

INSTALLATION CONTACTORS - UP TO 40 A

AC-1 acc. to IEC/EN 60947-4-1 (4-pole, 2 modules)

Type	Rated current I _e	Control voltage at 50/60 Hz	Wiring diagram	Ordering No.	Weight (g)	Packaging (pcs)
IKA416-40	16 A	230 V		30.047.496	230	3
IKA416-40	16 A	24 V		30.047.497	230	
IKA25-40	25 A	230 V		30.046.007	230	
IKA25-40	25 A	24 V		30.046.027	230	
IKA432-40	32 A	230 V		30.046.849	230	
IKA432-40	32 A	24 V		30.046.850	230	
IKA416-31	16 A	230 V		30.047.498	230	3
IKA416-31	16 A	24 V		30.047.499	230	
IKA25-31	25 A	230 V		30.046.013	230	
IKA25-31	25 A	24 V		30.046.028	230	
IKA432-31	32 A	230 V		30.046.851	230	
IKA432-31	32 A	24 V		30.046.852	230	
IKA416-30	16 A	230 V		30.047.500	225	3
IKA416-30	16 A	24 V		30.047.501	225	
IKA25-30	25 A	230 V		30.046.282	225	
IKA25-30	25 A	24 V		30.046.853	225	
IKA432-30	32 A	230 V		30.046.854	225	
IKA432-30	32 A	24 V		30.046.855	225	
IKA416-22	16 A	230 V		30.047.502	230	3
IKA416-22	16 A	24 V		30.047.503	230	
IKA25-22	25 A	230 V		30.046.014	230	
IKA25-22	25 A	24 V		30.046.029	230	
IKA432-22	32 A	230 V		30.046.856	230	
IKA432-22	32 A	24 V		30.046.857	230	
IKA416-04	16 A	230 V		30.047.504	230	3
IKA416-04	16 A	24 V		30.047.505	230	
IKA25-04	25 A	230 V		30.046.015	230	
IKA25-04	25 A	24 V		30.046.030	230	
IKA432-04	32 A	230 V		30.046.858	230	
IKA432-04	32 A	24 V		30.046.859	230	

AC



3

Other control voltages are on request - define type and voltage

AC-1 acc. to IEC/EN 60947-4-1 (2-pole, 2 modules)

Type	Rated current I _e	Control voltage at 50/60 Hz	Wiring diagram	Ordering No.	Weight (g)	Packaging (pcs)
IKA240-2P	40 A	230 V		30.047.735	220	3
IKA240-2P	40 A	24 V		30.047.811	220	3

AC

AC-1 acc. to IEC/EN 60947-4-1 (2-pole, 2 modules)

Type	Rated current I _e	Control voltage	Wiring diagram	Ordering No.	Weight (g)	Packaging (pcs)
IKD240-2P	40 A	230 V AC		30.047.812	220	3
		220 V DC				
IKD240-2P	40 A	24 V AC/DC		30.047.813	220	3

AC/DC



ORDERING DATA

INSTALLATION CONTACTORS - WITH MANUAL CONTROL

UP TO 63 A

AC-1 acc. to IEC/EN 60947-4-1 (4-pole, 2 modules)

Type	Rated current I _e	Control voltage at 50/60 Hz	Wiring diagram	Ordering No.	Weight (g)	Packaging (pcs)
IKA416-40-R	16 A	230 V		30.047.536	230	3
IKA416-40-R	16 A	24 V		30.047.537	230	
IKA25-40-R	25 A	230 V		30.046.271	230	
IKA25-40-R	25 A	24 V		30.046.275	230	
IKA432-40-R	32 A	230 V		30.046.918	230	
IKA432-40-R	32 A	24 V		30.046.919	230	
IKA416-31-R	16 A	230 V		30.047.538	230	3
IKA416-31-R	16 A	24 V		30.047.539	230	
IKA25-31-R	25 A	230 V		30.046.272	230	
IKA25-31-R	25 A	24 V		30.046.276	230	
IKA432-31-R	32 A	230 V		30.046.920	230	
IKA432-31-R	32 A	24 V		30.046.921	230	
IKA416-30-R	16 A	230 V		30.047.540	225	3
IKA416-30-R	16 A	24 V		30.047.541	225	
IKA25-30-R	25 A	230 V		30.046.922	225	
IKA25-30-R	25 A	24 V		30.046.923	225	
IKA432-30-R	32 A	230 V		30.046.924	225	
IKA432-30-R	32 A	24 V		30.046.925	225	
IKA416-22-R	16 A	230 V		30.047.542	230	3
IKA416-22-R	16 A	24 V		30.047.543	230	
IKA25-22-R	25 A	230 V		30.046.273	230	
IKA25-22-R	25 A	24 V		30.046.277	230	
IKA432-22-R	32 A	230 V		30.046.926	230	
IKA432-22-R	32 A	24 V		30.046.927	230	
IKA416-04-R	16 A	230 V		30.047.544	230	3
IKA416-04-R	16 A	24 V		30.047.545	230	
IKA25-04-R	25 A	230 V		30.046.274	230	
IKA25-04-R	25 A	24 V		30.046.278	230	
IKA432-04-R	32 A	230 V		30.046.928	230	
IKA432-04-R	32 A	24 V		30.046.929	230	

AC



3

General Use acc. to UL 60947-4-1 (4-pole, 3 modules)

