

## DIN-RAIL/MODULAR TYPE DISTRIBUTION ELECTRIC

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*Always for your safety*



**RoHS**

# COMPANY INTRODUCTION

Zhejiang ETEK Electrical Technology Co., Ltd. (Abbreviation: ETEK Electric) is a professional manufacturing company dedicated to the research, development, production, and sales of low-voltage electrical appliances. The company was established in 2011 and is located in Wenzhou City, Zhejiang Province. At present, the company has 40K sqm of modern manufacturing bases in Wenzhou and Wuhu with over 500 employees, including over 50 R&D and technical personnel. ETEK Electric has multiple production workshops for mold design, parts manufacturing, welding, and assembly. Additionally, they have multiple automated production lines for MCB and RCCB. Our products include MCB, RCCB, RCBO, AFDD, MCCB, ACB, EV Chargers, Photovoltaic DC products, etc., which can meet the needs of different countries and are widely used in fields such as residential, commercial, and industrial.

ETEK Electric has passed ISO9001 quality management system and environmental management system certification. The company have built our own low-voltage electrical testing center, and most of the testing items can meet the requirements of international IEC standards, in addition, our products have obtained international CB, TUV, VDE, CE, RoHS and other quality certificates.

ETEK Electric constantly masters and breaks through the core technology of circuit breakers, with more than 100 national patents. Focusing on independent brand construction is crucial for the company's development. The "ETEK" trademark is registered in over 80 countries. Products are exported to over 100 countries and regions including the European Union, South America, the Middle East, Africa, and Southeast Asia.

We also support OEM, ODM, OBM, SKD, CKD and other business cooperation models, and provide customers with a full range of services covering market cultivation, technical training, and factory construction.

ETEK Electric has been adhering to the business policy of "Growth", "Quality", "Efficiency", and "Innovation". In 2023, ETEK Electric has formulated the fifth 3-year strategic plan, which specifies the three major initiatives of expanding the production scale, enhancing the new energy market share, and expanding the independent brand, to realize the annual revenue target of \$50 million by 2026.

Looking forward to the future, ETEK Electric will be committed to becoming a globally renowned manufacturer in the power distribution and electrical industry, safeguarding the power safety of global customers, and helping the development of green and digital energy.



Wenzhou Factory

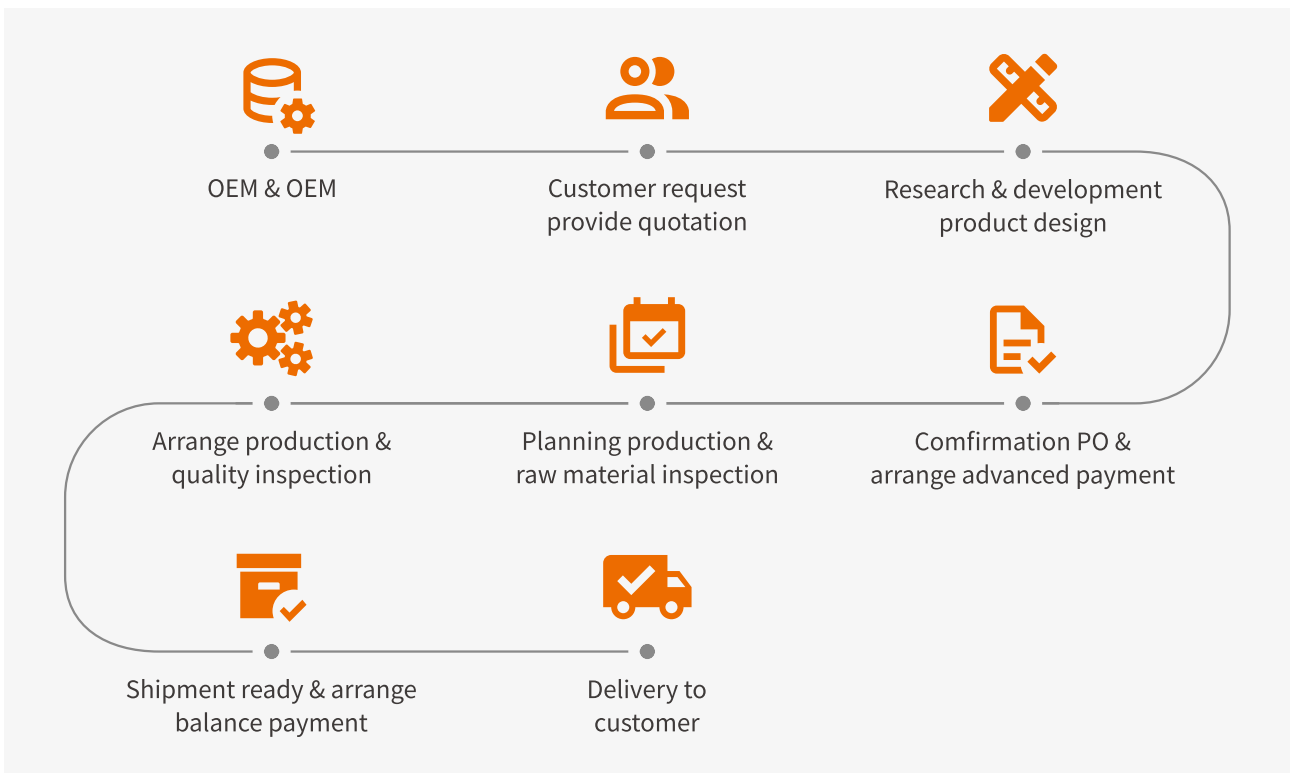


Wuhu Factory

# WORKSHOPS



# OEM & ODM BUSINESS



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## Products Overview of Circuit Breakers

Model No.	S1					
	EKM1-63S	EKM1-63	EKM1-63H	EKM1-40N	EKM1-125H	EKM1-63DC
Breaking Capacity	4.5kA	6kA	10kA	6kA	15kA	6kA
Rated currents (In)	1-63A	1-63A	1-63A	1-40A	63-125A	1-63A
Protection: Overcurrent and short circuit						
Standard	IEC60898-1	IEC60898-1	IEC60898-1	IEC60898-1	IEC60898-1 IEC60947-2	IEC60947-2
Number of poles	1P,2P,3P,4P (1P+N),(3P+N)	1P,2P,3P,4P (1P+N),(3P+N)	1P,2P,3P,4P (1P+N),(3P+N)	1P+N	1P,2P,3P,4P (1P+N),(3P+N)	1P,2P,4P
Rated voltage(V)	240/415V~	240/415V~	240/415V~	240/415V~	240/415V~	1: 250VDC, 2: 500VDC, 4: 1000VDC
Insulation voltage (Ui)	500V	500V	500V	500V	500V	500V
Tripping curve	B,C,D	B,C,D	B,C,D	B,C	8-12In	8-12In
Type	AC	AC	AC	AC	AC	DC
Certificate	CB CE	CB CE UK CA SAA	CB CE UK CA SAA	CB CE UK CA BV	CB CE	CE
Catalogue page No.	21	22	23	25	26	27













## Products Overview of Circuit Breakers

Model No.	S2						
	EKM2-63X	EKM2-63	EKM12-63H	EKM2-40N(H)	EKM1-125S	EKM2-125H	EKM1-125DC
Breaking Capacity	4.5kA	6kA	10kA	6kA, 10kA	6kA	10kA	10kA
Rated currents (In)	1-63A	1-63A	1-63A	6-40A	63-125A	63-125A	80-125A
Protection: Overcurrent and short circuit							
Standard	IEC60898-1	IEC60898-1	IEC60898-1	IEC60898-1	IEC60898-1	IEC60898-1 IEC60947-2	IEC60947-2
Number of poles	1P,2P,3P,4P (1P+N),(3P+N)	1P,2P,3P,4P (1P+N),(3P+N)	1P,2P,3P,4P (1P+N),(3P+N)	1P+N	1P,2P,3P,4P (1P+N),(3P+N)	1P,2P,3P,4P (1P+N),(3P+N)	1P,2P,4P
Rated voltage(V)	240/415V~	240/415V~	240/415V~	230/240V~	240/415V~	240/415V~	1: 250VDC, 2: 500VDC, 4: 1000VDC
Insulation voltage (Ui)	500V	500V	500V	500V	500V	500V	500V
Tripping curve	B,C,D	B,C,D	B,C,D	B,C,D	C,D	8-12In	8-12In
Type	AC	AC	AC	AC	AC	AC	DC
Certificate	CB CE	CB CE UK CA INMETRO	CB CE UK CA	CB CE UK CA B	CB CE	CB CE	CE
Catalogue page No.	39	40	41	42	43	44	45

## Products Overview of Circuit Breakers

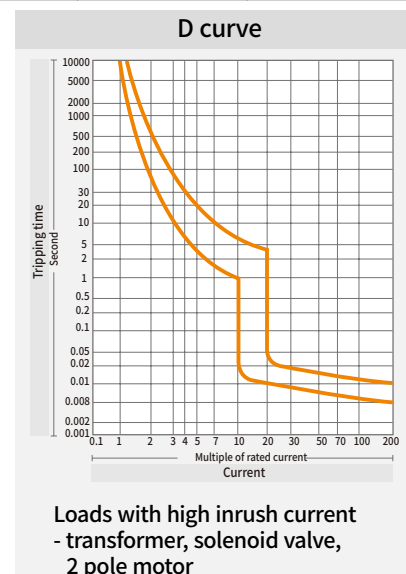
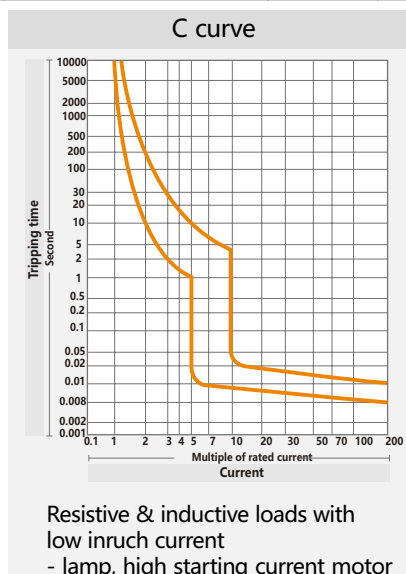
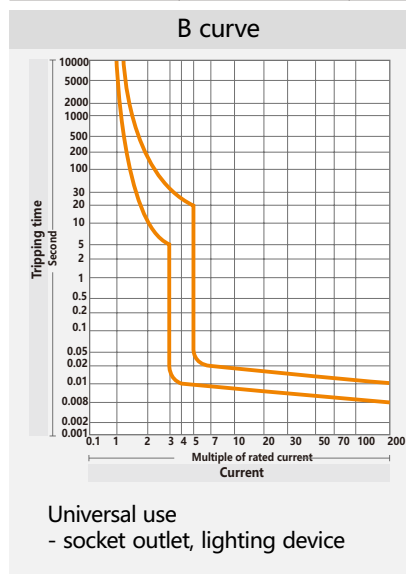
Model No.	S3				
	EKM3-63S	EKM3-63	EKM3-63H	EKM3-100	EKM3-125H
Breaking Capacity	4.5kA	6kA	10kA	6kA	10kA
Rated currents (In)	1-63A	1-63A	1-63A	63-100A	63-125A
Protection: Overcurrent and short circuit					
Standard	IEC60898-1	IEC60898-1 IEC60947-2	IEC60898-1	IEC60898-1	IEC60898-1 IEC60947-2
Number of poles	1P,2P,3P,4P (1P+N),(3P+N)	1P,2P,3P,4P (1P+N),(3P+N)	1P,2P,3P,4P (1P+N),(3P+N)	1P,2P,3P,4P (1P+N),(3P+N)	1P,2P,3P,4P (1P+N),(3P+N)
Rated voltage(V)	240/415V~	240/415V~	240/415V~	240/415V~	240/415V~
Insulation voltage (Ui)	500V	500V	500V	500V	500V
Tripping curve	B,C,D	B,C	B,C,D	B,C,D	8-12In
Type	AC	AC	AC	AC	AC
Certificate	CB CE	CB CE UK CA SAA APPROVALS	CB CE UK CA SAA APPROVALS	CB CE UK CA	CB CE UK CA
Catalogue page No.	67	68	69	71	72

## Products Overview of Circuit Breakers

Model No.	Economic type				
	DZ47-63S	EKM2-63M	EKM1-63X	EKM12-63X	EKM2-125
Breaking Capacity	4.5kA	4.5kA	6kA	6kA	6kA
Rated currents (In)	1-63A	1-63A	1-63A	1-63A	25-125A
Protection: Overcurrent and short circuit					
Standard	IEC60898-1	IEC60898-1	IEC60898-1	IEC60898-1	IEC60898-1 IEC60947-2
Number of poles	1P,2P,3P,4P (1P+N),(3P+N)	1P,2P,3P,4P (1P+N),(3P+N)	1P,2P,3P,4P (1P+N),(3P+N)	1P,2P,3P,4P (1P+N),(3P+N)	1P,2P,3P,4P (1P+N),(3P+N)
Rated voltage(V)	240/415V~	240/415V~	240/415V~	240/415V~	240/415V~
Insulation voltage (Ui)	500V	500V	500V	500V	500V
Tripping curve	B,C,D	B,C,D	B,C,D	B,C,D	8-12In
Type	AC	AC	AC	AC	AC
Certificate					
Catalogue page No.	78	79	80	81	82

## Tripping Characteristic (IEC60898-1)

Curve	Rated current	Condition						
		Thermal release				Magnetic release		
		Non-tripping	Tripping	Non-tripping	Tripping time	Holding current	Tripping current	Tripping time
B	1-125A	$1.13 \times I_n$		$\leq 1h$		$3 \times I_n$		$\geq 0.1$
			$1.45 \times I_n$		$< 1h$		$5 \times I_n$	$< 0.1$
C	1-125A	$1.13 \times I_n$		$\leq 1h$		$5 \times I_n$		$\geq 0.1$
			$1.45 \times I_n$		$< 1h$		$10 \times I_n$	$< 0.1$
D	1-125A	$1.13 \times I_n$		$\leq 1h$		$10 \times I_n$		$\geq 0.1$
			$1.45 \times I_n$		$< 1h$		$20 \times I_n$	$< 0.1$

