

## Maximum breaking current

Category AC-2: slip ring motors - breaking the starting current  
 Category AC-4: squirrel cage motors - breaking the starting current.

Contactor size			LC1/ LP1 K06	LC1/ LP1 K09	LC1/ LP1 K12	LC1 D09	LC1 D12	LC1 D18	LC1 D25	LC1 D32	LC1 D38	LC1 D40
In category AC-4 (Ie max)	Ue ≤ 440 V Ie max broken = 6 x I motor	A	36	54	54	54	72	108	150	192	192	240
	440 V < Ue ≤ 690 V Ie max broken = 6 x I motor	A	26	40	40	40	50	70	90	105	105	150

### Depending on the maximum operating rate (1) and the on-load factor, θ ≤ 60 °C (2)

From 150 and 15 % to 300 and 10 %	A	20	30	30	30	40	45	75	80	80	110
From 150 and 20 % to 600 and 10 %	A	18	27	27	27	36	40	67	70	70	96
From 150 and 30 % to 1200 and 10 %	A	16	24	24	24	30	35	56	60	60	80
From 150 and 55 % to 2400 and 10 %	A	13	19	19	19	24	30	45	50	50	62
From 150 and 85 % to 3600 and 10 %	A	10	16	16	16	21	25	40	45	45	53

(1) Do not exceed the maximum number of mechanical operating cycles.

(2) For temperatures higher than 60 °C, use a maximum operating rate value equal to 80% of the actual value when selecting from the tables.

## Plugging

The current varies from the maximum plug-braking current to the rated motor current.  
 The making current must be compatible with the rated making and breaking capacities of the contactor.

As breaking normally takes place at a current value at or near the locked rotor current, the contactor can be selected using the criteria for categories AC-2 and AC-4.

## Permissible AC-4 power rating for 200 000 operating cycles

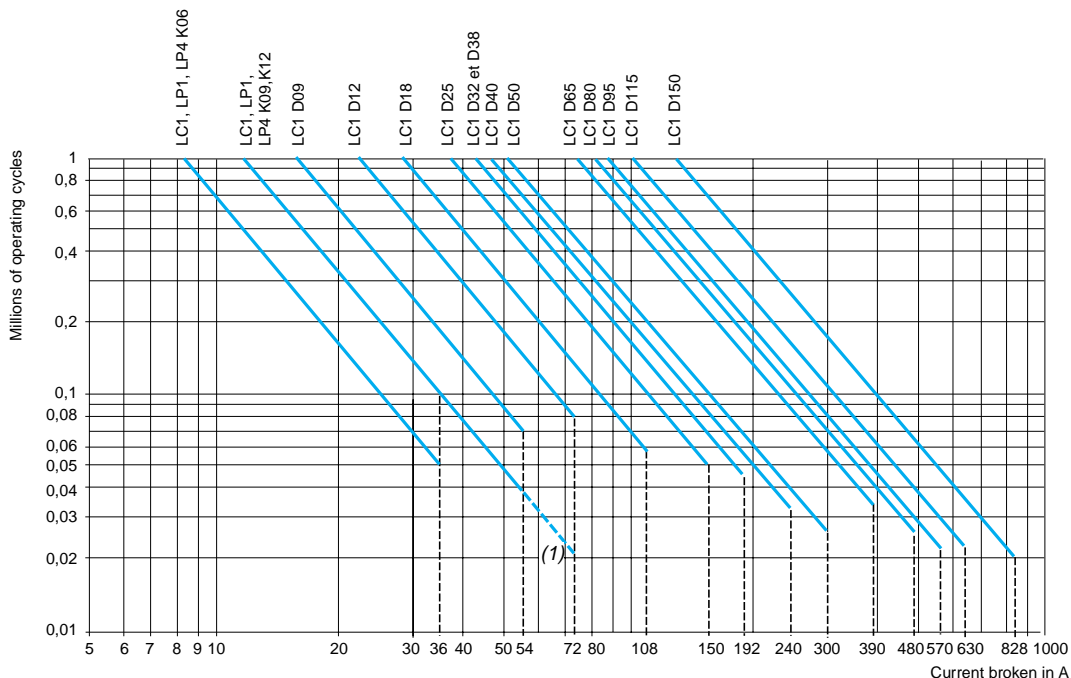
Operational voltage		LC●/ LP● K06	LC●/ LP● K09	LC● LP● K12	LC● D09	LC● D12	LC● D18	LC● D25	LC● D32	LC● D38	LC● D4
220/230 V	kW	0.75	1.1	1.1	1.5	1.5	2.2	3	4	4	4
380/400 V	kW	1.5	2.2	2.2	2.2	3.7	4	5.5	7.5	7.5	9
415 V	kW	1.5	2.2	2.2	2.2	3	3.7	5.5	7.5	7.5	9
440 V	kW	1.5	2.2	2.2	2.2	3	3.7	5.5	7.5	7.5	11
500 V	kW	2.2	3	3	3	4	5.5	7.5	9	9	11
660/690 V	kW	3	4	4	4	5.5	7.5	10	11	11	15

