

LS-K CONTACTORS FROM LS 22K TO LS 55K INTERNATIONAL RATINGS



Type	LS 22K		LS 30K		LS 37K		LS 45K		LS 55K
Style	3 pole		3 pole	4 pole	3 pole	4 pole	3 pole	4 pole	3 pole
Rated insulation voltage U_i			Pollution degree 3						
	V	1000	1000		1000		1000		1000
Rated impulse voltage U_{imp}			8						
Mechanical endurance									
AC - operation	Operations	Mil	15	15	15	15	15	15	15
DC - operation	Operations	Mil	15	15	15	15	15	15	15
Utilization category AC-1			Rated power values at resistive load						
Rated power value P_N	3~230 V	kW	30	42	42	53	53		53
	3~400 V	kW	55	72,5	72,5	92	92		92
	3~500 V	kW	69	95	95	121	121		121
	3~690 V	kW	95	125	125	160	160		160
Rated current I_e up to 690 V	Amps	90	110	110	140	140		140	
Minimum wire cross-section under rated load I_e	mm ²	35	35	35	50	50		50	
Admissible practical operation frequency	ops/h	1200	1200	1200	1200	1200		1200	
Rated current at 1000 ops/h	A	90	110	110	112	112		112	
Utilization category AC-3			Rated power values of AC induction type motors						
Rated power value P_N	3~230 V	kW	15	18,5	22	25	30		30
	3~400 V	kW	22	30	37	45	55		55
	3~415 V	kW	25	37	45	50	55		55
	3~500 V	kW	30	40	45	55	65		65
	3~690 V	kW	35	45	45	55	65		65
Rated current I_e up to 440 V	Amps	50	65	80	95	105		105	
Admiss. switching freq. at P_N and cont. cycling	ops/h	1200	1200	1200	1200	1200		1200	
Utilization category AC-4			Rated power values of AC induction type motors						
Rated power value in P_N	3~230 V	kW	5,5	7,5	10	11	13		13
	3~400 V	kW	11	15	18,5	22	25		25
	3~500 V	kW	15	18,5	22	25	30		30
	3~690 V	kW	18,5	22	25	30	37		37
Rated current I_e with practical electrical endurance up to	3~440 V	Amps	23	30	37	44	50		50
Admissible switching frequency	ops/h	200	200	200	200	200		200	
Maximum permissible load P_N	3~400 V	kW	22	30	37	45	55		55
	3~400 V	A	50	65	80	95	105		105
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	17/17	21/21	24/24	28/28	30/30		30/30
	3~400 V	kvar	30/30	38/38	40/40	50/50	60/50		60/50
	3~525 V	kvar	35/35	50/50	50/50	50/50	80/66		80/66
	3~690 V	kvar	40/30	40/40	40/40	40/40	60/50		60/50
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	90	110	110	140	140		140
DC-3 / DC-5	24 ... 110 V / I_e	A	60	70	70	95	95		95
Admissible switching frequency (DC-1 ... DC-5)			50	50	50	50	50		50
Short Circuit protection of main contacts¹⁾			Maximum permissible fuse (operating category gL)						
Coordination type »2« no welding			100	125	125	200	200		200
			80	100	100	160	160		160
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	191	191	191	191	191		191
		cos ϕ	0,54	0,54	0,54	0,54	0,54		0,54
	Holding P_{HS}	VA	17	17	17	17	17		17
		cos ϕ	0,26	0,26	0,26	0,26	0,26		0,26
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	197	197	197	197	197		197
	Holding P_H	W	2,6	2,6	2,6	2,6	2,6		2,6
Switching items at AC-operation			Standard coil, power consumption at 1,0 U_s						
Making delay	ms	9 ... 35	9 ... 35	9 ... 35	9 ... 35	9 ... 35	9 ... 35		9 ... 35
Drop-out delay	ms	9 ... 15	9 ... 15	9 ... 15	9 ... 15	9 ... 15	9 ... 15		9 ... 15
Switching items at DC-operation			Standard coil, power consumption at 1,0 U_s						
Making delay	ms	15 ... 40	15 ... 40	15 ... 40	15 ... 40	15 ... 40	15 ... 40		15 ... 40
Drop-out delay	ms	9 ... 15	9 ... 15	9 ... 15	9 ... 15	9 ... 15	9 ... 15		9 ... 15

1) According to VDE 0660 part 102 / IEC 947 -4-1 coordination type permit the following damages: **For technical specifications or larger K contactors through LS450K (1250A), request from factory.**
 »2« Slight welding of contacts that can easily be opened, is admitted but no further damages.