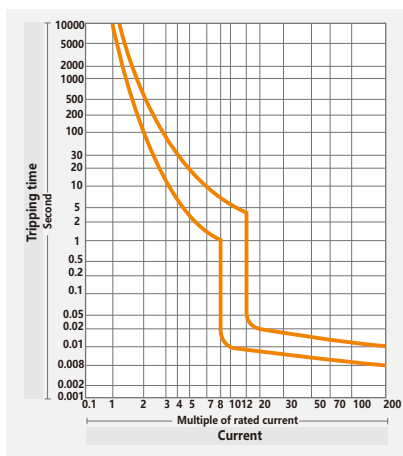


## Temperature Derating Table

Rated current (A)	Correction factor for ambient temperature											
	-40°C	-30°C	-20°C	-10°C	0°C	10°C	20°C	30°C	40°C	50°C	60°C	70°C
1	1.33	1.29	1.25	1.2	1.15	1.11	1.05	1	0.94	0.88	0.82	0.75
2	2.67	2.58	2.49	2.4	2.31	2.21	2.11	2	1.89	1.76	1.63	1.49
3	4	3.9	3.7	3.6	3.5	3.3	3.2	3	2.8	2.6	2.4	2.2
4	5.3	5.2	5	4.8	4.6	4.4	4.2	4	3.8	3.5	3.3	3
5	6.7	6.5	6.31	6.1	5.8	5.5	5.25	5	4.7	4.3	4	3.7
6	8	7.7	7.5	7.2	6.9	6.6	6.3	6	5.7	5.3	4.9	4.5
10	13.3	12.9	12.5	12	11.5	11.1	10.5	10	9.4	8.8	8.2	7.5
16	21.3	20.7	20	19.2	18.5	17.7	16.9	16	15.1	14.1	13.1	11.9
20	26.7	25.8	24.9	24	23.1	22.1	21.1	20	18.9	17.6	16.3	14.9
25	33.3	32.3	31.2	30	28.9	27.6	26.4	25	23.6	22	20.4	18.6
32	42.7	41.3	39.9	38.5	37	35.4	33.7	32	30.2	28.2	26.1	23.9
40	53.3	51.6	49.9	48.1	46.2	44.2	42.2	40	37.7	35.3	32.7	29.8
50	66.7	64.5	62.4	60.1	57.7	55.3	52.7	50	47.1	44.1	40.8	37.3
63	84	81.3	78.6	75.7	72.7	69.6	66.4	63	59.4	55.6	51.4	47
80	106.4	103.2	100	96	92	88.8	84	80	75.2	70.4	65.6	60
100	133	129	125	120	115	111	105	100	94	88	82	75
125	166.3	161.3	156.3	150	143.8	138.8	131.3	125	117.5	110	102.5	93.8

## Tripping Characteristic (IEC60947-2)

Current(A)		Rated current(A)	Thermal Release				Magnetic release	
			Non-tripping current(A)	Tripping current(A)	Non-tripping time(h)	Tripping time(h)	Holding time(S)	Tripping time(S)
10In±20%	8-12In	1-63	1.05In		≤1		≤0.2	
				1.30In		<1		<0.2
		80-125	1.05In		≤2		≤0.2	
				1.30In		<2		<0.2

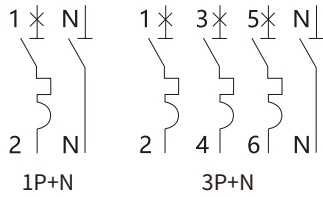
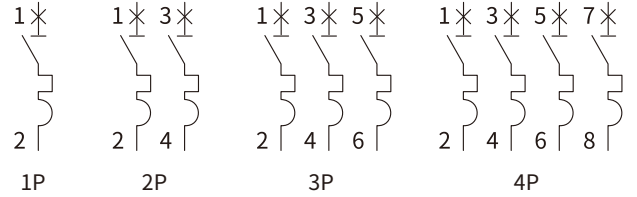


## Temperature Derating Table

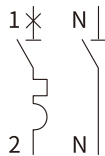
Rated current (A)	Correction factor for ambient temperature											
	-40°C	-30°C	-20°C	-10°C	0°C	10°C	20°C	30°C	40°C	50°C	60°C	70°C
1	1.33	1.29	1.25	1.2	1.15	1.11	1.05	1	0.94	0.88	0.82	0.75
2	2.67	2.58	2.49	2.4	2.31	2.21	2.11	2	1.89	1.76	1.63	1.49
3	4	3.9	3.7	3.6	3.5	3.3	3.2	3	2.8	2.6	2.4	2.2
4	5.3	5.2	5	4.8	4.6	4.4	4.2	4	3.8	3.5	3.3	3
5	6.7	6.5	6.31	6.1	5.8	5.5	5.25	5	4.7	4.3	4	3.7
6	8	7.7	7.5	7.2	6.9	6.6	6.3	6	5.7	5.3	4.9	4.5
10	13.3	12.9	12.5	12	11.5	11.1	10.5	10	9.4	8.8	8.2	7.5
16	21.3	20.7	20	19.2	18.5	17.7	16.9	16	15.1	14.1	13.1	11.9
20	26.7	25.8	24.9	24	23.1	22.1	21.1	20	18.9	17.6	16.3	14.9
25	33.3	32.3	31.2	30	28.9	27.6	26.4	25	23.6	22	20.4	18.6
32	42.7	41.3	39.9	38.5	37	35.4	33.7	32	30.2	28.2	26.1	23.9
40	53.3	51.6	49.9	48.1	46.2	44.2	42.2	40	37.7	35.3	32.7	29.8
50	66.7	64.5	62.4	60.1	57.7	55.3	52.7	50	47.1	44.1	40.8	37.3
63	84	81.3	78.6	75.7	72.7	69.6	66.4	63	59.4	55.6	51.4	47
80	106.4	103.2	100	96	92	88.8	84	80	75.2	70.4	65.6	60
100	133	129	125	120	115	111	105	100	94	88	82	75
125	166.3	161.3	156.3	150	143.8	138.8	131.3	125	117.5	110	102.5	93.8

## Circuit Diagram

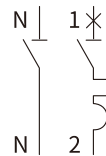
- EKM1-63S      • EKM12-63X      • EKM2-125H      • EKM3-100
- EKM1-63      • EKM2-63      • EKM3-63S      • EKM3-125H
- EKM1-63H      • EKM12-63H      • EKM3-63      • EKM2-63M
- EKM1-125H      • EKM1-125S      • EKM3-63H      • EKM2-125
- EKM1-63X      • DZ47-63S



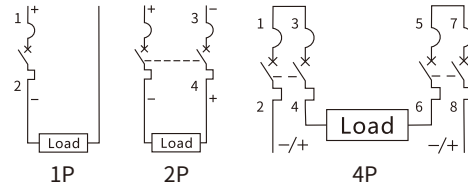
- EKM1-40N













- EKM2-40N










- EKM1-63DC
- EKM1-125DC



## Products Overview of Circuit Breakers











Model No.	S1				
	EKL2-40	EKL3-40M	EKL3-63	EKL5-63(H)	EKL5-63B
Width(module)	1	2	2	3(2P),5(4P)	3(2P),5(4P)
Breaking Capacity	6kA	6kA	6kA	6kA,10kA	10kA
Rated currents (In)	6-40A	6-40A	6-63A	6-63A	6-63A
Protection: Overcurrent and short circuit					
Standard	IEC61009-1	IEC61009-1	IEC61009-1	IEC61009-1	IEC61009-1 IEC62423
Number of poles	1P+N	1P+N	1P+N	1P+N, 3P+N	1P+N, 3P+N
Rated voltage (V)	230/240V~	230/240V~	230/240V~	1P+N:230/240V~ 3P+N:400/415V~	1P+N:230/240V~ 3P+N:400/415V~
Tripping curve	B,C	B,C	B,C	B,C,D	B,C,D
Type	AC,A	AC,A	AC,A	AC,A,S	B
Certificate					
Catalogue page No.	28	29	30	31	32

## Products Overview of Circuit Breakers

Model No.	S2					
	EKL3-40S	EKL5-63S	EKL17-40	EKL8-40M	EKL8-80	EKL19-40
Width(module)	2	3(2P),5(4P)	1	2	2	1
Breaking Capacity	4.5kA	4.5kA	6kA	6kA	6kA	6kA
Rated currents (In)	6-40A	6-63A	6-40A	6-40A	6-80A	6-40A
Protection: Overcurrent and short circuit						
Standard	IEC61009-1	IEC61009-1	IEC61009-1	IEC61009-1	IEC61009-1	IEC61009-1
Number of poles	1P+N	1P+N, 3P+N	1P+N	1P+N	1P+N	1P+N
Rated voltage (V)	230/240V~	1P+N:230/240V~ 3P+N:400/415V~	230/240V~	230/240V~	230/240V~	230/240V~
Tripping curve	B,C	B,C,D	B,C	B,C	B,C	B,C
Type	AC,A	AC,A,S	AC,A	AC,A	AC,A	AC,A
Certificate	<b>CB CE</b>	<b>CB CE</b>	<b>CB CE</b> <b>UK CA</b>	<b>CB CE</b> <b>UK CA</b>	<b>CB CE</b> <b>UK CA</b>	<b>CB CE</b> <b>UK CA</b> 
Catalogue page No.	46	47	48	49	50	51

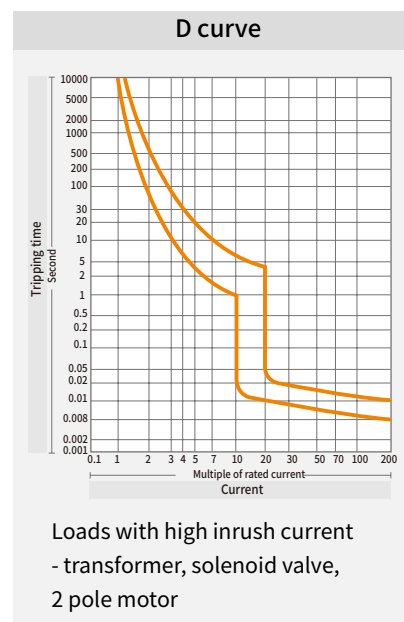
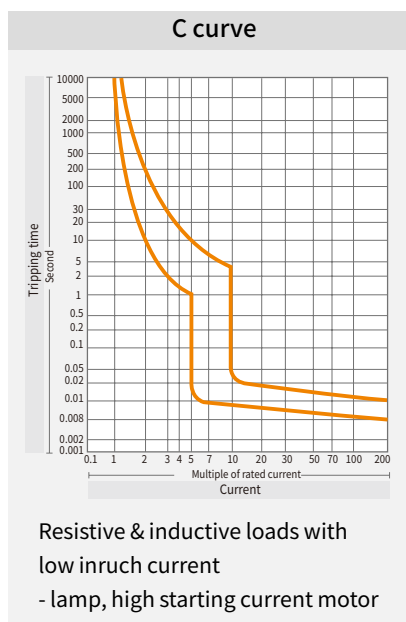
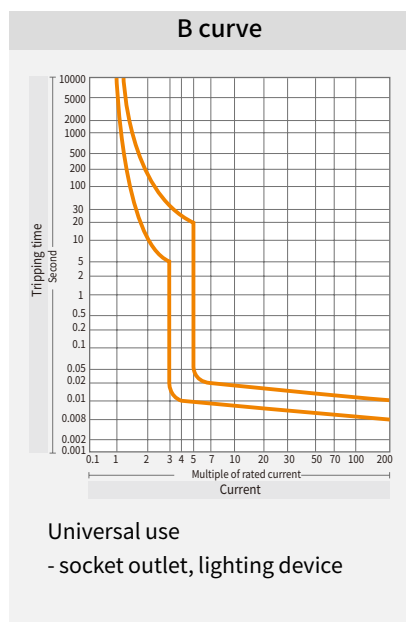


## Products Overview of Circuit Breakers

Model No.	S2		S3		
	EKL29-40M	EKL29-40	EKL13-63	EKL15-63(H)	EKL15-63B
Width(module)	2	2	2	3(2P),5(4P)	3(2P),5(4P)
Breaking Capacity	6kA	6kA	6kA	6kA,10kA	6kA,10kA
Rated currents (In)	6-40A	6-40A	6-63A	6-63A	6-63A
Protection: Overcurrent and short circuit					
Standard	IEC61009-1 IEC61898-1	IEC61009-1 IEC61898-1	IEC61009-1	IEC61009-1	IEC61009-1
Number of poles	1P+N	1P+N	1P+N	1P+N, 3P+N	1P+N, 3P+N
Rated voltage (V)	230/240V~	230/240V~	230/240V~	1P+N:230/240V~ 3P+N:400/415V~	1P+N:230/240V~ 3P+N:400/415V~
Tripping curve	B,C	B,C	B,C	B,C,D	B,C,D
Type	AC,A	AC,A	AC,A	AC,A,S	B
Certificate					
Catalogue page No.	52	53	73	74	75

## Tripping Characteristic

Curve	Rated current	Condition						
		Thermal release				Magnetic release		
		Non-tripping	Tripping	Non-tripping	Tripping time	Holding current	Tripping current	Tripping time
B	6-80A	1.13×In		≤1h		3×In		≥0.1
			1.45×In		<1h		5×In	<0.1
C	6-80A	1.13×In		≤1h		5×In		≥0.1
			1.45×In		<1h		10×In	<0.1
D	6-80A	1.13×In		≤1h		10×In		≥0.1
			1.45×In		<1h		20×In	<0.1



## Temperature Derating Table

Rated current (A)	Correction factor for ambient temperature											
	-40°C	-30°C	-20°C	-10°C	0°C	10°C	20°C	30°C	40°C	50°C	60°C	70°C
6	8	7.7	7.5	7.2	6.9	6.6	6.3	6	5.7	5.3	4.9	4.5
10	13.3	12.9	12.5	12	11.5	11.1	10.5	10	9.4	8.8	8.2	7.5
16	21.3	20.7	20	19.2	18.5	17.7	16.9	16	15.1	14.1	13.1	11.9
20	26.7	25.8	24.9	24	23.1	22.1	21.1	20	18.9	17.6	16.3	14.9
25	33.3	32.3	31.2	30	28.9	27.6	26.4	25	23.6	22	20.4	18.6
32	42.7	41.3	39.9	38.5	37	35.4	33.7	32	30.2	28.2	26.1	23.9
40	53.3	51.6	49.9	48.1	46.2	44.2	42.2	40	37.7	35.3	32.7	29.8
50	66.7	64.5	62.4	60.1	57.7	55.3	52.7	50	47.1	44.1	40.8	37.3
63	84	81.3	78.6	75.7	72.7	69.6	66.4	63	59.4	55.6	51.4	47
80	106.4	103.2	100	90	92	88.8	84	80	75.2	70.4	65.6	60

## Types

Both RCCBs and RCBOs are divided into types depending on the operating function:

Type AC : For which tripping is ensured for residual sinusoidal alternating currents, whether suddenly applied or slowly rising.

Type A : For which tripping is ensured for residual sinusoidal alternating currents and residual pulsating direct currents, whether suddenly applied or slowly rising.

## Tripping Sensitivity Data

RCD with a rated residual current of maximum 30mA are used for personnel, material and fire protection, as well as for protection against direct contact.

RCD with a rated residual current of maximum 300mA are used as preventative fire protection in case of insulation faults.

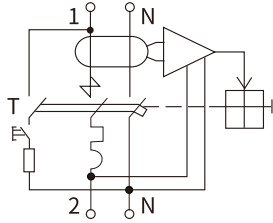
RCD with a rated residual current of 100mA co-ordinated with the earth system according to the formula  $I\Delta n < 50/R$ , to provide protection against indirect contacts.

