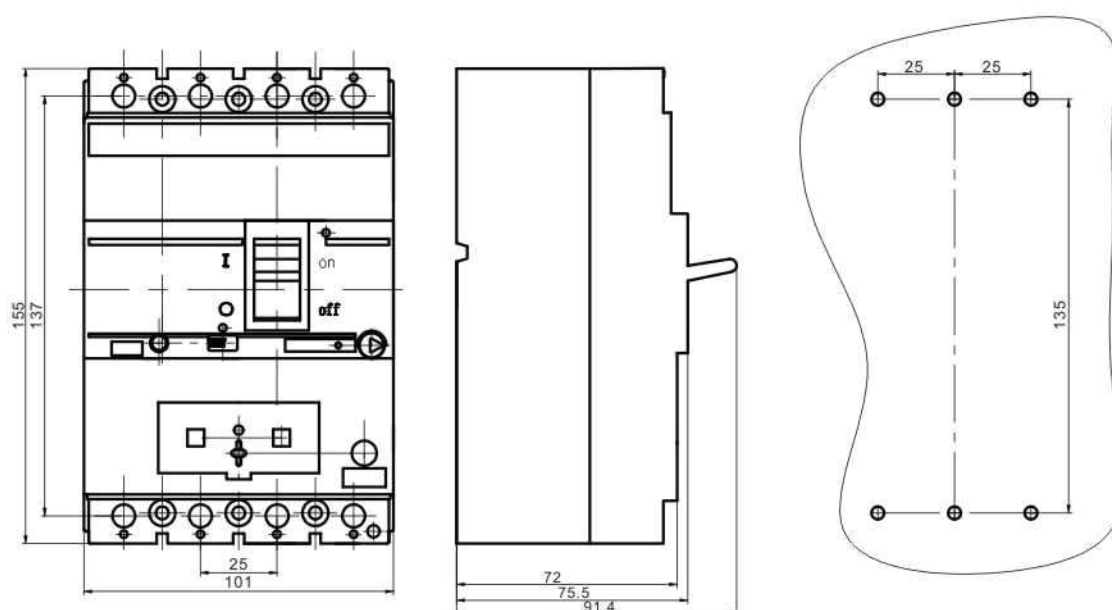
Table 10

Rated residual operation current	Initial pre-alarm current	Delay time s	Max. Output current of optical coupler	Max. working voltage of optical coupler
$I\Delta n$	$0.5I\Delta n$	0,10,30	50mA	20V DC

