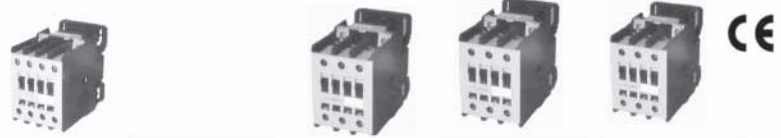


LS-K CONTACTORS FROM LS 4K TO LS 18K INTERNATIONAL RATINGS



Type	LS 4K		LS 5K		LS 7K		LS 11K		LS 15K		LS 18K	
Style	3 pole		3 pole	4 pole	3 pole	4 pole	3 pole	4 pole	3 pole	4 pole	3 pole	4 pole
Rated insulation voltage U_i												
Pollution degree 3												
V 1000												
kV 6												
Rated impulse voltage U_{imp}												
kV 6												
Mechanical endurance												
AC - operation Operations Mill 15												
DC - operation Operations Mill 15												
Utilization category AC-1												
Rated power values at resistive load												
Rated power value P_N 3~230 V kW 9,5												
3~400 V kW 16,5												
3~500 V kW 21,5												
3~690 V kW 28,5												
Rated current I_e up to 690 V Amps 25												
Minimum wire cross-section under rated load I_e mm ² 4												
Admissible practical operation frequency opsh 1200												
Rated current at 1000 opsh A 25												
Utilization category AC-3												
Rated power values of AC induction type motors												
Rated power value P_N 3~230 V kW 2,2												
3~400 V kW 4												
3~415 V kW 4												
3~500 V kW 5,5												
3~690 V kW 5,5												
Rated current I_e up to 440 V Amps 9												
Admiss. switching freq. at P_N and cont. cycling opsh 1200												
Utilization category AC-4												
Rated power values of AC induction type motors												
Rated power value P_N 3~230 V kW 1,1												
3~400 V kW 2,2												
3~500 V kW 3												
3~690 V kW 4												
Rated current I_e with practical electrical endurance up to 3~440 V Amps 5												
Admissible switching frequency opsh 360												
Maximum permissible load P_N 3~400 V kW 4												
I_e 3~400 V A 9												
Utilization category AC-6b												
Rated power values of AC capacitors (minimum inductance between parallel connected capacitors 6 µH)												
Single / Parallel operation 3~230 V kvar 2,5/2,5												
3~400 V kvar 4 /4												
3~525 V kvar 4 /4												
3~690 V kvar 4 /4												
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 25												
DC-3 / DC-5 24 ... 110 V I_e A 15												
Admissible switching frequency (DC-1 ... DC-5) opsh 50												
Short Circuit protection of main contacts ¹⁾												
Maximum permissible fuse (operating category gL)												
Coordination type »2« no welding 25												
10												
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 45												
cos \emptyset 0,82												
Holding P_{HS} VA 6												
cos \emptyset 0,34												
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 5,5												
Holding P_H W 5,5												
Switching items at AC-operation												
Standard coil, power consumption at 1,0 U_s												
Making delay ms 6 ... 25												
Drop-out delay ms 6 ... 13												
Switching items at DC-operation												
Standard coil, power consumption at 1,0 U_s												
Making delay ms 35 ... 65												
Drop-out delay ms 30 ... 60												

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.

2) Minimum inductance between parallel connected capacitor 20 µH