## Circuit Diagram

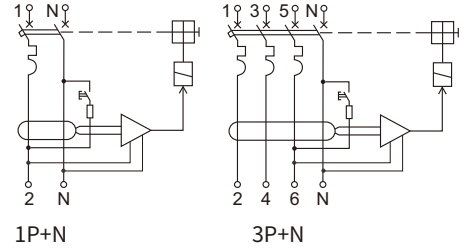
<ul style="list-style-type: none"> <li>EKL2-40</li> </ul> <p>PE Fault Protection</p>	<ul style="list-style-type: none"> <li>EKL3-40M</li> </ul>
<ul style="list-style-type: none"> <li>EKL17-40</li> </ul>	<ul style="list-style-type: none"> <li>EKL19-40</li> </ul>
<ul style="list-style-type: none"> <li>EKL17-40AFD</li> </ul>	<ul style="list-style-type: none"> <li>EKL19-40AFD</li> </ul>

## Circuit Diagram

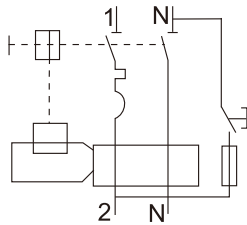
- EKL3-63
- EKL13-63



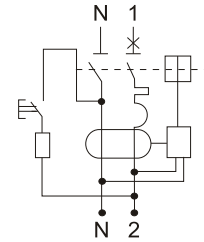
- EKL5-63
- EKL5-63S
- EKL15-63



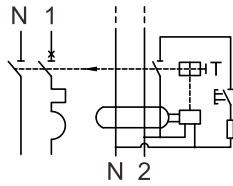
- EKL8-40M
- EKL8-80



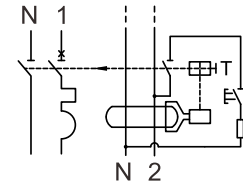
- EKL3-40S



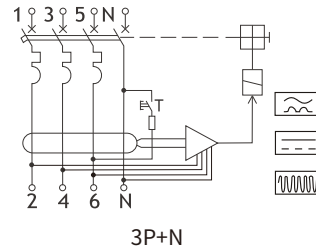
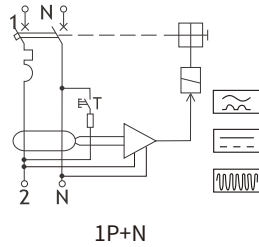
- EKL29-40













- EKL29-40M













- EKL5-63B
- EKL15-63B



## Products Overview of Circuit Breakers

Model No.	S1		S2		
	EKL1-63(H)	EKL1-63B(H)	EKL1-80(H)	EKL1-125(H)	EKL6-100(H)
Type of protection	AC,A,G,S	B	AC,A,G,S	AC,A,G,S	AC,A,G,S
Breaking Capacity	6kA,10kA	10kA	6kA,10kA	6kA,10kA	6kA,10kA
Rated currents (In)	16-63A	16-63A	16-80A	80-125A	16-100A
Protection: Overcurrent and short circuit					
Standard	IEC61008-1	IEC61008-1 IEC62423	IEC61008-1	IEC61008-1	IEC61008-1
Number of poles	2P(1P+N) 4P(3P+N)	2P(1P+N) 4P(3P+N)	2P(1P+N) 4P(3P+N)	2P(1P+N) 4P(3P+N)	2P(1P+N) 4P(3P+N)
Insulation voltage (Ui)	500V	500V	500V	500V	500V
Rated voltage (V)	1P+N:230/240V~ 3P+N:400/415V~	1P+N:230/240V~ 3P+N:400/415V~	1P+N:230/240V~ 3P+N:400/415V~	1P+N:230/240V~ 3P+N:400/415V~	1P+N:230/240V~ 3P+N:400/415V~
Certificate					
Catalogue page No.	33	34	56	57	58

## Products Overview of Circuit Breakers

Model No.	S2		S3	Economic Type	
	EKL6-100B	EKL6-63EV	EKL11-63	EKL21-63M	EKL21-63S
Type of protection	B	EV	AC,A,G,S	AC,A,G,S	AC,A,G,S
Breaking Capacity	10kA	10kA	6kA,10kA	4.5kA,6kA	4.5kA,6kA
Rated currents (In)	16-100A	16-63A	16-63A	16-63A	16-63A
Protection: Overcurrent and short circuit					
Standard	IEC61008-1 IEC62423	IEC61008-1 IEC62955	IEC61008-1	IEC61008-1	IEC61008-1
Number of poles	2P(1P+N) 4P(3P+N)	2P(1P+N) 4P(3P+N)	2P(1P+N) 4P(3P+N)	2P(1P+N) 4P(3P+N)	2P(1P+N) 4P(3P+N)
Insulation voltage (Ui)	500V	500V	500V	500V	500V
Rated voltage (V)	2P:230/240V~ 4P:400/415V~	1P+N:230/240V~ 3P+N:400/415V~	1P+N:230/240V~ 3P+N:400/415V~	1P+N:230/240V~ 3P+N:400/415V~	1P+N:230/240V~ 3P+N:400/415V~
Certificate					
Catalogue page No.	59	60	76	83	84



## Life

In	Operating cycles		Operating frequency (operations/h)
	On-load operating cycles	Off-load operating cycles	
16,20,25,32	2000	2000	240
40,50,63,80,100,125	2000	1000	120

## Breaking Time of Residual Current

In(A)	IΔn(A)	Max. breaking time			5,10,20,50,100,200,500A
		IΔn	2IΔn	5IΔn	
16,20,25,32,40,50,63,80,100,125	0.03, 0.1, 0.3	0.1s	0.08s	0.04s	0.04s

**Wiring** The suitable conductors should be used for connection, see table below for relative parameters.

Rated current In (A)	Cross section area s (mm <sup>2</sup> )	Tightening torque (N.m)
16	2.5	2.5
20	2.5	2.5
25	4	2.5
32	6	2.5
40	10	2.5
50	10	2.5
63	16	2.5
80	25	2.5
100	35	2.5
125	50	2.5

## Detectable Wave Form

Class	Description
AC	Tripping is ensured for slowly increasing sinusoidal AC residual currents.
A	Tripping is ensured for sinusoidal AC residual currents and for pulsed DC residual currents, whether applied suddenly or increasing slowly.
B	Tripping is ensured for sinusoidal AC residual currents pulsed DC residual currents, alternating residual sinusoidal currents up to 1000Hz, pulsating direct residual currents and for smooth direct residual currents, whether applied suddenly or increasing slowly.
S, G/SI	Tripping is ensured not only for sinusoidal AC residual currents but also for pulsed DC residual currents whether applied suddenly or increasing slowly. S, G/SI type with filters against spurious tripping caused by harmonics and transient surges. With the impact of 8/20us surge 3000A, this high immunity RCCB will still be in stable status.

## Tripping Sensitivity

10mA: Precision instrument leakage protection and bathroom use.

30mA: Additional protection against direct contact.

100mA: Co-ordinated with the earth system according to the formula  $I\Delta n < 50/R$ , to provide protection against indirect contacts.

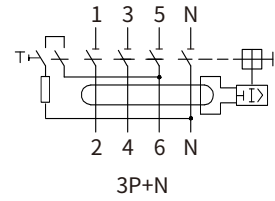
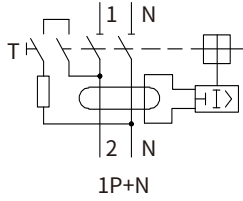
300mA: Protection against indirect contacts, as well as fire hazard.

### Tripping time

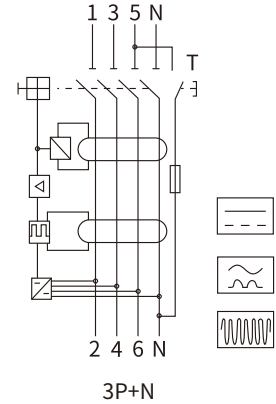
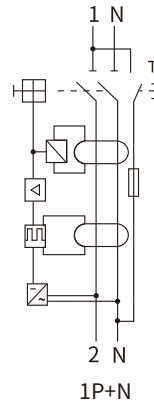
Instantaneous	It ensures instantaneous tripping (without time-delay).
Short time delay <input type="checkbox"/> G/SI	It ensures any tripping at least 10ms.
Selective <input type="checkbox"/> S	It ensures total discrimination with a nonselective RCD placed downstream.

## Circuit Diagram

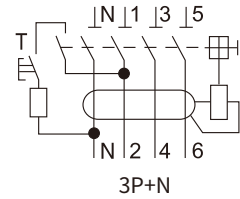
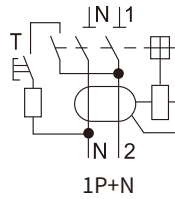
- EKL1-63(H)
- EKL11-63
- EKL1-80(H)
- EKL21-63M
- EKL1-125(H)
- EKL21-63S



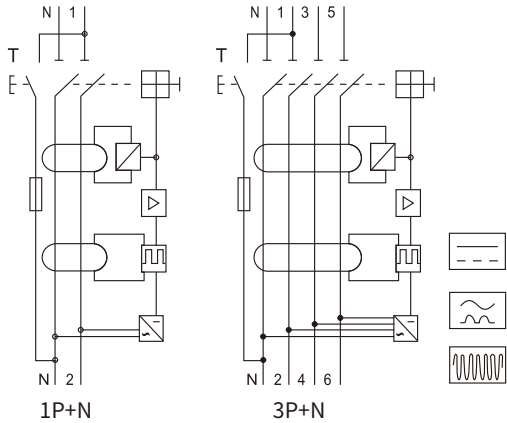
- EKL1-63B



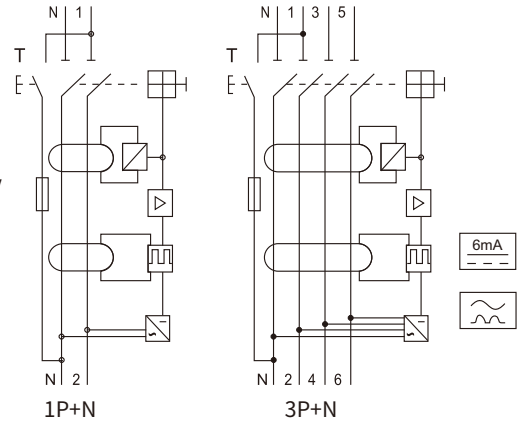
- EKL6-100(H)



- EKL6-100B







- EKL6-63EV





## Products Overview of Circuit Breakers

Model No.	S1	S2		S3
	EKD1-125	EKD2-40M	EKD2-125	EKD3-125
Rated currents (In)	25-125A	16-40A	25-125A	25-125A
Photo				
Standard	IEC60947-3	IEC60947-3	IEC60947-3	IEC60947-3
Number of poles	1P,2P,3P,4P	2P,4P	1P,2P,3P,4P	1P,2P,3P,4P
Insulation voltage (Ui)	500V	500V	500V	500V
Rated voltage (V)	240/415V~	240/415V~	240/415V~	240/415V~
Type	AC	AC	AC	AC
Certificate	CB CE UK CA	CB CE UK CA	CB CE UK CA	CB CE UK CA
Catalogue page No.	35	61	62	77

## Endurance(operations)

Category	Operations	Operation frequency	Rated current
Electric endurance	1500	120/h	16~100A
Mechanical endurance	10000	120/h	16~100A

**Wiring** The suitable conductors should be used for connection, see table below for relative parameters.

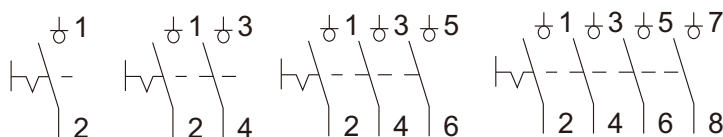
Rated current In (A)	Cross section area s (mm <sup>2</sup> )	Tightening torque (N.m)
16	2.5	3.5
20	2.5	3.5
25	4	3.5
32	6	3.5
40	10	3.5
50	10	3.5
63	16	3.5
80	35	3.5
100	35	3.5
125	35	3.5

## Features

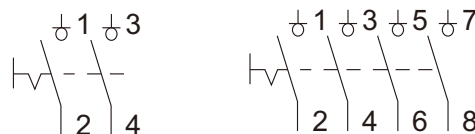
1. Current capacity is enhanced and electric drive compensation is fully applied
2. Reliable operation thanks to special designed operating mechanism
3. Safe operation is ensured

