

selection charts

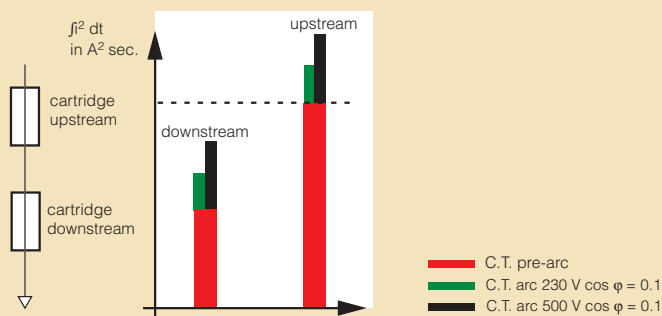
■ How to select a protection system ?

Depending on the type of failure, overload or short-circuit, use 2 series of data

① Overloads: use the operating zone curves of the different protection devices. On the same row, the operating zones should not overlap

② Short-circuits: use the I^2t tables. The total I^2t of the protection system the furthest downstream must be less than the upstream protection pre-arc I^2t

■ Example of good selection



■ Selection between cartridge fuses (according to IEC 60269-2-1)

Upstream rating gG cartridge fuse (A)	Downstream maximum rating determined according to class and voltage to obtain selection	
	aM	gG
2		
4	1	1
6	2	2
8	2	2
10	2	4
12	2	4
16	4	6
20	6	10
25	8	16
32	10	20
35	12	20
40	12	25
50	16	32
63	20	40
80	25	50
100	36	63
125	40	80
160	63	100
200	80	125
250	125	160
315	125	200
400	160	250
500	200	315
630	250	400
800	315	500
1 000	400	630
1 250	500	800

Upstream rating aM cartridge fuse (A)	Downstream maximum rating determined according to class and voltage to obtain selection	
	aM	gG
2	1	1
4	2	4
6	2	6
8	4	8
10	6	10
12	6	12
16	10	16
20	12	20
25	12	25
32	20	32
36	20	32
40	25	32
50	25	40
63	40	50
80	50	63
100	63	80
125	80	100
160	100	125
200	125	160
250	160	160
315	200	200
400	250	250
500	315	315
630	400	400
800	500	500
1 000	630	500
1 250	800	630

■ Motor protection

Motor three-phase									Cartridges																	
230 V			400 V			500 V			10 x 38 ratings		14 x 51 ratings		22 x 58 ratings		S. 00 ratings		S. 0 ratings		S. 1 ratings		S. 2 ratings		S. 3 ratings		S. 4 ratings	
kW	Hp	In A	kW	Hp	In A	kW	Hp	In A	gG	aM	gG	aM	gG	aM	gG	aM	gG	aM	gG	aM	gG	aM	gG	aM	gG	aM
			0.37	0.5	1.03	0.75	1	1.5	4	2	4	2														
0.37	0.5	1.8	0.75	1	2	1.5	2	2.6	6	4	6	4														
0.75	1	3.5	1.5	2	3.5	2.2	3	3.8	8	4	8	4														
1.1	1.5	4.4	2.2	3	5	3.7	5	5.9	12	6	12	6														
1.8	2.5	7	3	4	6.6	4	5.5	6.5	16	8	16	8	16													
2.2	3	8.7	4	5.5	8.5	5.5	7.5	9	20	10	20	10	20													
3	4	11.5	5.5	7.5	11.5	7.5	10	12	25	12	25	12	25		25											
4	5.5	14.3	7.5	10	15.5	11	15	18.4		20 ⁽¹⁾	32	20	32	20	32	20										
5.5	7.5	20	11	15	22	15	20	23		20 ⁽¹⁾	50	25	50	25	50	25										
7.5	10	27	15	20	30	18.5	25	28.5			32	50	32	50	32											
10	13.5	35	18.5	25	37	25	34	39.4			40	63	40	63	40	63										
11	15	39	22	30	44	30	40	45			50 ⁽¹⁾	80	50	80	50	80										
15	20	52	25	34	51	40	54	60				100	63	100	63	100	63									
18.5	25	64	30	40	60	45	60	65				80	125	80	125	80	125									
22	30	75	37	50	72	51	70	75				80	125	80	125	80	125									
25	35	85	45	60	85	63	109	89				100	160	100	160	100	160									
30	40	103	55	75	105	80	110	112				125 ⁽¹⁾	125	200	125	200	125	200								
45	60	147	75	100	138	110	150	156								160	250	160	250							
55	75	182	90	125	170	132	180	187										200	315	200						
75	100	239	110	150	205	160	220	220										250	400	250						
80	160	260	132	180	245	220	300	310												315						
90	125	295	160	218	300															315						
110	150	356	200	270	370	250	340	360												400						
132	180	425	250	340	475	335	450	472																500		
160	218	520	315	430	584	450	610	608																630		
220	300	710	400	550	750	500	680	680																		800

(1) 400 V max.