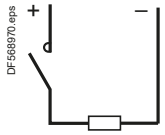
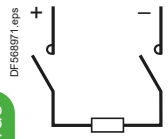
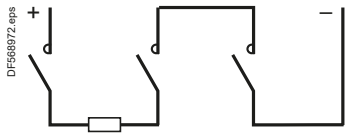


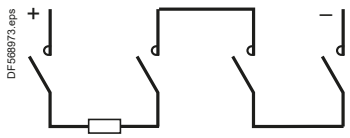
1 pole



2 poles



3 poles



4 poles

Coordination and standards

Rated operational current (Ie) in Amperes, in utilisation category DC-1, resistive loads: time constant $\frac{L}{R}$ ≤ 1 ms, ambient temperature ≤ 60 °C

Rated operational voltage Ue	No. of poles connected in series	Contactor rating								
		LC1 D09	LC1 DT20	LC1 D12 DT25	LC1 D18 DT32	LC1 D25 DT40	LC1 D32	LC1 D38	LC1 D40A	LC1 DT60A
V										
24	1	20	20	20	25	32	40	40	50	50
	2	20	20	20	25	32	40	40	50	50
	3	20	20	20	25	32	40	40	50	50
	4	–	20	20	25	32	–	–	–	50
48/75	1	20	20	20	25	32	40	40	50	50
	2	20	20	20	25	32	40	40	50	50
	3	20	20	20	25	32	40	40	50	50
	4	–	20	20	25	32	–	–	–	50
125	1	4	4	4	4	7	7	7	7	7
	2	20	20	20	25	32	40	40	50	50
	3	20	20	20	25	32	40	40	50	50
	4	–	20	20	25	32	–	–	–	50
250	1	1	1	1	1	1	1	1	1	1
	2	4	4	4	4	7	7	7	7	7
	3	20	20	20	25	32	40	40	50	50
	4	–	20	20	25	32	–	–	–	50
300	1	–	–	–	–	–	–	–	–	–
	2	–	–	–	–	–	–	–	–	–
	3	4	4	4	4	7	7	7	7	–
	4	–	20	20	25	32	–	–	–	50
460	1	–	–	–	–	–	–	–	–	–
	2	–	–	–	–	–	–	–	–	–
	3	–	–	–	–	–	–	–	–	–
	4	–	–	–	–	–	–	–	–	–

Rated operational current (Ie) in Amperes, in utilisation category DC-2 to DC-5, inductive loads: time constant $\frac{L}{R}$ ≤ 15 ms, ambient temperature ≤ 60 °C

Rated operational voltage Ue	No. of poles connected in series	Contactor rating								
		LC1 D09	LC1 DT20	LC1 D12 DT25	LC1 D18 DT32	LC1 D25 DT40	LC1 D32	LC1 D38	LC1 D40A	LC1 DT60A
V										
24	1	20	20	20	25	32	40	40	50	50
	2	20	20	20	25	32	40	40	50	50
	3	20	20	20	25	32	40	40	50	50
	4	–	20	20	25	32	–	–	–	50
48/75	1	20	20	20	25	32	40	40	50	50
	2	20	20	20	25	32	40	40	50	50
	3	20	20	20	25	32	40	40	50	50
	4	–	20	20	25	32	–	–	–	50
125	1	2	2	2	2	3	3	3	4	4
	2	20	20	20	25	32	40	40	50	50
	3	20	20	20	25	32	40	40	50	50
	4	–	20	20	25	32	–	–	–	50
250	1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1	1
	2	2	2	2	2	3	3	3	4	4
	3	8	8	8	8	32	40	40	50	50
	4	–	20	20	25	32	–	–	–	50
300	1									
	2									
	3	2	2	2	2	3	3	3	3	3
	4	–	8	8	8	32	–	–	–	50
460	1	–	–	–	–	–	–	–	–	–
	2									
	3									
	4	–	–	–	–	–	–	–	–	–

