

Contactors

IK INSTALLATION CONTACTORS

IKA20, IKD20, IK21, IKA25, IKD25, IK40, IKA40, IK63, IKA63



- Installation contactors are built in consumer units in dwellings, business premises, hotels, hospitals, shopping centres, sport centres, production halls, warehouses and public places
- They are used for remote switching and automatic control of electric devices and equipment, such as:
 - single-phase and three-phase motors
 - different pumps
 - air-conditioning
 - electric heating
 - lighting
- Basic contactor types are: IKA20-xx, IKD20-xx, IK21-xx, IKA25-xx, IKD25-xx, IK40-xx, IKA40-xx, IK63-xx, IKA63-xx
- IKD20, IKD25, IK40 and IK63 with a varistor for overvoltage protection and a rectifier enable dc and ac voltage control
- They excel in silent operation
- IKA20, IK21, IKA25, IKA40 and IKA63 are ac driven contactors only
- Contacts can be used as main or auxiliary
- Contactors are designed for assembling to 35 mm mounting rail in accordance with the EN 60715 standard
- Sealing terminal covers enable direct protection against contact with live parts
- IKV ventilation module is available for preventing exceeded heating when contactors are used side-by-side
- All contactors have degree of protection IP20

TECHNICAL DATA FOR IKA20, IKD20, IKA25 and IKD25

				IKA20	IKD20	IKA25	IKD25		
GENERAL	Type			IKA20	IKD20	IKA25	IKD25		
	Standards			IEC/EN 61095 , IEC/EN 60947-4-1, IEC/EN 60947-5-1					
	Approvals			KEMA, NF, GOST					
	Module width			1		2			
	Mechanical endurance			op. c.		3 x 10 ⁶			
	Ambient temperature			°C		-5 ... +55			
	Storage temperature			°C		-30 ... +80			
	No. of contactors (side-by-side)	≤ 40° C			max. 3	max. 3	no limitation	max. 3	
			40 - 55° C			max. 2		max. 2	max. 2
	Contact reliability			17 V; ≥ 50 mA					
	Min. distance of open contacts			mm		3.6			
	Power dissipation per pole			W		1.7	1.7	2.2	2.2
	Overload current withstand capability			A		72	72	68	68
	Max. back-up fuse for short-circuit protection gL Coordination type 2			I_v	A	20	20	25	25
Max. operating frequency	DC-1			300					
	AC-1/AC-3/AC-5b/AC-6b/ AC-15			600					
	no load			3000					
Weight			kg		0.13	0.13	0.24	0.24	
MAIN CIRCUIT	Rated insulation voltage	U_i		V	230	230	440	440	
	Rated impulse withstand voltage	U_{imp}		kV	4				
	Thermal current	I_{th}		A	20	20	25	25	
	Rated operational voltage	U_e		V	230	230	400	400	
	Rated frequency	f		Hz	50/60				
	Rated operational current	AC-1/AC-7a	I_e		A	20	20	25	25
	Operational power	single-phase	230 V			4	4	5.4	5.4
		three-phase	230 V	P_e	kW	-	-	9	9
three-phase		400 V	-			-	16	16	
Electrical endurance	AC-1/AC-7a			op. c.	200.000				

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IKA20, IKD20, IK21, IKA25, IKD25, IK40, IKA40, IK63, IKA63

TECHNICAL DATA FOR IKA20, IKD20, IKA25 and IKD25								
MAIN CIRCUIT	Type				IKA20	IKD20	IKA25	IKD25
	Rated operational current	AC-3/AC-7b	I_e	A	NO: 9 NC: 6	NO: 9 NC: 6	8.5	8.5
	Operational power	single-phase motor 230 V	P_e	kW	NO: 1.3 NC: 0.75	NO: 1.3 NC: 0.75	1.3 ¹⁾	1.3 ¹⁾
	AC-3/AC-7b	three-phase motor 230 V			-	-	2.2	2.2
		three-phase motor 400 V			-	-	4	4
	Electrical endurance	AC-3/AC-7b		op. c.	300.000	300.000	500.000	500.000
	Switching of capacitors	AC-6b 230 V	C	μ F	30	30	36	36
	Electrical endurance	AC-6b		op. c.	100.000			
	DC-1 ($L/R \leq 1$ ms) Electrical endurance:			A				
	1 pole	$U_e = 24$ V DC			20	20	25	25
		$U_e = 48$ V DC			15	15	20	20
		$U_e = 60$ V DC			10	10	15	15
		$U_e = 110$ V DC			6	6	6	6
		$U_e = 220$ V DC			0.6	0.6	0.6	0.6
	2 poles connected in series	$U_e = 24$ V DC			20	20	25	25
		$U_e = 48$ V DC			18	18	25	25
	$U_e = 60$ V DC		15		15	20	20	
	$U_e = 110$ V DC		10		10	10	10	
	$U_e = 220$ V DC		6		6	6	6	
3 poles connected in series	$U_e = 24$ V DC		-		-	25	25	
	$U_e = 48$ V DC		-		-	25	25	
	$U_e = 60$ V DC		-		-	25	25	
	$U_e = 110$ V DC		-		-	20	20	
	$U_e = 220$ V DC		-	-	15	15		
4 poles connected in series	$U_e = 24$ V DC		-	-	25	25		
	$U_e = 48$ V DC		-	-	25	25		
	$U_e = 60$ V DC		-	-	25	25		
	$U_e = 110$ V DC		-	-	20	20		
	$U_e = 220$ V DC		-	-	15	15		
Electrical endurance	DC-1		op.c.	100.000	100.000	100.000	100.000	
DC-3 ($L/R \leq 2$ ms) Electrical endurance:			A					
1 pole	$U_e = 24$ V DC			10	10	15	15	
	$U_e = 48$ V DC			5	5	8	8	
	$U_e = 60$ V DC			2	2	4	4	
	$U_e = 110$ V DC			1	1	1.3	1.3	
	$U_e = 220$ V DC			0.1	0.1	0.2	0.2	
2 poles connected in series	$U_e = 24$ V DC			20	20	25	25	
	$U_e = 48$ V DC			10	10	16	16	
	$U_e = 60$ V DC			8	8	12	12	
	$U_e = 110$ V DC			4	4	5.5	5.5	
	$U_e = 220$ V DC		0.4	0.4	0.6	0.6		

¹⁾ Data for single-phase power are valid for versions -22, -20 and -02

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IKA20, IKD20, IK21, IKA25, IKD25, IK40, IKA40, IK63, IKA63

TECHNICAL DATA FOR IKA20, IKD20, IKA25 and IKD25

				IKA20	IKD20	IKA25	IKD25		
MAIN CIRCUIT	Type								
	DC-3 (L/R ≤ 2 ms) Rated operational current:								
	3 poles connected in series	$U_e = 24$ V DC	I_e	A	-	-	25	25	
		$U_e = 48$ V DC			-	-	25	25	
		$U_e = 60$ V DC			-	-	25	25	
		$U_e = 110$ V DC			-	-	15	15	
		$U_e = 220$ V DC			-	-	3	3	
	4 poles connected in series	$U_e = 24$ V DC			-	-	25	25	
		$U_e = 48$ V DC			-	-	25	25	
		$U_e = 60$ V DC			-	-	25	25	
		$U_e = 110$ V DC			-	-	20	20	
		$U_e = 220$ V DC			-	-	8	8	
	Electrical endurance	DC-3		op. c.	100.000	100.000	100.000	100.000	
	DC-5 (L/R ≤ 7,5 ms) Rated operational current:								
	1 pole	$U_e = 24$ V DC	I_e	A	10	10	15	15	
		$U_e = 48$ V DC			4	4	5	5	
		$U_e = 60$ V DC			1	1	3	3	
	$U_e = 110$ V DC	0.3			0.3	0.5	0.5		
	$U_e = 220$ V DC	0.06			0.06	0.1	0.1		
2 poles connected in series	$U_e = 24$ V DC					20	20	25	25
	$U_e = 48$ V DC					8	8	15	15
	$U_e = 60$ V DC					6	6	10	10
	$U_e = 110$ V DC					2	2	4	4
	$U_e = 220$ V DC					0.2	0.2	0.4	0.4
3 poles connected in series	$U_e = 24$ V DC			-	-	25	25		
	$U_e = 48$ V DC			-	-	25	25		
	$U_e = 60$ V DC			-	-	20	20		
	$U_e = 110$ V DC			-	-	12	12		
	$U_e = 220$ V DC			-	-	2	2		
4 poles connected in series	$U_e = 24$ V DC			-	-	25	25		
	$U_e = 48$ V DC			-	-	25	25		
	$U_e = 60$ V DC			-	-	25	25		
	$U_e = 110$ V DC			-	-	15	15		
	$U_e = 220$ V DC			-	-	5	5		
Electrical endurance	DC-5		op. c.	100.000	100.000	100.000	100.000		
Terminal capacity	rigid flexible	S	mm ²	1 ... 10 1 ... 6					
Screw				M3.5					
Screw head				PZ1					
Tightening torque			Nm	1.2					

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IKA20, IKD20, IK21, IKA25, IKD25, IK40, IKA40, IK63, IKA63

TECHNICAL DATA FOR IKA20, IKD20, IKA25 and IKD25								
AUXILIARY CIRCUIT	Type			IKA20	IKD20	IKA25	IKD25	
	Rated operational voltage		U_e	V	230	230	400	400
	Rated insulation voltage		U_i	V	230	230	440	440
	Rated impulse withstand voltage		U_{imp}	kV	4			
	Thermal current		I_{th}	A	20	20	25	25
	AC-15							
	Rated operational current	single-phase 230 V single-phase 400 V		I_e	A	6 -	6 -	6 4
Electrical endurance	AC-15		op. c.	300.000	300.000	500.000	500.000	
CONTROL CIRCUIT	Range of control voltage		U_c	%	85 ... 110			
	Kind of voltages				AC	AC, DC	AC	AC, DC
	Control voltage		U_c	V	12 ... 230			
	Frequency (AC)		f	Hz	50/60 ²⁾			
	Surge immunity test (1.2/50 μ s), acc. to 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 ³⁾ 2.6/2.6 ³⁾
	Make/break delays	make break		ms	15 – 25 10 – 30	15 – 45 20 – 50	10 – 30 10 – 30	15 – 45 20 – 70
	Terminal capacity	rigid flexible	S	mm ²	1 ... 2.5 1 ... 2.5			
	Screw				M 3.5			
	Screw head				PZ1			
	Tightening torque			Nm	0.6			

