

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	Mill	10		10	10	10		3	
	Operations	Per/H	1200		1200	900		600		
Utilization category AC-1			Rated power values at resistive load							
Rated power value P_N	3~230V	kW	228	266	381	476				
	3~400V	kW	395	460	658	822				
	3~500V	kW	519	606	866	1082				
	3~690V	kW	686	800	1143	1428				
	3~1000V	kW	1039	1212	1732	2165				
Rated current I_e up to 690V		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		opsh	300		300	300		120		
Rated current at 1000 opsh		A	510		546	736		1125		
Utilization category AC-3			Rated power values of AC induction type motors							
Rated power value P_N	3~230V	kW	125	160	220	250				
	3~400V	kW	220	280	375	450				
	3~415/440V	kW	230	315	400	450				
	3~500V	kW	300	400	480	500				
	3~690V	kW	375	450	500	550				
	3~1000V	kW	300	375	450	500				
Rated current I_e up to 440V		Amps	420	550	700	825				
Admiss. switching freq. at P_N and cont. cycling		opsh	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	3~230V	kW	45	50	80	110				
	3~400V	kW	80	90	132	165				
	3~500V	kW	100	110	225	250				
	3~690V	kW	132	150	250	315				
	3~1000V	kW	150	165	250	350				
Rated current I_e with practical element endurance up to		Amps	150	165	250	350				
Admissible switching frequency		Opsh	150		120	120				
Maximum permissible load P_N		kW	220		280	375		450		
		A	420		550	700		825		
Utilization category AC-6b			Rated values of AC capacitors (minimum inductance between parallel connected capacitors 6 μ H)							
Single / Parallel operation	3~230V	kvar	121	171	225	283				
	3~400V	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 contacts¹⁾			Maximum permissible fuse (operating category gL)							
Coordination type »2«			630	800	1000	1250				
no welding			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 \emptyset	-	-	-	-				
	Holding P_{HS}	VA	23	23	25	6				
cos \emptyset		-	-	-	-					
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		Width mm	160 214	160 214	253	312	464 581			
LS 75 ... LS 450K with .22		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.