Contactor rating																	
LC1 D50A	**LC1 D65A D80A**	**LC1 DT80A**	**LC1 D80**	**LC1 D95**	**LC1 D115**	**LC1 D150**	**LC1 G115**	**LC1 G150**	**LC1 G185**	**LC1 G225**	**LC1 G265**	**LC1 G330**	**LC1 G400**	**LC1 G500**	**LC1 G630**	**LC1 G800**	**LC1 F780**
65	65	65	100	100	200	200	225	250	275	300	350	400	500	600	950	950	1300
65	65	65	100	100	200	200	225	250	275	300	350	400	500	600	950	950	1300
65	65	65	100	100	200	200	225	250	275	300	350	400	500	600	950	950	1300
–	–	65	100	–	200	–	225	250	275	300	350	400	500	600	950	950	1300
65	65	65	100	100	200	200	225	250	275	300	350	400	500	600	950	950	1300
65	65	65	100	100	200	200	225	250	275	300	350	400	500	600	950	950	1300
65	65	65	100	100	200	200	225	250	275	300	350	400	500	600	950	950	1300
–	–	65	100	–	200	–	225	250	275	300	350	400	500	600	950	950	1300
7	7	7	12	12	12	12	205	225	250	270	315	360	450	540	855	855	1180
65	65	65	100	100	200	200	205	225	250	270	315	360	450	540	855	855	1180
65	65	65	100	100	200	200	225	250	275	300	355	405	505	605	960	960	1300
–	–	65	100	–	200	–	225	250	275	300	355	405	505	605	960	960	1300
1	1.5	1.5	2	2	10	10	–	–	–	–	–	–	–	–	–	–	–
7	7	7	12	12	200	200	180	205	225	245	285	325	405	485	770	770	1000
65	65	65	100	100	200	200	225	250	275	300	350	400	500	600	950	950	1300
–	–	65	100	–	200	–	225	250	275	300	350	400	500	600	945	945	1300
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
7	7	7	12	12	200	200	185	205	225	250	290	330	415	495	785	785	1000
–	–	65	100	–	200	–	225	250	275	300	350	400	500	600	950	950	1000
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	200	–	185	205	225	245	285	325	410	490	775	775	1000

Contactor rating																	
LC1 D50A	**LC1 D65A D80A**	**LC1 DT80A**	**LC1 D80**	**LC1 D95**	**LC1 D115**	**LC1 D150**	**LC1 G115**	**LC1 G150**	**LC1 G185**	**LC1 G225**	**LC1 G265**	**LC1 G330**	**LC1 G400**	**LC1 G500**	**LC1 G630**	**LC1 G800**	**LC1 F780**
65	65	65	100	100	200	200	225	250	275	300	350	400	500	600	950	950	1300
65	65	65	100	100	200	200	225	250	275	300	350	400	500	600	950	950	1300
65	65	65	100	100	200	200	225	250	275	300	350	400	500	600	950	950	1300
–	–	65	100	–	200	–	225	250	275	300	350	400	500	600	950	950	1300
65	65	65	100	100	200	200	225	250	275	300	350	400	500	600	950	950	1300
65	65	65	100	100	200	200	225	250	275	300	350	400	500	600	950	950	1300
65	65	65	100	100	200	200	225	250	275	300	350	400	500	600	950	950	1300
–	–	65	100	–	200	–	225	250	275	300	350	400	500	600	950	950	1300
4	4	4	5	5	10	10	-	-	-	-	-	-	-	-	-	-	–
65	65	65	100	100	200	200	190	210	230	250	290	335	420	500	795	795	1000
65	65	65	100	100	200	200	205	230	255	275	325	370	460	555	875	875	1000
–	–	65	100	–	200	–	205	230	255	275	325	370	460	555	875	875	1000
1	1.5	1.5	1	1	3	3	–	–	–	–	–	–	–	–	–	–	–
4	4	4	5	5	200	200	175	190	210	230	270	305	385	460	730	730	900
65	65	65	100	100	200	200	185	210	230	250	290	335	415	500	790	790	1000
–	–	65	100	–	200	–	225	250	275	300	355	405	505	605	960	960	1000
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
3	3	3	5	5	200	200	175	195	210	230	270	310	385	465	730	730	900
–	–	65	100	–	200	–	225	250	275	300	350	400	500	600	950	950	1000
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	200	–	175	190	210	230	270	310	385	460	730	730	800