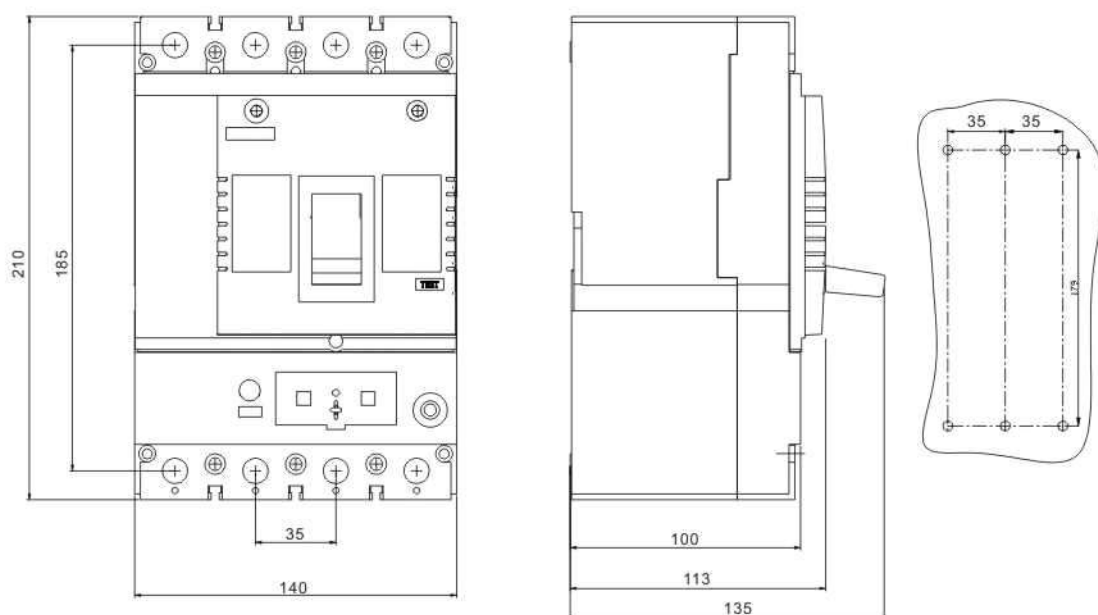
DAM1-125L



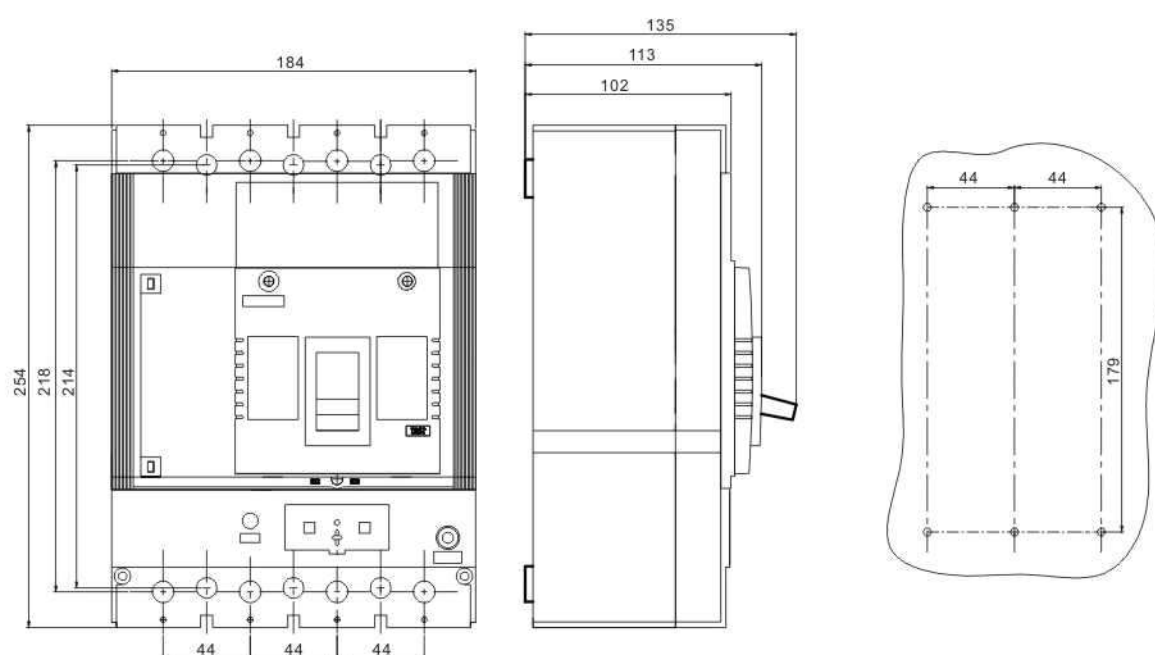
DAM1-160L



DAM1-250L

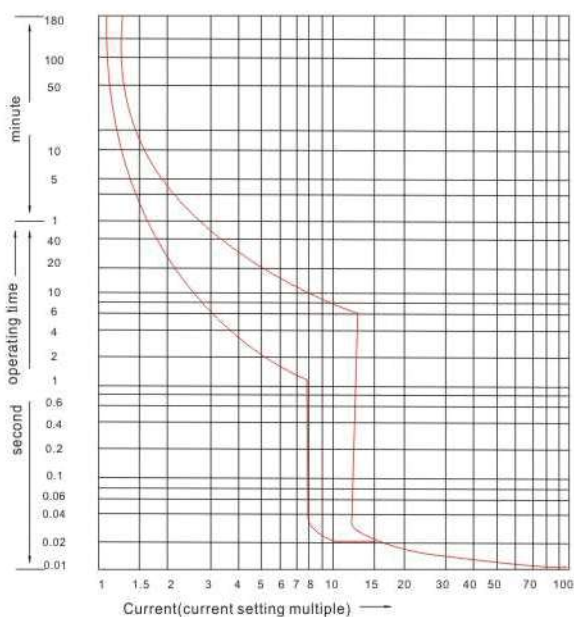


DAM1-630L

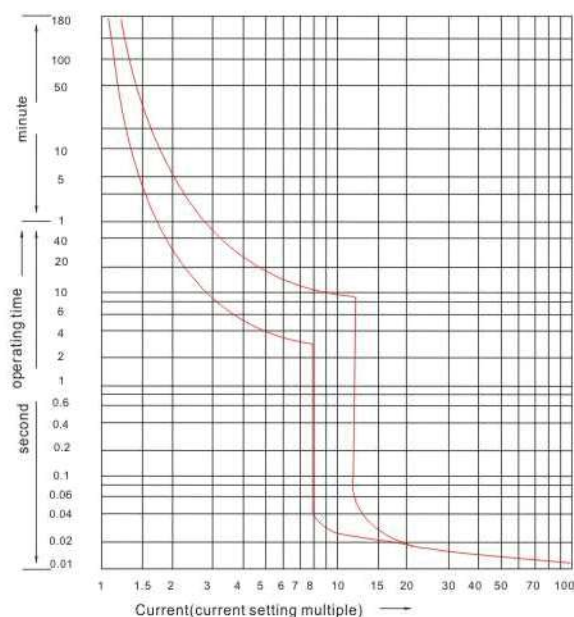


Protective Curve

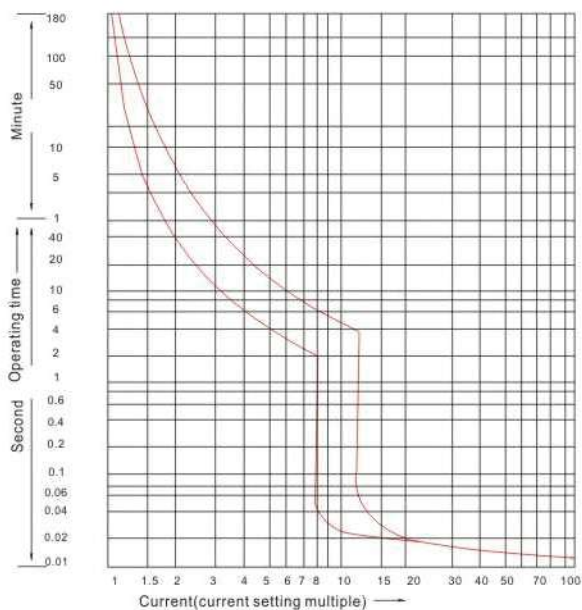
DAM1-125L



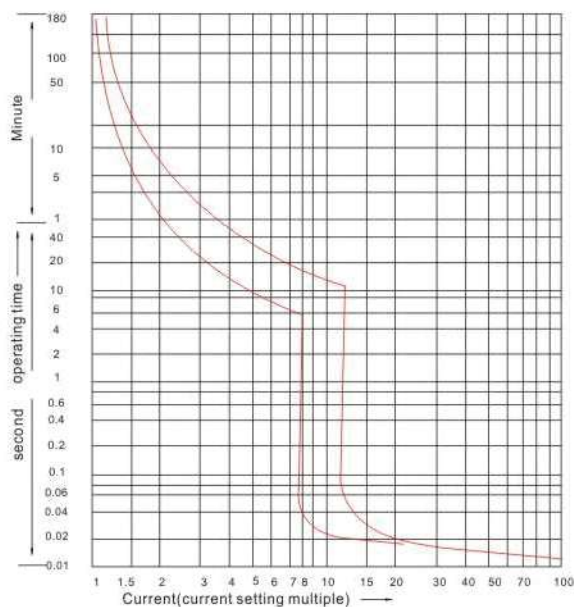
DAM1-160L



DAM1-250L



DAM1-630(400L)



Inverse time-delay breaking character of over-current release used for power distribution when power on all the poles simultaneously

Table 11

The name of test item	Multiple	Conventional time h for power distribution protection			Conventional time h for indirectly motor protection	Initial state
		$I_n \leq 63A$	$63A < I_n \leq 63A$	$I_n > 250A$		
Conventional non-tripping current	1.05	≥ 1	≥ 2		≥ 2	Cold state
Conventional tripping current	1.20				< 2	Heat state
	1.30	< 1	< 2			
	1.5				$\leq 4min$	
	7.2				$4s < T_c \leq 10s$	Cold state
Backward character time	3.00	$\geq 5s$	$\geq 8s$	$\geq 12s$		Cold state

Conventional operation time of (1.05~7.2) I_n

Table 12

Name of test project	I/I_r1	Operation time T_c s for power distribution protection	Operation time T_c s for indirect motor protection
Conventional non-tripping current	1.05	$> 2h$ Non-operation	$> 2h$ Non-operation
Conventional tripping current	1.2		$< 1h$ Operation
	1.3	$< 1h$ Operation	
	1.5	$\leq 4min$	$\leq 4min$
	7.2		$4s < T_c \leq 10s$
Backward character time	3.00	12s	

Note: 1) The setting value ($6I_r1.TL=10$) is checked when products are shipped out.

2) The electronic release should keep free from the change of ambient temperature when it is between $5^\circ C$ and $10^\circ C$.

Short time-delay character of over-current release

Table 13

Operation time s	0.1	0.2	0.3	0.4
Backward time s	0.06	0.14	0.23	0.35

Installment is convenient.

DAM1 series circuit breaker provide with several installment type.

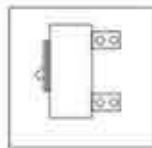
1. Fixed type installment
2. Plug – in type installment
3. With drawable type installment



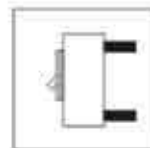
The main circuit of breaker has several connection mode.



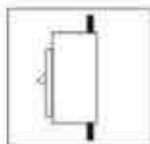
Connect wire in front of board



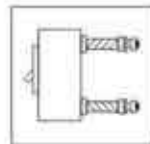
Connect wire vertically behind board



Connect wire horizontally behind board



Connect wire in front of extended board



Connect wire with screw behind board

Technical parameter and Installation

Rated current of frame size Inm(A)	Fixed version			Plug-in version		Draw-out version	
	1P/2P	3P	4P	3P	4P	3P	4P
160/1P	■	—	—	—	—	—	—
200/2P	■	—	—	—	—	—	—
200L/2P	■	—	—	—	—	—	—
63/63L	—	■	■	■	■	—	—
125/125L	—	■	■	■	■	—	—
160/160L	—	■	■	■	■	—	—
250/250L	—	■	■	■	■	■	■
630/630L	—	■	■	■	■	■	■
800	—	■	■	—	—	■	■
1250	—	■	■	—	—	■	■
1600	—	■	■	—	—	■	■

Note: The L Series leakage circuit only has 4 poles

Fixed type



Plug-in version



Draw-out version

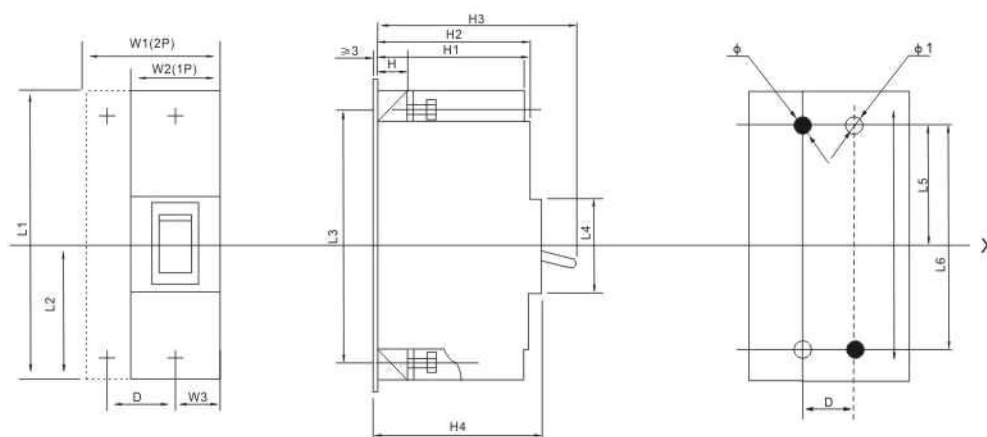


Overall and installation size

Fixed type

DAM1-160~200(L)

