

TIME-CURRENT CHARACTERISTICS

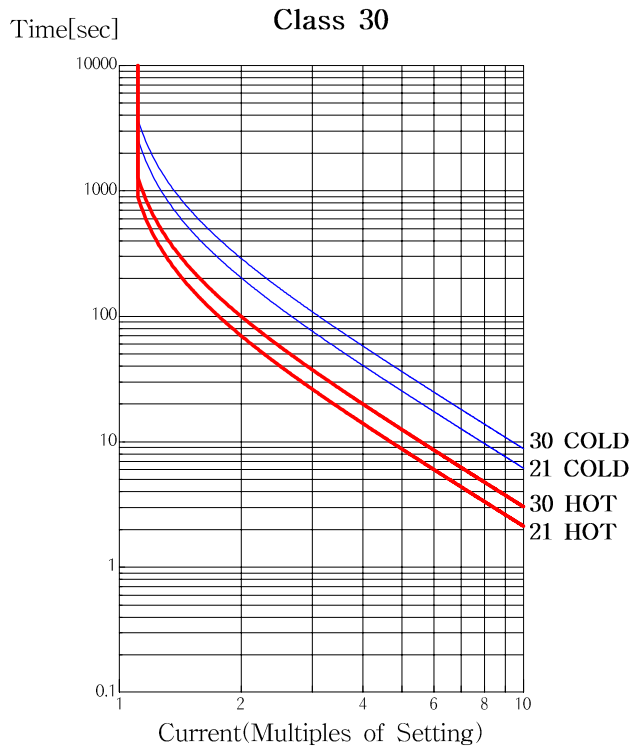
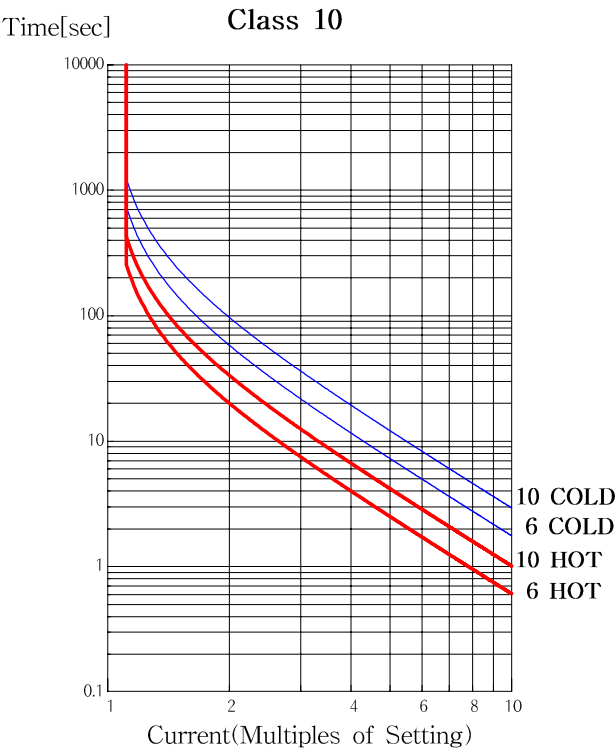
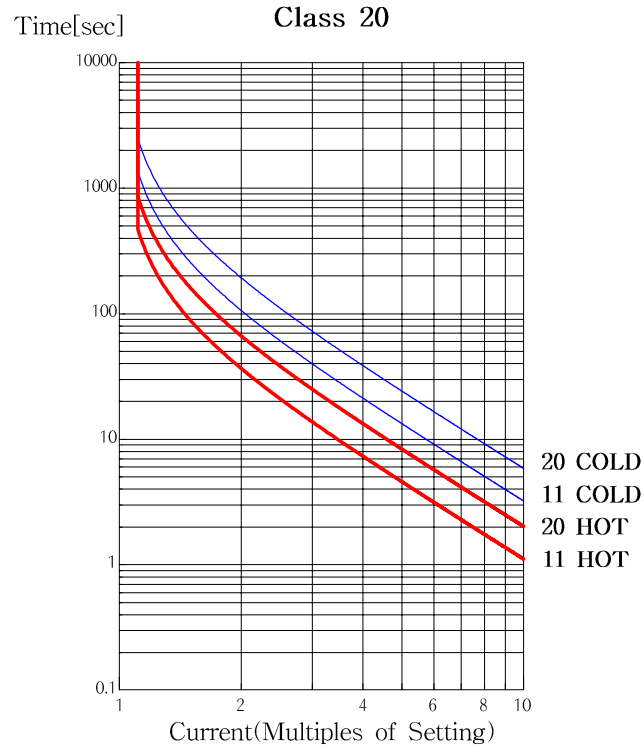
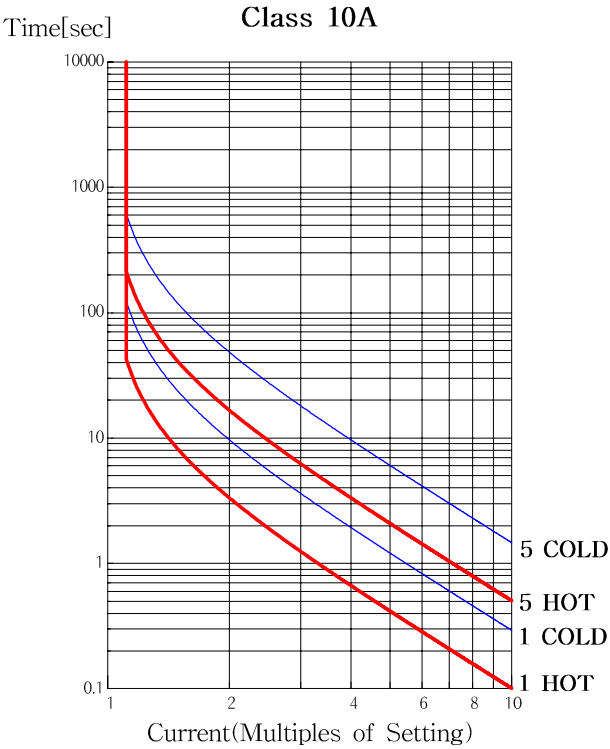
Directive & Standard	CLASS	MULTIPLE OF CURRENT (40℃)			
		A (1.0)	B(1.2)	C(1.5)	D(7.2)
IEC/EN60947-4-1	10A	2시간 이상	2시간 이내	2분 이내	2 - 10sec
	10	"	"	4분 이내	4 - 10sec
	20	"	"	8분 이내	6 - 20sec
	30	"	"	12분 이내	9 - 30sec
IEC/EN60255-3	$t(G) = TMS \bullet \left[\frac{k}{\left(\frac{G}{G_s} \right)^\alpha - 1} + c \right]$ t(G): 고장전류 G에서의 동작시간 Gs: 정정치 전류 k, c: 계전기의 특성 값 α: 계전기 시간함수의 특성계수 값 TMS: Time Multiplier Setting Time lever 곡선 Setting				
	TYPE	α		k	INVERSE
	A	0.02	α ≤ 0.5	0.14	NORMAL
	B	1	0.5 < α ≤ 1.5	13.5	VERY
	C	2	α > 1.5	80	EXTREMELY
	D	0.02	α ≤ 0.5	0.0515	
	E	2	α > 1.5	19.61	
	F	2	α > 1.5	28.2	