## Circuit Diagram

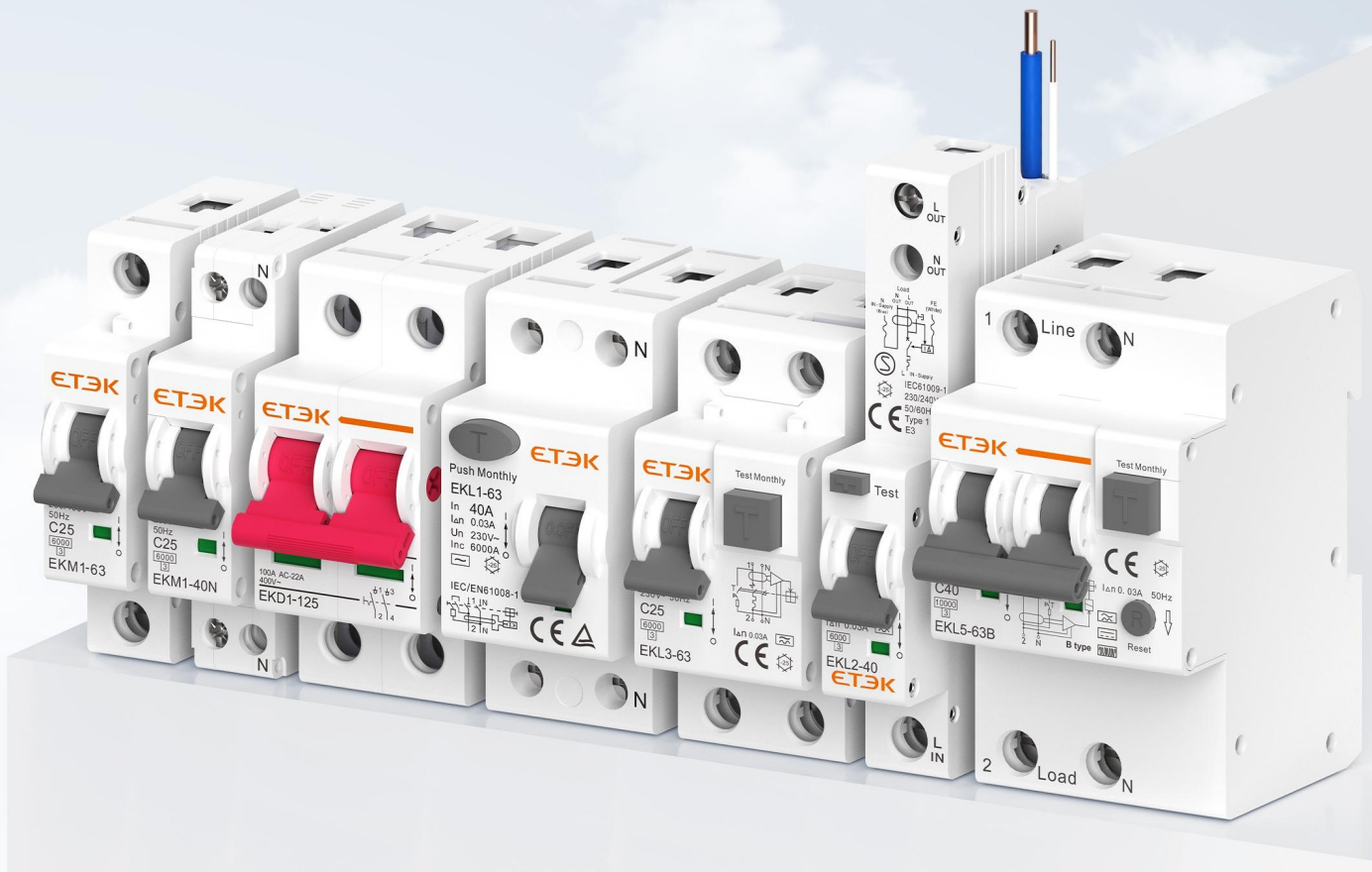
- EKD1-125
- EKD2-125
- EKD3-125



- EKD2-40M



# Modular S1 Series Circuit Breakers



# MCB EKM1-63S 4.5kA



Mini Circuit Breaker

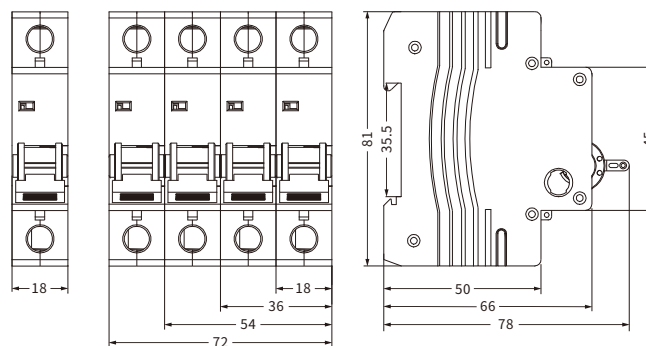
Standard\_IEC60898-1



## Technical Data

Standard	IEC/EN60898-1
Protection	Overcurrent and short circuit
Type of trip	Thermo-magnetic
No.of poles	1P,2P,3P,4P,1P+N,3P+N
Rated voltage (Ue)	240/415V~
Rated currents (In)	1,2,3,4,5,6,10,16,20,25,32,40,50,63A
Rated frequency	50/60Hz
Rated breaking capacity	4,500A
Rated impulse withstand voltage(1.2/50) (Uimp)	4,000V
Dielectric test voltage at Ind. Freq.for 1 min	2kV
Thermal release characteristic	(1.13-1.45) x In
Magnetic release characteristic	B:(3-5) x In, C:(5-10) x In, D:(10-20) x In
Electrical life	4,000 Cycles
Mechanical life	10,000 Cycles
Contact position indicator	Yes
Protection degree	IP20
Ambient temperature	-5°C to +40°C, Max.95% humidity
Terminal connection type	Cable/Pin-type busbar
Max.terminal size for cable	25mm <sup>2</sup>
Max.tightening torque	2.5N.m
Installation	Mounting on 35mm DIN rail
Connection	From top and bottom

## Overall and Installation Dimension(mm)



# MCB EKM1-63 6kA



Mini Circuit Breaker

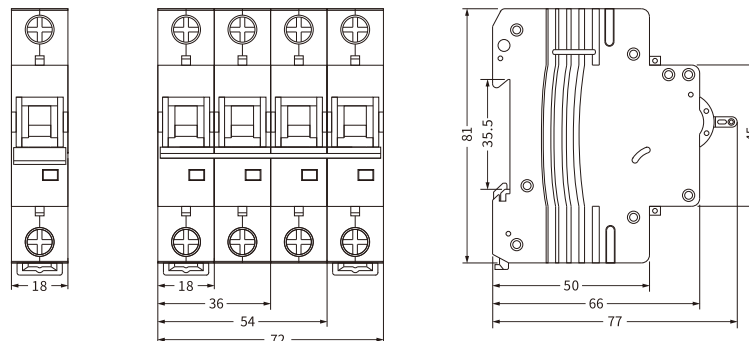
Standard\_IEC60898-1



## Technical Data

Standard	IEC/EN60898-1
Protection	Overcurrent and short circuit
Type of trip	Thermo-magnetic
No.of poles	1P,2P,3P,4P,1P+N,3P+N
Rated voltage (Ue)	240/415V~
Rated currents (In)	1,2,3,4,5,6,10,16,20,25,32,40,50,63A
Rated frequency	50/60Hz
Rated breaking capacity	6,000A
Energy Limiting Class	3
Rated impulse withstand voltage(1.2/50) (Uimp)	4,000V
Dielectric test voltage at Ind. Freq.for 1 min	2kV
Thermal release characteristic	(1.13-1.45) x In
Magnetic release characteristic	B:(3-5) x In, C:(5-10) x In, D:(10-20) x In
Electrical life	4,000 Cycles
Mechanical life	10,000 Cycles
Contact position indicator	Yes
Protection degree	IP20
Ambient temperature	-5°C to +40°C, Max.95% humidity
Terminal connection type	Cable/Pin-type busbar/Fork-type busbar
Max.terminal size for cable	25mm <sup>2</sup>
Max.tightening torque	2.5N.m
Installation	Mounting on 35mm DIN rail
Connection	From top and bottom

## Overall and Installation Dimension(mm)



# MCB EKM1-63H 10kA



Mini Circuit Breaker

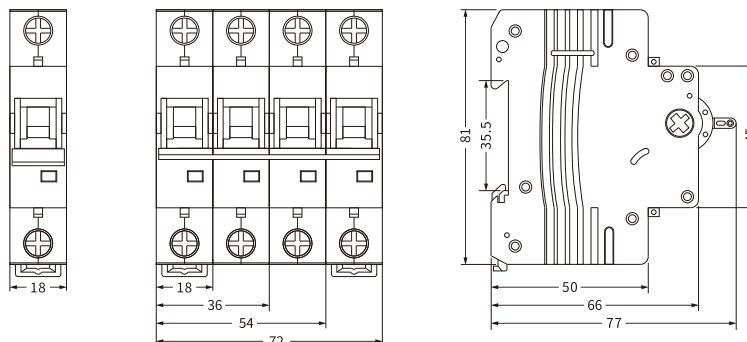
Standard\_IEC60898-1



## Technical Data

Standard	IEC/EN60898-1
Protection	Overcurrent and short circuit
Type of trip	Thermo-magnetic
No.of poles	1P,2P,3P,4P,1P+N,3P+N
Rated voltage (Ue)	240/415V~
Rated currents (In)	1,2,3,4,5,6,10,16,20,25,32,40,50,63A
Rated frequency	50/60Hz
Rated breaking capacity	10,000A
Energy Limiting Class	3
Rated impulse withstand voltage(1.2/50) (Uimp)	4,000V
Dielectric test voltage at Ind. Freq.for 1 min	2kV
Thermal release characteristic	(1.13-1.45) x In
Magnetic release characteristic	B:(3-5) x In, C:(5-10) x In, D:(10-20) x In
Electrical life	4,000 Cycles
Mechanical life	10,000 Cycles
Contact position indicator	Yes
Protection degree	IP20
Ambient temperature	-5°C to +40°C, Max.95% humidity
Terminal connection type	Cable/Pin-type busbar/Fork-type busbar
Max.terminal size for cable	25mm <sup>2</sup>
Max.tightening torque	2.5N.m
Installation	Mounting on 35mm DIN rail
Connection	From top and bottom

## Overall and Installation Dimension(mm)



# Pulg-in MCB EKM1-63(H)P



Plug-in Miniature Circuit Breaker

Standard\_IEC60898-1

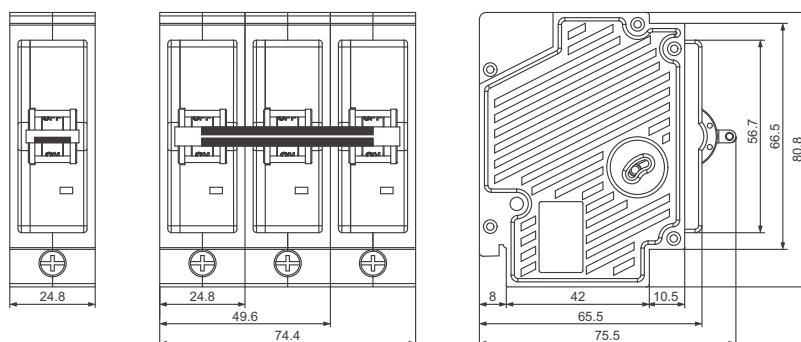


Available in white

## Technical Data

Product standard	IEC 60898-1
Tripping characteristics	B,C
Rated current range (A)	1,2,3,4,5,6,8,10,13,16,20,25,32,40,50,63A
Number of poles	1P, 2P, 3P
Rated operational voltage (Ue) V AC	Single pole: 240/415; Multi pole: 415
Rated insulation voltage (Ui) V AC	500
Rated impulse voltage (Uimp) kV	4
Rated ultimate short circuit breaking capacity Icn (A) at 415V AC	6000, 10000
Rated service short circuit breaking capacity Ics (A) at 415V AC	6000, 7500
Rated frequency (Hz)	50/60
Suitability for isolation	Yes
Thermal tripping characteristics	(1.13-1.45) × In
Magnetic tripping characteristics	B:(3-5) × In, C: (5-10) × In
Electrical endurance (Number of operation cycles)	≥10000
Energy limiting class	3
Reference ambient air temperature	50°C
Operating temperature range	-5°C to +55°C
Protection degree	For housing: IP40; For terminals: IP20
Terminal capacity (mm <sup>2</sup> )	25
Tightening torque (Nm)	2.5
Mounting type	Plug-in
Type of termination incoming	Busbar Plug-in
Type of termination outgoing	Cables / Busbar

## Overall and Installation Dimension(mm)



# MCB EKM1-40N 6kA



Mini Circuit Breaker

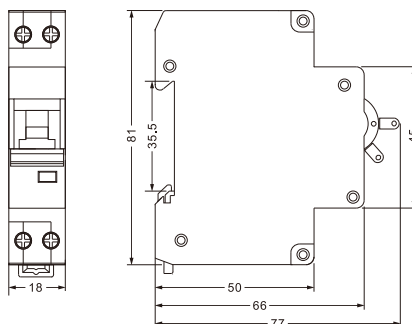
Standard\_IEC60898-1



## Technical Data

Standard	IEC/EN60898-1
Protection	Overcurrent and short circuit
Type of trip	Thermo-magnetic
No.of poles	1P+N
Rated voltage (Ue)	230/240V~
Rated currents (In)	6,10,16,20,25,32,40A
Rated frequency	50/60Hz
Rated breaking capacity	6,000A
Energy Limiting Class	3
Rated impulse withstand voltage(1.2/50) (Uimp)	4,000V
Dielectric test voltage at Ind. Freq.for 1 min	2kV
Thermal release characteristic	(1.13-1.45) x In
Magnetic release characteristic	B:(3-5) x In, C:(5-10) x In
Electrical life	4,000 Cycles
Mechanical life	10,000 Cycles
Contact position indicator	Yes
Protection degree	IP20
Ambient temperature	-5°C to +40°C, Max.95% humidity
Terminal connection type	Cable/Pin-type busbar
Max.terminal size for cable	10mm <sup>2</sup>
Max.tightening torque	1.5N.m
Installation	Mounting on 35mm DIN rail
Connection	From top and bottom

## Overall and Installation Dimension(mm)





# MCB EKM1-125H 15kA



Mini Circuit Breaker

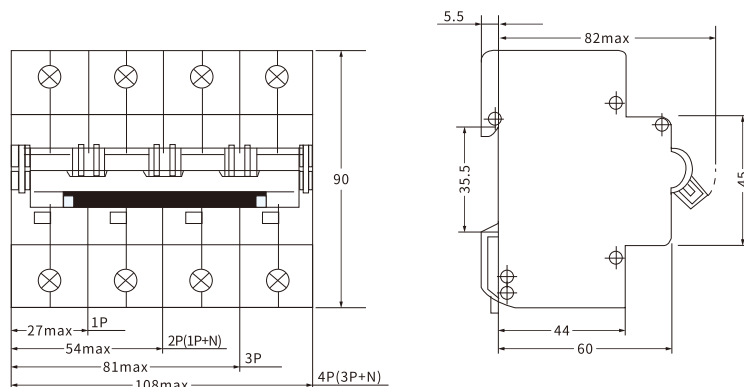
Standard\_ IEC60898-1  
IEC60947-2



## Technical Data

Standard	IEC/EN60898-1	IEC/EN60947-2
Protection	Overcurrent and short circuit	
Type of trip	Thermo-magnetic	
No. of poles	1P,2P,3P,4P,1P+N,3P+N	
Rated voltage (Ue)	240/415V~	
Rated currents (In)	63,80,100,125A	
Rated frequency	50/60Hz	
Rated breaking capacity	10,000A	15,000A
Rated impulse withstand voltage(1.2/50) (Uimp)	4,000V	
Dielectric test voltage at Ind. Freq. for 1 min	2kV	
Thermal release characteristic	(1.13-1.45) x In	(1.05-1.30) x In
Thermo-magnetic release characteristic	C:(5-10) x In, D:(10-20) x In	(8-12) x In
Electrical life	4,000 Cycles	
Mechanical life	10,000 Cycles	
Contact position indicator	Yes	
Protection degree	IP20	
Ambient temperature	-5°C to +40°C, Max.95% humidity	
Terminal connection type	Cable/Pin-type busbar	
Max.terminal size for cable	50mm <sup>2</sup>	
Max.tightening torque	3.5N.m	
Installation	Mounting on 35mm DIN rail	
Connection	From top and bottom	

## Overall and Installation Dimension(mm)



# DC MCB EKM1-63DC



Mini Circuit Breaker

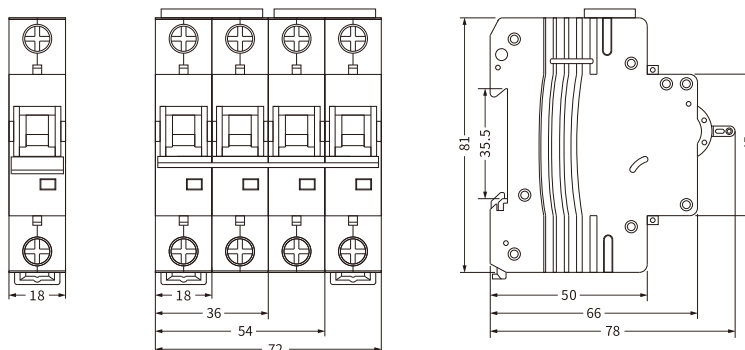
Standard\_ IEC60947-2



## Technical Data

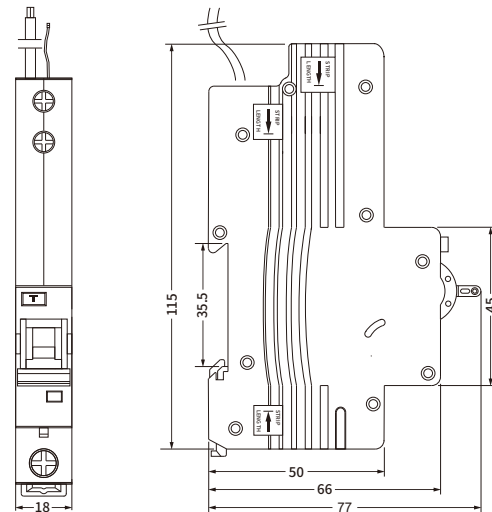
Standard	IEC/EN60947-2
Protection	Overcurrent and short circuit
Type of trip	Thermo-magnetic
No. of poles	1P,2P,4P
Rated voltage (Ue)	1P(250VDC),2P(500VDC),4P(1000VDC)
Rated currents (In)	1,2,3,4,5,6,10,16,20,25,32,40,50,63A
Rated breaking capacity	6,000A
Rated impulse withstand voltage(1.2/50) (Uimp)	4,000V
Dielectric test voltage at Ind. Freq. for 1 min	3kV
Thermal release characteristic	(1.05-1.30) x In
Magnetic release characteristic	(8-12) x In
Electrical life	4,000 Cycles
Mechanical life	10,000 Cycles
Contact position indicator	Yes
Protection degree	IP20
Ambient temperature	-5°C to +40°C, Max.95% humidity
Terminal connection type	Cable/Pin-type busbar/Fork-type busbar
Max.terminal size for cable	25mm <sup>2</sup>
Max.tightening torque	2.5N.m
Installation	Mounting on 35mm DIN rail
Connection	According to the wiring diagram