Type	Rated current I _e	Control voltage at 50/60 Hz	Wiring diagram	Ordering No.	Weight (g)	Packaging (pcs)
IKA40-40-R	40 A	230 V		30.045.506	350	5
IKA40-40-R	40 A	24 V		30.045.741	350	
IKA63-40-R	63 A	230 V		30.045.508	350	
IKA63-40-R	63 A	24 V		30.045.742	350	
IKA40-31-R	40 A	230 V		30.045.743	350	
IKA40-31-R	40 A	24 V		30.045.744	350	
IKA63-31-R	63 A	230 V		30.045.745	350	5
IKA63-31-R	63 A	24 V		30.045.746	350	
IKA40-22-R	40 A	230 V		30.045.747	350	
IKA40-22-R	40 A	24 V		30.045.748	350	
IKA63-22-R	63 A	230 V		30.045.749	350	
IKA63-22-R	63 A	24 V		30.045.750	350	
IKA40-04-R	40 A	230 V		30.045.751	350	5
IKA40-04-R	40 A	24 V		30.045.752	350	
IKA63-04-R	63 A	230 V		30.045.753	350	
IKA63-04-R	63 A	24 V		30.045.754	350	

AC

63 A



ORDERING DATA

INSTALLATION CONTACTORS - WITH MANUAL MOMENTARY CONTROL

UP TO 32 A

AC-1 acc. to IEC/EN 60947-4-1 (2-pole, 1 module)

AC

Type	Rated current I_e	Control voltage at 50/60 Hz	Wiring diagram	Ordering No.	Weight (g)	Packaging (pcs)
IKA216-20-T	16 A	230 V		30.047.566	130	6
IKA20-20-T	20 A	230 V		30.046.974	130	
IKA225-20-T	25 A	230 V		30.046.975	130	
IKA232-20-T	32 A	230 V		30.046.976	130	
IKA216-11-T	16 A	230 V		30.047.567	130	6
IKA20-11-T	20 A	230 V		30.046.977	130	
IKA225-11-T	25 A	230 V		30.046.978	130	
IKA232-11-T	32 A	230 V		30.046.979	130	
IKA216-10-T	16 A	230 V		30.047.568	125	6
IKA20-10-T	20 A	230 V		30.046.980	125	
IKA225-10-T	25 A	230 V		30.046.981	125	
IKA232-10-T	32 A	230 V		30.046.982	125	
IKA216-01-T	16 A	230 V		30.047.569	125	6
IKA20-01-T	20 A	230 V		30.046.983	125	
IKA225-01-T	25 A	230 V		30.046.984	125	
IKA232-01-T	32 A	230 V		30.046.985	125	
IKA216-02-T	16 A	230 V		30.047.570	130	6
IKA20-02-T	20 A	230 V		30.046.986	130	
IKA225-02-T	25 A	230 V		30.046.987	130	
IKA232-02-T	32 A	230 V		30.046.988	130	



3

AC-1 acc. to IEC/EN 60947-4-1 (4-pole, 2 modules)

AC

Type	Rated current I_e	Control voltage at 50/60 Hz	Wiring diagram	Ordering No.	Weight (g)	Packaging (pcs)
IKA416-40-T	16 A	230 V		30.047.571	230	3
IKA25-40-T	25 A	230 V		30.046.989	230	
IKA432-40-T	32 A	230 V		30.046.990	230	3
IKA416-31-T	16 A	230 V		30.047.572	230	
IKA25-31-T	25 A	230 V		30.046.991	230	3
IKA432-31-T	32 A	230 V		30.046.992	230	
IKA416-30-T	16 A	230 V		30.047.573	225	3
IKA25-30-T	25 A	230 V		30.046.993	225	
IKA432-30-T	32 A	230 V		30.046.994	225	3
IKA416-22-T	16 A	230 V		30.047.574	230	
IKA25-22-T	25 A	230 V		30.046.995	230	3
IKA432-22-T	32 A	230 V		30.046.996	230	
IKA416-04-T	16 A	230 V		30.047.575	230	3
IKA25-04-T	25 A	230 V		30.046.997	230	
IKA432-04-T	32 A	230 V	30.046.998	230	3	