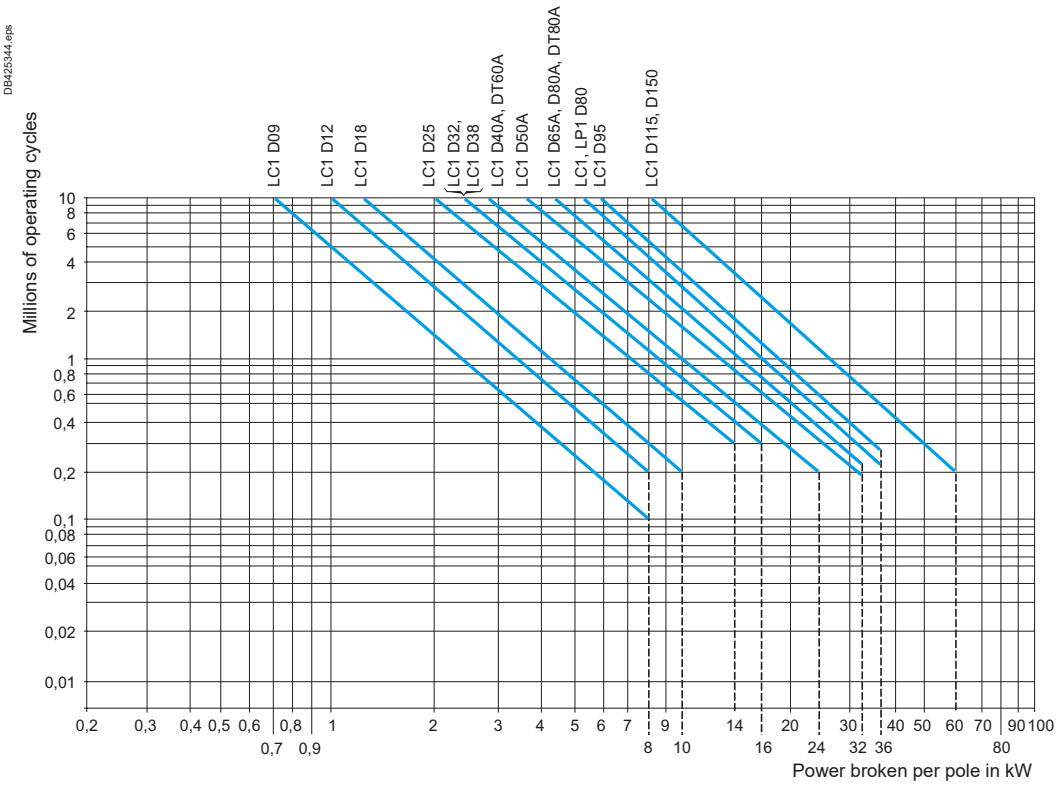
Selection according to required electrical durability, use in categories DC-1 to DC-5

The criteria for contactor selection are:
- the rated operational current Ie
- the rated operational voltage Ue
- the utilisation category and the time constant L/R
- the required electrical durability.

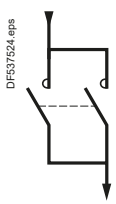
Maximum operating rate (operating cycles)

The following limits must not be exceeded: 120 operating cycles/hour at rated operational current Ie.

Electrical durability



Example
Series wound motor - P = 1.5 kW - Ue = 200 V - Ie = 7.5 A.
Utilisation: reversing, inching.
- Utilisation category = DC-5.
- Select contactor LC1D09 with 3 poles in series.
- The power broken is: Pc total = 2.5 x 200 x 7.5 = 3.75 kW.
- The power broken per pole is: 1.25 kW.
- The electrical durability read from the curve is ⩾ 3 millions of operating cycles.



Use of poles in parallel

Electrical durability can be increased by using poles connected in parallel.

With N poles connected in parallel, the electrical durability becomes: electrical durability read from the curves x N x 0.7.

Note:
When the poles are connected in parallel, the maximum operational currents indicated on pages A5/64 and A5/65 must not be exceeded.

