IEC Technical data
AL9 — AL40

Main Pole - Utilization Characteristics

Contactor types:		AL	AL9	AL12	AL16	AL26	AL30	AL40
Rated operational voltage U_e max.		V	690					
Rated frequency limits		Hz			25-400			
Conventional free-air thermal current I_{th} acc. to IEC 60947-4-1,								
open contactors ø ≤ 40 °C		A	26	28	30	45	65	65
with conductor cross-sectional area	mm²	4	4	4	6	16	16	35
Rated operational current I_e / AC-1 for air temperature close to contactor								
U_e max. 690 V	ø ≤ 40 °C	A	25	27	30	45	55	60
	ø ≤ 55 °C	A	22	25	27	40	55	60
	ø ≤ 70 °C ③	A	18	20	23	32	39	42
with conductor cross-sectional area	mm²		2.5	4	4	6	10	16
Utilization categorie AC-3 for air temperature close to contactor ≤ 55 °C								
Rated operational current I_e AC-3 ①								
3-phase motors	220-230-240 V	A	9	12	17	26	33	40
	380-400 V	A	9	12	17	26	32	37
	415 V	A	9	12	17	26	32	37
	440 V	A	9	12	16	26	32	37
	500 V	A	9	12	14	22	28	33
	690 V	A	7	9	10	17	21	25
	1000 V	A	–	–	–	–	–	–
Rated operational power AC-3 ①								
1500 r.p.m. 50 Hz 1800 r.p.m. 60 Hz 3-phase motors	220-230-240 V	kW	2.2	3	4	6.5	9	11
	380-400 V	kW	4	5.5	7.5	11	15	18.5
	415 V	kW	4	5.5	9	11	15	18.5
	440 V	kW	4	5.5	9	15	18.5	22
	500 V	kW	5.5	7.5	9	15	18.5	22
	690 V	kW	5.5	7.5	9	15	18.5	22
	1000 V	kW	–	–	–	–	–	–
Rated making capacity AC-3 according to IEC 60947-4-1			10 x I_e AC-3					
Rated breaking capacity AC-3 according to IEC 60947-4-1			8 x I_e AC-3					
Short-circuit protection for contactors without thermal O/L relay - Motor protection exclud								
U_e ≤ 500 V a.c. - gG type fuse		A	25	32	32	50	63	
Rated short-time withstand current I_{cw} at 40 °C ambient temp., in free air,								
from a cold state	1 s	A	250	280	300	400	600	
	10 s	A	100	120	140	210	400	
	30 s	A	60	70	80	110	225	
	1 min	A	50	55	60	90	150	
	15 min	A	26	28	30	45	65	
Maximum breaking capacity cos ø = 0.45 (cos ø = 0.35 for I_e > 100 A)								
	at 440 V	A	250			420	820	
	at 690 V	A	90			170	340	
Heat dissipation per pole	I_e / AC-1	W	0.8	1	1.2	1.8	2.5	
	I_e / AC-3	W	0.1	0.2	0.35	0.6	0.9	
Max. electrical switching frequency								
– for AC-1		cycles/h	600					
– for AC-3		cycles/h	1200					
– for AC-2, AC-4		cycles/h	300					
Mechanical durability								
– millions of operating cycles			10					
– max. mechanical switching frequency		cycles/h	3600					