## Overall and Installation Dimension(mm)





### Overall and Installation Dimension(mm)

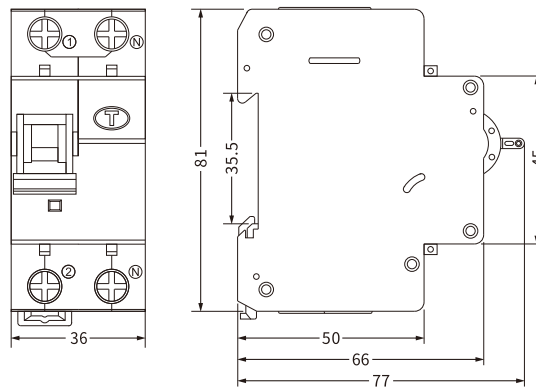


### Technical Data

Standard	IEC/EN61009-1
Protection	Ground fault, Overcurrent and short circuit, Over-voltage(selectable)
Type of trip	Ground fault : Electronic Overload and short circuit :Thermo-magnetic
Type of protection (electric leakage)	AC,A
No.of poles	1P+N 1module , N line non-disconnected
Rated voltage (Ue)	230/240V~
Rated currents (In)	6,10,16,20,25,32,40A
Rated sensitivity currents (IΔn)	10,30,100,300mA
Residual current off-time under (IΔn)	≤ 0.1s
Rated residual making and breaking capacity(IΔm)	500A(In≤50A), 10In(In>50A)
Rated frequency	50/60Hz
Rated breaking capacity	6,000A
Energy Limiting Class	3
Rated impulse withstand voltage(1.2/50) (Uimp)	4,000V
Dielectric test voltage at Ind. Freq.for 1 min	2kV
Thermal release characteristic	(1.13-1.45) x In
Magnetic release characteristic	B:(3-5) x In, C:(5-10) x In
Electrical life	4,000 Cycles
Mechanical life	10,000 Cycles
Contact position indicator	Yes
Protection degree	IP20
Ambient temperature	-25°C to +40°C, Max.95% humidity
Terminal connection type	Cable/Pin-type busbar
Max.terminal size for cable	L(in):25mm <sup>2</sup> , N/L(out) :16mm <sup>2</sup>
Max.tightening torque	L(in):2.5.N.m , N/L(out):2N.m
Installation	Mounting on 35mm DIN rail
Connection	From bottom



## Overall and Installation Dimension(mm)

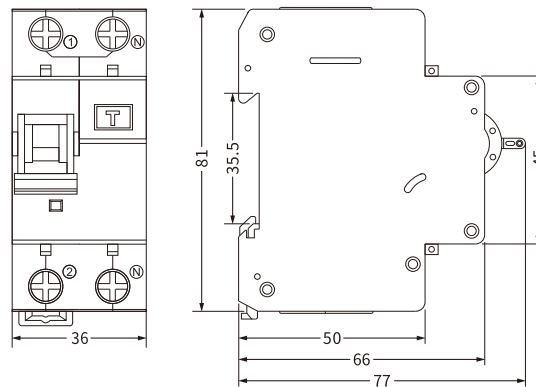


## Technical Data

Standard	IEC/EN61009-1
Protection	Ground fault, Overcurrent and short circuit
Type of trip	Ground fault : Electro-magnetic Overload and short circuit :Thermo-magnetic
Type of protection (electric leakage)	AC,A
No.of poles	1P+N 2module , N line with disconnected
Rated voltage (Ue)	230/240V~
Rated currents (In)	6,10,16,20,25,32,40A
Rated sensitivity currents (I $\Delta$ n)	30,100,300mA
Residual current off-time under (I $\Delta$ n)	≤ 0.1s
Rated residual making and breaking capacity(I $\Delta$ m)	500A(In≤50A), 10In(In>50A)
Rated frequency	50/60Hz
Rated breaking capacity	6,000A
Energy Limiting Class	3
Rated impulse withstand voltage(1.2/50) (Uimp)	4,000V
Dielectric test voltage at Ind. Freq.for 1 min	2kV
Thermal release characteristic	(1.13-1.45) x In
Magnetic release characteristic	B:(3-5) x In, C:(5-10) x In
Electrical life	4,000 Cycles
Mechanical life	10,000 Cycles
Contact position indicator	Yes
Ground fault indicator	Yes
Protection degree	IP20
Ambient temperature	-25°C to +55°C, Max.95% humidity
Terminal connection type	Cable/Pin-type busbar/Fork-type busbar
Max.terminal size for cable	25mm <sup>2</sup>
Max.tightening torque	2.5N.m
Installation	Mounting on 35mm DIN rail
Connection	From top and bottom



### Overall and Installation Dimension(mm)



### Technical Data

Standard	IEC/EN61009-1
Protection	Ground fault, Overcurrent and short circuit, Over-voltage(selectable)
Type of trip	Ground fault : Electronic Overload and short circuit :Thermo-magnetic
Type of protection (electric leakage)	AC,A
No.of poles	1P+N 2module , N line with disconnected
Rated voltage (Ue)	230/240V~
Rated currents (In)	6,10,16,20,25,32,40,50,63A
Rated sensitivity currents (I $\Delta$ n)	10,30,100,300mA
Residual current off-time under (I $\Delta$ n)	≤ 0.1s
Rated residual making and breaking capacity (I $\Delta$ m)	500A(In≤50A), 10In(In>50A)
Rated frequency	50/60Hz
Rated breaking capacity	6,000A
Energy Limiting Class	3
Rated impulse withstand voltage(1.2/50) (Uimp)	4,000V
Dielectric test voltage at Ind. Freq.for 1 min	2kV
Thermal release characteristic	(1.13-1.45) x In
Magnetic release characteristic	B:(3-5) x In, C:(5-10) x In
Electrical life	4,000 Cycles
Mechanical life	10,000 Cycles
Contact position indicator	Yes
Ground fault indicator	Yes
Protection degree	IP20
Ambient temperature	-25°C to +55°C, Max.95% humidity
Terminal connection type	Cable/Pin-type busbar/Fork-type busbar
Max.terminal size for cable	25mm <sup>2</sup>
Max.tightening torque	2.5N.m
Installation	Mounting on 35mm DIN rail
Connection	From top and bottom

# RCBO EKL5-63(H)

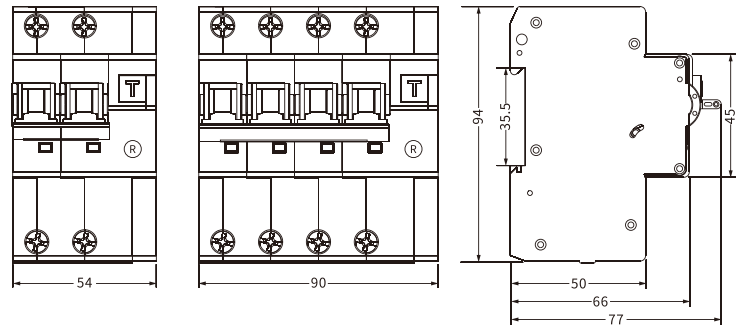


RCCB with Overcurrent Protection

Standard\_IEC61009-1



## Overall and Installation Dimension(mm)



## Technical Data

Standard	IEC/EN61009-1
Protection	Ground fault, Overcurrent and short circuit, Over-voltage(selectable)
Type of trip	Ground fault : Electronic Overload and short circuit :Thermo-magnetic
Type of protection (electric leakage)	AC,A,S
No.of poles	1P+N 3module , 3P+N 5module, N line with disconnected
Rated voltage (Ue)	1P+N:230/240V~,3P+N:400/415V~
Rated currents (In)	6,10,16,20,25,32,40,50,63A
Rated sensitivity currents (I $\Delta$ n)	10,30,100,300mA
Residual current off-time under (I $\Delta$ n)	≤ 0.1s
Rated residual making and breaking capacity (I $\Delta$ m)	500A(In≤50A), 10In(In>50A)
Rated frequency	50/60Hz
Rated breaking capacity	6,000A, 10,000A
Energy Limiting Class	3
Rated impulse withstand voltage(1.2/50) (Uimp)	4,000V
Dielectric test voltage at Ind. Freq.for 1 min	2kV
Thermal release characteristic	(1.13-1.45) x In
Magnetic release characteristic	B:(3-5) x In, C:(5-10) x In, D:(10-20) x In
Electrical life	4,000 Cycles
Mechanical life	10,000 Cycles
Contact position indicator	Yes
Ground fault indicator	Yes
Protection degree	IP20
Ambient temperature	-25°C to +55°C, Max.95% humidity
Terminal connection type	Cable/Pin-type busbar/Fork-type busbar
Max.terminal size for cable	25mm <sup>2</sup>
Max.tightening torque	2.5N.m
Installation	Mounting on 35mm DIN rail
Connection	From top

# RCBO Type B EKL5-63B

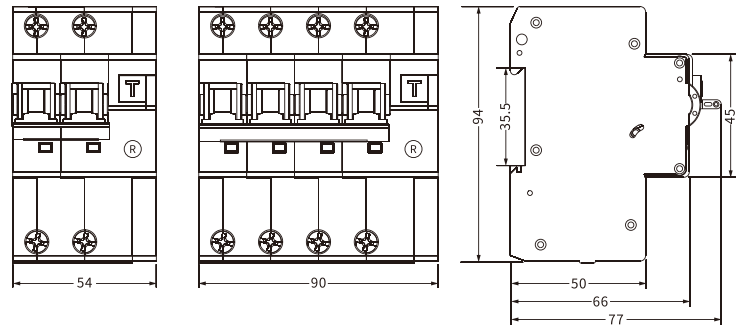


RCCB with Overcurrent Protection

Standard\_ IEC61009-1  
IEC62423



## Overall and Installation Dimension(mm)



## Technical Data

Standard	IEC/EN61009-1 ,IEC/EN62423
Protection	Ground fault, Overcurrent and short circuit, Over-voltage(selectable)
Type of trip	Ground fault : Electronic Overload and short circuit :Thermo-magnetic
Type of protection (electric leakage)	B
No.of poles	1P+N 3module , 3P+N 5module, N line with disconnected
Rated voltage (Ue)	1P+N:230/240V~,3P+N:400/415V~
Rated currents (In)	6,10,16,20,25,32,40,50,63A
Rated sensitivity currents (I $\Delta$ n)	30,100,300mA
Residual current off-time under (I $\Delta$ n)	≤ 0.1s
Rated residual making and breaking capacity (I $\Delta$ m)	500A(In≤50A), 10In(In>50A)
Rated frequency	50/60Hz
Rated breaking capacity	10,000A
Energy Limiting Class	3
Rated impulse withstand voltage(1.2/50) (Uimp)	4,000V
Dielectric test voltage at Ind. Freq.for 1 min	2kV
Thermal release characteristic	(1.13-1.45) x In
Magnetic release characteristic	B:(3-5) x In, C:(5-10) x In, D:(10-20) x In
Electrical life	4,000 Cycles
Mechanical life	10,000 Cycles
Contact position indicator	Yes
Ground fault indicator	Yes
Protection degree	IP20
Ambient temperature	-25°C to +55°C, Max.95% humidity
Terminal connection type	Cable/Pin-type busbar/Fork-type busbar
Max.terminal size for cable	25mm <sup>2</sup>
Max.tightening torque	2.5N.m
Installation	Mounting on 35mm DIN rail
Connection	From top

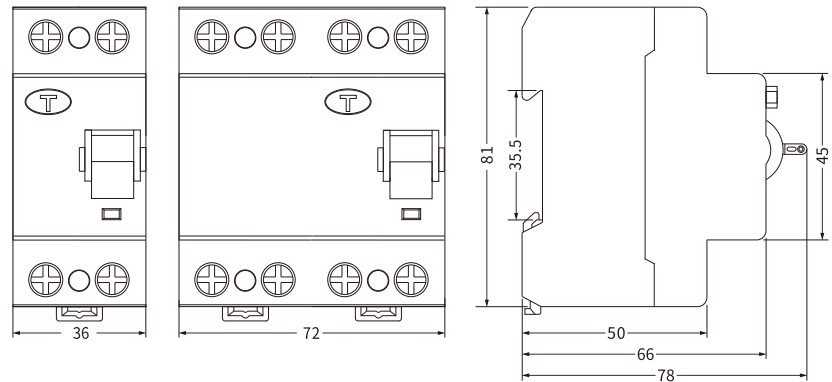
# RCCB EKL1-63(H)

Residual Current Circuit Breaker

Standard\_IEC61008-1



## Overall and Installation Dimension(mm)



## Technical Data

Standard	IEC/EN61008-1
Protection	Ground fault
Type of trip	Electro-magnetic
Type of protection (electric leakage)	AC,A,G,S
No.of poles	2P(1P+N), 4P(3P+N) , N Pole on right
Rated voltage (Ue)	1P+N: 230/240V~, 3P+N:400/415V~
Rated currents (In)	16,25,32,40,63A
Rated sensitivity currents (I $\Delta$ n)	10,30,100,300mA (10mA only for In=16-25A)
Residual current off-time under (I $\Delta$ n)	≤ 0.1s
Rated residual making and breaking capacity (I $\Delta$ m)	500A(In≤50A), 10In(In>50A)
Rated frequency	50/60Hz
Rated breaking capacity	6,000A, 10,000A
SCPD fuse	6000  10000
Rated impulse withstand voltage(1.2/50) (Uimp)	4,000V
Dielectric test voltage at Ind. Freq.for 1 min	2kV
Electrical life	2,000 Cycles
Mechanical life	4,000 Cycles
Contact position indicator	Yes
Protection degree	IP20
Ambient temperature	-25°C to +40°C, Max.95% humidity
Terminal connection type	Cable/Pin-type busbar/Fork-type busbar
Max.terminal size for cable	25mm <sup>2</sup>
Max.tightening torque	2.5N.m
Installation	Mounting on 35mm DIN rail
Connection	From top and bottom