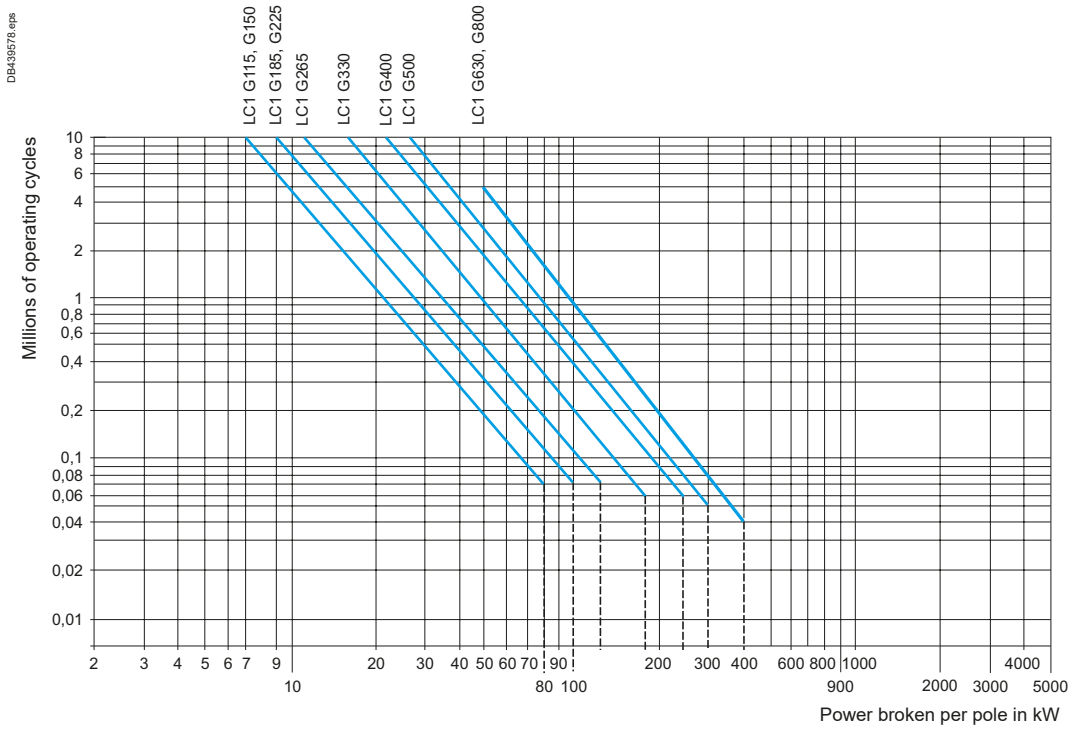
Note:
Ensure that the connections are made in such a way as to equalise the currents in each pole.

Selection according to required electrical durability, use in categories DC-1 to DC-5

Determining the electrical durability

The electrical durability can be read directly from the curves below, having previously calculated the power broken as follows:
P broken = U broken x I broken.
The tables below give the values of Uc and Ic for the various utilisation categories.

Power broken			
Utilisation categories	**U broken**	**I broken**	**P broken**
DC-1 Non inductive or slightly inductive loads	Ue	Ie	Ue x Ie
DC-2 Shunt wound motors, breaking whilst motor running	0.1 Ue	Ie	0.1 Ue x Ie
DC-3 Shunt wound motors, reversing, inching	Ue	2.5 Ie	Ue x 2.5 Ie
DC-4 Series wound motors, breaking whilst motor running	0.3 Ue	Ie	0.3 Ue x Ie
DC-5 Series wound motors, reversing, inching	Ue	2.5 Ie	Ue x 2.5 Ie



Example
Series wound motor: P = 40 kW - Ue = 200 V - Ie = 200 A.
Utilisation: reversing, inching.

- Utilisation category = DC-5.
- Select contactor LC1G150 with 2 poles in series.
- The power broken is: Pc total = 2.5 x 200 x 200 = 100 kW.
- The power broken per pole is 50 kW.
- The electrical durability read from the curve is 500000 operating cycles.