LC1 D50	LC1 D65	LC1 D80	LC1 D95	LC1 D115	LC1 D150	LC1 F185	LC1 F225	LC1 F26	LC1 F330	LC1 F40	LC1 F500	LC1 F630	LC1 F780	LC1 F800	LC1 BL	LC1 BM	LC1 BP	LC1 BR
300	390	480	570	630	830	1020	1230	1470	1800	2220	2760	3360	4260	3690	4320	5000	7500	9000
170	210	250	250	540	640	708	810	1020	1410	1830	2130	2760	2910	2910	4000	4800	5400	6600
140	160	200	200	280	310	380	420	560	670	780	1100	1400	1600	1600	2250	3000	4500	5400
120	148	170	170	250	280	350	400	500	600	700	950	1250	1400	1400	2000	2400	3750	5000
100	132	145	145	215	240	300	330	400	500	600	750	950	1100	1100	1500	2000	3000	3600
80	110	120	120	150	170	240	270	320	390	450	600	720	820	820	1000	1500	2000	2500
70	90	100	100	125	145	170	190	230	290	350	500	660	710	710	750	1000	1500	1800

LC● D50	LC● D65	LC● D80	LC● D95	LC1 D115	LC1 D150	LC1 F185	LC1 F225	LC1 F265	LC1 F330	LC1 F400	LC1 F500	LC1 F630	LC1 F780	LC1 F800	LC1 BL	LC1 BM	LC1 BP	LC1 BR
5.5	7.5	7.5	9	9	11	18.5	22	28	33	40	45	55	63	63	90	110	150	200
11	11	15	15	18.5	22	33	40	51	59	75	80	100	110	110	160	160	220	250
11	11	15	15	18.5	22	37	45	55	63	80	90	100	110	110	160	160	250	280
11	15	15	15	18.5	22	37	45	59	63	80	100	110	132	132	160	200	250	315
15	18.5	22	22	30	37	45	55	63	75	90	110	132	150	150	180	200	250	355
18.5	22	25	25	30	45	63	75	90	110	129	140	160	185	185	200	250	315	450

**Selection according to required electrical durability, use in categories AC-2 or AC-4 ( $U_e \leq 440$  V)**

Control of 3-phase asynchronous squirrel cage motors (AC-4) or slip ring motors (AC-2) with breaking whilst motor stalled.  
 The current broken ( $I_c$ ) in AC-2 is equal to  $2.5 \times I_e$ .  
 The current broken ( $I_c$ ) in AC-4 is equal to  $6 \times I_e$ . ( $I_e$  = rated operational current of the motor).