Connect wire in front of board



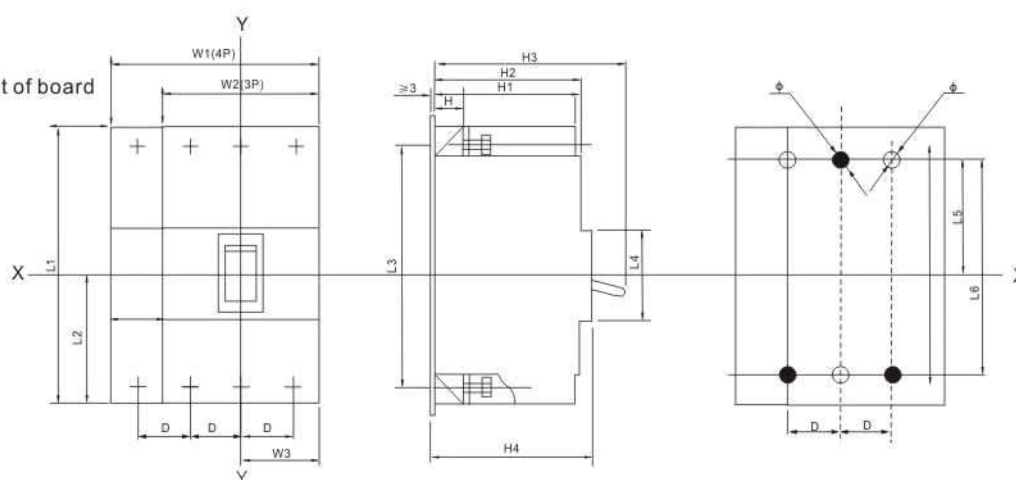
Type	D	L1	L2	L3	L4	L5	L6	W1	W2	W3	H	H1	H2	H3	H4	φ	φ 1
DAM1-160/1P	—	120	48	102	45	62	102	—	30	15	27.5	67.5	70	91	75	4.5	3.5
DAM1-200/2P	30	120	48	102	45	62	102	60	—	15	27.5	67.5	70	93	75	4.5	3.5
DAM1-200L/2P	30	155	83	135	45	62	135	60	—	15	27.5	67.5	70	93	75	4.5	3.5

Fixed type

DAM1-63~160(L)

DAM1 x-160

Connect wire in front of board



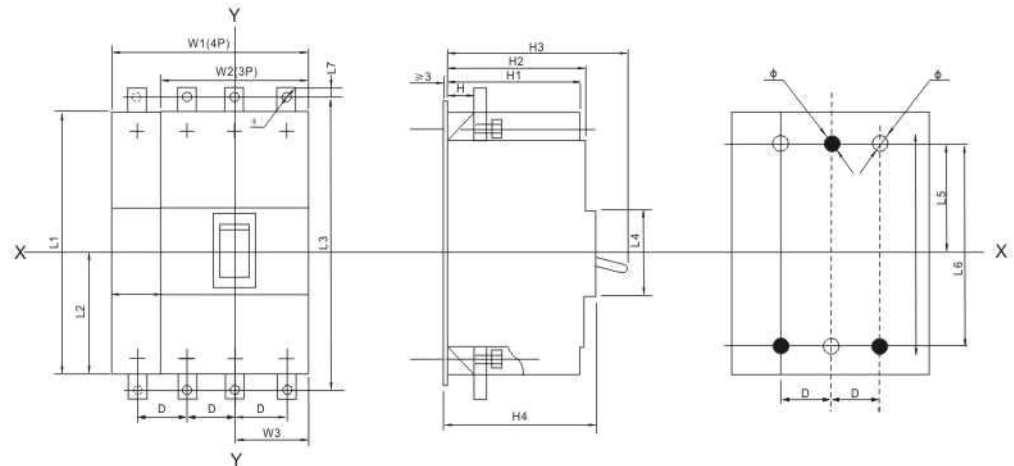
Type	D	L1	L2	L3	L4	L5	L6	W1	W2	H	H1	H2	H3	H4	φ
DAM1-63/125	25	120	48	102	45	62	102	101	76	25.5	67.5	70	91	75	4.5
DAM1-63/125L	25	155	83	135	45	62	135	101	—	25.5	67.5	70	91	75	4.5
DAM1-160	30	120	48	102	45	62	102	120	90	27.5	67.5	70	93	75	4.5
DAM1 x-160	30	120	48	102	45	62	102	120	90	27.5	67.5	70	93	75	4.5
DAM1-160L	30	155	83	135	45	62	135	120	—	27.5	67.5	70	93	75	4.5

Overall and installation size

Fixed type

DAM1-250~1600
DAM1-250~630L
DAM1X-250~800

Connect wire in front of board

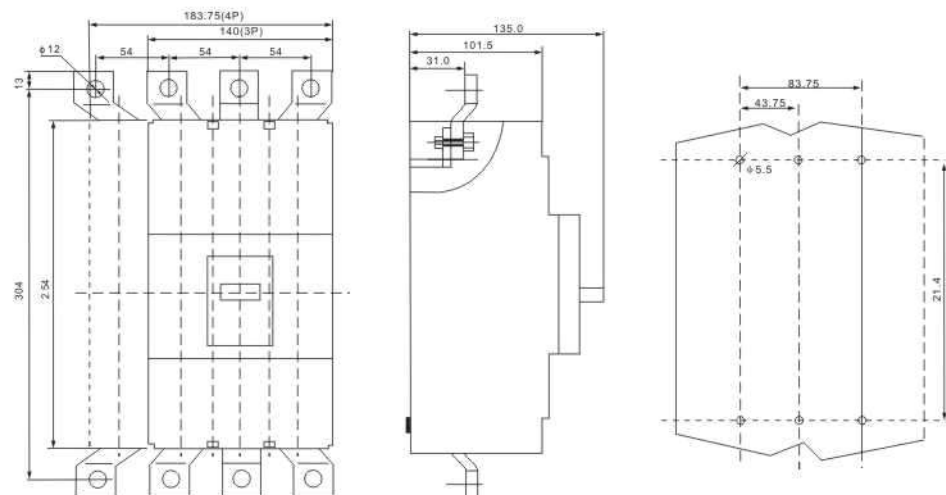


Type	D	L1	L2	L3	L4	L5	L6	W1	W2	H	H1	H2	H3	H4	φ	L7	φ 1
DAM1-250	35	170	87.25	206	105	73.75	139	140	105	25	101.5	103.5	135	113	5.5	10.8	φ 8.5
DAM1-250L	35	210	112.5	246	105	73.75	179	140	—	25	101.5	103.5	135	113	5.5	10.8	φ 8.5
DAM1 x -250	35	255	87.25	278.5	105	154.5	224	140	105	25	101.5	103.5	135	113	5.5	10.8	φ 8.5
DAM1 x -400	43.75	339	125.25	366	105	192.5	299	140	183.75	25	101.5	103.5	135	113	5.5	12.0	φ 10.5
DAM1-630 (400A)	43.75	254	125.25	281	105	107.25	214	040	183.75	25	101.5	103.5	135	113	5.5	12.0	φ 14
DAM1-630L (400L)	43.75	254	117.5	281	105	107.25	214	183.75	—	25	101.5	103.5	135	113	5.5	12.0	φ 10.5
DAM1-800	70	268	142.75	241	105	109.25	237	280	210	23	101.5	103.5	167.5	115	5.5	10.0	φ 11
DAM1 x -800	70	406	142.75	479	105	256.5	375	280	210	23	101.5	103.5	167.5	115	5.5	10.0	φ 11
DAM1-1600	70	406	189	513	105	203	378	280	210	39	137	138.5	204.5	152	5.5	13.5	φ 11