²⁾ IKD20 and IKD25 can be controlled by ac voltage with frequency from 40 Hz to 400 Hz

³⁾ Coil consumption for version -04 is 3.8 VA/3.8 W

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IK INSTALLATION CONTACTORS

IK20, IKD20, IK21, IKA25, IKD25, IK40, IKA40, IK63, IKA63

TECHNICAL DATA FOR IK21, IK40, IK63, IKA40 and IKA63										
GENERAL	Type			IK21	IKA40	IK40	IKA63	IK63		
	Standards			IEC/EN 61095, IEC/EN 60947-4-1, IEC 60947-5-1						
	Approvals			GOST	KEMA, GOST	KEMA, NF, GOST	KEMA, GOST	KEMA, NF, GOST		
	Module width			2	3					
	Mechanical endurance		op. c.	3 x 10 ⁶						
	Ambient temperature		°C	-5 ... +55						
	Storage temperature		°C	-30 ... +80						
	No. of contactors (side-by-side)	≤ 40 °C 40 - 55 °C		no limitation	no limitation	max. 3 max. 2	no limitation	max. 3 max. 2		
	Contact reliability			17 V; ≥50 mA						
	Min. distance of open contacts		mm	3.6						
	Power dissipation per pole		W	2	4		8			
	Overload current withstand capability		A	40	176		240			
	Max. back-up fuse for short-circuit protection gL Coordination type 2	<i>I_v</i>	A	20	63		80			
	Max. operating frequency	DC-1 AC-1/AC-3/AC-5b/AC-6b AC-15 no load	c./h		300 600 1200 3000					
	Weight		kg	0.17	0.35	0.42	0.35	0.42		
MAIN CIRCUIT	Rated insulation voltage	<i>U_i</i>	V	415	440		440			
	Rated impulse withstand voltage	<i>U_{imp}</i>	kV	4						
	Thermal current	<i>I_{th}</i>	A	20	40		63			
	Rated operational voltage	<i>U_e</i>	V	400						
	Rated frequency	<i>f</i>	Hz	50/60						
	Rated operational current	AC-1/AC-7a	<i>I_e</i>	A	20	40		63		
	Operational power	single-phase 230 V AC-1/AC-7a three-phase 230 V three-phase 400 V	<i>P_e</i>	kW	4 7.5 13	8.7 16 26		13.3 24 40		
	Electrical endurance	AC-1/AC-7a		op. c.	200.000	100.000		100.000		
	Rated operational current	AC-3/AC-7b	<i>I_e</i>	A	5	22		30		
	Operational power	single-phase 230 V AC-3/AC-7b three-phase 230 V three-phase 400 V	<i>P_e</i>	kW	0.37 ¹⁾ 1.1 2.2	3.7 ¹⁾ 5.5 11		5 ¹⁾ 8.5 15		
	Electrical endurance	AC-3/AC-7b		op. c.	300.000	150.000		150.000		
	Switching of capacitors	AC-6b	<i>C</i>	μF	36	220		330		
	Electrical endurance	AC-6b		op. c.	100.000					
	DC-1 (L/R ≤ 1 ms) Rated operational current:									
	1 pole	<i>U_e</i> = 24 V DC <i>U_e</i> = 48 V DC <i>U_e</i> = 60 V DC <i>U_e</i> = 110 V DC <i>U_e</i> = 220 V DC		A	20 12 6 2 0.5	40 24 18 4 1.2	63 26 20 4 1.2			
2 poles connected in series	<i>U_e</i> = 24 V DC <i>U_e</i> = 48 V DC <i>U_e</i> = 60 V DC <i>U_e</i> = 110 V DC <i>U_e</i> = 220 V DC		A	20 15 10 4 1.5	40 38 32 10 8	63 42 34 10 8				

1) Data for single-phase power are valid for versions -22, -20 and -02

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IK INSTALLATION CONTACTORS

IKA20, IKD20, IK21, IKA25, IKD25, IK40, IKA40, IK63, IKA63

TECHNICAL DATA FOR IK21, IK40, IK63, IKA40 and IKA63							
MAIN CIRCUIT	Type		IK21	IKA40	IK40	IKA63	IK63
	DC-1 ($L/R \leq 1$ ms) Electrical endurance:						
	3 poles connected in series	$U_e = 24$ V DC $U_e = 48$ V DC $U_e = 60$ V DC $U_e = 110$ V DC $U_e = 220$ V DC	A	20 20 20 6 2.5	40 40 40 30 20		63 63 60 35 30
	4 poles connected in series	$U_e = 24$ V DC $U_e = 48$ V DC $U_e = 60$ V DC $U_e = 110$ V DC $U_e = 220$ V DC		20 20 20 6 3.5	40 40 40 40 40		63 63 63 63 63
	Electrical endurance	DC-1	op. c.	100.000			
	DC-3 ($L/R \leq 2$ ms) Electrical endurance:		A				
	1 pole	$U_e = 24$ V DC $U_e = 48$ V DC $U_e = 60$ V DC $U_e = 110$ V DC $U_e = 220$ V DC		10 5 2 1 0.1	22 10 5 1.5 0.3		25 11 5 1.5 0.3
	2 poles connected in series	$U_e = 24$ V DC $U_e = 48$ V DC $U_e = 60$ V DC $U_e = 110$ V DC $U_e = 220$ V DC		20 10 8 4 0.4	40 20 16 5 1		45 22 18 5 1
	3 poles connected in series	$U_e = 24$ V DC $U_e = 48$ V DC $U_e = 60$ V DC $U_e = 110$ V DC $U_e = 220$ V DC		20 20 15 6 2.5	40 40 32 15 4		63 45 35 18 5
	4 poles connected in series	$U_e = 24$ V DC $U_e = 48$ V DC $U_e = 60$ V DC $U_e = 110$ V DC $U_e = 220$ V DC		20 20 15 6 3.5	40 40 40 40 10		63 63 63 63 10
	Electrical endurance	DC-3	op. c.	100.000			
	DC-5 ($L/R \leq 7,5$ ms) Electrical endurance:						
	1 pole	$U_e = 24$ V DC $U_e = 48$ V DC $U_e = 60$ V DC $U_e = 110$ V DC $U_e = 220$ V DC	A	10 4 1 0.3 0.06	20 8 4 1 0.2		25 10 5 1 0.2
	2 poles connected in series	$U_e = 24$ V DC $U_e = 48$ V DC $U_e = 60$ V DC $U_e = 110$ V DC $U_e = 220$ V DC		20 8 6 2 0.2	40 18 14 5 0.8		45 20 15 5 0.8

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IK INSTALLATION CONTACTORS

IKA20, IKD20, IK21, IKA25, IKD25, IK40, IKA40, IK63, IKA63

TECHNICAL DATA FOR IK21, IK40, IK63, IKA40 and IKA63										
MAIN CIRCUIT	Tip				IK21	IKA40	IK40	IKA63	IK63	
	DC-5 ($L/R \leq 7,5$ ms)									
	Electrical endurance:									
	3 poles connected in series		$U_e = 24$ V DC			20	40		63	
			$U_e = 48$ V DC			20	40		44	
			$U_e = 60$ V DC			15	28		30	
			$U_e = 110$ V DC			5	12		15	
			$U_e = 220$ V DC			1.5	3		4	
	4 poles connected in series		$U_e = 24$ V DC			20	40		63	
			$U_e = 48$ V DC			20	40		63	
		$U_e = 60$ V DC			15	40		60		
		$U_e = 110$ V DC			5	35		45		
		$U_e = 220$ V DC			3	8		10		
Electrical endurance		DC-5	op. c.	100.000						
Terminal capacity	rigid		S	mm ²	1 ... 2.5	1.5 ... 25				
	flexible				1 ... 2.5	1.5 ... 16				
Screw					M3.5	M5				
Head screw					PZ2					
Tightening torque				Nm	1.2	3.5				
AUXILIARY CIRCUIT	Rated operational voltage		U_e	V	400					
	Rated insulation voltage		U_i	V	415	440				
	Rated impulse withstand voltage		U_{imp}	kV	4					
	Thermal current		I_{th}	A	20	40	63			
	AC-15	Rated operational current		I_e	A	6				
		single-phase	230 V			4				
Electrical endurance		AC-15	op. c.	300.000	150.000	150.000				
CONTROL CIRCUIT	Range at control voltage		U_c	%	85 ... 110					
	Kind of voltages				AC	AC	AC. DC	AC	AC. DC	
	Control voltage		U_c	V	12 ... 230					
	Frequency (AC)		f	Hz	50/60 ²⁾					
	Surge immunity test (1.2/50 μ s), acc. to IEC/EN 61000-4-5			kV	2					
	Coil consumption	switch-on		VA/W	30/25	15.4/6	5/5	15.4/6	5/5	
		operation			5/1.5	7.7/3	5/5	7.7/3	5/5	
	Make/break delays	make		ms	7 – 20	10 – 20	15 – 20	10 – 20	15 – 20	
		break			10 – 20	10 – 15	35 – 45	10 – 15	35 – 45	
	Terminal capacity	rigid		S	mm ²	1 ... 2.5				
		flexible				1 ... 2.5				
Screw					M3.5	M3				
Screw head					PZ2	PZ1				
Tightening torque				Nm	0.6					

²⁾ IK40 and IK63 can be controlled by ac voltage with frequency from 40 Hz to 400 Hz