ORDERING DATA

Other control voltages are on request - define type and voltage

INSTALLATION CONTACTORS - UP TO 32 A

GENERAL	Type	Symbol	Unit	IKA232 IKA232-R IKA232-T ¹⁾	IKD232 IKD232-R IKD232-T ¹⁾	IKA416 IKA416-R IKA416-T ¹⁾	IKD416 IKD416-R IKD416-T ¹⁾	IKA25 IKA25-R IKA25-T ¹⁾	IKD25 IKD25-R IKD25-T ¹⁾	IKA432 IKA432-R IKA432-T ¹⁾	IKD432 IKD432-R IKD432-T ¹⁾
		Standards			IEC/EN 61095, IEC/EN 60947-4-1, IEC/EN 60947-5-1						
	Approvals			CE, CB, EAC		CE, EAC		CE, CB, NF, EAC		CE, CB, EAC	
	Module width			1				2			
	Number of poles			2				4			
	Degree of protection			IP20 (IP40 when installed in installation box - distribution board)							
	Pollution degree			3							
	Climatic conditions			95 % relative humidity							
	Operating ambient temperature		°C	-25 ... +70 (2NO)				-25 ... +70 (4NO)			
				-15 ... +70 (1NO)				-15 ... +70 (3NO)			
				-15 ... +70 (1NO+1NC) ⁴⁾				-15 ... +70 (3NO+1NC)			
				-15 ... +55 (2NC)				-15 ... +55 (2NO+2NC)			
					-15 ... +55 (1NC)				-15 ... +55 (4NC)		
	Number of contactors or switches side-by-side:										
	≤40 °C			max. 3							
	(40 ... 55) °C			max. 2							
	(55 ... 70) °C			max. 1 (ventilation modules or least 9 mm free space on each side)							
	Storage temperature		°C	-40... +80							
	Maximum altitude		m	2000							
	U _i and U _e is reduced for 1.2 % and I _e for 0.4 % for every additional 100 m										
	Noise level (operation)		dB	30	20	30	20	30	20	30	20
	Vibration resistance according to IEC/EN 60068-2-6	a	g	switched off: 2 (Z and X axis) / switched on: 3 (Z axis) and 1 (X axis)							
	Shock resistance according to IEC/EN 6068-2-27	a	g	switched off: 10 (Z and X axis) / switched on: 15 (Z axis) and 2 (X axis)							
	Maximum operating frequency with no load		op. c./h	3,000							
	Mechanical endurance		op. c.	3,000,000	10,000,000	3,000,000	10,000,000	3,000,000	10,000,000	3,000,000	10,000,000
	Weight		g	130	130	230	250	230	250	230	250
MAIN CIRCUIT	Contact reliability			≥17 V; ≥50 mA							
	Minimum distance of open contacts		mm	3,6							
	Power dissipation per pole		W	2,5	2,5	1,3	1,3	2,2	2,2	2,5	2,5
	Overload current withstand capability:										
	10 s		A	72				68			
	Maximum back-up fuse for short-circuit protection gL and gG:										
	coordination type 1	I _v	A	32	32			25	25	32	32
	coordination type 2					16	16				
	Rated insulation voltage	U _i	V	440							
	Rated impulse withstand voltage	U _{imp}	kV	4							
	Rated operational voltage	U _e	V	400 ²⁾³⁾				400			
	Rated frequency	f	Hz	50/60							
	Max. thermal current up to +55 °C	I _{th}	A	32		16		25		32	
	Max. thermal current @ +70 °C	I _{th}	A	32	25	16		20		25	
	Rated operational current for AC-1, AC-7a and AC-21	I _e	A	32		16		25		32	
	Operational power for AC-1, AC-7a and AC-21:										
	single-phase 230 V	P _e	kW	7		3,5		5,4		7	
	three-phase 230 V					6		9		12	
	three-phase 400 V					10,5		16		21	
	Maximum operating frequency for AC-1, AC-7a and AC-21		op. c./h	600							
	Electrical endurance for AC-1, AC-7a and AC-21		op. c.	NO: 150,000 / NC: 100,000				200,000		150,000	
	Rated operational current for AC-2	I _e	A	16		10		14		16	
	Operational power for AC-2:										
	single-phase 230 V	P _e	kW	2,4		1,5		2		2,4	
	three-phase 230 V					2,5		3,6		4,1	
three-phase 400 V				4,5		6		7,2			
Maximum operating frequency for AC-2		op. c./h	120								
Electrical endurance for AC-2		op. c.	100,000								
Rated operational current for AC-22	I _e	A	32		16		25		32		
Operational power for AC-22:											
single-phase 230 V	P _e	kW	5,9		2,9		4,6		5,9		
three-phase 230 V					5,1		8		10,2		
three-phase 400 V					8,8		13,8		17,7		
Maximum operating frequency for AC-22		op. c./h	300								
Electrical endurance for AC-22		op. c.	50,000								
Rated operational current for AC-3, AC-3e, AC-7b and AC-23	I _e	A	NO: 9 / NC: 6		7				8,5		
Operational power for AC-3, AC-3e, AC-7b and AC-23:											
single-phase 230 V	P _e	kW	NO: 1,3 / NC: 0,75		1,1				1,3		
three-phase 230 V					1,5				2,2		
three-phase 400 V					3				4		

1) Available approvals only CE and EAC

2) Rated operational voltage between two line (phase) conductors

3) Rated operational voltage for versions of contacts -10 and -01 is 230 V

4) For IKD232, IKD232-R, IKD232-T -15 ... +55 (1NO+1NC)