Fixed type

DAM1-630(500A、630A)

Connect wire in front of board

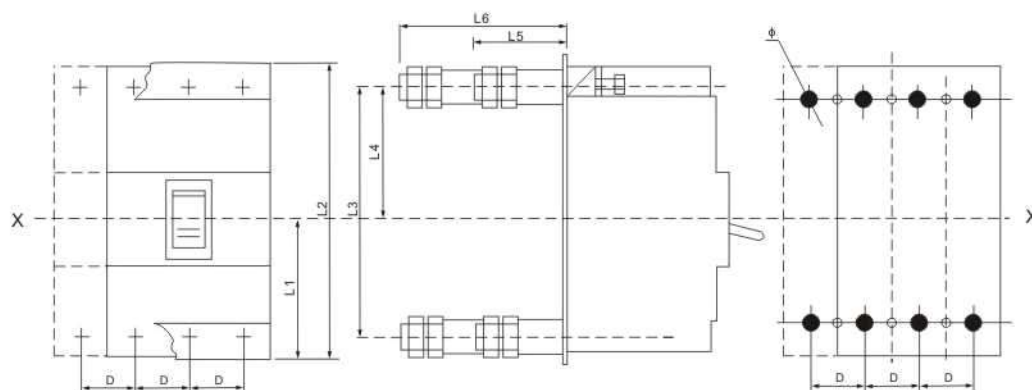


Overall and installation size

Fixed type

DAM1-63~800
DAM1-60~630L
DAM1 × -160~630

Connect wire behind board

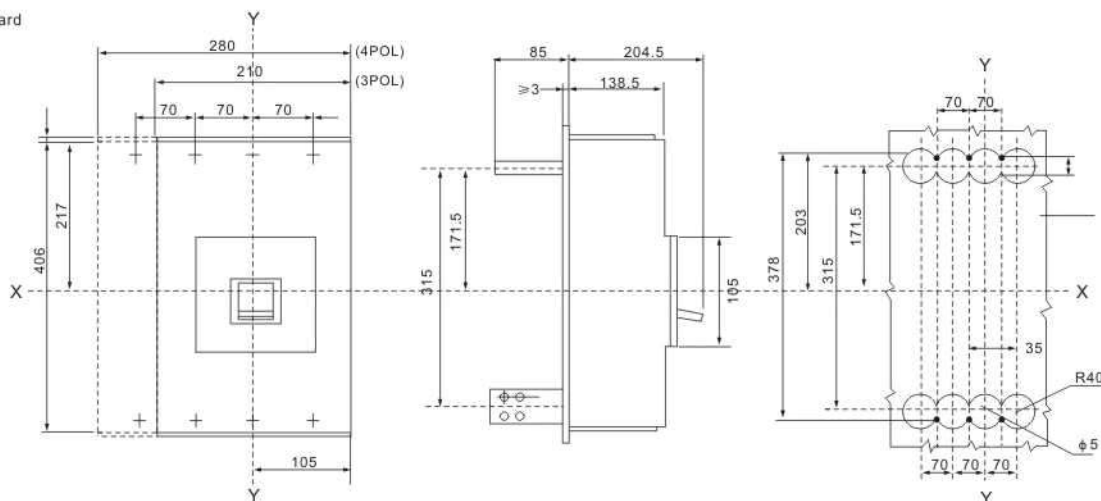


Type	D	L1	L2	L3	L4	L5	L6	φ
DAM1-63/125	25	50	124	102	39	43	76	18
DAM1-63/125L	25	83	155	135	39	43	76	18
DAM1-160	30	50	124	102	39	43	76	18
DAM1-160L	30	83	155	135	39	43	76	18
DZM1X-160	30	50	124	102	39	43	76	18
DAM1-250	35	85.25	175	145	73.75	55	105	24
DAM1-250L	35	112.5	210	179	73.75	55	105	24
DAM1X-250	35	85.25	255	224	123.5	55	105	24
DAM1X-400	43.75	131.25	285	254	153.5	55	105	30
DAM1-630	43.75	131.25	259	218	107.25	55	105	30
DAM1-630L(400L)	43.75	117.5	254	218	107.25	55	105	30
DAM1-800	70	145.25	273	241	117.25	55	74.5	50

Fixed type

DAM1H-1600

Connect wire behind board



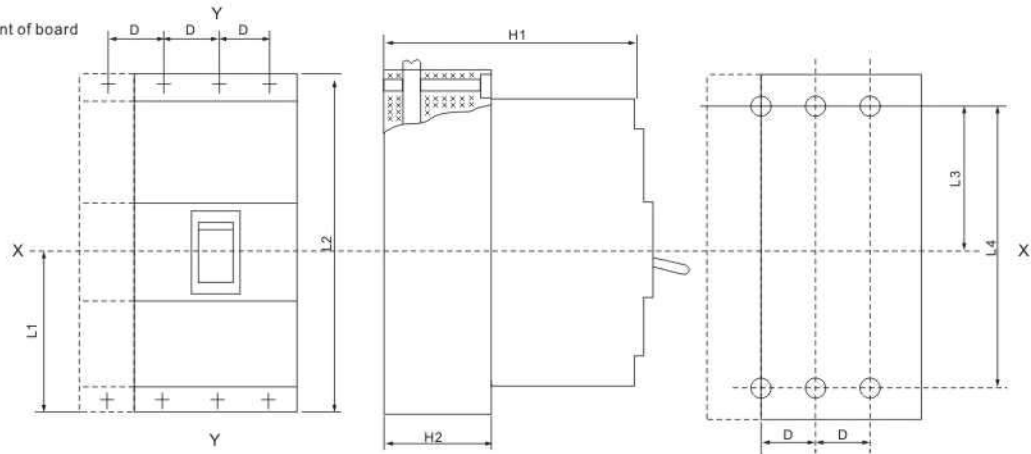
Overall and installation size

Plug-in version

DAM1-63~160

DAM1X-160

Connect wire in front of board



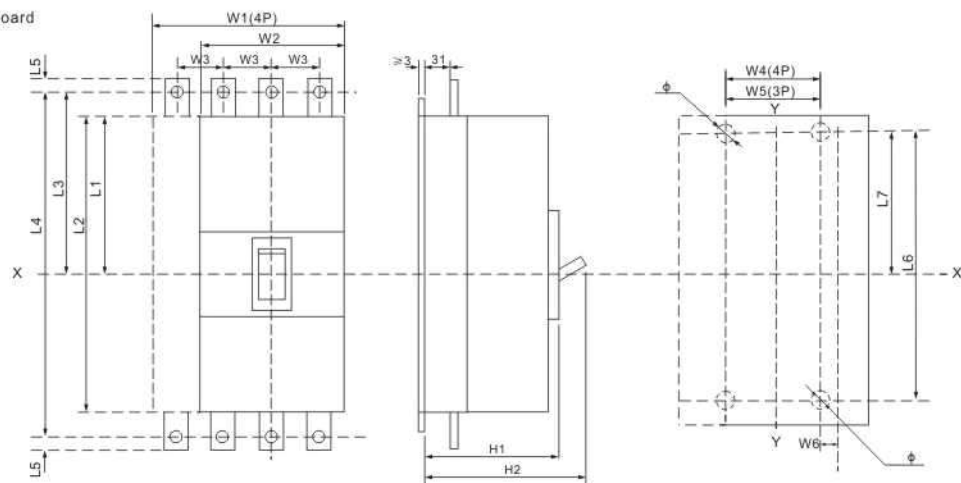
Type	D	L1	L2	L3	L4	H1	H2
DAM1- 63 125	25	70	163	84	144	123	52
DAM1- 160	30	70	163	84	144	123	52
DAM1X - 160	30	70	163	84	144	123	52

Plug-in version

DAM1-250~630

DAM1-630L(400L)