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IK INSTALLATION CONTACTORS

IKA20, IKD20, IK21, IKA25, IKD25, IK40, IKA40, IK63, IKA63

SWITCHING OF LAMPS							
Type	Power (W)	Current (A)	C (μF)	Max. number of lamps per pole at 230 V 50 Hz			
				IKA20, IKD20, IK21	IKA25, IKD25	IKA40, IK40	IKA63, IK63
Incandescent lamps and tungsten halogen lamps	15	0.07	–	130	130	260	330
	25	0.11	–	80	80	160	200
	40	0.18	–	50	50	100	125
	60	0.26	–	33	66	65	85
	75	0.33	–	26	26	53	66
	100	0.44	–	20	20	40	50
	150	0.65	–	13	13	26	33
	200	0.87	–	10	10	20	25
	300	1.30	–	6	6	13	16
	500	2.17	–	3	3	8	10
	1000	4.35	–	1	1	4	5
Energy saving lamps	3	0.03	–	50	60	150	200
	5	0.04	–	45	55	135	180
	7	0.055	–	40	50	120	160
	8	0.065	–	35	45	110	150
	9	0.075	–	30	40	100	140
	10	0.08	–	30	40	100	140
	11	0.09	–	30	40	100	140
	12	0.1	–	25	35	95	120
	14	0.11	–	25	35	90	120
	15	0.12	–	20	30	85	115
	16	0.13	–	20	30	80	105
	18	0.145	–	18	26	70	95
	20	0.16	–	17	22	65	85
	21	0.17	–	15	20	60	80
23	0.185	–	15	20	60	70	
24	0.195	–	15	20	55	70	
30	0.16	–	15	20	55	70	
Compact fluorescent lamps - series correction	10	0.19	1,4	50	60	105	165
	13	0.18	1,4	50	60	105	165
	18	0.23	1,7	40	50	85	135
	26	0.33	2,5	30	35	60	95
	18	0.38	2,7	25	30	50	80
	24	0.35	2,7	25	30	50	80
36	0.44	3,4	20	25	45	70	
Compact fluorescent lamps - parallel correction	5	0.18	2,2	13	16	100	150
	7	0.18	2,1	14	17	104	157
	9	0.17	2,0	15	18	110	165
	10	0.19	2,2	13	16	100	150
	11	0.16	1,7	17	21	125	194
	13	0.18	1,8	16	20	120	183
	18	0.23	2,3	13	15	95	143
	26	0.33	3,3	9	11	66	100
	18	0.38	4,2	7	8	52	78
	24	0.35	3,6	8	10	61	91
36	0.44	4,4	6	8	50	75	

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IK INSTALLATION CONTACTORS

IKA20, IKD20, IK21, IKA25, IKD25, IK40, IKA40, IK63, IKA63

SWITCHING OF LAMPS

Type	Power (W)	Current (A)	C (μF)	Max. number of lamps per pole at 230 V 50 Hz				
				IKA20, IKD20, IK21	IKA25, IKD25	IKA40, IK40	IKA63, IK63	
Compact fluorescent lamps with electronic control gear (ECG)	5	0.05	–	45	63	180	250	
	7	0.05	–	45	63	180	250	
	9	0.07	–	32	45	128	180	
	10	0.07	–	32	45	128	180	
	11	0.07	–	32	45	128	180	
	13	0.07	–	32	45	128	180	
	18	0.22	–	10	14	40	57	
	24	0.22	–	10	14	40	57	
	26	0.22	–	10	14	40	57	
	32	0.22	–	10	14	40	57	
	36	0.22	–	10	14	40	57	
	40	0.22	–	10	14	40	57	
	42	0.22	–	10	14	40	57	
	55	0.28	–	8	11	32	45	
	57	0.28	–	8	11	32	45	
	70	0.35	–	6	9	25	36	
	80	0.41	–	5	8	22	30	
	120	0.58	–	4	5	15	22	
	2 x 9	0.11	–	–	2 x 16	2 x 22	2 x 90	2 x 125
	2 x 10	0.11	–	–	2 x 16	2 x 22	2 x 90	2 x 125
2 x 11	0.11	–	–	2 x 16	2 x 22	2 x 90	2 x 125	
2 x 13	0.11	–	–	2 x 16	2 x 22	2 x 90	2 x 125	
2 x 18	0.30	–	–	2 x 5	2 x 7	2 x 20	2 x 28	
2 x 24	0.31	–	–	2 x 5	2 x 7	2 x 20	2 x 28	
2 x 26	0.31	–	–	2 x 5	2 x 7	2 x 20	2 x 28	
2 x 32	0.31	–	–	2 x 5	2 x 7	2 x 20	2 x 28	
2 x 36	0.31	–	–	2 x 5	2 x 7	2 x 20	2 x 28	
2 x 40	0.40	–	–	2 x 4	2 x 6	2 x 18	2 x 26	
2 x 42	0.40	–	–	2 x 4	2 x 6	2 x 18	2 x 26	
2 x 55	0.55	–	–	2 x 3	2 x 5	2 x 16	2 x 22	
2 x 57	0.55	–	–	2 x 3	2 x 5	2 x 16	2 x 22	
Fluorescent lamps - uncorrected or series correction	11	0.16	1.3	55	70	125	200	
	18	0.37	2.7	22	24	90	140	
	24	0.35	2.5	22	24	90	140	
	36	0.43	3.4	17	20	65	95	
	58	0.67	5.3	14	17	45	70	
	65	0.67	5.3	14	17	35	50	
85	0.80	5.3	12	15	25	40		
Fluorescent lamps - lead-lag circuit	2 x 11	0.07	–	2 x 50	2 x 60	2 x 140	2 x 200	
	2 x 18	0.11	–	2 x 30	2 x 40	2 x 100	2 x 150	
	2 x 24	0.14	–	2 x 24	2 x 31	2 x 78	2 x 118	
	2 x 36	0.22	–	2 x 17	2 x 24	2 x 65	2 x 95	
	2 x 58	0.35	–	2 x 10	2 x 14	2 x 40	2 x 60	
	2 x 65	0.35	–	2 x 9	2 x 13	2 x 30	2 x 45	
2 x 85	0.47	–	2 x 6	2 x 10	2 x 20	2 x 30		

Contactors

IK INSTALLATION CONTACTORS

IKA20, IKD20, IK21, IKA25, IKD25, IK40, IKA40, IK63, IKA63

SWITCHING OF LAMPS							
Type	Power (W)	Current (A)	C (μF)	Max. number of lamps per pole at 230 V 50 Hz			
				IKA20, IKD20, IK21	IKA25, IKD25	IKA40, IK40	IKA63, IK63
Fluorescent lamps - parallel correction	11	0.16	3.5	9	10	62	94
	18	0.37	4.5	7	8	48	73
	24	0.35	4.5	7	8	48	73
	36	0.34	4.5	7	8	48	73
	58	0.67	7.0	4	5	31	47
	65	0.67	7.0	4	5	31	47
	85	0.80	8.0	3	4	27	41
Fluorescent lamps with electronic control gear (ECG)	18	0.09	–	25	35	100	140
	36	0.16	–	15	20	52	75
	58	0.25	–	14	19	50	72
	2 x 18	0.17	–	2 x 12	2 x 17	2 x 50	2 x 70
	2 x 36	0.32	–	2 x 7	2 x 10	2 x 26	2 x 38
	2 x 58	0.49	–	2 x 7	2 x 9	2 x 25	2 x 36
High-pressure mercury-vapour lamps - uncorrected	50	0.61	–	14	18	38	55
	80	0.80	–	10	13	29	42
	125	1.15	–	7	9	20	29
	250	2.15	–	4	5	10	15
	400	3.25	–	2	3	7	10
	700	5.40	–	1	2	4	6
	1000	7.50	–	1	1	3	4
High-pressure mercury-vapour lamps - parallel correction	50	0.28	7	4	5	31	47
	80	0.41	8	4	5	27	41
	125	0.65	10	3	4	22	33
	250	1.22	18	1	2	12	18
	400	1.95	25	1	1	9	13
	700	3.45	45	–	–	5	7
	1000	4.80	60	–	–	4	5
Metal halide lamps - uncorrected	35	0.35	–	18	22	43	60
	70	1.00	–	10	12	23	32
	150	1.80	–	5	7	12	18
	250	3.00	–	3	4	7	10
	400	3.50	–	3	3	6	9
	1000	9.50	–	1	1	2	3
	2000	16.50	–	–	–	1	1
Metal halide lamps - parallel correction	35	0.25	6	5	6	36	50
	70	0.45	12	2	3	18	25
	150	0.75	20	1	1	11	15
	250	1.50	33	–	1	6	9
	400	2.50	35	–	1	6	8
	1000	5.80	95	–	–	2	3
	2000	11.50	148	–	–	1	2

Contactors

IK INSTALLATION CONTACTORS

IKA20, IKD20, IK21, IKA25, IKD25, IK40, IKA40, IK63, IKA63

SWITCHING OF LAMPS							
Type	Power (W)	Current (A)	C (μF)	Max. number of lamps per pole at 230 V 50 Hz			
				IKA20, IKD20, IK21	IKA25, IKD25	IKA40, IK40	IKA63, IK63
Metal halide lamps with electronic control gear (PCI) + 50-125x I_n lamp for 0,6 ms	20	0.10	–	9	9	18	20
	35	0.20	–	6	6	11	13
	70	0.36	–	5	5	10	12
	150	0.70	–	4	4	8	10
High-pressure sodium-vapour lamps - uncorrected	150	1.8	–	5	6	17	22
	250	3.0	–	3	4	10	13
	400	4.7	–	2	2	6	8
	1000	10.3	–	–	1	3	3
High-pressure sodium-vapour lamps - correction	150	0.83	20	1	1	11	16
	250	1.50	33	–	1	6	10
	400	2.40	48	–	–	4	6
	1000	6.30	106	–	–	2	3
High-pressure sodium-vapour lamps with electronic control gear (PCI) + 50-125 x I_n lamp for 0,6 ms	20	0.10	–	9	9	18	20
	35	0.20	–	6	6	11	13
	70	0.36	–	5	5	10	12
	150	0.70	–	4	4	8	10
Low-pressure sodium-vapour lamps - uncorrected	18	0.35	–	22	27	71	90
	35	1.50	–	7	9	23	30
	55	1.50	–	7	9	23	30
	90	2.40	–	4	5	14	19
	135	3.50	–	3	4	10	13
	180	3.50	–	3	4	10	13
Low-pressure sodium-vapour lamps - parallel correction	18	0.35	5	6	7	44	66
	35	0.31	20	1	1	11	16
	55	0.42	20	1	1	11	16
	90	0.63	26	1	1	8	12
	135	0.94	45	–	–	4	7
	180	1.16	40	–	–	5	8
Transformers for low-voltage tungsten halogen lamps	20	–	–	40	52	110	174
	50	–	–	20	24	50	80
	75	–	–	13	16	35	54
	100	–	–	10	12	27	43
	150	–	–	7	9	19	29
	200	–	–	5	6	14	23
	300	–	–	3	4	9	14