INSTALLATION CONTACTORS - UP TO 32 A

Type	Symbol	Unit	IKA232	IKD232	IKA416	IKD416	IKA25	IKD25	IKA432	IKD432
			IKA232-R IKA232-T	IKD232-R IKD232-T	IKA416-R IKA416-T	IKD416-R IKD416-T	IKA25-R IKA25-T	IKD25-R IKD25-T	IKA432-R IKA432-T	IKD432-R IKD432-T
Maximum operating frequency for AC-3, AC-3e, AC-7b and AC-23		op. c./h	600							
Electrical endurance for AC-3, AC-3e, AC-7b and AC-23		op. c.	300.000					500.000		
Rated operational current for AC-5a (at 230 V)	I_e	A	13		8.8		11.2		13	
Maximum operating frequency for AC-5a		op. c./h	600							
Electrical endurance for AC-5a		op. c.	100.000							
Rated operational current for AC-5b (at 230 V)	I_e	A	11		8.8		9.7		11	
Maximum operating frequency for AC-5b		op. c./h	600							
Electrical endurance for AC-5b		op. c.	100.000							
Rated operational current for AC-6a (at 230 V)	I_e	A	6		4		2.8		6	
Maximum operating frequency for AC-6a		op. c./h	600							
Electrical endurance for AC-6a		op. c.	100.000							
Switching of capacitors AC-6b and AC-7c (at 230 V)	C	μ F	40		30		36		40	
Maximum operating frequency for AC-6b and AC-7c		op. c./h	600							
Electrical endurance for AC-6b and AC-7c		op. c.	100.000							
Rated operational current for DC-1 (L/R \leq 1 ms): 1 pole ... 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC	I_e	A	32/25/15/6/0.6		16/12/8/4/0.5		25/20/15/6/0.6		32/25/15/6/0.6	
2 poles in series ... 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC			32/32/20/10/6		16/15/12/8/4		25/25/20/10/6		32/32/20/10/6	
3 poles in series ... 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC							25/25/25/20/15		32/32/32/20/15	
4 poles in series ... 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC							25/25/25/20/15		32/32/32/20/15	
Maximum operating frequency for DC-1		op. c./h	300							
Electrical endurance for DC-1		op. c.	100.000							
Rated operational current for DC-3 (L/R \leq 2 ms): 1 pole ... 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC	I_e	A	20/10/4/1.3/0.2		10/5/2/1/0.1		15/8/4/1.3/0.2		20/10/4/1.3/0.2	
2 poles in series ... 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC			32/18/12/5.5/0.6		16/10/8/4/0.4		25/16/12/5.5/0.6		32/18/12/5.5/0.6	
3 poles in series ... 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC					16/16/16/10/2		25/25/25/15/3		32/32/25/15/3	
4 poles in series ... 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC					16/16/16/12/6		25/25/25/20/8		32/32/25/20/8	
Maximum operating frequency for DC-3		op. c./h	300							
Electrical endurance for DC-3		op. c.	100.000							
Rated operational current for DC-5 (L/R < 7.5 ms): 1 pole ... 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC	I_e	A	18/6/3/0.5/0.1		10/4/1/0.3/0.06		15/5/3/0.5/0.1		18/6/3/0.5/0.1	
2 poles in series ... 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC			32/16/10/4/0.4		16/8/6/2/0.2		25/15/10/4/0.4		32/16/10/4/0.4	
3 poles in series ... 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC					16/16/12/8/1		25/25/20/12/2		32/28/20/12/2	
4 poles in series ... 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC					16/16/12/12/3		25/25/25/15/5		32/32/25/15/5	
Maximum operating frequency for DC-5		op. c./h	300							
Electrical endurance for DC-5		op. c.	100.000							
Terminal capacity: rigid (solid and stranded)	S	mm ²			1 ... 10					
flexible					1 ... 6					
Min. conductor @ rhermal current @ +70 °C		mm ²	6		2.5		4		6	
Length of removed wire insulation		mm	9							
Screw			M3.5							
Screw head			PZ1							
Tightening torque		Nm	1.2							
Contact reliability			≥ 17 V; ≥ 50 mA							
Minimum distance of open contacts		mm	3.6							
Power dissipation per pole		W	2.5	2.5	1.3	1.3	2.2	2.2	2.5	2.5
Overload current withstand capability: 10 s		A	72		56		68			
Maximum back-up fuse for short-circuit protection gL and gG: coordination type 1	I_v	A	32	32			25	25	32	32
coordination type 2					16	16				
Rated insulation voltage	U_i	V	440							
Rated impulse withstand voltage	U_{imp}	kV	4							
Rated operational voltage	U_e	V	230/400							
Rated frequency	f	Hz	50/60							
Thermal current	I_{th}	A	32		16		25		32	
Rated operational current for AC-15: single-phase 230 V	I_e	A	6							
single-phase 400 V			4							
Maximum operating frequency for AC-15		op. c./h	600							
Electrical endurance for AC-15		op. c.	300.000				500.000			
Rated operational current for DC-13: 1 pole ... 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC	I_e	A	6/4/1/0.3/0.05							
2 poles in series ... 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC			6/6/4/1/0.1							
3 poles in series ... 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC			6/6/6/3/1							
4 poles in series ... 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC			6/6/6/4/2							

MAIN CIRCUIT

AUXILIARY CIRCUIT

TECHNICAL DATA

INSTALLATION CONTACTORS - UP TO 32 A

	Symbol	Unit	IKA232	IKD232	IKA416	IKD416	IKA25	IKD25	IKA432	IKD432
			IKA232-R IKA232-T	IKD232-R IKD232-T	IKA416-R IKA416-T	IKD416-R IKD416-T	IKA25-R IKA25-T	IKD25-R IKD25-T	IKA432-R IKA432-T	IKD432-R IKD432-T
AUXILIARY CIRCUIT	Type									
	Maximum operating frequency for DC-13	op. c./h	300							
	Electrical endurance for DC-13	op. c.	200.000							
	Terminal capacity: rigid (solid and stranded) flexible	S mm ²	1 ... 10 1 ... 6							
	Length of removed wire insulation	mm	9							
	Screw		M3.5							
	Screw head	mm	PZ1							
	Tightening torque		1.2							
COIL	Range of control voltage for switch-on	U _c %	85 ... 110							
	Range of control voltage for drop out	U _c %	AC: 75 ... 20 / DC: 75 ... 10 (where is applicable)							
	Kind of voltage		AC	AC/DC	AC	AC/DC	AC	AC/DC	AC	AC/DC
	Standard control voltages	U _c V	12, 24, 48, 120, 230	120, 230	12, 24, 48, 120, 230, 400	120, 230	12, 24, 48, 120, 230, 400	120, 230	12, 24, 48, 120, 230, 400	12, 24, 48, 120, 230
	Frequency of AC control voltage	f Hz	50/60	40 ... 500	50/60	40 ... 500	50/60	40 ... 500	50/60	40 ... 500
	Control mode		remote control with U _c / manual control only for types with -R and -T							
	Impulse duration of control voltage: minimum maximum		permanent permanent							
	Minimum duration between two impulses of control voltage	ms	AC: 150 / DC: 500 (where is applicable)							
	Surge immunity withstand voltage 1,2/50 μs acc. to standard IEC/EN 61000-4-5	kV	2							
	Coil consumption: switch-on operation	VA/W	12/10 2.8/1.2	2.1/2.1 2.1/2.1	33/25 5.5/1.6	2.6/2.6 ¹⁾ 2.6/2.6 ¹⁾	33/25 5.5/1.6	2.6/2.6 ¹⁾ 2.6/2.6 ¹⁾	33/25 5.5/1.6	2.6/2.6 ¹⁾ 2.6/2.6 ¹⁾
	Delays: make brake	ms	15 ... 25 10 ... 30	15 ... 45 20 ... 50	10 ... 30 10 ... 30	15 ... 45 20 ... 70	10 ... 30 10 ... 30	15 ... 45 20 ... 70	10 ... 30 10 ... 30	15 ... 45 20 ... 70
	Terminal capacity: rigid (solid and stranded) flexible	mm ²	1 ... 2.5 1 ... 2.5							
	Length of removed wire insulation	mm	7							
	Screw		M3							
	Screw head		PZ1							
	Tightening torque	Nm	0.6							
	SAFETY	MTTF - Mean time to failure MTTF = 1/λ = B10/(0.1 n _{op})	h	AC-1: 3.750 AC-3: 7.500		AC-1: 5.000 AC-3: 12.500		AC-1: 3.750 AC-3: 7.500		
MTTF _d - Mean time to failure dangerous MTTF _d = 1/λ _d = B10 _d /(0.1 n _{op})		h	AC-1: 5.000 AC-3: 10.000		AC-1: 6.666 AC-3: 16.666		AC-1: 5.000 AC-3: 10.000			
B10 - Number of operating cycles until 10 % of devices fail		op. c.	AC-1: 112.500 for NO AC-3: 225.000		AC-1: 150.000 AC-3: 375.000		AC-1: 112.500 AC-3: 225.000			
B10 _d - Number of operating cycles until 10 % of device dangerous B10 _d = B10/ratio of dangerous failures		op. c.	AC-1: 150.000 for NO AC-3: 300.000		AC-1: 200.000 AC-3: 500.000		AC-1: 150.000 AC-3: 300.000			
λ - Failure rate λ = (0.1 n _{op})/B10		1/h	AC-1: 0.000266 for NO AC-3: 0.000133		AC-1: 0.0002 AC-3: 0.00008		AC-1: 0.000266 AC-3: 0.000133			
λ _d - Failure rate dangerous λ _d = (0.1 n _{op})/B10 _d		1/h	AC-1: 0.0002 for NO AC-3: 0.0001		AC-1: 0.00015 AC-3: 0.00006		AC-1: 0.0002 AC-3: 0.0001			
Ratio of dangerous failures		%	75							
n _{op} - Operating cycles (operating cycles/h)		op. c./h	300							