Connect wire in front of board



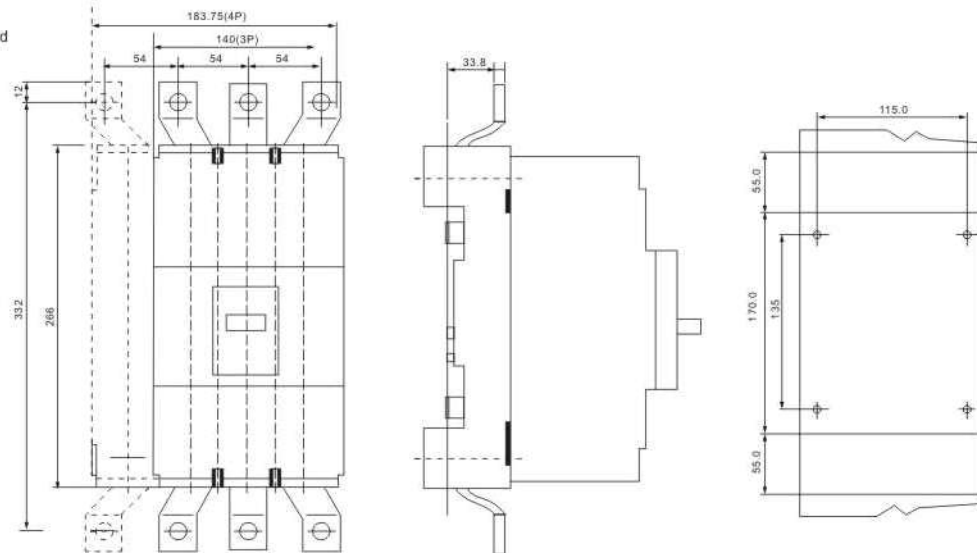
Type	L1	L2	L3	L4	L5	L6	L7	W1	W2	W3	W4	W5	W6	H1	H2	φ
DAM1-250	89.75	175	107.25	210	10	52.25	100	140	105	35	105	70	25	153	184.5	5
DAM1-630(400)	127.75	259	150.75	305	14	65.75	135	183.75	140	43.75	160	115	58	153	184.5	6
DAM1-630L(400L)	127.75	259	150.75	305	14	65.75	135	183.75	140	43.75	160	115	58	153	184.5	6

Overall and installation size

Plug-in version

DAM1-630

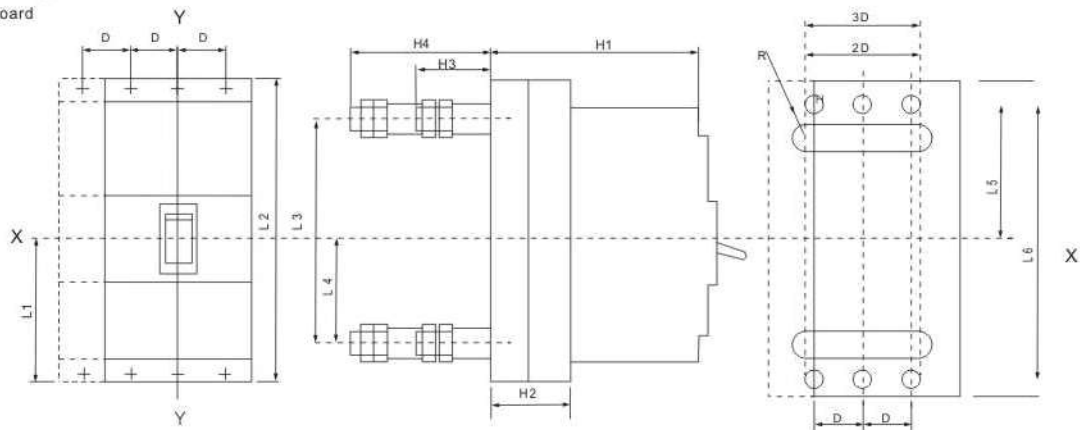
Connect wire in front of board



Plug-in version

DAM1-630(500A, 630A)

Connect wire behind board



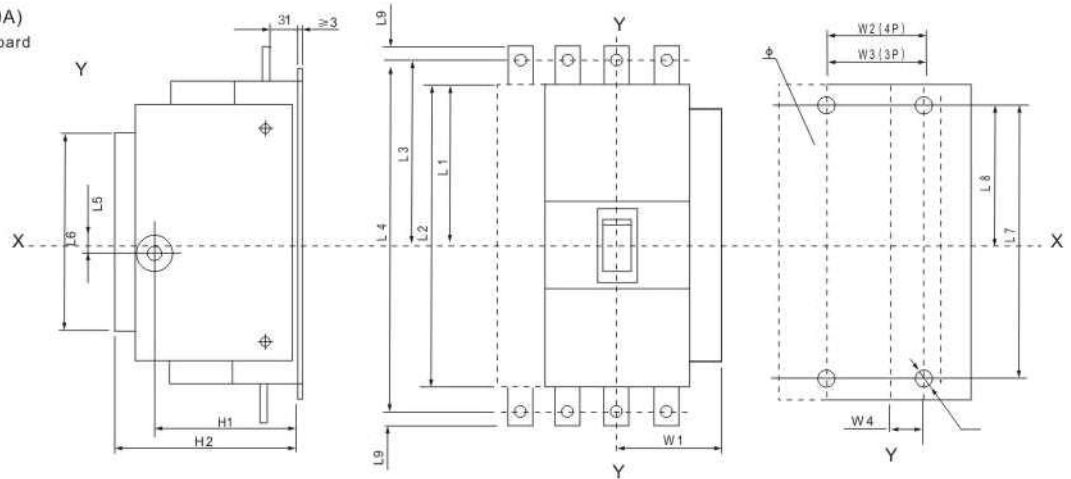
Type	D	L1	L2	L3	L4	L5	L6	H1	H2	H3	H4	H5
DAM1-63 125	25	70	163	102	39	84	144	123	52	50	80	13
DAM1-160	30	70	163	102	39	84	144	123	52	50	80	13
DAM1-250	35	85.25	175	143	69.2	52.5	100	184.5	83	52	96	14
DAM1X-250	35	85.25	175	143	69.2	52.5	100	184.5	83	52	96	14
DAM1X-400	43.75	131.25	259	218	110.75	107.25	218	184.5	83	55	100	14
DAM1-630	43.75	131.25	259	218	110.75	107.25	218	184.5	83	55	100	14
DAM1-630L(400L)	43.75	131.25	259	218	110.75	107.25	218	184.5	83	55	100	14

Overall and installation size

Draw-out version

DAM1-630(500A, 630A)

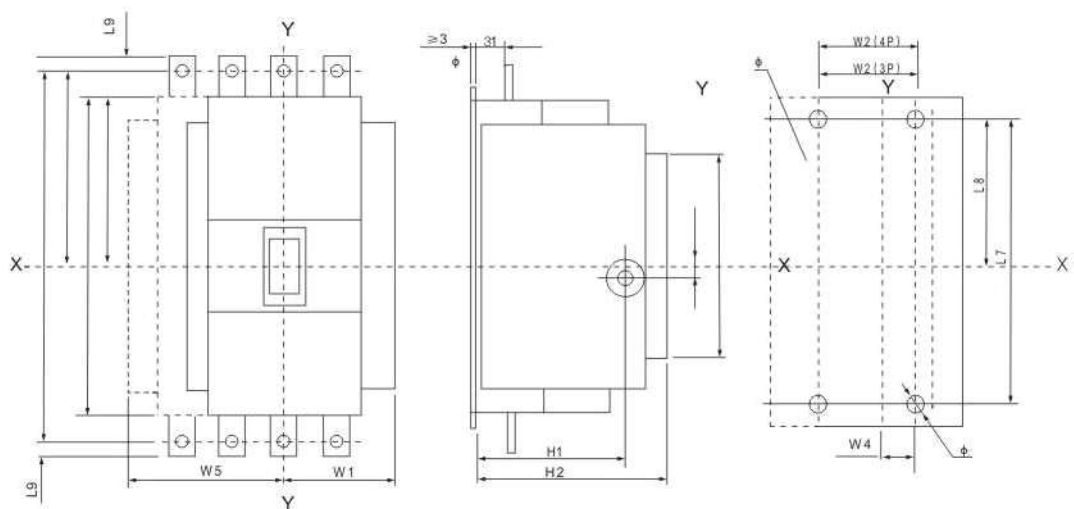
Connect wire in front of board



Type	L1	L2	L3	L4	L5	L6	L7	L8	L9	W1	W2	W3	W4	W5	H1	H2	φ
DAM1-250	89.75	175	107.25	210	1.75	105	52.25	100	106	84	105	70	25	—	167	190	5
DAM1-630	127.75	259	150.75	305	1.75	105	65.75	135	140	101.5	160	115	58	—	167	190	6