Contactors

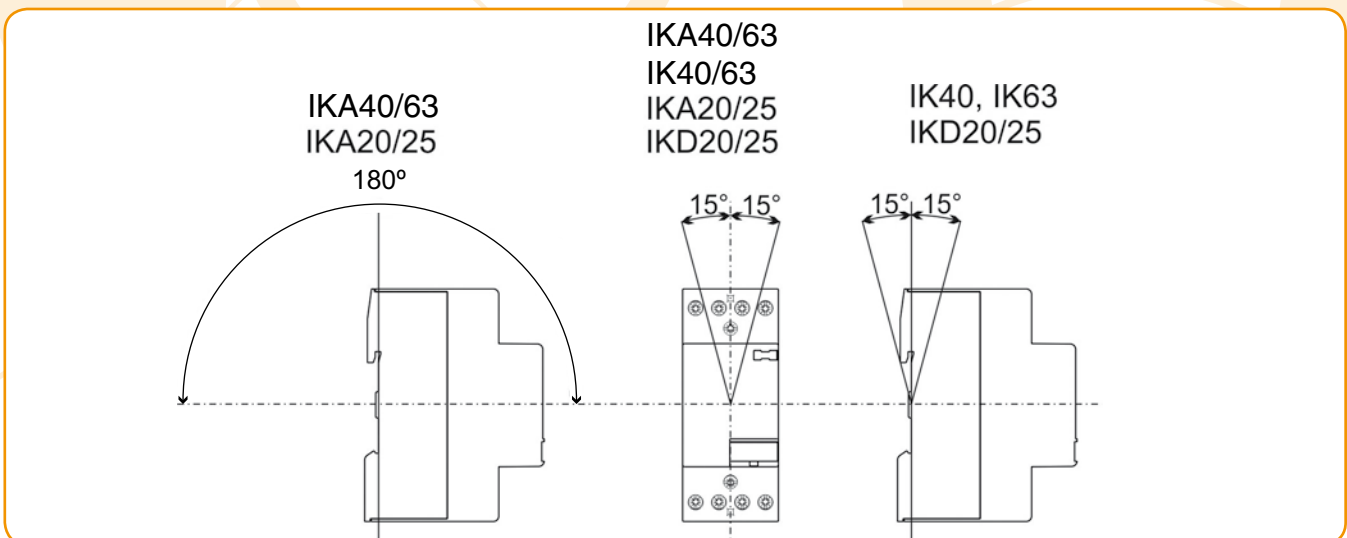
IK INSTALLATION CONTACTORS

IKA20, IKD20, IK21, IKA25, IKD25, IK40, IKA40, IK63, IKA63

SWITCHING OF LAMPS							
Type	Power (W)	Current (A)	C (μF)	Max. number of lamps per pole at 230 V 50 Hz			
				IKA20, IKD20, IK21	IKA25, IKD25	IKA40, IK40	IKA63, IK63
Fluorescent lamps T5 with electronic control gear (ECG)	22	0.11	FC	22	30	80	110
	40	0.21		12	15	40	60
	55	0.28		8	12	30	45
	14	0.08	HE	30	40	105	150
	21	0.11		22	30	80	115
	28	0.14		18	22	60	90
	35	0.18		14	18	48	70
	24	0.12	HO	20	26	70	100
	39	0.20		12	16	42	62
	49	0.24		10	14	35	52
	54	0.27		9	13	32	47
	80	0.39		6	8	22	32
	2 x 22	0.23	2 x FC	2 x 11	2 x 15	2 x 40	2 x 55
	2 x 40	0.42		2 x 6	2 x 7	2 x 20	2 x 30
	2 x 55	0.55		2 x 4	2 x 6	2 x 15	2 x 22
	2 x 14	0.15	2 x HE	2 x 15	2 x 20	2 x 52	2 x 75
	2 x 21	0.22		2 x 11	2 x 15	2 x 40	2 x 57
	2 x 28	0.28		2 x 9	2 x 11	2 x 20	2 x 45
	2 x 35	0.36		2 x 7	2 x 9	2 x 24	2 x 35
	2 x 24	0.24		2 x HO	2 x 10	2 x 13	2 x 35
2 x 39	0.39	2 x 6	2 x 8		2 x 21	2 x 31	
2 x 49	0.48	2 x 5	2 x 7		2 x 17	2 x 26	
2 x 54	0.54	2 x 4	2 x 6		2 x 16	2 x 23	
2 x 80	0.74	2 x 3	2 x 4		2 x 11	2 x 16	

IK21 contactors operation position is optional.

Operation position for contactors IKA20, IKD20, IKA25, IKD25, IK40, IKA40, IK63 and IKA63:

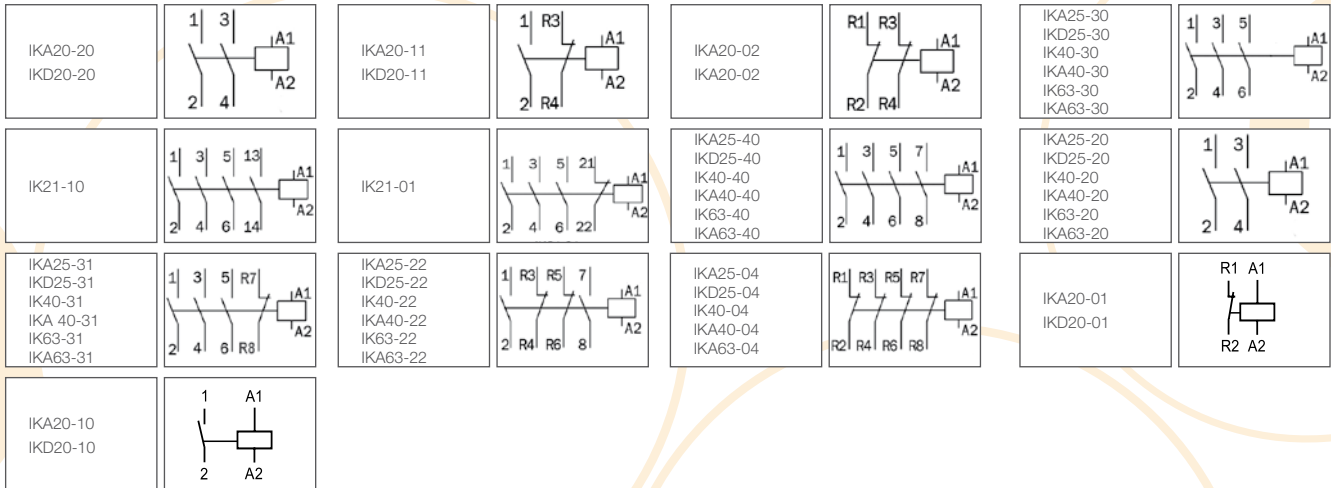


Contactors

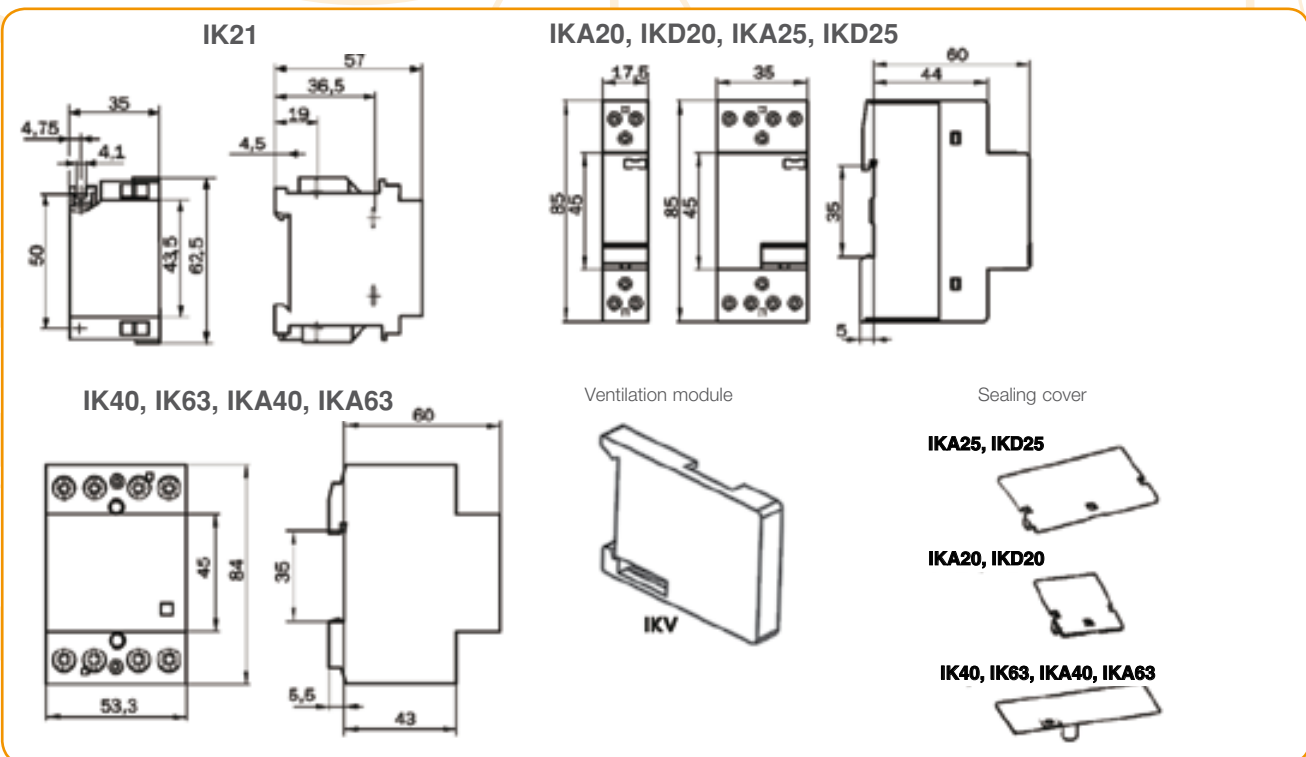
IK INSTALLATION CONTACTORS

IKA20, IKD20, IK21, IKA25, IKD25, IK40, IKA40, IK63, IKA63

CONTACT ARRANGEMENTS



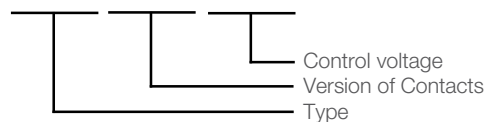
DIMENSIONS



ORDERING DATA

The type designation and control voltage should be stated when ordering the contactors.