1) Coil consumption for version -04 is 3.8 VA/3.8 W

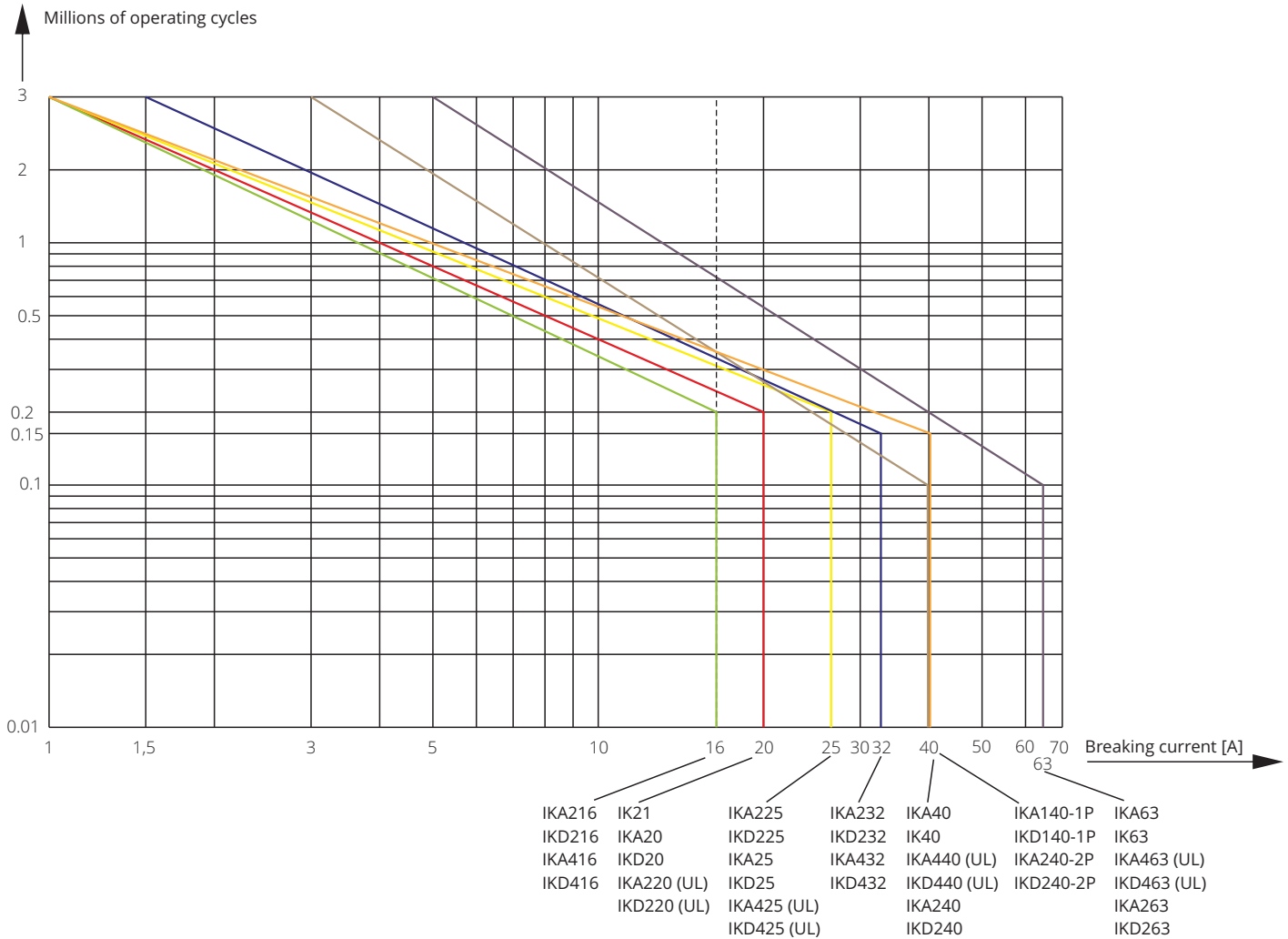
INSTALLATION CONTACTORS

Electrical endurance

AC-1/230V/1-phase for IKA20, IKD20, IKA216, IKD216, IKA220 (UL), IKD220 (UL), IKA225, IKD225, IKA232, IKD232, IKA440 (UL), IKD440 (UL), IKA463 (UL), IKD463 (UL), IKA140-1P, IKD140-1P, IKA240-2P, IKD240-2P, IKA240, IKD240, IKD263, IKD263