Draw-out version

Connect wire in front of board

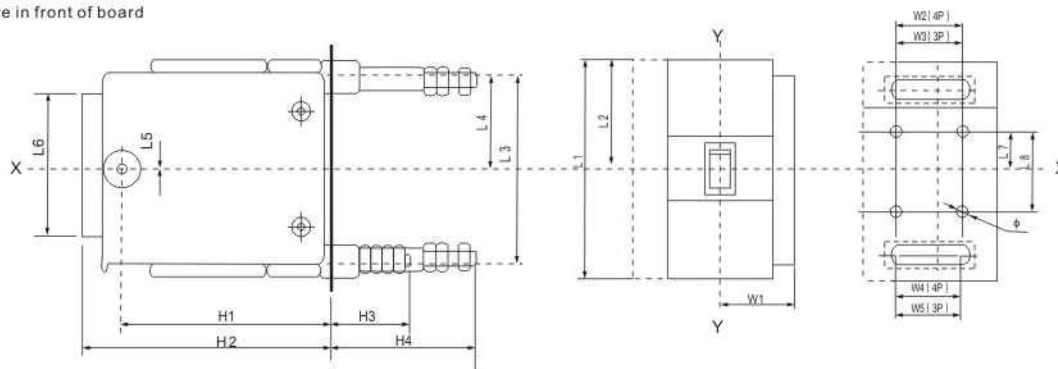


Type	L1	L2	L3	L4	L5	L6	L7	L8	L9	W1	W2	W3	W4	W5	H1	H2	φ
DAM1-800	133	295	158	345	14.5	140	45.5	120	20	136.5	210	210	140	193.5	167	190	8.5
DAM1-1600	211.25	406	268.25	520	8.25	140	68.25	120	—	136.5	210	210	140	193.5	218.5	241.5	8.5

Overall and installation size

Draw-out version

Connect wire in front of board

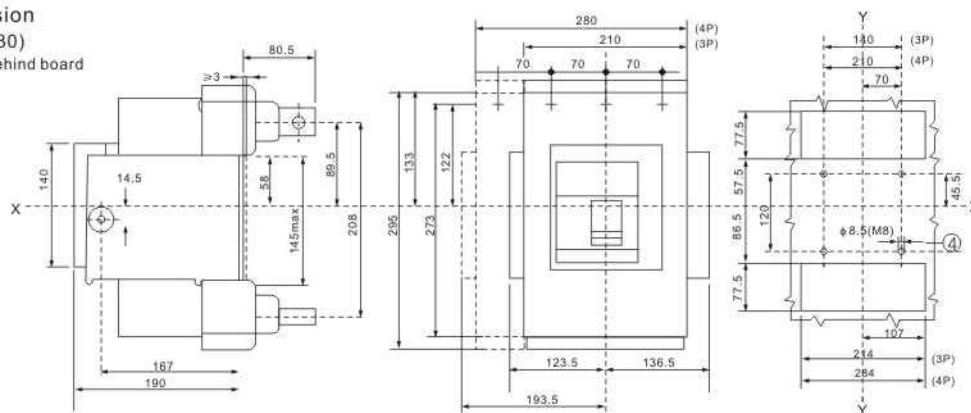


Type	L1	L2	L3	L4	L5	L6	L7	L8	W1	W2	W3	W4	W5	H1	H2	H3	H4	ϕ
DAM1-250	175	87.75	143	73.75	1.75	105	52.25	100	84	105	70	70	105	167	190	52	96	5
DAM1X-250	175	87.75	143	73.75	1.75	105	52.25	100	84	105	70	70	105	167	190	52	96	6
DAM1X-400	259	127.75	218	107.25	1.75	105	65.75	135	101.5	160	115	87.5	131.25	167	190	55	100	6
DAM1-630	259	127.75	218	107.25	1.75	105	65.75	135	101.5	160	115	87.5	131.25	167	190	55	100	6
DAM1-630L(400L)	259	127.75	218	107.25	1.75	105	65.75	135	101.5	160	115	87.5	131.25	167	190	55	100	5

Plug-in version

DAM1-800(630)

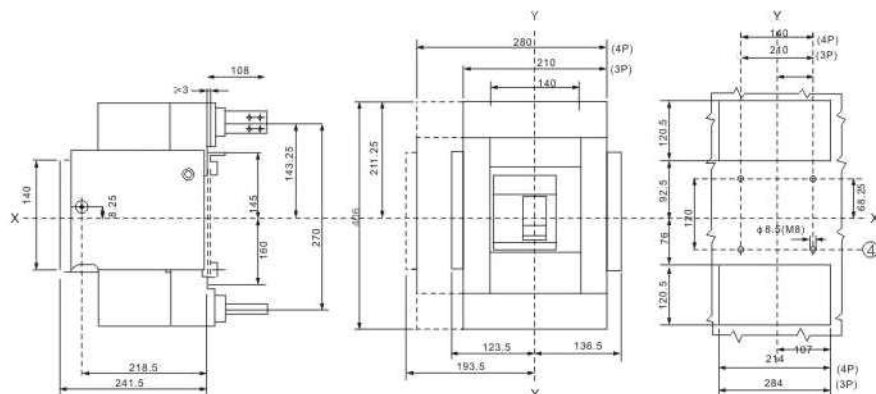
Connect wire behind board



Plug-in version

DAM1-1600(1250)

Connect wire behind board



Electical operating mechanism

1. The electrical operating mechanism is available remote close of MCCB.
2. The types of electrical operating mechanism are shown in table15.

Table 15

Rated current of frame sizeInm(A)	Selection of types of electrical operating mechanism		
	CD1	CD2	CD3
63/63L	–	CD2–63	–
125/125L	–	CD2–100	–
160/160L	–	CD2–160	–
250/250L	CD1–250	–	–
630(400)/630L(400L)	CD1–400	–	–
800	–	–	CD3–800
1600(1250)	–	–	CD3–1600

CD1 Type Electical operating mechanism



1. Direct-acting, and manual close/open of MCCB.
2. Equipped with emergency opening button.
3. Customer can fit padlock on it for MCCB in open position
4. Suitable for MCCBs: ①Inm=250A ②Inm=400A
The specific type should be stated clearly in your order
5. Selectable accessories.

Action Characteristic

Table 16

Electrical accessories				Electrical operating mechanism	
Range of supply Voltage				(0.85–1.1) × Us	
Rated control supply voltage	Power supply	AC 50Hz		220V	380V
		Power loss	Irrupt power consumption	510VA	510VA
			Normal loss	360VA	360VA
		DC		110VA	220VA
		Power loss	Irrupt power consumption	510VA	510VA
			Normal loss	360VA	360VA
Closing time				0.1s	
Opening time				0.1s	

CD2 Type Electical operating mechanism



1. Direct-acting, and manual close/open of MCCB.
2. Suitable for MCCBs:
 - 1 Inm=63A
 - 2 Inm=100A
 - 3 Inm=160A

The specific type should be stated clearly in your order.