IK63 - 40 / 220/230



Contactors

IK-R INSTALLATION CONTACTORS

IKA20-R, IKA25-R, IKD20-R, IKD25-R



- IKA20-R, IKD20-R, IKA25-R and IKD25-R are upgraded versions of basic types of installation contactors
- Besides basic functions they enable manual control with a handle
- Description of the handle positions:
 - A: the contactor functions as an installation contactor without manual control
 - O: permanently switched off control voltage
 - I: at manual shifting the handle from position A to I, make contacts are closed and break contacts are open. When control voltage is applied, the handle is automatically set to position A.
- IKD20-R and IKD25-R are provided with a varistor for overvoltage protection and a rectifier, which enables control with AC and DC voltage
- Contactors with manual control enable
 - switching depending on tariff (selection of the most convenient tariff)
 - switching when control voltage is not applied
- Degree of protection IP20
- Technical data for lamps are identical to installation contactors without manual operation IKA20, IKD20, IKA25 and IKD25

TECHNICAL DATA

				IKA20-R	IKD20-R	IKA25-R	IKD25-R
GENERAL	Type						
	Standards			IEC/EN 61095, IEC/EN 60947-4-1, IEC 60947-5-1			
	Approvals			NF, GOST, KEMA	NF, GOST, KEMA	NF, GOST, KEMA	GOST, KEMA
	Module width			1		2	
	Mechanical endurance		op. c.	3 x 10 ⁶			
	Ambient temperature		°C	-5 ... +55			
	Storage temperature		°C	-30 ... +80			
	No. of contactors (side-by-side)	≤40 °C		max. 3	max. 3	no limit	max. 3
		40 - 55 °C		max. 2	max. 2		max. 2
	Contact reliability			17 V; ≥ 50 mA			
	Min. distance of open contacts		mm	3,6			
	Power dissipation per pole		W	1.7	1.7	2.2	2.2
	Overload current withstand capability		A	72	72	68	68
	Max. back-up fuse for short-circuit protection gL Coordination type 2		I _v A	20	20	25	25
	MAIN CIRCUIT	Max. operating frequency	DC-1		300		
		AC-1/AC-3/AC-5b/AC-6b/ AC-15		600			
		no load		3000			
Weight			kg	0.13	0.13	0.24	0.24
Rated insulation voltage			U _i V	230	230	440	440
Rated impulse withstand voltage			U _{imp} kV	4			
Thermal current			I _{th} A	20	20	25	25
Rated operational voltage			U _e V	230	230	400	400
Rated frequency			f Hz	50/60			
Rated operational current		AC-1/AC-7a	I _e A	20	20	25	25
Operational power	single-phase	230 V		4	4	5.4	5.4
	three-phase	230 V	P _e kW	-	-	9	9
	three-phase	400 V		-	-	16	16
Electrical endurance	AC-1/AC-7a	op. c.	200.000				

Contactors

IK-R INSTALLATION CONTACTORS

IKA20-R, IKA25-R, IKD20-R, IKD25-R

TECHNICAL DATA								
MAIN CIRCUIT	Type				IKA20-R	IKD20-R	IKA25-R	IKD25-R
	Rated operational current	AC-3/AC-7b	I_e	A	NO: 9 NC: 6	NO: 9 NC: 6	8,5	8,5
	Operational power	single-phase 230 V	P_e	kW	NO: 1,3 NC: 0,75	NO: 1,3 NC: 0,75	1,3 ¹⁾	1,3 ¹⁾
	AC-3/AC-7b	three-phase 230 V			-	-	2,2	2,2
		three-phase 400 V			-	-	4	4
	Electrical endurance	AC-3/AC-7b		op. c.	300.000	300.000	500.000	500.000
	Switching of capacitors	AC-6b	C	μ F	30	30	36	36
	Electrical endurance	AC-6b 230 V		op. c.	100.000			
	DC-1 ($L/R \leq 1$ ms)							
	Rated operational current:							
	1 pole	$U_e = 24$ V DC		A	20	20	25	25
		$U_e = 48$ V DC			15	15	20	20
		$U_e = 60$ V DC			10	10	15	15
		$U_e = 110$ V DC			6	6	6	6
		$U_e = 220$ V DC			0.6	0.6	0.6	0.6
	2 poles connected in series	$U_e = 24$ V DC			20	20	25	25
		$U_e = 48$ V DC			18	18	25	25
		$U_e = 60$ V DC			15	15	20	20
		$U_e = 110$ V DC			10	10	10	10
		$U_e = 220$ V DC			6	6	6	6
	3 poles connected in series	$U_e = 24$ V DC			-	-	25	25
		$U_e = 48$ V DC			-	-	25	25
	$U_e = 60$ V DC		-		-	25	25	
	$U_e = 110$ V DC		-		-	20	20	
	$U_e = 220$ V DC		-		-	15	15	
4 poles connected in series	$U_e = 24$ V DC		-		-	25	25	
	$U_e = 48$ V DC		-	-	25	25		
	$U_e = 60$ V DC		-	-	25	25		
	$U_e = 110$ V DC		-	-	20	20		
	$U_e = 220$ V DC		-	-	15	15		
Electrical endurance	DC-1		op. c.	100.000				
DC-3 ($L/R \leq 2$ ms)								
Rated operational current:								
1 pole	$U_e = 24$ V DC		A	10	10	15	15	
	$U_e = 48$ V DC			5	5	8	8	
	$U_e = 60$ V DC			2	2	4	4	
	$U_e = 110$ V DC			1	1	1.3	1.3	
	$U_e = 220$ V DC			0.1	0.1	0.2	0.2	
2 poles connected in series	$U_e = 24$ V DC			20	20	25	25	
	$U_e = 48$ V DC			10	10	16	16	
	$U_e = 60$ V DC			8	8	12	12	
	$U_e = 110$ V DC			4	4	5.5	5.5	
	$U_e = 220$ V DC			0.4	0.4	0.6	0.6	
3 poles connected in series	$U_e = 24$ V DC			-	-	25	25	
	$U_e = 48$ V DC			-	-	25	25	
	$U_e = 60$ V DC			-	-	25	25	
	$U_e = 110$ V DC			-	-	15	15	
	$U_e = 220$ V DC			-	-	3	3	
4 poles connected in series	$U_e = 24$ V DC			-	-	25	25	
	$U_e = 48$ V DC			-	-	25	25	
	$U_e = 60$ V DC			-	-	25	25	
	$U_e = 110$ V DC			-	-	20	20	
	$U_e = 220$ V DC			-	-	8	8	
Electrical endurance	DC-3		op. c.	100.000				

1) Data for single-phase power are valid for versions -22, -20 and -02

Contactors

IK-R INSTALLATION CONTACTORS

IKA20-R, IKA25-R, IKD20-R, IKD25-R

TECHNICAL DATA											
MAIN CIRCUIT	Type				IKA20-R	IKD20-R	IKA25-R	IKD25-R			
	DC-5 ($L/R \leq 7,5$ ms)										
	Rated operational current:										
	1 pole	$U_e = 24$ V DC				10	10	15	15		
		$U_e = 48$ V DC				4	4	5	5		
		$U_e = 60$ V DC				1	1	3	3		
		$U_e = 110$ V DC				0.3	0.3	0.5	0.5		
		$U_e = 220$ V DC				0.06	0.06	0.1	0.1		
	2 poles connected in series	$U_e = 24$ V DC				20	20	25	25		
		$U_e = 48$ V DC				8	8	15	15		
		$U_e = 60$ V DC				6	6	10	10		
		$U_e = 110$ V DC				2	2	4	4		
	$U_e = 220$ V DC				0.2	0.2	0.4	0.4			
3 poles connected in series	$U_e = 24$ V DC				–	–	25	25			
	$U_e = 48$ V DC				–	–	25	25			
	$U_e = 60$ V DC				–	–	20	20			
	$U_e = 110$ V DC				–	–	12	12			
	$U_e = 220$ V DC				–	–	2	2			
4 poles connected in series	$U_e = 24$ V DC				–	–	25	25			
	$U_e = 48$ V DC				–	–	25	25			
	$U_e = 60$ V DC				–	–	25	25			
	$U_e = 110$ V DC				–	–	15	15			
	$U_e = 220$ V DC				–	–	5	5			
Electrical endurance	DC-5				op. c.	100.000					
Terminal capacity	rigid	S			1 ... 10						
	flexible				1 ... 6						
Screw					M3.5						
Head screw					PZ1						
Tightening torque					1.2						
AUXILIARY CIRCUIT	Rated operational voltage	U_e	V	230	230	400	400				
	Rated insulation voltage	U_i	V	230	230	440	440				
	Rated impulse withstand voltage	U_{imp}	kV	4							
	Thermal current	I_{th}	A	20	20	25	25				
	AC-15										
	Rated operational current	single-phase 230 V	I_e	A	6	6	6	6			
	single-phase 400 V			–	–	4	4				
Electrical endurance	AC-15				300.000	300.000	500.000	500.000			
CONTROL CIRCUIT	Range of control voltage	U_c	%	85 ... 110							
	Kind of voltages				AC	AC, DC	AC	AC, DC			
	Control voltages	U_c	V	12 ... 230							
	Frequency (AC)	f	Hz	50/60 ²⁾							
	Surge immunity test (1.2/50 μ s), acc. to IEC/EN 61000-4-5				kV 2						
	Coil consumption	switch-on (handle in A)			12/10	2.1/2.1	33/25	2.6/2.6 ³⁾			
		switch-on (handle in I)			6/3.8	2.1/2.1	10/5	2.6/2.6 ³⁾			
		operation			2.8/1.2	2.1/2.1	5.5/1.6	2.6/2.6 ³⁾			
	Make/break delays	make			15 – 25	15 – 45	10 – 30	15 – 45			
		break			10 – 30	20 – 50	10 – 30	20 – 70			
Terminal capacity	rigid	S			1 ... 2.5						
	flexible				1 ... 2.5						
Screw					M3						
Screw head					PZ1						
Tightening torque					Nm 0.6						