# RCCB Type B EKL1-63B 10kA

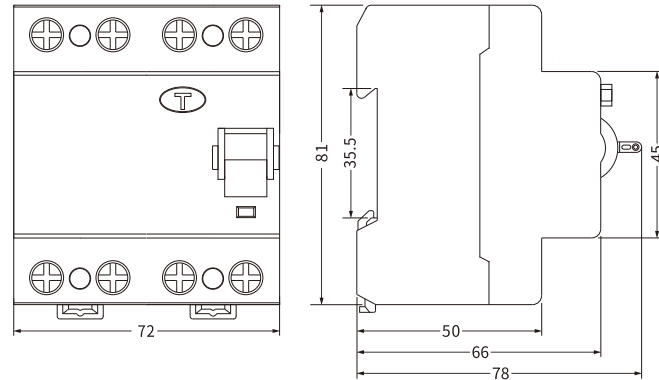
**ETEK®**

Residual Current Circuit Breaker


Standard IEC61008-1  
IEC62423



## Overall and Installation Dimension(mm)



## Technical Data

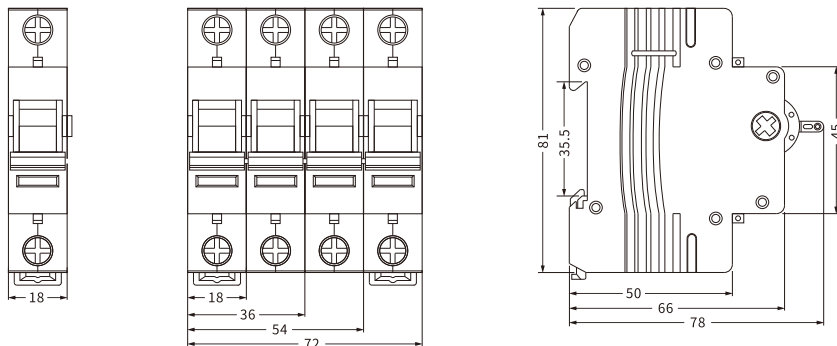
Standard	IEC/EN61008-1, IEC62423
Protection	Ground fault
Type of trip	Electro-magnetic
Type of protection (electric leakage)	B
No. of poles	2P(1P+N), 4P(3P+N)
Rated voltage (Ue)	1P+N: 230/240V~, 3P+N: 400/415V~
Rated currents (In)	25,40,63A
Rated sensitivity currents (IΔn)	30,100,300mA
Residual current off-time under (IΔn)	≤ 0.1s
Rated residual making and breaking capacity(IΔm)	500A(In≤50A), 10In(In>50A)
Rated frequency	50/60Hz
Rated breaking capacity	10,000A
SCPD fuse	 10000
Rated impulse withstand voltage(1.2/50) (Uimp)	4,000V
Dielectric test voltage at Ind. Freq. for 1 min	2.5kV
Electrical life	2,000 Cycles
Mechanical life	4,000 Cycles
Contact position indicator	Yes
Protection degree	IP20
Ambient temperature	-25°C to +40°C, Max.95% humidity
Terminal connection type	Cable/Pin-type busbar/Fork-type busbar
Max.terminal size for cable	25mm <sup>2</sup>
Max.tightening torque	2.5N.m
Installation	Mounting on 35mm DIN rail
Connection	From top and bottom



## Technical Data

Standard	IEC/EN60947-3
No.of poles	1P,2P,3P,4P
Rated voltage (Ue)	240/415V~
Rated currents (In)	25,32,40,50,63,80,100,125A
Rated frequency	50/60Hz
Utilization category	AC-22A
Short-time withstand current (Icw)	12Ie, t=1s
Rated short-circuit making capacity (Icm)	20Ie, t=0.1s
Rated making & breaking capacity	3Ie, 1.05Ue, CosΦ=0.65
Rated impulse withstand voltage (Uimp)	4,000V
Dielectric test voltage at Ind. Freq.for 1 min	2kV
Rated insulation voltage (Ui)	500V
Electrical life	2,000 Cycles
Mechanical life	10,000 Cycles
Contact position indicator	Yes
Protection degree	IP20
Ambient temperature	-5°C to +40°C, Max.95% humidity
Terminal connection type	Cable/Pin-type busbar/Fork-type busbar
Max.terminal size for cable	50mm <sup>2</sup>
Max.tightening torque	3.5N.m
Installation	Mounting on 35mm DIN rail
Connection	From top and bottom

## Overall and Installation Dimension(mm)

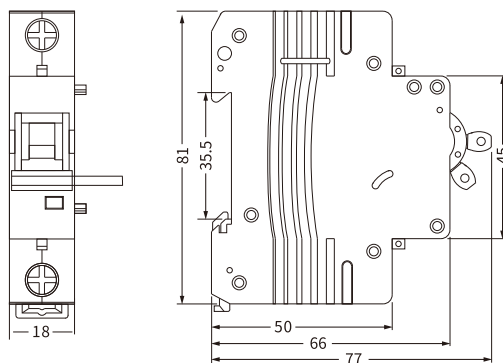




**Technical Data**

Standard	IEC60947-5-1
Rated voltage US (V)	AC230/400 50/60Hz DC24 DC48 AC24 50/60Hz
Rated impulse withstand voltage(1.2/50) (Uimp)	4,000V
Rated short circuit making capacity	20Ie, t=0.1s
Dielectric test voltage at ind. Freq. for 1min	2kV
Insulation voltage (Ui)	500V
Pollution degree	2
Rated voltage (Ue)	AC230V
Rated insulating voltage (Ui)	500V
Over-voltage tripping range	280V±5%
Under-voltage tripping range	170V±5%
Electrical life	4,000 Cycles
Mechanical life	4,000 Cycles
Protection degree	IP20
Ambient temperature (with daily average ≤35°C)	-5°C~+40°C
Storage temperature	-25°C~+70°C
Terminal connection type	Cable
Terminal size top/bottom for cable	2.5mm <sup>2</sup> 18-13AWG
Tightening torque	0.8 N.m 7In-lbs

**Overall and Installation Dimension(mm)**



# EKM1-OF

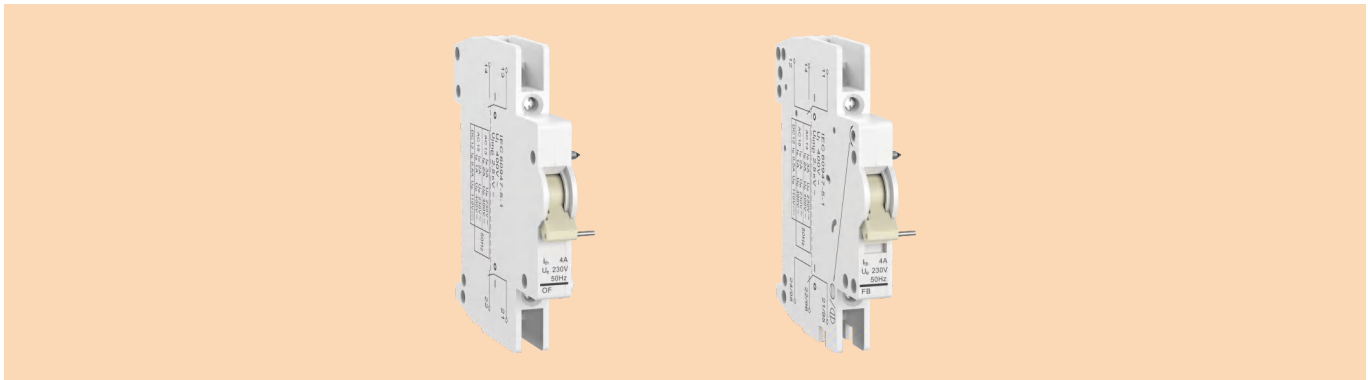
# EKM1-FB



Auxiliary Contact for EKM1,EKL3,  
EKM3,EKL13

Alarm Auxiliary Contact for EKM1,EKL3  
EKM3,EKL13

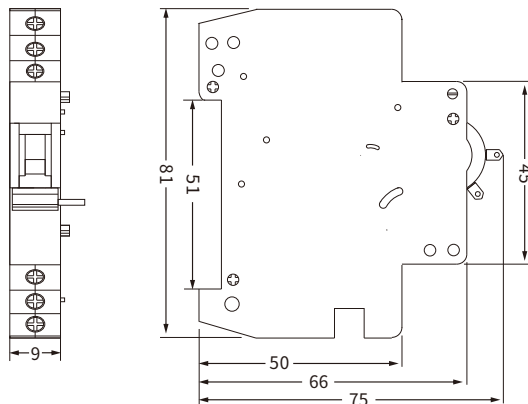
Standard\_IEC60947-5-1



## Technical Data

Rated value	AC415/400V 50/60Hz 3A
	AC240/400V 50/60Hz 3A
	DC130V 1A
	DC48V 2A
	DC24V 6A
Configurations	EKM1-OF 1NO+1NC
	EKM1-FB 2NO+2NC
Rated impulse withstand voltage (1.2/50)(Uimp)	4,000V
Rated short circuit making capacity	20Ie, t=0.1s
Dielectric test voltage at ind. Freq. for 1min	2kV
Insulation voltage (Ui)	500V
Pollution degree	2
Electrical life	6,000 Cycles
Mechanical life	10,000 Cycles
Protection degree	IP20
Ambient temperature (with daily average ≤35°C)	-5°C~+40°C
Storage temperature	-25°C~+70°C
Terminal connection type	Cable
Terminal size top/bottom for cable	2.5mm <sup>2</sup> 18-13AWG
Tightening torque	0.8 N.m 7In-lbs

## Overall and Installation Dimension(mm)



# Modular S2 Series Circuit Breakers



# MCB EKM2-63X 4.5kA



Mini Circuit Breaker

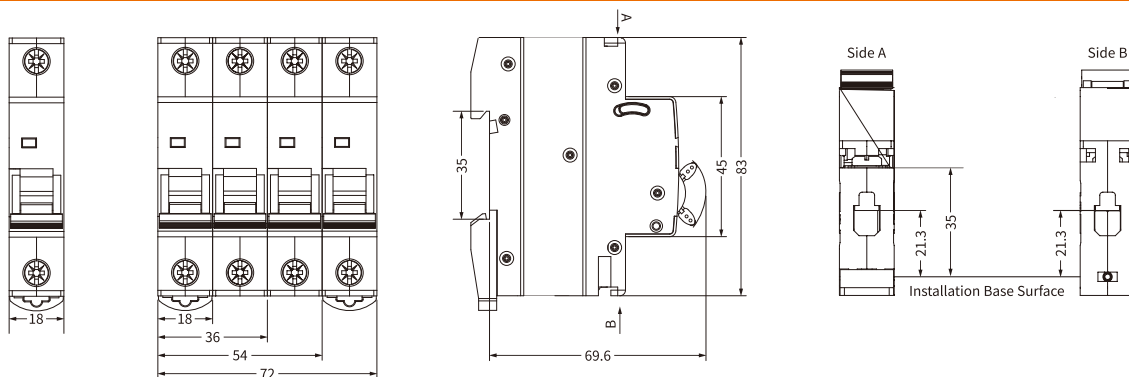
Standard\_IEC60898-1



## Technical Data

Standard	IEC/EN60898-1
Protection	Overcurrent and short circuit
Type of trip	Thermo-magnetic
No.of poles	1P,2P,3P,4P,1P+N,3P+N
Rated voltage (Ue)	240/415V~
Rated currents (In)	1,2,3,4,5,6,10,16,20,25,32,40,50,63A
Rated frequency	50/60Hz
Rated breaking capacity	4,500A
Rated impulse withstand voltage(1.2/50) (Uimp)	4,000V
Dielectric test voltage at Ind. Freq.for 1 min	2kV
Thermal release characteristic	(1.13-1.45) x In
Magnetic release characteristic	B:(3-5) x In, C:(5-10) x In, D:(10-20) x In
Electrical life	4,000 Cycles
Mechanical life	10,000 Cycles
Contact position indicator	Yes
Protection degree	IP20
Ambient temperature	-5°C to +40°C, Max.95% humidity
Terminal connection type	Cable/Pin-type busbar
Max.terminal size for cable	25mm <sup>2</sup>
Max.tightening torque	2.5N.m
Installation	Mounting on 35mm DIN rail
Connection	From top and bottom

## Overall and Installation Dimension(mm)



# MCB EKM2-63 6kA



Mini Circuit Breaker

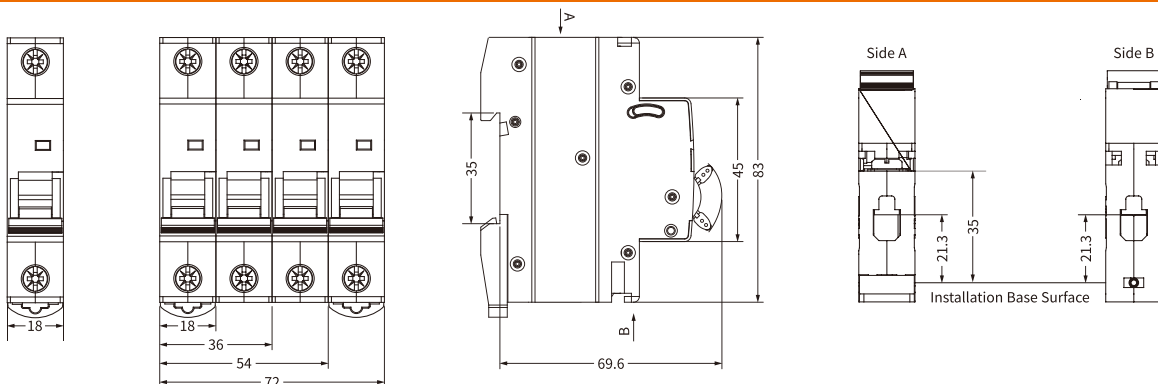
Standard\_IEC60898-1



## Technical Data

Standard	IEC/EN60898-1
Protection	Overcurrent and short circuit
Type of trip	Thermo-magnetic
No.of poles	1P,2P,3P,4P,1P+N,3P+N
Rated voltage (Ue)	240/415V~
Rated currents (In)	1,2,3,4,5,6,10,16,20,25,32,40,50,63A
Rated frequency	50/60Hz
Rated breaking capacity	6,000A
Energy Limiting Class	3
Rated impulse withstand voltage(1.2/50) (Uimp)	4,000V
Dielectric test voltage at Ind. Freq.for 1 min	2kV
Thermal release characteristic	(1.13-1.45) x In
Magnetic release characteristic	B:(3-5) x In, C:(5-10) x In, D:(10-20) x In
Electrical life	4,000 Cycles
Mechanical life	10,000 Cycles
Contact position indicator	Yes
Protection degree	IP20
Ambient temperature	-5°C to +40°C, Max.95% humidity
Terminal connection type	Cable/Pin-type busbar
Max.terminal size for cable	25mm <sup>2</sup>
Max.tightening torque	2.5N.m
Installation	Mounting on 35mm DIN rail
Connection	From top and bottom

