

LS-K CONTACTORS FROM LS 220K TO LS 450K INTERNATIONAL RATINGS

Type			LS 220K		LS 280K		LS 375K		LS 450K	
Style			3 pole	4 pole	3 pole	4 pole	3 pole		3 pole	4 pole
Rated insulation voltage U_{imp}			V	1000	1000		1000		1000	
Rated impulse voltage U_{imp}			kV	-	-		-		-	
Mechanical endurance										
AC/DC	Operations	Mil	10	10	10		10		3	
	Operations	Per/H	1200	1200	1200		900		600	
Utilization category AC-1			Rated power values at resistive load							
Rated power value P_N	3~230 V	kW	228	266	381		476			
	3~400 V	kW	395	460	658		822			
	3~500 V	kW	519	606	866		1082			
	3~690 V	kW	686	800	1143		1428			
	3~1000V	kW	1039	1212	1732		2165			
Rated current I_e up to 690 V		Amps	600	700	1000		1250			
Minimum wire cross-section under rated load I_e		mm ²	2X(30X8)	2X(30X10) 2X(40X10)						
Admissible practical operation frequency		ops/h	300	300	300		120			
Rated current at 1000 ops/h		A	510	546	736		1125			
Utilization category AC-3			Rated power values of AC induction type motors							
Rated power value P_N	3~230 V	kW	125	160	220		250			
	3~400 V	kW	220	280	375		450			
	3~415/440 V	kW	230	315	400		450			
	3~500 V	kW	300	400	480		500			
	3~690 V	kW	375	450	500		550			
Rated current I_e up to 440 V		Amps	420	550	700		825			
Admiss. switching freq. at P_N and cont. cycling		ops/h	300	300	300		120			
Utilization category AC-4			Rated power values of AC induction motors (high switching, plugging duty)							
Rated power value in P_N	3~230 V	kW	45	50	80		110			
	3~400 V	kW	80	90	132		165			
	3~500 V	kW	100	110	225		250			
	3~690 V	kW	132	150	250		315			
	3~1000 V	kW	150	165	250		350			
Rated current I_e with practical element endurance up to		Amps	150	165	250		350			
Admissible switching frequency		Ops/h	150	150	120		120			
Admissible switching frequency		kW	220	280	375		450			
Maximum permissible load P_N		A	420	550	700		825			
Utilization category AC-6b			Rated values of AC capacitors (minimum inductance between parallel connected capacitors 6 µH)							
Single / Parallel operation	3~230 V	kvar	121	171	225		283			
	3~400 V	kvar	234	292	360		472			
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	600	700	1000		1250			
DC-3 / DC-5		24 ... 110 V I_e A	420/250	550/300	700/400		825/700			
Admissible switching frequency (DC-1 ... DC-5)			50	50	50		50			
Short Circuit protection of main contacts ¹⁾			Maximum permissible fuse (operating category gL)							
Coordination type »2« no welding			630	800	1000		1250			
			400	500	630		1000			
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	680	680	750		2760			
		cos Ø	-	-	-		-			
	Holding P_{hS}	VA	23	23	25		6			
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	600	600	600					
	Holding P_H	W	4	4	4,5					
Switching items at AC-operation			Standard coil, power consumption at 1,0 U_s							
Making delay		ms	80 ... 90	80 ... 90	70 ... 80		50 ... 55			
Drop-out delay		ms	40 ... 50	40 ... 50	70 ... 80		115 ... 130			
Switching items at DC-operation			Standard coil, power consumption at 1,0 U_s							
Making delay		ms	80 ... 90	80 ... 90			-			
Drop-out delay		ms	40 ... 50	40 ... 50			-			
Dimensions										
Without auxiliary contacts LS 75 ... LS 450K with .22	Width mm		160 214	160 214	253		312		464 581	
	Height mm		220	220	270		265		380	
	Depth mm		228	228	262		304		327	

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.