²⁾ IKD20-R and IKD25-R can be controlled by ac voltage with frequency from 40 Hz to 400 Hz

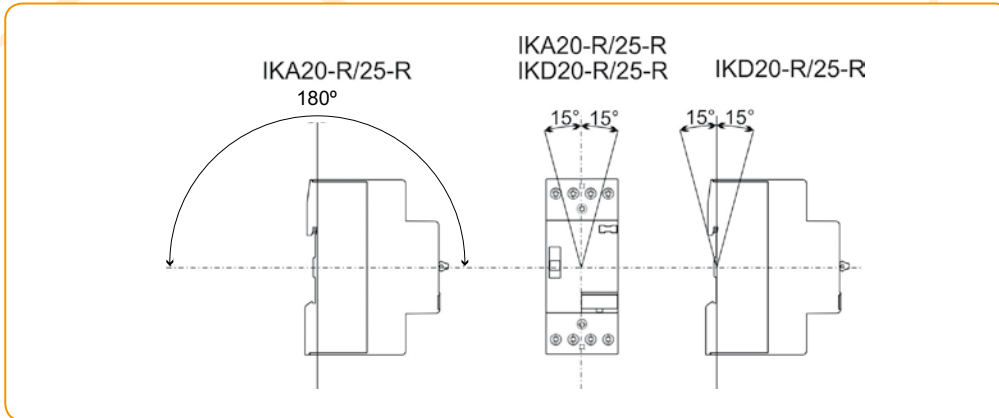
³⁾ Coil consumption for version -04 is 3.8 VA / 3.8 W

Contactors

IK-R INSTALLATION CONTACTORS

IKA20-R, IKA25-R, IKD20-R, IKD25-R

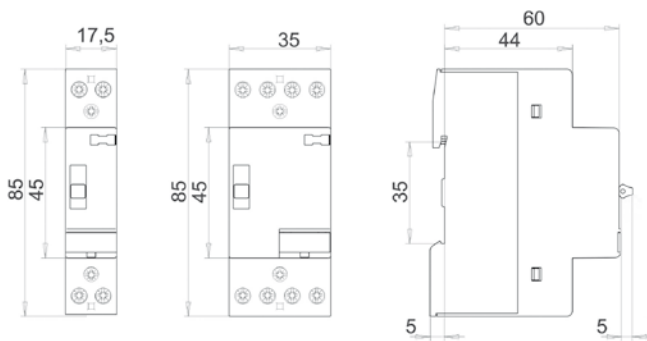
OPERATION POSITION FOR CONTACTORS IKA20-R, IKD20-R, IKA25-R, IKD25-R



DIMENSIONS

CONTACT ARRANGEMENTS

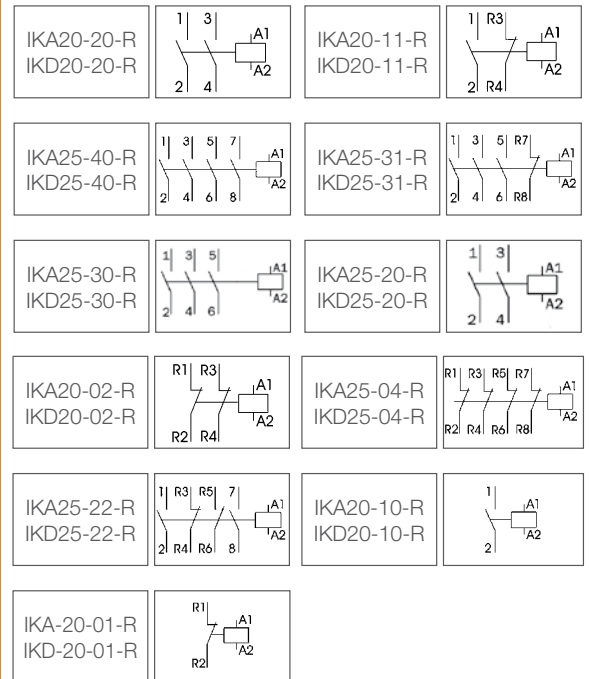
IKA20-R, IKD20-R, IKA25-R, IKD25-R



SEALING COVER



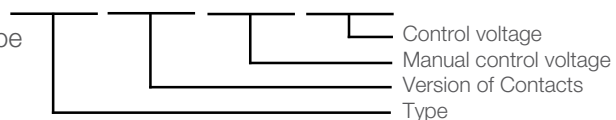
Ventilation module



ORDERING DATA

The type designation and control voltage should be stated when ordering the contactors.

IKA20 - 20 - R / 230



Contactors

IKN AUXILIARY SWITCH



The IKN auxiliary switch is mainly used for indicating the contactor switching condition and also for control of heavier electromagnetic loads (above 72 VA).

The IKN auxiliary switch is provided with two contacts in the following versions:

- version-11 with one break and one make contact
- version-20 with two make contacts
- version-02 with two break contacts

Degree of protection IP20.

This auxiliary switch can be used at contactors IKA20-R, IKA25-R, IKD25-R, IKA20, IKA25, IKD25, IK40, IK63

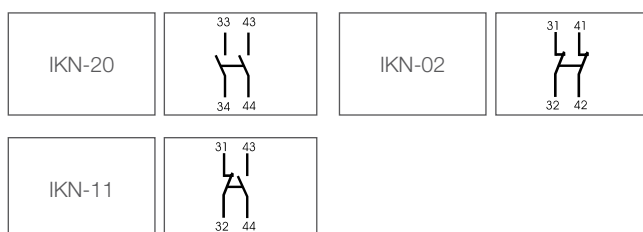
Available also special versions of auxiliary switch with UL certificate (contact us for details)

The auxiliary switch should not be applied in combination with IKD20 and IKD20-R.

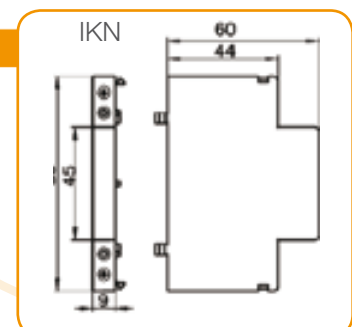
TEHNNICAL DATA

GENERAL	Type			IKN	
	Standards			IEC/EN 60947-5-1	
	Approvals			KEMA, NF, GOST	
	Module width			½	
MAIN CIRCUIT	Rated insulation voltage	U_i	V	500	
	Rated impulse withstand voltage	U_{imp}	kV	4	
	Thermal current	I_{th}	A	6	
	Rated operational voltage	U_e	V	230	
				400	
	Rated operational current AC-15	I_e	A	$U_e = 230\text{ V}$ 6	
				$U_e = 400\text{ V}$ 4	
	Electrical endurance		op. c.	50,000	
	Mechanical endurance		op. c.	3×10^6	
	Min. distance of open contacts		mm	4	
	Contact reliability			12 V; $\geq 5\text{ mA}$	
	Power loss per pole		W	0.3	
	Weight		kg	0.035	
	Max. back-up fuse for short-circuit protection gL Coordination type 2.	I_v	A	6	
	Terminal capacity	rigid	S	mm ²	1 ... 2.5
		flexible			1 ... 2.5
	Screw			M3	
Screw head			PZ1		
Tightening torque		Nm	0.6		

CONTACT ARRANGEMENTS



DIMENSIONS



Contactors

IK INSTALLATION CONTACTORS

IKA20, IKD20, IK21, IKA25, IKD25, IK40, IKA40, IK63, IKA63



INTENDED USE:

- Customer units in dwellings
- Business premises
- Hotels
- Hospitals
- Shopping centres
- Sport centres
- Production halls
- Warehouses
- Public places

REMOTE SWITCHING AND AUTOMATIC CONTROL:

- Single-phase motors
- Three-phase motors
- Different pumps
- Air-conditioning
- Electric heating
- Lighting

SILENT OPERATION:

- Rectifier enable AC or DC voltage control
- Overvoltage protection with varistor
- IKD20, IKD25, IK40 and IK63

AC CONTROL:

- Fast switching
- IKA20, IKA25, IKA40 and IKA63

OTHER BENEFITS:

- Used as main or auxiliary
- Mounting on DIN rail
- Sealing terminal covers for direct protection against contact with live parts
- IKV ventilation module for preventing exceeded heating when contactors are used side-by-side

TECHNICAL DATA				IKA20	IKD20	IKA25	IKD25
GENERAL	Type						
	Standards			UL 508, CSA C22.2 No. 14, IEC 60947-4-1, EN 60947-4-1, IEC 61095, EN 61095, IEC 60947-5-1, EN 60947-5-1			
	Approvals			UL, CSA			
	Protection degree			IP20			
	Mechanical endurance		op. c.	3.000.000			
	Ambient temperature			23 °F...104 °F/-5 °C...+40 °C			
	Storage temperature			-22 °F...176 °F/-30 °C...+80 °C			
	No. of contactors side-by-side without ventilation module			max. 3		no limitation	max. 3
	Contact reliability			17 V/≥50 mA			
	Min. distance of open contacts		in/mm	0.1417/3.6			
	Power dissipation per pole		W	1.7	1.7	2.2	2.2
	Overload current withstand capability (10 s)		A	72	72	68	68
	Max. back-up fuse for short-circuit protection			20 A (gL) 20 A (K5)	20 A (gL) 20 A (K5)	25 A (gL) 25 A (K5)	25 A (gL) 25 A (K5)
	Max. operating frequency	No load		3000			
AC-1/AC-3/AC-6b			600				
AC-15			1200				
El. switching acc. UL 508			360				
Weight		lb/kg	0.29/0.13	0.29/0.13	0.53/0.24	0.53/0.24	