## Overall and Installation Dimension(mm)



# MCB EKM12-63H 10kA



Mini Circuit Breaker

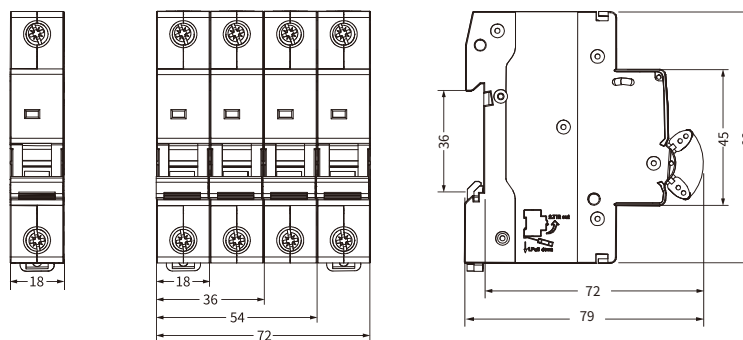
Standard\_ IEC60898-1



## Technical Data

Standard	IEC/EN60898-1
Protection	Overcurrent and short circuit
Type of trip	Thermo-magnetic
No.of poles	1P,2P,3P,4P,1P+N,3P+N
Rated voltage (Ue)	240/415V~
Rated currents (In)	1,2,3,4,5,6,10,16,20,25,32,40,50,63A
Rated frequency	50/60Hz
Rated breaking capacity	10,000A
Energy Limiting Class	3
Rated impulse withstand voltage(1.2/50) (Uimp)	4,000V
Dielectric test voltage at Ind. Freq.for 1 min	2kV
Thermal release characteristic	(1.13-1.45) x In
Magnetic release characteristic	B:(3-5) x In, C:(5-10) x In, D:(10-20) x In
Electrical life	4,000 Cycles
Mechanical life	10,000 Cycles
Contact position indicator	Yes
Protection degree	IP20
Ambient temperature	-5°C to +40°C, Max.95% humidity
Terminal connection type	Cable/Pin-type busbar
Max.terminal size for cable	25mm <sup>2</sup>
Max.tightening torque	2.5N.m
Installation	Mounting on 35mm DIN rail
Connection	From top and bottom

## Dimension(mm)





# MCB EKM2-40N(H)



Mini Circuit Breaker

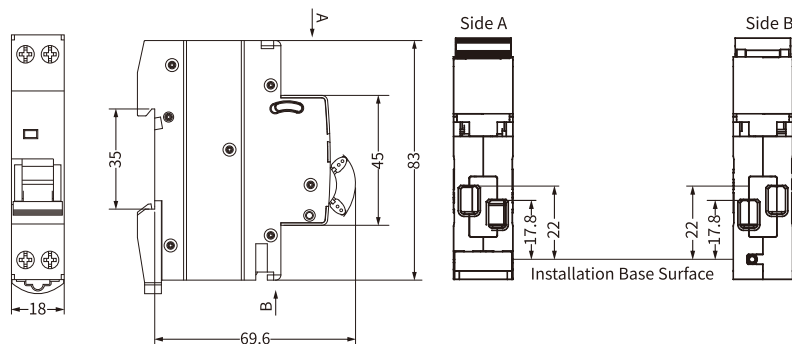
Standard\_ IEC60898-1



## Technical Data

Standard	IEC/EN60898-1
Protection	Overcurrent and short circuit
Type of trip	Thermo-magnetic
No.of poles	1P+N
Rated voltage (Ue)	230/240V~
Rated currents (In)	6,10,16,20,25,32,40A
Rated frequency	50/60Hz
Rated breaking capacity	6,000A, 10,000A
Energy Limiting Class	3
Rated impulse withstand voltage(1.2/50) (Uimp)	4,000V
Dielectric test voltage at Ind. Freq.for 1 min	2kV
Thermal release characteristic	(1.13-1.45) x In
Magnetic release characteristic	B:(3-5) x In, C:(5-10) x In, D:(10-20) x In
Electrical life	4,000 Cycles
Mechanical life	10,000 Cycles
Contact position indicator	Yes
Protection degree	IP20
Ambient temperature	-5°C to +40°C, Max.95% humidity
Terminal connection type	Cable/Pin-type busbar
Max.terminal size for cable	10mm <sup>2</sup>
Max.tightening torque	1.5N.m
Installation	Mounting on 35mm DIN rail
Connection	From top and bottom

## Overall and Installation Dimension(mm)



# MCB EKM1-125S 6kA



Mini Circuit Breaker

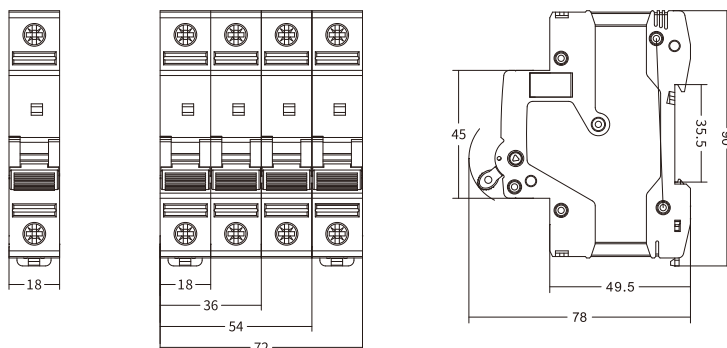
Standard\_IEC60898-1



## Technical Data

Standard	IEC/EN60898-1
Protection	Overcurrent and short circuit
Type of trip	Thermo-magnetic
No.of poles	1P,2P,3P,4P,1P+N,3P+N
Rated voltage (Ue)	240/415V~
Rated currents (In)	63,80,100,125A
Rated frequency	50/60Hz
Rated breaking capacity	6,000A
Rated impulse withstand voltage(1.2/50) (Uimp)	4,000V
Dielectric test voltage at Ind. Freq.for 1 min	2kV
Thermal release characteristic	(1.13-1.45) x In
Thermo-magnetic release characteristic	C:(5-10) x In, D:(10-20) x In
Electrical life	4,000 Cycles
Mechanical life	10,000 Cycles
Contact position indicator	Yes
Protection degree	IP20
Ambient temperature	-5°C to +40°C, Max.95% humidity
Terminal connection type	Cable/Pin-type busbar
Max.terminal size for cable	50mm <sup>2</sup>
Max.tightening torque	3.5N.m
Installation	Mounting on 35mm DIN rail
Connection	From top and bottom

## Overall and Installation Dimension(mm)



# MCB EKM2-125H 10kA



Mini Circuit Breaker

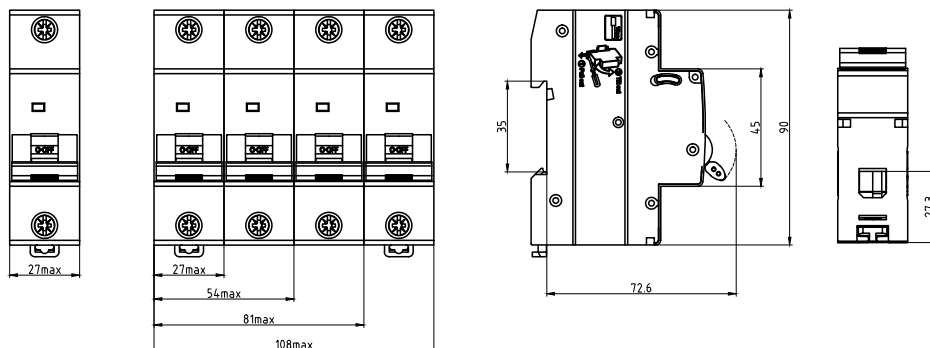
Standard\_ IEC60898-1  
IEC60947-2



## Technical Data

Standard	IEC/EN60898-1	IEC/EN60947-2
Protection	Overcurrent and short circuit	
Type of trip	Thermo-magnetic	
No.of poles	1P,2P,3P,4P,1P+N,3P+N	
Rated voltage (Ue)	240/415V~	
Rated currents (In)	63,80,100,125A	
Rated frequency	50/60Hz	
Rated breaking capacity	6,000A	10,000A
Rated impulse withstand voltage(1.2/50) (Uimp)	4,000V	
Dielectric test voltage at Ind. Freq.for 1 min	2kV	
Thermal release characteristic	(1.13-1.45) x In	(1.05-1.30) x In
Thermo-magnetic release characteristic	C:(5-10) x In, D:(10-20) x In	(8-12) x In
Electrical life	4,000 Cycles	
Mechanical life	10,000 Cycles	
Contact position indicator	Yes	
Protection degree	IP20	
Ambient temperature	-5°C to +40°C, Max.95% humidity	
Terminal connection type	Cable/Pin-type busbar	
Max.terminal size for cable	50mm <sup>2</sup>	
Max.tightening torque	3.5N.m	
Installation	Mounting on 35mm DIN rail	
Connection	From top and bottom	

## Overall and Installation Dimension(mm)



# DC MCB EKM1-125DC 10kA



Mini Circuit Breaker

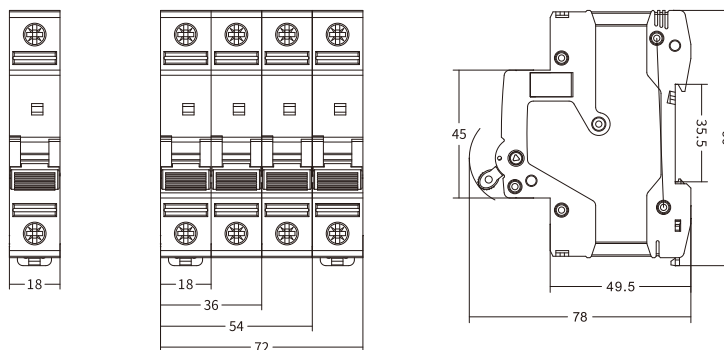
Standard\_IEC60947-2



## Technical Data

Standard	IEC/EN60947-2
Protection	Overcurrent and short circuit
Type of trip	Thermo-magnetic
No.of poles	1P,2P,4P
Rated voltage (Ue)	1P(250VDC),2P(500VDC),4P(1000VDC)
Rated currents (In)	80,100,125A
Rated breaking capacity	10,000A
Rated impulse withstand voltage(1.2/50) (Uimp)	4,000V
Dielectric test voltage at Ind. Freq.for 1 min	3kV
Thermal release characteristic	(1.05-1.30) x In
Magnetic release characteristic	(8-12) x In
Electrical life	4,000 Cycles
Mechanical life	10,000 Cycles
Contact position indicator	Yes
Protection degree	IP20
Ambient temperature	-5°C to +40°C, Max.95% humidity
Terminal connection type	Cable/Pin-type busbar/Fork-type busbar
Max.terminal size for cable	35mm <sup>2</sup>
Max.tightening torque	2.5N.m
Installation	Mounting on 35mm DIN rail
Connection	According to the wiring diagram

## Overall and Installation Dimension(mm)

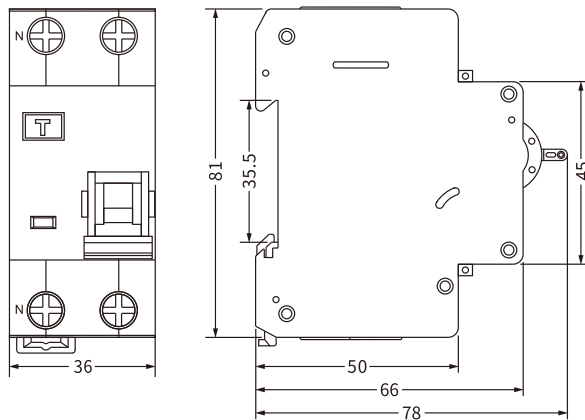


# RCBO EKL3-40S 4.5kA

RCCB with Overcurrent Protection ----- Standard\_IEC61009-1



## Overall and Installation Dimension(mm)



## Technical Data

Standard	IEC/EN61009-1
Protection	Ground fault, Overcurrent and short circuit, Over-voltage(selectable)
Type of trip	Ground fault : Electronic Overload and short circuit :Thermo-magnetic
Type of protection (electric leakage)	AC,A
No.of poles	1P+N 2module , N line with disconnected
Rated voltage (Ue)	230/240V~
Rated currents (In)	6,10,16,20,25,32,40A
Rated sensitivity currents (IΔn)	10,30,100,300mA
Residual current off-time under (IΔn)	≤ 0.1s
Rated residual making and breaking capacity (IΔm)	500A(In≤50A)
Rated frequency	50/60Hz
Rated breaking capacity	4,500A
Rated impulse withstand voltage(1.2/50) (Uimp)	4,000V
Dielectric test voltage at Ind. Freq.for 1 min	2kV
Thermal release characteristic	(1.13-1.45) x In
Magnetic release characteristic	B:(3-5) x In, C:(5-10) x In
Electrical life	4,000 Cycles
Mechanical life	10,000 Cycles
Contact position indicator	Yes
Protection degree	IP20
Ambient temperature	-25°C to +40°C, Max.95% humidity
Terminal connection type	Cable/Pin-type busbar
Max.terminal size for cable	25mm <sup>2</sup>
Max.tightening torque	2.5N.m
Installation	Mounting on 35mm DIN rail
Connection	From top

# RCBO EKL5-63S 4.5kA

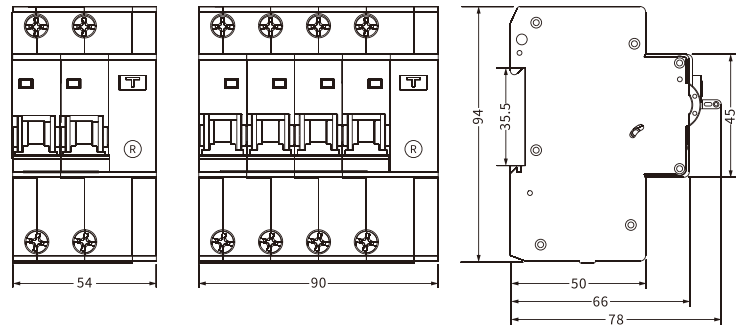


RCCB with Overcurrent Protection

Standard\_IEC61009-1



## Overall and Installation Dimension(mm)



## Technical Data

Standard	IEC/EN61009-1
Protection	Ground fault, Overcurrent and short circuit, Over-voltage(selectable)
Type of trip	Ground fault : Electronic Overload and short circuit :Thermo-magnetic
Type of protection (electric leakage)	AC,A,S
No.of poles	1P+N 3module , 3P+N 5module, N line with disconnected
Rated voltage (Ue)	1P+N:230/240V~,3P+N:400/415V~
Rated currents (In)	6,10,16,20,25,32,40,50,63A
Rated sensitivity currents (I $\Delta$ n)	10,30,100,300mA
Residual current off-time under (I $\Delta$ n)	≤ 0.1s
Rated residual making and breaking capacity (I $\Delta$ m)	500A(In≤50A), 10In(In>50A)
Rated frequency	50/60Hz
Rated breaking capacity	4,500A
Rated impulse withstand voltage(1.2/50) (Uimp)	4,000V
Dielectric test voltage at Ind. Freq.for 1 min	2kV
Thermal release characteristic	(1.13-1.45) x In
Magnetic release characteristic	B:(3-5) x In, C:(5-10) x In, D:(10-20) x In
Electrical life	4,000 Cycles
Mechanical life	10,000 Cycles
Contact position indicator	Yes
Ground fault indicator	Yes
Protection degree	IP20
Ambient temperature	-25°C to +40°C, Max.95% humidity
Terminal connection type	Cable/Pin-type busbar
Max.terminal size for cable	25mm <sup>2</sup>
Max.tightening torque	2.5N.m
Installation	Mounting on 35mm DIN rail
Connection	From top