MOTOR PROTECTION

TIME-CURRENT TABLE	TIME-CURRENT CURVES			
	분류	α	k	
SAMWHA	COLD	2	29	
	HOT	2	10	

TIME-CURRENT CHARACTERISTICS for MOTOR PROTECTION

O-T SETTING	1 ~ 5	6 ~ 10	11 ~ 20	21 ~ 30
IEC 947-4	10A	10	20	30



TIME-CURRENT CHARACTERISTICS for MOTOR PROTECTION

TIME -CURRENT [COLD]													
전류[%] Time(class)		120	150	200	300	400	500	600	700	720	800	900	1000
1	10A	65.9	23.2	9.7	3.6	1.9	1.2	0.8	0.6	0.6	0.5	0.4	0.3
2		131.8	46.4	19.3	7.3	3.9	2.4	1.7	1.2	1.1	0.9	0.7	0.6
3		197.7	69.6	29.0	10.9	5.8	3.6	2.5	1.8	1.7	1.4	1.1	0.9
4		263.6	92.8	38.7	14.5	7.7	4.8	3.3	2.4	2.3	1.8	1.5	1.2
5		329.5	116.0	48.3	18.1	9.7	6.0	4.1	3.0	2.9	2.3	1.8	1.5
6	10	395.5	139.2	58.0	21.8	11.6	7.3	5.0	3.6	3.4	2.8	2.2	1.8
7		461.4	162.4	67.7	25.4	13.5	8.5	5.8	4.2	4.0	3.2	2.5	2.1
8		527.3	185.6	77.3	29.0	15.5	9.7	6.6	4.8	4.6	3.7	2.9	2.3
9		593.2	208.8	87.0	32.6	17.4	10.9	7.5	5.4	5.1	4.1	3.3	2.6
10		659.1	232.0	96.7	36.3	19.3	12.1	8.3	6.0	5.7	4.6	3.6	2.9
13	20	856.8	301.6	125.7	47.1	25.1	15.7	10.8	7.9	7.4	6.0	4.7	3.8
15		988.6	348.0	145.0	54.4	29.0	18.1	12.4	9.1	8.6	6.9	5.4	4.4
17		1120.5	394.4	164.3	61.6	32.9	20.5	14.1	10.3	9.7	7.8	6.2	5.0
20		1318.2	464.0	193.3	72.5	38.7	24.2	16.6	12.1	11.4	9.2	7.3	5.9
23	30	1515.9	533.6	222.3	83.4	44.5	27.8	19.1	13.9	13.1	10.6	8.3	6.7
25		1647.7	580.0	241.7	90.6	48.3	30.2	20.7	15.1	14.3	11.5	9.1	7.3
27		1779.5	626.4	261.0	97.9	52.2	32.6	22.4	16.3	15.4	12.4	9.8	7.9
30		1997.3	696.0	290.0	108.8	58.0	36.3	24.9	18.1	17.1	13.8	10.9	8.8

TIME -CURRENT [HOT]													
전류[%] Time(class)		120	150	200	300	400	500	600	700	720	800	900	1000
1	10A	22.7	8	3.3	1.3	0.7	0.4	0.3	0.2	0.2	0.2	0.1	0.1
2		45.5	16	6.7	2.5	1.3	0.8	0.6	0.4	0.4	0.3	0.3	0.2
3		68.2	24	10	3.8	2.0	1.3	0.9	0.6	0.6	0.5	0.4	0.3
4		90.9	32	13.3	5.0	2.7	1.7	1.1	0.8	0.8	0.6	0.5	0.4
5		113.6	40	16.7	6.3	3.3	2.1	1.4	1.0	1.0	0.8	0.6	0.5
6	10	136.4	48	20	7.5	4.0	2.5	1.7	1.3	1.2	1.0	0.8	0.6
7		159.1	56	23.3	8.8	4.7	2.9	2.0	1.5	1.4	1.1	0.9	0.7
8		181.8	64	26.7	10.0	5.3	3.3	2.3	1.7	1.6	1.3	1.0	0.8
9		204.5	72	30	11.3	6.0	3.8	2.6	1.9	1.8	1.4	1.1	0.9
10		227.3	80	33.3	12.5	6.7	4.2	2.9	2.1	2.0	1.6	1.3	1.0
13	20	295.5	104	43.3	16.3	8.7	5.4	3.7	2.7	2.6	2.1	1.6	1.3
15		340.0	120	50	18.8	10	6.3	4.3	3.1	3.0	2.4	1.9	1.5
17		386.4	136	56.7	21.3	11.3	7.1	4.9	3.5	3.3	2.7	2.1	1.7
20		454.5	160	66.7	25.0	13.3	8.3	5.7	4.2	3.9	3.2	2.5	2.0
23	30	522.7	184	76.7	28.8	15.3	9.6	6.6	4.8	4.5	3.7	2.9	2.3
25		568.2	200	83.3	31.3	16.7	10.4	7.1	5.2	4.9	4.0	3.1	2.5
27		613.6	216	90	33.8	18	11.3	7.7	5.6	5.3	4.3	3.4	2.7
30		681.8	240	100	37.5	20	12.5	8.6	6.3	5.9	4.8	3.8	3.0