Contactors

IK INSTALLATION CONTACTORS

IKA20, IKD20, IK21, IKA25, IKD25, IK40, IKA40, IK63, IKA63

TECHNICAL DATA										
MAIN CIRCUIT - UL/CSA			Type				IKA20	IKD20	IKA25	IKD25
MAIN CIRCUIT - UL/CSA	Motor power	1-phase	120 V	HP			1/3	1/3	1/3	1/3
		1-phase	208 V				3/4	3/4	3/4	3/4
		1-phase	240 V				1	1	1	1
		3-phase	120 V					1	1	1
		3-phase	208 V					2	2	2
		3-phase	240 V					3	3	3
		3-phase	480 V					5	5	5
	General use	1-phase	240 V	A			20	20		
		3-phase	480 V					25	25	
	Discharge lamps (standard ballast)	1-phase	240 V	A			20	20		
3-phase		480 V					25	25		
Auxiliary circuit						B300, P300	B300, P300	B300, P300	B300, P300	
Rated insulation voltage			U_i	V		300	300	500	500	
Rated impulse withstand voltage			U_{imp}	kV		4	4	4	4	
Thermal current			I_{th}	A		20	20	25	25	
Rated operational voltage			U_e	V		230	230	400	400	
Rated frequency			f	Hz		50/60	50/60	50/60	50/60	
Rated operational current AC-1/AC-7a			I_e	A		20	20	25	25	
Operational power AC-1/AC-7a	1-phase	230 V	P_e	W		4	4	5.4	5.4	
	3-phase	230 V					9	9	9	
	3-phase	400 V					16	16	16	
Electrical endurance AC-1/AC-7a				op. c.					200000	
Rated operational current AC-3/AC-7b			I_e	A		9 NO/6 NC	9 NO/6 NC	8.5	8.5	
Operational power AC-3/AC-7b	1-phase	230 V	P_e	A		1.3 NO/0.75 NC	1.3 NO/0.75 NC	1.3	1.3	
	3-phase	230 V					2.2	2.2	2.2	
	3-phase	400 V					4	4	4	
Electrical endurance AC-3/AC-7b				op. c.		300000			500000	
Switching of capacitor AC-6b			230 V	C	μ F	30	30	36	36	
Electrical endurance AC-6b				op. c.				100000		
Auxiliary circuit	1-phase	230 V	I_e	A		6	6	6	6	
	Rated operational current AC-15	400 V					4	4	4	4
Electrical endurance AC-15				op. c.		300000			500000	
Terminal capacity	Rigid		S	AWG/ mm ²		16...10/1...10	16...10/1...10	16...10/1...10	16...10/1...10	
	Flexible					16...8/1...6	16...8/1...6	16...8/1...6	16...8/1...6	
Screw						M3.5	M3.5	M3.5	M3.5	
Screw head						PZ1	PZ1	PZ1	PZ1	
Tightening torque				lb-in/Nm		10.62/1.2	10.62/1.2	10.62/1.2	10.62/1.2	
Range of control voltage			U_c	%		85...110				
Control voltages			U_c	V		12...240				
Kind of voltage			U_c			AC	AC, DC	AC	AC, DC	
Surge immunity test (1.2/50 μ s), acc. to IEC/EN 61000-4-5				kV		2				
Coil consumption	Switch-on			VA/W		12/10	2.1/2.1	33/25	2.6/2.6 ¹⁾	
	Operation					2.8/1.2	2.1/2.1	5.5/1.6	2.6/2.6 ¹⁾	
Make/break delays	Make			ms		15...25	15...45	10...30	15...45	
	Break					10...30	20...50	10...30	20...70	
Terminal capacity	Rigid		S	AWG/ mm ²		16...14/1...2.5	16...14/1...2.5	16...14/1...2.5	16...14/1...2.5	
	Flexible					16...14/1...2.5	16...14/1...2.5	16...14/1...2.5	16...14/1...2.5	
Screw						M3	M3	M3	M3	
Screw head						PZ1	PZ1	PZ1	PZ1	
Tightening torque				lb-in/Nm		5.31/0.6	5.31/0.6	5.31/0.6	5.31/0.6	

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

2) Coil consumption for versions -22 and -04 is 6.1 VA/W

Contactors

IK INSTALLATION CONTACTORS

IKA20, IKD20, IK21, IKA25, IKD25, IK40, IKA40, IK63, IKA63

TECHNICAL DATA									
		Type			IKA40	IK40	IKA63	IK63	
GENERAL	Standards				UL 508, CSA C22.2 No. 14, IEC 60947-4-1, EN 60947-4-1, IEC 61095, EN 61095, IEC 60947-5-1, EN 60947-5-1				
	Approvals				UL, CSA				
	Protection degree				IP20				
	Mechanical endurance			op. c.	3.000.000				
	Ambient temperature				23 °F...104 °F/-5 °C...+40 °C				
	Storage temperature				-22 °F...176 °F/-30 °C...+80 °C				
	No. of contactors side-by-side without ventilation module				no limitation	max. 3	no limitation	max. 3	
	Contact reliability				17 V/≥50 mA				
	Min. distance of open contacts			in/mm	0.1417/3.6				
	Power dissipation per pole			W	4	4	8	8	
	Overload current withstand capability (10 s)			A	176	176	240	240	
	Max. back-up fuse for short-circuit protection				63 A (gL) 60 A (K5)	63 A (gL) 60 A (K5)	80 A (gL) 70 A (K5)	80 A (gL) 70 A (K5)	
	Max. operating frequency	No load			3000				
		AC-1/AC-3/AC-6b			600				
AC-15			1200						
El. switching acc. UL 508			360						
Weight			lb/kg	0.77/0.35	0.93/0.42	0.77/0.35	0.93/0.42		
MAIN CIRCUIT - UL/CSA	Motor power	1-phase	120 V		1	1	2	2	
		1-phase	208 V		2	2	3	3	
		1-phase	240 V		3	3	5	5	
		3-phase	120 V		3	3	5	5	
		3-phase	208 V		7-1/2	7-1/2	10	10	
		3-phase	240 V		7-1/2	7-1/2	10	10	
		3-phase	480 V		15	15	20	20	
	General use	1-phase	240 V		40	40	63	63	
		3-phase	480 V						
	Discharge lamps (standard ballast)	1-phase	240 V		30	30	40	40	
3-phase		480 V							
Auxiliary circuit				B300, P300	B300, P300	B300, P300	B300, P300		
MAIN CIRCUIT - IEC/EN	Rated insulation voltage		U_i	V	600	600	600	600	
	Rated impulse withstand voltage		U_{imp}	kV	4	4	4	4	
	Thermal current		I_{th}	A	40	40	63	63	
	Rated operational voltage		U_e	V	400	400	400	400	
	Rated frequency		f	Hz	50/60	50/60	50/60	50/60	
	Rated operational current AC-1/AC-7a		I_e	A	40	40	63	63	
	Operational power AC-1/AC-7a	1-phase	230 V	P_e	W	8.7	8.7	13.3	13.3
		3-phase	230 V			16	16	25	25
		3-phase	400 V			26	26	40	40
	Electrical endurance AC-1/AC-7a			op. c.	100000				
	Rated operational current AC-3/AC-7b		I_e	A	22	22	30	30	
	Operational power AC-3/AC-7b	1-phase	230 V	P_e	A	3.7	3.7	5	5
		3-phase	230 V			5.5	5.5	8.5	8.5
		3-phase	400 V			11	11	15	15
	Electrical endurance AC-3/AC-7b			op. c.	150000				
	Switching of capacitor AC-6b		230 V	C	μF	220	220	330	330
	Electrical endurance AC-6b			op. c.	100000				
	Auxiliary circuit		1-phase	230 V		6	6	6	6
	Rated operational current AC-15		1-phase	400 V	I_e	A	4	4	4
	Electrical endurance AC-15			op. c.	150000				
Terminal capacity	Rigid		S	AWG/ mm ²	14...10/1.5...25	14...10/1.5...25	14...10/1.5...25	14...10/1.5...25	
	Flexible				14...4/1.5...16	14...4/1.5...16	14...4/1.5...16	14...4/1.5...16	
Screw					M5	M5	M5	M5	
Screw head					PZ2	PZ2	PZ2	PZ2	
Tightening torque			lb-in/Nm		30.98/3.5	30.98/3.5	30.98/3.5	30.98/3.5	

Contactors

IK INSTALLATION CONTACTORS

IKA20, IKD20, IK21, IKA25, IKD25, IK40, IKA40, IK63, IKA63

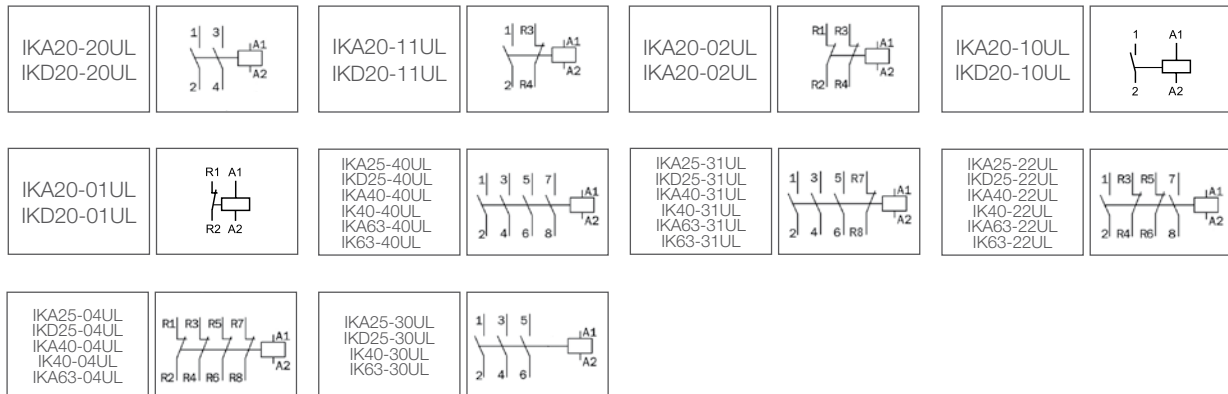
TECHNICAL DATA

				IKA40	IK40	IKA63	IK63	
CONTROL CIRCUIT	Type							
	Range of control voltage	U_c	%	85...110				
	Control voltages	U_c	V	12...240				
	Kind of voltage	U_c		AC	AC, DC	AC	AC, DC	
	Surge immunity test (1.2/50 μ s), acc. to IEC/EN 61000-4-5		kV	2				
	Coil consumption	Switch-on	VA/W		15.4/6 ⁴⁾	5/5 ²⁾	15.4/6 ⁴⁾	5/5 ²⁾
		Operation			7.7/3 ³⁾	5/5 ²⁾	7.7/3 ³⁾	5/5 ²⁾
	Make/break delays	Make	ms		10...20	15...20	10...20	15...20
		Break			10...15	35...45	10...15	10...15
	Terminal capacity	Rigid	S	AWG/ mm ²	16...14/1...2.5	16...14/1...2.5	16...14/1...2.5	16...14/1...2.5
		Flexible			16...14/1...2.5	16...14/1...2.5	16...14/1...2.5	16...14/1...2.5
	Screw				M3	M3	M3	M3
	Screw head				PZ1	PZ1	PZ1	PZ1
Tightening torque			lb-in/Nm	5.31/0.6	5.31/0.6	5.31/0.6	5.31/0.6	