AC-1/400V/3-phase for IK21, IKA25, IKD25, IKA416, IKD416, IKA425 (UL), IKD425 (UL), IKA432, IKD432, IKA40, IK40, IKA63, IK63

Diagram 1

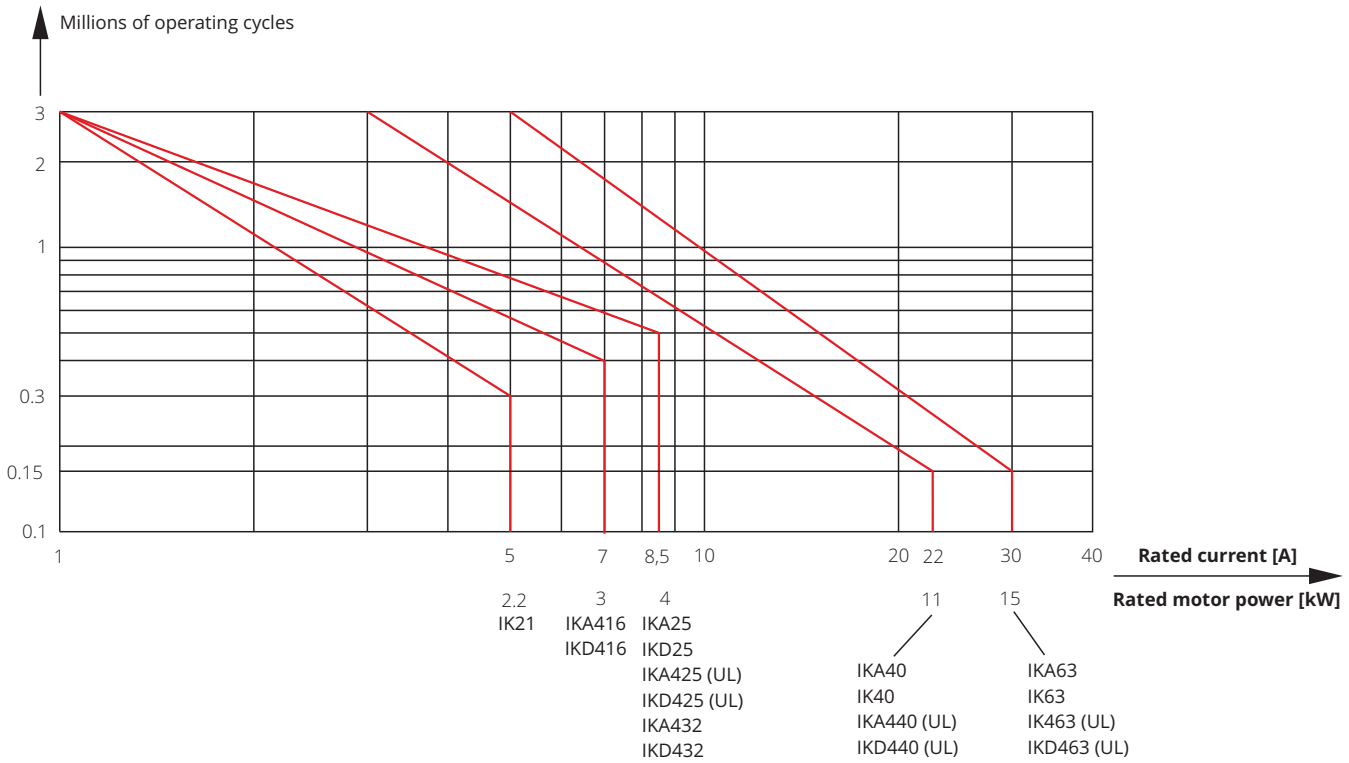


INSTALLATION CONTACTORS

Electrical endurance

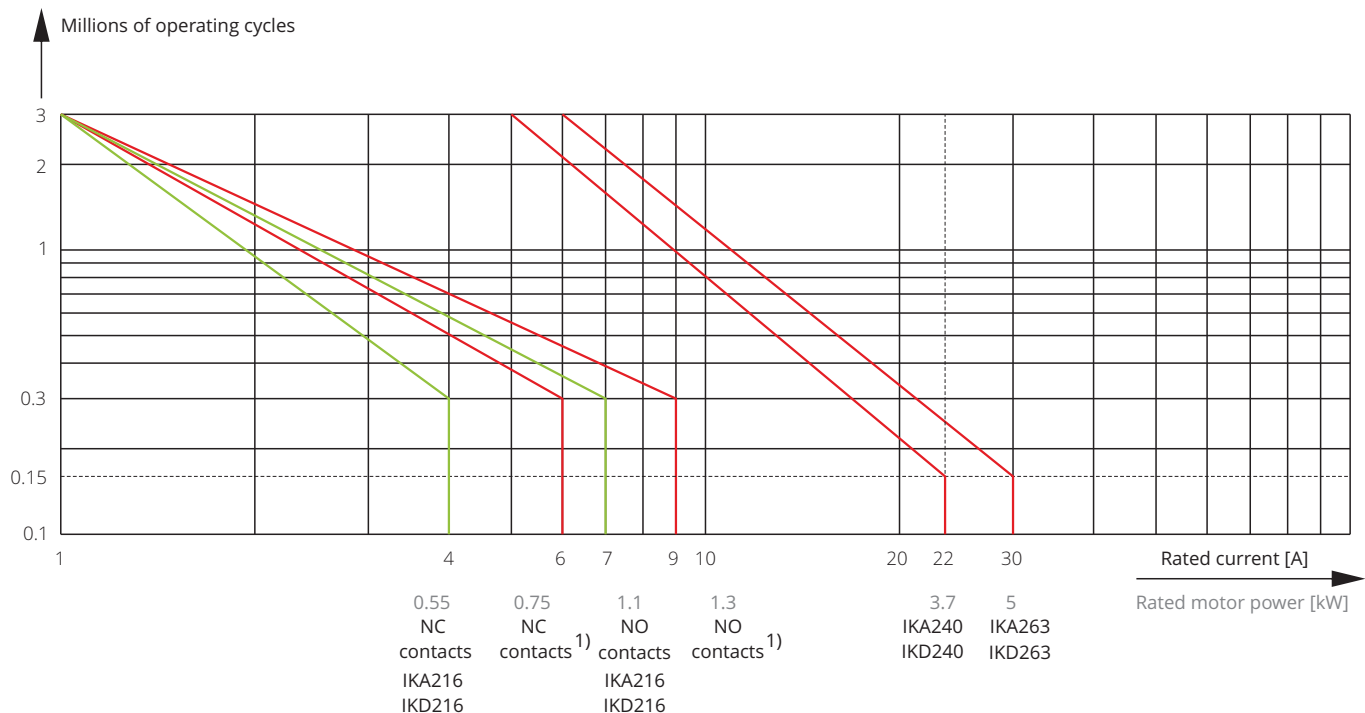
AC-3, AC-3e/400V/3-phase for IK21, IKA416, IKD416, IKA25, IKD25, IKA425 (UL), IKD425 (UL), IKA432, IKD432, IKA40, IKA63, IK63, IKA440 (UL), IKD440 (UL), IKA463 (UL), IKD463 (UL)

Diagram 2



AC-3, AC-3e/230V/1-phase for IKA216, IKD216, IKA20, IKD20, IKA220 (UL), IKD220 (UL), IKA225, IKD225, IKA232, IKD232, IKA240, IKD240, IKA263, IKD263

Diagram 3