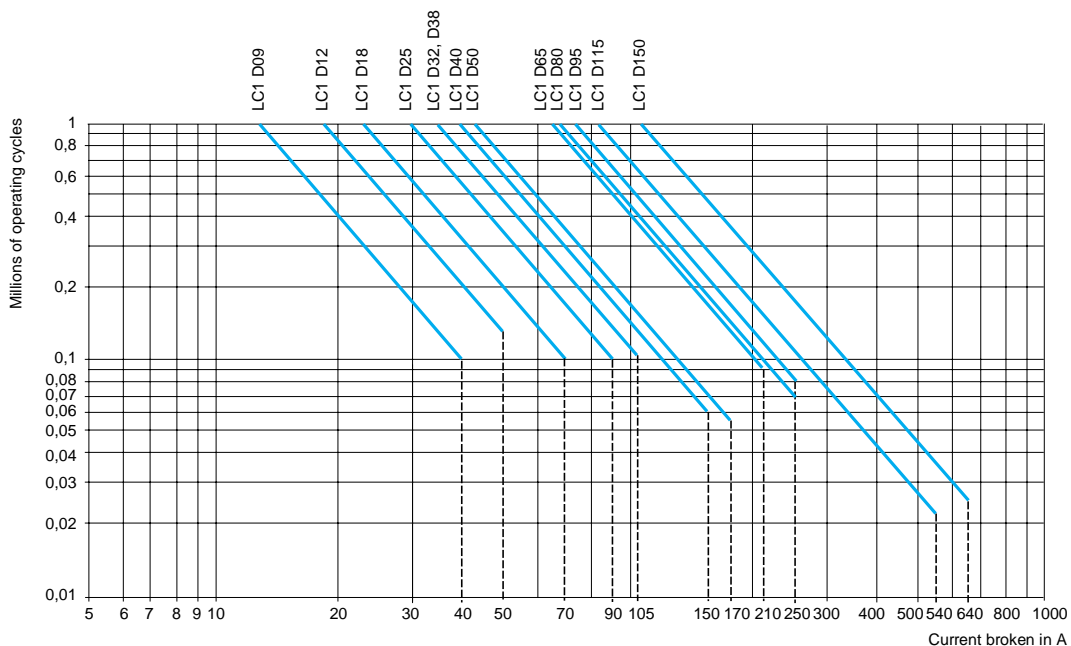
**Example:**

- Asynchronous motor with  $P = 5.5$  kW -  $U_e = 400$  V -  $I_e = 11$  A.  $I_c = 6 \times I_e = 66$  A
- or asynchronous motor with  $P = 5.5$  kW -  $U_e = 415$  V -  $I_e = 11$  A.  $I_c = 6 \times I_e = 66$  A.
- 200 000 operating cycles required.
- The above selection curves show the contactor rating needed: LC1 D25.

(1) The dotted lines are only applicable to LC1, LP1 K12 contactors.

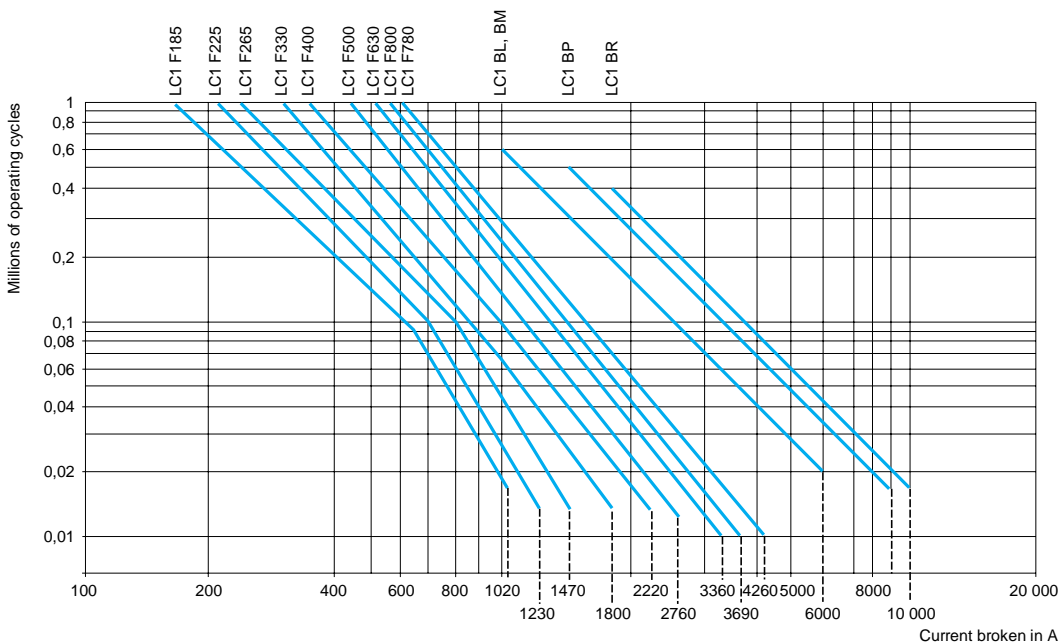
**Selection according to required electrical durability, use in category AC-4 ( $440$  V <  $U_e \leq 690$  V)**

Control of 3-phase asynchronous squirrel cage motors with breaking whilst motor stalled.  
 The current broken ( $I_c$ ) in AC-2 is equal to  $2.5 \times I_e$ .  
 The current broken ( $I_c$ ) in AC-4 is equal to  $6 \times I_e$ . ( $I_e$  = rated operational current of the motor).



**Selection according to required electrical durability, use in categories AC-2 or AC-4 ( $U_e \leq 440$  V)**

Control of 3-phase asynchronous squirrel cage motors (AC-4) or slip ring motors (AC-2) with breaking whilst motor stalled.  
 The current broken ( $I_c$ ) in AC-4 is equal to  $6 \times I_e$ .  
 ( $I_e$  = rated operational current of the motor).



**Example:**

- Asynchronous motor with  $P = 90$  kW -  $U_e = 380$  V -  $I_e = 170$  A.  $I_c = 6 \times I_e = 1020$  A or asynchronous motor with  $P = 90$  kW -  $U_e = 415$  V -  $I_e = 165$  A.  $I_c = 6 \times I_e = 990$  A.
- 60 000 operating cycles required.
- The above selection curves show the contactor rating needed: LC1 F265.

**Selection according to required electrical durability, use in category AC-4 ( $440$  V <  $U_e \leq 690$  V)**

Control of 3-phase asynchronous squirrel cage motors with breaking whilst motor stalled.  
 The current broken ( $I_c$ ) in AC-4 is equal to  $6 \times I_e$ .  
 ( $I_e$  = rated operational current of the motor).