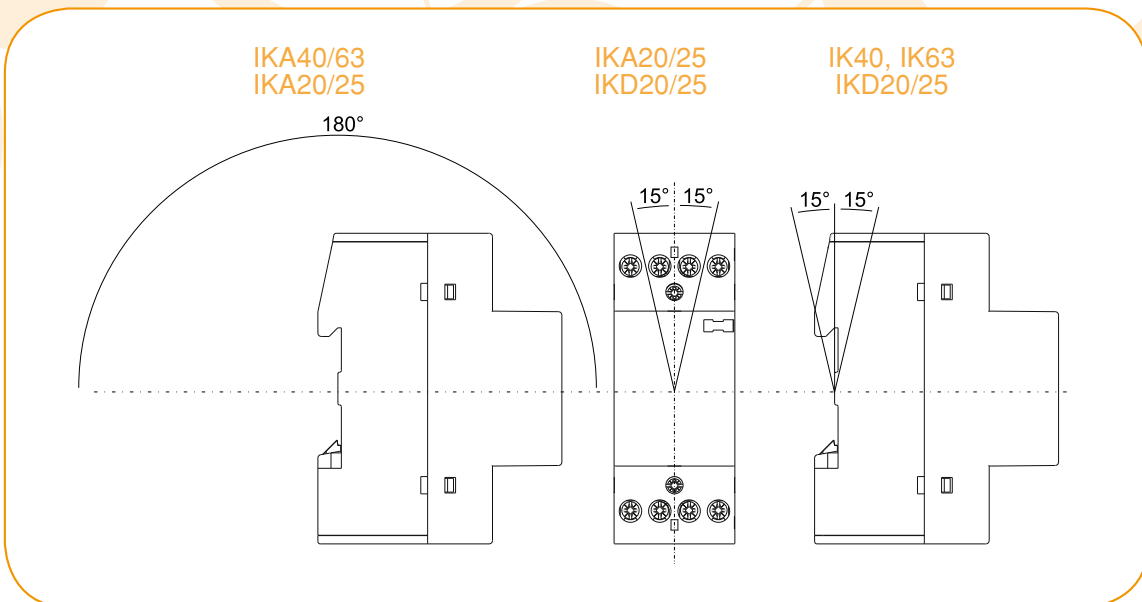
³⁾Coil consumption for version -22 and -04 is 12.3/2.8 VA/W

⁴⁾Coil consumption for versions -22 and -04 is 64/52 VA/W

CONTACT ARRANGEMENTS



CAUTIONS AND WARNINGS



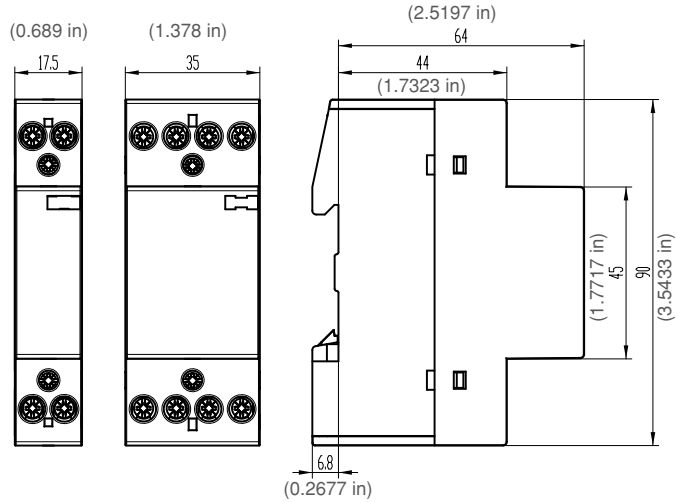
Contactors

IK INSTALLATION CONTACTORS

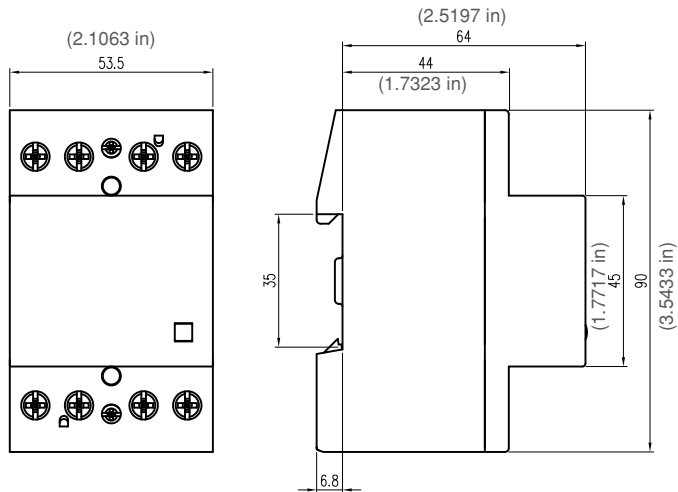
IKA20, IKD20, IK21, IKA25, IKD25, IK40, IKA40, IK63, IKA63

DIMENSIONS

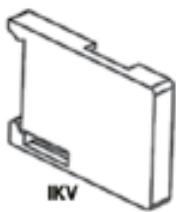
IKA20, IKD20, IKA25, IKD25



IKA40, IK40, IKA63, IK63



VENTILATION MODUL



SEALING COVER

IKA40, IKA63,
IK40, IK63,



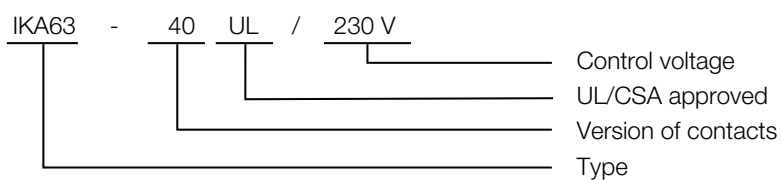
IK25, IKD25



IKA20, IKD20



ORDERING DATA:



Contactors

Auxiliary Switch IKN



INTENDED USE:

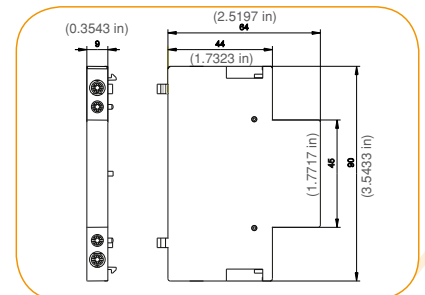
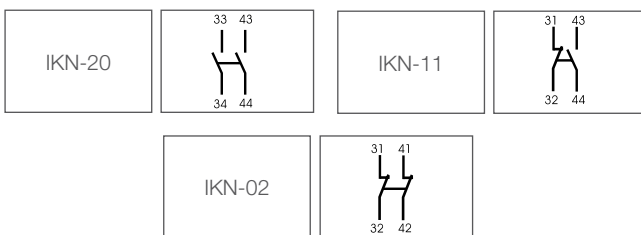
- The IKN auxiliary switch is mainly used for indicating the contactor switching condition and also for control of heavier electromagnetic loads
- The IKN auxiliary switch is provided with two contacts in the versions:
 - 11 with one break and one make contact
 - 20 with two make contacts
 - 02 with two break contacts
- This auxiliary switch can not be used only at contactor IKD20.

TECHNICAL DATA

GENERAL	Type			IKN	
	Standards			UL 508, CSA C22.2 No. 14 IEC 60947-5-1, EN 60947-5-1	
	Approvals			UL, CSA	
	Protection degree			IP20	
	Mechanical endurance		op. c.	3.000.000	
	Contact reliability			12 V; ≥ 5 mA	
	Power dissipation per pole at $I_{th} = 6$ A		W	0,3	
	Min. distance of open contacts		in/mm	0.1575/4	
	Max. back-up fuse for short-circuit protection			6 A (gL) 6 A (K5)	
	Weight		lb/kg	0.08/0.035	
UL CSA	Auxiliary circuit			C300 (120 VAC, 240 VAC) Q300 (125 VDC, 250 VDC)	
	Continuous thermal current	I_{th}	A	2.5	
IEC/EN	Rated insulation voltage	U_i	V	500	
	Rated impulse withstand voltage	U_{imp}	kV	4	
	Thermal current	I_{th}	A	6	
	Rated operational voltage	U_e	V	230 and 400	
	Rated operational current AC-15	I_e	A	$U_e = 230$ V	6
				$U_e = 400$ V	4
	Electrical endurance AC-15			op. c.	50000
	Terminal capacity	Rigid	S	AWG/mm ²	-1...2.5
		Flexible			16/1...2.5
	Screw				M3
Screw head				PZ1	
Tightening torque			lb-in/Nm	7.08/0.8	

CONTACT ARRANGEMENTS

DIMENSIONS



ORDERING DATA:

IKN - 20 UL

UL/CSA approved
Version of contacts
Type