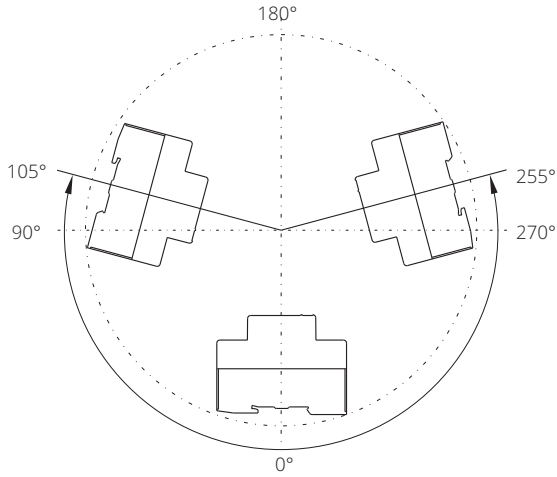


¹⁾ IKA20, IKD20, IKA220 (UL), IKD220 (UL), IKA225, IKD225, IKA232, IKD232

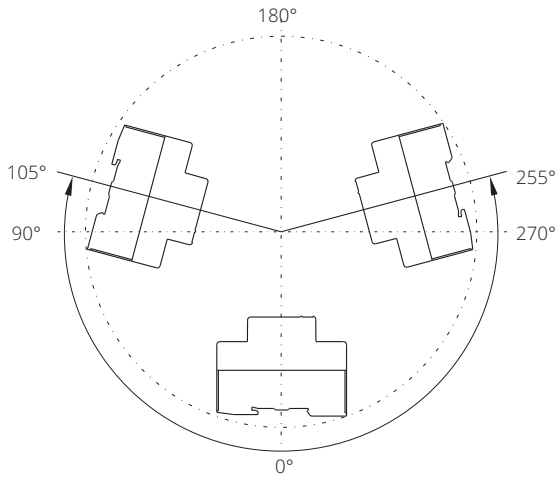
INSTALLATION CONTACTORS

Operation position

**IKA216/20/225/232/140/240/25/432/40/63
IKA220/425/440/463 (UL)**

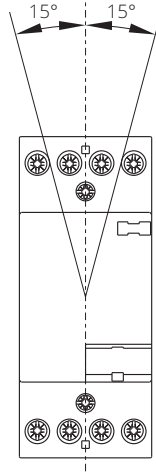


**IKA216/20/225/232-R/-T
IKA25/432-R/-T**

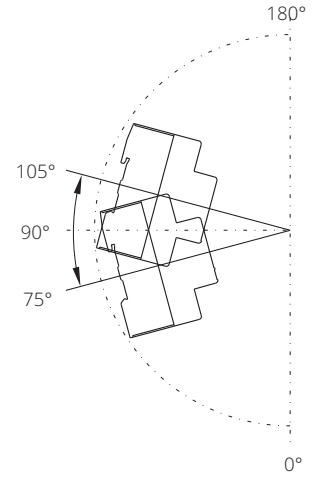


NOTE: IK21 and IKS-R/-T have no limitation

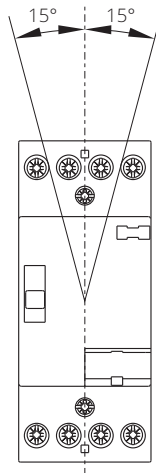
All installation contactors



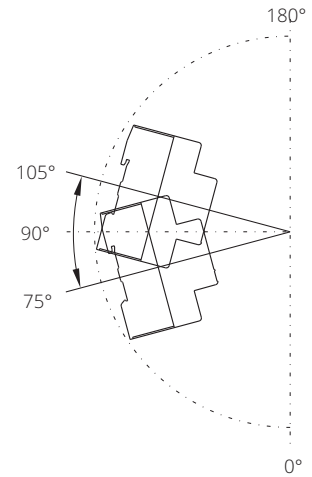
**IKD216/20/225/232/140/240/25/432
IK40/63, IKD220/425/440/463 (UL)**