3. Selectable accessories.

Table 17

Electrical accessories				Electrical operating mechanism	
Range of supply Voltage				(0.85~1.1) × Us	
Rated control supply voltage	Power supply	AC 50Hz		220V	380V
		Power loss	Irrupt power loss	220VA	200VA
			Normal power loss	110VA	110VA
	Power supply	DC		110V	220V
		Power loss	Irrupt power loss	200W	200W
			Normal power loss	110W	110W
Closing time				0.1s	
Opening time				0.1s	

CD3 Type Energy stored electical operatirng mechanism



1. Spring charged by motor or manual.
2. Close by motor or manual.
3. For closing of MCCB, the procedures are: energy stored with spring charged by motor, then closing MCCB.
4. Having electrical opening function.
5. Equipped with emergency opening button.
6. Customer can fit padlock on it for MCCB in open position.
7. Suitable for MCCB: 1 Inm=630A 2 Inm=800A
3 Inm=1250A Inm=1600A

The specific type should be stated clearly in your order

8. Selectable accessories.

Action Characteristic

Table 18

Electrical accessories				Electrical operating mechanism	
Range of supply Voltage				(0.85~1.1)×Us	
Rated control supply voltage	Power supply			220V	380V
		Power loss	Irriupt power loss	660VA	660VA
			Normal power loss	180VA	180VA
		DC		110V	220V
		Power loss	Irriupt power loss	600W	600W
			Normal power loss	180W	180W
Closing time				0.1s	
Opening time				0.3s	

Rotary handle operating mechanism

1.The rotary handle operating mechanism is suitable for:

- ① Closing and opening of MCCB by the rotary handle on MCCB.
- ② Closing and opening of MCCB by the rotary handle on the compartment door of switch board.
- ③ Interlocking between the rotary handle operating mechanism and compartment door to prevent the compartment door from be opened in case of MCCB in closed state.

2.Customer can fit padlock on it for MCCB in open position(up to a max of 3 padlocks with max 6mm dia).

3.One key and one lock for one MCCB

4.One key and two lock for two MCCB

5.Two keys and three locks for three MCCB

6.The types of rotary handle operating mechanism are given in Table 19.

Action Characteristic

Table 19

Rated current of frame size Inm	On MCCB		On compartment door (selection: Handle+Mechanism)							
			Handle				Operation mechanism			
	CS2	CS2/L	A type (Round)		B type (Square)		CS1(central)		CS1(Eccentric)	
		With interlock	A-1 Short handle	A-2 Long handle	F1-1 Short handle	F-2 Long handle				
63/63L	-	-	A-1	-	F1-1	-	-	-	CSS-63	CSS/L-63
125/125L	-	-	A-1	-	F1-1	-	-	-	CSS-100	CSS/L-100
160/160L	-	-	A-1	-	F1-1	-	-	-	CSS-160	CSS/L-160
250/250L	CS2-250	CS2/L-250	A-1	-	F1-1	-	CS1-250	CS1/L-250	CSS-250	CSS/L-250
630(400) 630L(400L)	CS2-400	CS2/L-400	A-1	-	F1-1	-	CS1-400	CS1/L-400	CSS-400	CSS/L-400
800	CS2-800	CS2/L-800	-	A-2	-	F1-2	CS1-800	CS1/L-800	CSS-800	CSS/L-800
1600(1250)	CS2-1600	CS2/L-1600	-	A-2	-	F1-2	CS1-1600	CS1/L-1600	CSS-1600	CSS/L-1600

CSS Rotary handle operating mechanism



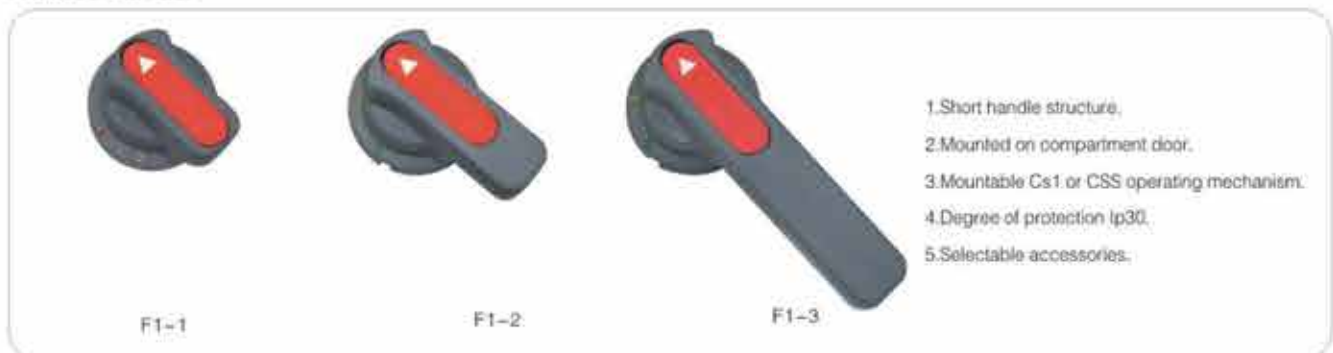
- 1.Eccentric structure.
- 2.Mounted on MCCB.
- 3.Fitted with A type or F type handle.
- 4.Interlock with compartment door.
- 5.Selectable accessories.

CS2 Rotary handle operating mechanism



- 1.Mounted on MCCB.
- 2.Key lock for MCCB in open position.
- 3.Interlock with compartment door.
- 4.Selectable accessories.

A type handle



- 1.Short handle structure.
- 2.Mounted on compartment door.
- 3.Mountable Cs1 or CSS operating mechanism.
- 4.Degree of protection Ip30.
- 5.Selectable accessories.

F1-1 type handle



- 1.Short handle structure.
- 2.Mounted on compartment door.
- 3.Mountable Cs1 or CSS operating mechanism.
- 4.Degree of protection Ip30.(The handle of Ip54 is available on request)
- 5.Selectable accessories.

- 1.Long handle structure.
- 2.Mounted on compartment door.
- 3.Mountable Cs1 or CSS operating mechanism.
- 4.Degree of protection Ip30.(The handle of Ip54 is also available on request)
- 5.Selectable accessories.

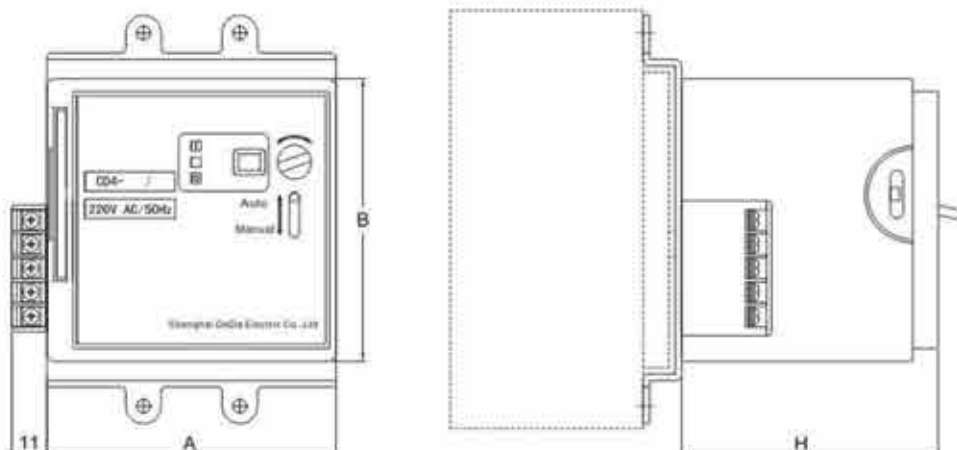
Motor-driven mechanism

Functions:

Isolation function indication;
 0(breaking), 1(making) and free tripping indication;
 Free releasing of circuit breaker;
 Making and breaking the breaker manually or automatically
 Making and breaking the breaker manually or automatically
 Manual operation
 Turn "manual/auto" switch to "auto" position and then turn the handle to make and break the breaker.
 Automatic operation:
 Turn "manual/auto" switch to "manual" position and then Push the button to make and break the breaker remotely.
 The make/break operation is carried out via pulse or self-retaining type signal control.
 Operational range:85%Un~110%Un.

