

LS-K CONTACTORS FROM LS 75K TO LS 160K INTERNATIONAL RATINGS



Type	LS 75K		LS 90K		LS 110K		LS 132K		LS 160K	
Style	3 pole		3 pole	4 pole	3 pole		3 pole	4 pole	3 pole	4 pole
Rated insulation voltage U_i			Pollution degree 3							
	V	1000	1000		1000		1000		1000	
Rated impulse voltage U_{imp}			8		8		8		8	
Mechanical endurance										
AC - operation	Operations	Mil	10	10	10	10	10	10	10	10
	Operations	Per/H	1200	1200	1200	1200	1200	1200	1200	1200
Utilization category AC-1			Rated power values at resistive load							
Rated power value P_N	3~230 V	kW	90	90	123	114	114	152	170	191
	3~400 V	kW	155	155	214	196	196	263	310	329
	3~500 V	kW	200	200	281	259	259	346	389	415
	3~690 V	kW	270	270	371	341	341	457	537	572
	3~1000V	kW	400	400	562	517	517	692	780	866
Rated current I_e up to 690 V		Amps	250	250	325	315	315	400	450	500
Minimum wire cross-section under rated load I_e		mm ²	120	120	185	185	185	2X(25X5)	2X(30X5)	2X(25X5)
Admissible practical operation frequency		ops/h	600	600	600	600	600	600	600	600
Rated current at 1000 ops/h		A	200	200	260	252	252	320	382	425
Utilization category AC-3			Rated power values of AC induction type motors							
Rated power value P_N	3~230 V	kW	45	55	65	75	75	90	90	90
	3~400 V	kW	75	90	110	132	132	160	160	160
	3~415/440 V	kW	80	100	125	132	132	185	185	185
	3~500 V	kW	100	110	132	160	160	200	200	200
	3~690 V	kW	100	132	155	200	200	250	250	250
	3~1000V	kW	65	100	110	150	150	200	200	200
Rated current I_e up to 440 V		Amps	150	185	205	250	250	309	309	309
Admiss. switching freq. at P_N and cont. cycling		ops/h	600	600	600	600	600	600	600	600
Utilization category AC-4			Rated power values of AC induction type motors (High Switching, Plugging)							
Rated power value in P_N	3~230 V	kW	18,5	22	25	33	33	37	37	37
	3~400 V	kW	33	40	45	55	55	63	63	63
	3~500 V	kW	45	50	63	75	75	90	90	90
	3~690 V	kW	55	63	80	100	100	110	110	110
Rated current I_e with practical electrical endurance up to	3~690 V	Amps	65	75	90	110	110	125	125	125
Admissible switching frequency	3~400 V	kW	75	90	110	132	132	160	160	160
Maximum permissible load P_N	3~400 V	A	150	185	205	250	250	309	309	309
Utilization category AC-6b			Rated power values of AC capacitors (minimum inductance between parallel connected capacitors 6 μ H)							
Single / Parallel operation	3~230 V	kvar	54	63	72	85	85	94	94	94
	3~400 V	kvar	100	112	135	148	148	171	171	171
DC-switching Rated current I_e			3 contacts connected in series (all DC-motors $L/R \leq 15$ ms)							
DC-1 (resistive load)	24 ... 220 V / I_e	A	250	250	315	315	315	500	500	500
DC-3 / DC-5	24 ... 110 V / I_e	A	150/95	185/105	205/150	205/185	205/185	309/205	309/205	309/205
Admissible switching frequency (DC-1 ... DC-5)			50	50	50	50	50	50	50	50
Short Circuit protection of main contacts¹⁾			Maximum permissible fuse (operating category gL)							
Coordination type »2«			250	250	400	315	315	500	500	500
no welding			160	200	250	250	250	315	315	315
Operating coil for AC-operation			Standard coil, power consumption at 50 Hz 1,0 U_s							
Operating range 0,8 ... 1,1 U_s	Pick-up P_{AS}	VA	400	400	830	425	750	425	750	750
	cos ϕ		0,6	0,6	-	0,6	-	-	-	-
	Holding P_{HS}	VA	32	32	60	20	25	20	25	25
	cos ϕ		0,4	0,4	-	0,37	-	-	-	-
Operating coil for DC-operation			Standard coil, power consumption at 1,0 U_s							
Operating range 0,8 ... 1,1 U_s	Pick-up P_A	W	135	135	650	350	650	350	650	650
	Holding P_H	W	3	3,5	4,5	3,5	3,5	3,5	3,5	4,5
Switching items at AC-operation			Standard coil, power consumption at 1,0 U_s							
Making delay	ms		20 ... 25	20...25	70...80	36 ... 40	60...70	70...80	60...70	70...80
Drop-out delay	ms		10 ... 13	10...13	70...80	10 ... 15	13...17	70...80	60...70	70...80
Switching items at DC-operation			Standard coil, power consumption at 1,0 U_s							
Making delay	ms		60 ... 70	60...70	70...80	60 ... 70	60...70	70...80	60...70	70...80
Drop-out delay	ms		13 ... 17	13...17	70...80	13 ... 17	13...17	70...80	60...70	70...80
Dimensions										
Without auxiliary contacts	Width mm		135	135	253	173	173	253	173	253
LS 75 ... LS 450K with .22	Height mm		178	178	270	212	212	270	212	270
	Depth mm		165.5	165.5	246	208	208	246	208	246

1) According to VDE 0660 part 102 / IEC 947 -4-1 coordination type permit the following damages:

»2« Slight welding of contacts that can easily be opened, is admitted but no further damages.

For technical specifications or larger K contactors through LS450K (1250A), request from factory.