**IKA/D216/20/225/232-R/-T
IKA/D416/25/432-R/-T**

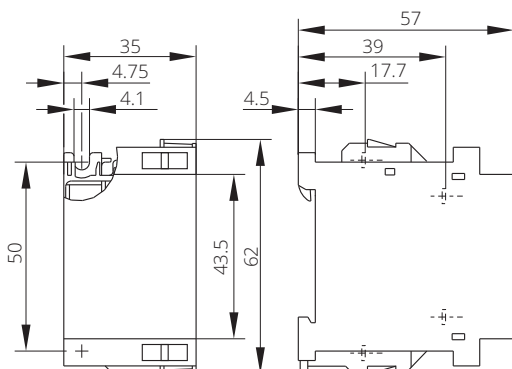


**IKD20/225/232-R/-T
IKD25/432-R/-T**

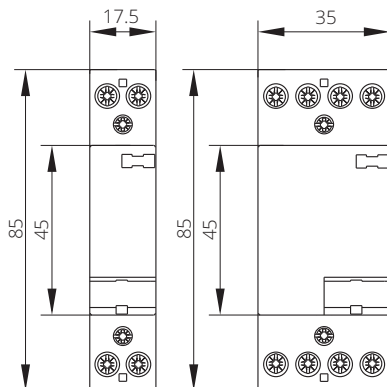


Dimensions (in millimeters)

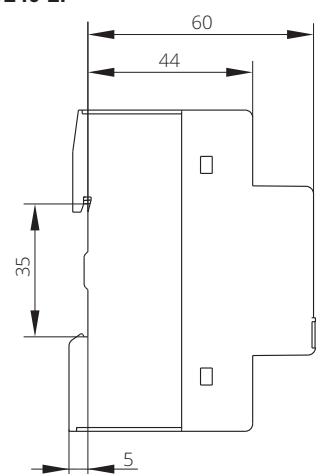
IK21



**IKA216, IKD216
IKA20, IKD20
IKA225, IKD225
IKA232, IKD232
IKA140-1P
IKD140-1P**



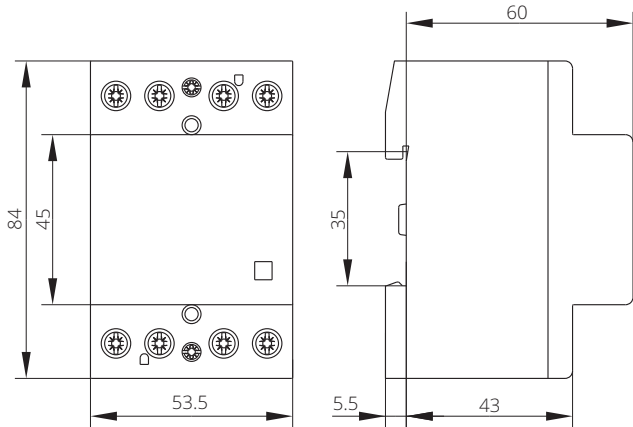
**IKA416, IKD416
IKA25, IKD25
IKA25, IKD25
IKA432, IKD432
IKA240-2P, IKD240-2P**



INSTALLATION CONTACTORS

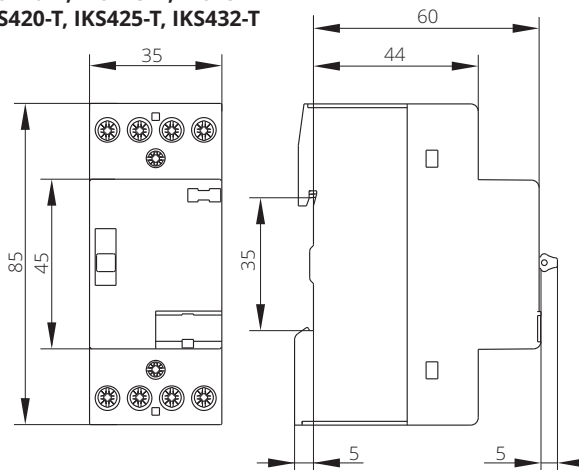
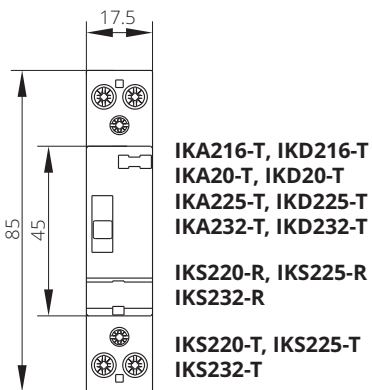
Dimensions (in millimeters unless otherwise stated)

**IK40, IK63
IKA40, IKA63**



**IKA216-R, IKD216-R
IKA20-R, IKD20-R
IKA225-R, IKD225-R
IKA232-R, IKD232-R**

**IKA416-R, IKD416-R, IKA416-T, IKD416-T
IKA25-R, IKD25-R, IKA25-T, IKD25-T
IKA432-R, IKD432-R, IKA432-T, IKD432-T
IKS420-R, IKS425-R, IKS432-R
IKS420-T, IKS425-T, IKS432-T**



**IKA220 (UL) IKD220 (UL)
IKA425 (UL) IKD425 (UL)**

**IKA440 (UL), IKD440 (UL)
IKA463 (UL), IKD463 (UL)**