Main technical parameters

- 1.Rated voltage (Ue): AC 50Hz 230V, 400V;DC 250V.
- 2.Operating voltage range:(85%~110%)Ue.
- 3.Withstand voltage: AC 1800V 1min.
- 4.Motor power :About 180W.
- 5.Operating frequency: 60~120/h.
- 6.Electrical life:5000~10000 times



Specification	Apply to circuit-breaker models	Appearance(mm)		
		A	B	H
CD-125	DAM1-125	76	88	80
CD-160	DAM1-160	90	88	80
CD-250	DAM1-250	104	90	80
CD-400	DAM1-400	150	140	112
CD-800(630)	DAM1-800	140	150	112
CD-1600	DAM1-1600	140	153	123

Release pattern and accessories code

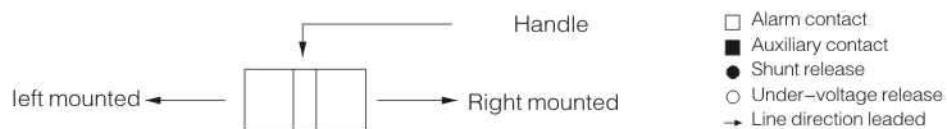


Table 2

Accessories code	Accessories name	Type	DAM1-63-1250 DAM1L-63-400
208、308	Alarm contact	← □ →	
210、310	Shunt release	← ● →	
220、320	Auxiliary contact	← ■ →	
230、330	Under voltage release	← ○ →	
240、340	Shunt release, auxiliary contact	← ● ■ →	
250、350	Shunt release, Under voltage release	← ● ○ →	
260、360	Two groups of auxiliary contact	← ■ ■ →	
270、370	Auxiliary contact, Under voltage release	← ■ ○ →	
218、318	Shunt release, Alarm contact	← ● □ →	
228、328	Auxiliary contact, Alarm contact	← ■ □ →	
238、338	Under voltage release, alarm contact	← ○ □ →	
248、348	Shunt release, auxiliary contact, alarm contact	← ● ■ □ →	
268、368	Two groups of auxiliary contact, alarm contact	← ■ ■ □ →	
278、378	Auxiliary contact, Under voltage release, alarm contact	← ■ ○ □ →	



Inner accessory

Shunt release series

Shunt release application:

The shunt release is intended for remote controlling of open of MCCB Release instantaneous duty.



Characteristics of Shunt release:

Electrical accessories			Shunt release	
Range of supply voltage			$(0.7 - 1.1) \times U_s$	
Rated control supply voltage U_s	Power supply	AC 50Hz	220V	380V
		Power loss	150VA	150VA
		DC	110V	220V
		Power loss	150W	150W

Wiring diagram of Shunt release:

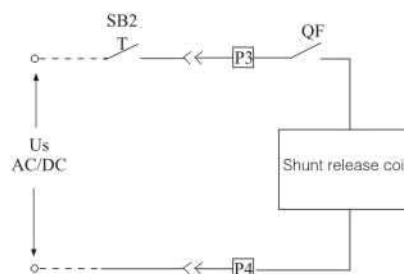
SB2-Opening Push-button(ready by user)

P3,P4-Terminal number

U_s -Control power

QF-Auxiliary contact

Only broken lines are connected by user, other wiring have been connected by factory, which offers user reference.



Apply to DAM1 models	DAM1-125	DAM1-160	DAM1-250	DAM1-400	DAM1-800	DAM1-1600
Shunt release	125/160FT		250/400FT		800/1600FT	

Under Voltage release series

Under voltage release application:

The under voltage release is intended for under voltage protection of circuit and electric equipment. Release uninterrupted duty.



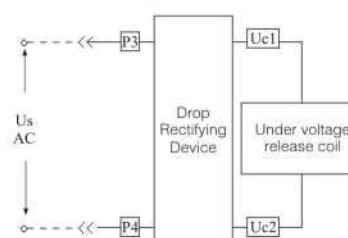
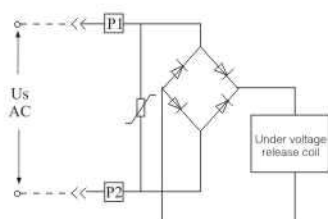
Characteristics of Under voltage release:

Ue(V)Rated operational voltage	AC380	AC220	DC110	DC220
Operational voltage	$(0.35-0.7) \times U_e$			
Ensured closing voltage	$(0.85-1.1) \times U_e$			
Ensured non closing voltage	$\leq 0.35U_e$			
Power loss	10VA		4W	

Wiring diagram of Under voltage release:

Us-Control Power
P1,P2-Teminal number
63A-1600A Embedded

Uc1,Uc2-Terminal number
63A-1600A Attached



Only broken lines are connected by user, other wiring have been connected by factory, which offers user reference.

Apply to DAM1 models	DAM1-125	DAM1-160	DAM1-250	DAM1-400	DAM1-800	DAM1-1600
Under voltage release series	125/160QT		250/400QT		800/1600QT	

Auxiliary contacts series

Auxiliary contacts application:

The auxiliary contacts are intended for automatical controlling of the auxiliary circuit of MCCB, such as indication of the open and close states of MCCB.

Auxiliary contacts size:

- 1). 1N/O and 1N/C
- 1). 2N/O and 2N/C
- 3). 4N/O and 4N/C



Wiring diagram of Auxiliary contacts:

State of MCCB	State of auxiliary contacts	diagram of wiring
Close position	◆ 1 set of auxiliary contacts, but 2 sets of contacts to be supplied ◆ For $I_{nm}=63A\sim 225A$	closing state
	◆ 2 sets of auxiliary contacts, but 4 sets of contacts to be supplied ◆ For $I_{nm}=250A\sim 1600A$	opening state
Open position	◆ 1 sets of auxiliary contacts, but 2 sets of contacts to be supplied ◆ For $I_{nm}=63A\sim 225A$	closing state
	◆ 2 sets of auxiliary contacts, but 4 sets of contacts to be supplied ◆ For $I_{nm}=250A\sim 1600A$	opening state

Apply to DAM1 models	DAM1-125	DAM1-160	DAM1-250	DAM1-400	DAM1-800	DAM1-1600
Auxiliary contact	125/160FC		250/400FC		800/1600FC	

Alarm contacts series

Alarm contacts application:

The alarm contacts are used for alarm of open action of current, and under voltage of circuit and equipment.



Alarm contacts size:

1)1N/O and 1N/C

Wiring diagram of Alarm contacts;

State of MCCB	State of alarm contacts	diagram of wiring
Close position		
Open position		

Apply to DAM1 models	DAM1-125	DAM1-160	DAM1-250	DAM1-400	DAM1-800	DAM1-1600
Alarm contact	125/160BC		250/400BC		800/1600BC	

Auxiliary and alarm contacts series

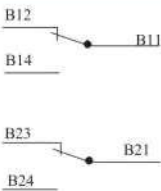
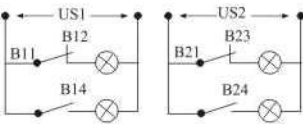
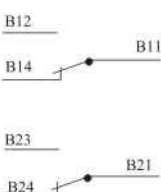
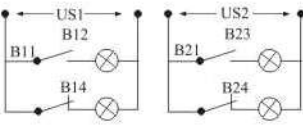
Auxiliary and alarm contacts application:

The auxiliary contacts are intended for automatical controlling of the auxiliary circuit of MCCB, and of open action of current, and under voltage of circuit and equipment.

Auxiliary and alarm contacts size:

- 1). 1N/O and 1N/C+1 alarm contacts
- 2). 2N/O and 2N/C+1 alarm contacts

Wiring diagram of Auxiliary and alarm contacts:

State of MCCB	State of alarm contacts	diagram of wiring
Close position		 Explanation: Us1 is auxiliary power Us2 is alarm power
Open position		 Explanation: Us1 is auxiliary power Us2 is alarm power

Apply to DAM1 models	DAM1-125	DAM1-160	DAM1-250	DAM1-400	DAM1-800	DAM1-1600
Auxiliary and alarm contact	125/160FC+BC		250/400FC+BC		800/1600FC+BC	

Standard Guide rail mounting frame



DAM1(ABB) 1P Guide rail mounting frame



DAM1(ABB)-125 3P Guide rail mounting frame



DAM1(ABB)-160 3P Guide rail mounting frame

SYNAGEAR

Lakshmi Electrical Control Systems Limited (LECS) is one of the leading manufacturer of switchgear products from 1982.

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SYNAGEAR

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