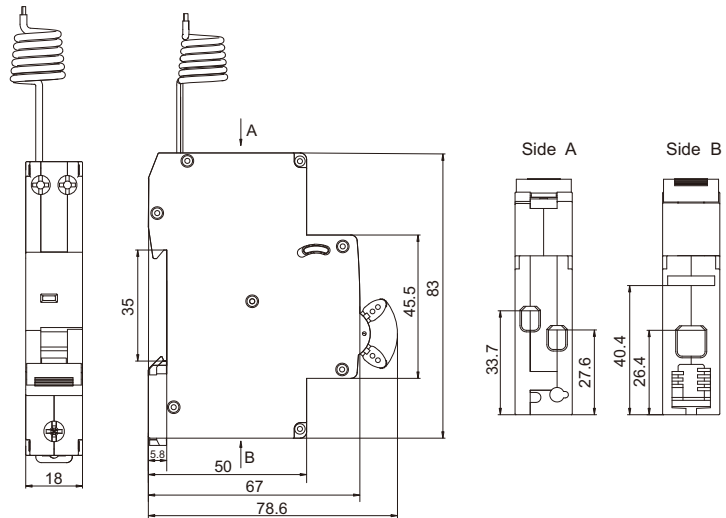
# RCBO EKL17-40 6kA



RCCB with Overcurrent Protection ----- Standard\_IEC61009-1



## Overall and Installation Dimension(mm)



## Technical Data

Standard	IEC/EN61009-1
Protection	Ground fault, Overcurrent and short circuit, Over-voltage(selectable)
Type of trip	Ground fault : Electronic Overload and short circuit :Thermo-magnetic
Type of protection (electric leakage)	AC,A
No.of poles	1P+N 1module , N line with disconnected
Rated voltage (Ue)	230/240V~
Rated currents (In)	6,10,16,20,25,32,40A
Rated sensitivity currents (I $\Delta$ n)	10,30,100,300mA
Residual current off-time under (I $\Delta$ n)	≤ 0.1s
Rated residual making and breaking capacity (I $\Delta$ m)	500A(In≤50A), 10In(In>50A)
Rated frequency	50/60Hz
Rated breaking capacity	6,000A
Energy Limiting Class	3
Rated impulse withstand voltage(1.2/50) (Uimp)	4,000V
Dielectric test voltage at Ind. Freq.for 1 min	2kV
Thermal release characteristic	(1.13-1.45) x In
Magnetic release characteristic	B:(3-5) x In, C:(5-10) x In
Electrical life	4,000 Cycles
Mechanical life	10,000 Cycles
Contact position indicator	Yes
Protection degree	IP20
Ambient temperature	-25°C to +40°C, Max.95% humidity
Terminal connection type	Cable/Pin-type busbar
Max.terminal size for cable	16mm <sup>2</sup>
Max.tightening torque	2.5N.m
Installation	Mounting on 35mm DIN rail
Connection	From bottom

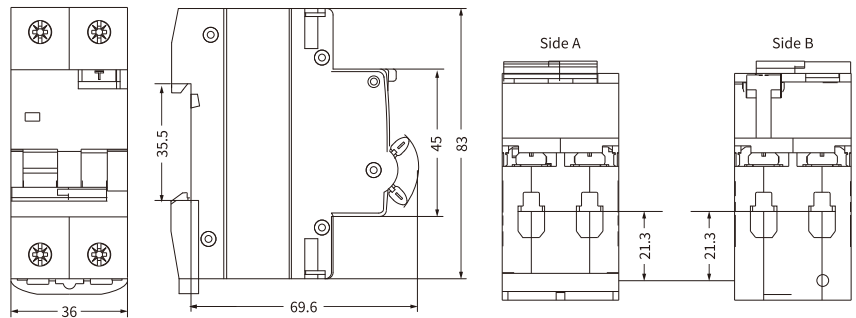
# RCBO EKL8-40M 6kA



RCCB with Overcurrent Protection ----- Standard\_IEC61009-1



## Overall and Installation Dimension(mm)



## Technical Data

Standard	IEC/EN61009-1
Protection	Ground fault, Overcurrent and short circuit, Over-voltage(selectable)
Type of trip	Ground fault : Electro-magnetic Overload and short circuit :Thermo-magnetic
Type of protection (electric leakage)	AC,A
No.of poles	1P+N 2module , N line with disconnected
Rated voltage (Ue)	230/240V~
Rated currents (In)	6,10,16,20,25,32,40A
Rated sensitivity currents (IΔn)	30,100,300mA
Residual current off-time under (IΔn)	≤ 0.1s
Rated residual making and breaking capacity (IΔm)	500A(In≤50A), 10In(In>50A)
Rated frequency	50/60Hz
Rated breaking capacity	6,000A
Energy Limiting Class	3
Rated impulse withstand voltage(1.2/50) (Uimp)	4,000V
Dielectric test voltage at Ind. Freq.for 1 min	2kV
Thermal release characteristic	(1.13-1.45) x In
Magnetic release characteristic	B:(3-5) x In, C:(5-10) x In
Electrical life	4,000 Cycles
Mechanical life	10,000 Cycles
Contact position indicator	Yes
Ground fault indicator	Yes
Protection degree	IP20
Ambient temperature	-25°C to +40°C, Max.95% humidity
Terminal connection type	Cable/Pin-type busbar/Fork-type busbar
Max.terminal size for cable	25mm <sup>2</sup>
Max.tightening torque	2.5N.m
Installation	Mounting on 35mm DIN rail
Connection	From top and bottom

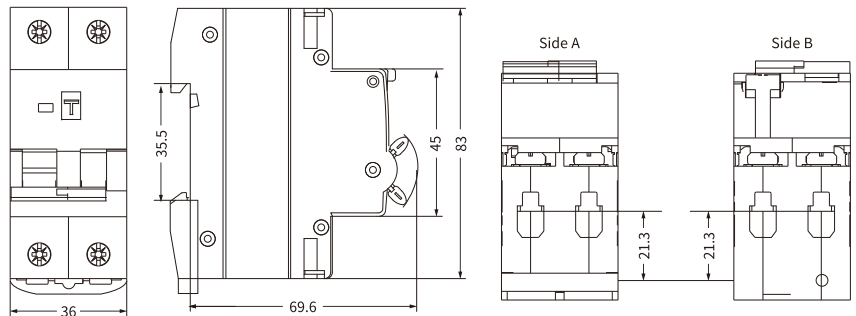


# RCBO EKL8-80 6kA

RCCB with Overcurrent Protection ----- Standard\_IEC61009-1



## Overall and Installation Dimension(mm)



## Technical Data

Standard	IEC/EN61009-1
Protection	Ground fault, Overcurrent and short circuit, Over-voltage(selectable)
Type of trip	Ground fault : Electronic Overload and short circuit :Thermo-magnetic
Type of protection (electric leakage)	AC,A
No.of poles	1P+N 2module , N line with disconnected
Rated voltage (Ue)	230/240V~
Rated currents (In)	6,10,16,20,25,32,40A,63A,80A
Rated sensitivity currents (I $\Delta$ n)	30,100,300mA
Residual current off-time under (I $\Delta$ n)	≤ 0.1s
Rated residual making and breaking capacity (I $\Delta$ m)	500A(In≤50A), 10In(In>50A)
Rated frequency	50/60Hz
Rated breaking capacity	6,000A
Energy Limiting Class	3
Rated impulse withstand voltage(1.2/50) (Uimp)	4,000V
Dielectric test voltage at Ind. Freq.for 1 min	2kV
Thermal release characteristic	(1.13-1.45) x In
Magnetic release characteristic	B:(3-5) x In, C:(5-10) x In
Electrical life	4,000 Cycles
Mechanical life	10,000 Cycles
Contact position indicator	Yes
Ground fault indicator	Yes
Protection degree	IP20
Ambient temperature	-25°C to +40°C, Max.95% humidity
Terminal connection type	Cable/Pin-type busbar/Fork-type busbar
Max.terminal size for cable	25mm <sup>2</sup>
Max.tightening torque	2.5N.m
Installation	Mounting on 35mm DIN rail
Connection	From top

# RCBO EKL19-40 6kA

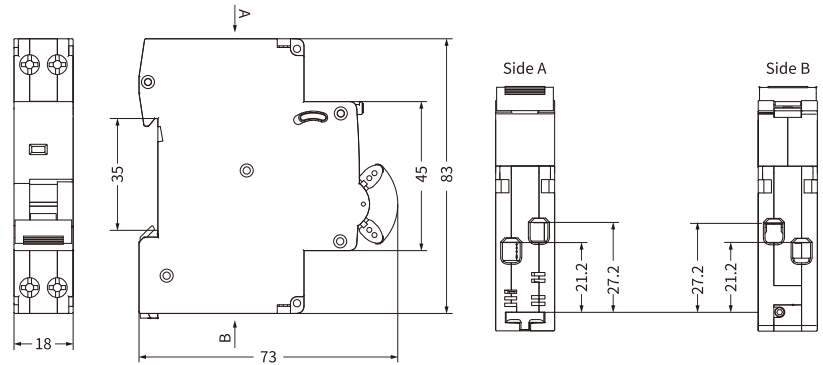


RCCB with Overcurrent Protection

Standard\_IEC61009-1



## Overall and Installation Dimension(mm)



## Technical Data

Standard	IEC/EN61009-1
Protection	Ground fault, Overcurrent and short circuit
Type of trip	Ground fault : Electronic Overload and short circuit :Thermo-magnetic
Type of protection (electric leakage)	AC,A
No.of poles	1P+N 1module , N line with disconnected
Rated voltage (Ue)	230/240V~
Rated currents (In)	6,10,16,20,25,32,40A
Rated sensitivity currents (I $\Delta$ n)	10,30,100,300mA
Residual current off-time under (I $\Delta$ n)	≤ 0.1s
Rated residual making and breaking capacity (I $\Delta$ m)	500A(In≤50A)
Rated frequency	50/60Hz
Rated breaking capacity	6,000A
Energy Limiting Class	3
Rated impulse withstand voltage(1.2/50) (Uimp)	4,000V
Dielectric test voltage at Ind. Freq.for 1 min	2kV
Thermal release characteristic	(1.13-1.45) x In
Magnetic release characteristic	B:(3-5) x In, C:(5-10) x In
Electrical life	4,000 Cycles
Mechanical life	10,000 Cycles
Contact position indicator	Yes
Protection degree	IP20
Ambient temperature	-25°C to +40°C, Max.95% humidity
Terminal connection type	Cable/Pin-type busbar
Max.terminal size for cable	16mm <sup>2</sup>
Max.tightening torque	2.5N.m
Installation	Mounting on 35mm DIN rail
Connection	From top and bottom

# RCBO EKL29-40M 6kA

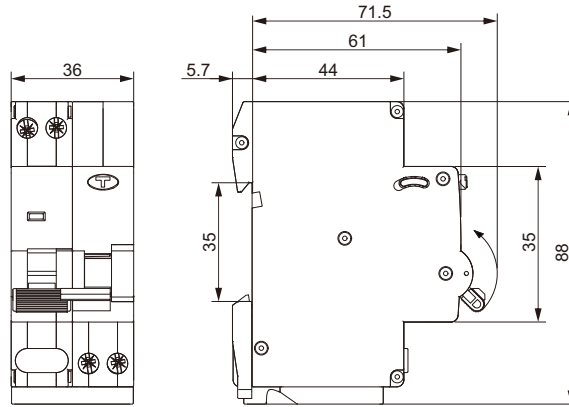


RCCB with Overcurrent Protection

Standard IEC61009-1  
IEC60898-1



## Overall and Installation Dimension(mm)



## Technical Data

Standard	IEC/EN61009-1, IEC/EN60898-1
Protection	Ground fault, Overcurrent and short circuit
Type of trip	Ground fault : Electro-magnetic Overload and short circuit :Thermo-magnetic
Type of protection (electric leakage)	AC,A
No.of poles	1P+N 2module , N line with disconnected
Rated voltage (Ue)	230/240V~
Rated currents (In)	6,10,16,20,25,32,40A
Rated sensitivity currents I $\Delta$ n	30,100,300mA
Residual current off-time under I $\Delta$ n	≤ 0.1s
Rated residual making and breaking capacity (I $\Delta$ m)	500A(In≤50A)
Rated frequency	50/60Hz
Rated breaking capacity	6,000A
Energy Limiting Class	3
Rated impulse withstand voltage(1.2/50) Uimp	4,000V
Dielectric test voltage at Ind. Freq.for 1 min	2kV
Thermal release characteristic	(1.13-1.45) x In
Magnetic release characteristic	B:(3-5) x In, C:(5-10) x In
Electrical life	4,000 Cycles
Mechanical life	10,000 Cycles
Contact position indicator	Yes
Ground fault indicator	Yes
Protection degree	IP20
Ambient temperature	-25°C to +40°C, Max.95% humidity
Terminal connection type	Cable/Pin-type busbar
Max.terminal size for cable	16mm <sup>2</sup>
Max.tightening torque	2.5N.m
Installation	Mounting on 35mm DIN rail
Connection	From top and bottom

# RCBO EKL29-40 6kA

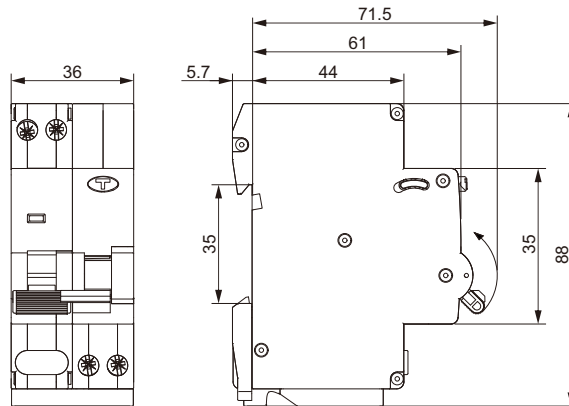


RCCB with Overcurrent Protection

Standard IEC61009-1  
IEC60898-1



## Overall and Installation Dimension(mm)



## Technical Data

Standard	IEC/EN61009-1, IEC/EN60898-1
Protection	Ground fault, Overcurrent and short circuit, Over-voltage(selectable)
Type of trip	Ground fault : Electronic Overload and short circuit :Thermo-magnetic
Type of protection (electric leakage)	AC,A
No.of poles	1P+N 2module , N line with disconnected
Rated voltage (Ue)	230/240V~
Rated currents (In)	6,10,16,20,25,32,40A
Rated sensitivity currents I <sub>Δn</sub>	10,30,100,300mA
Residual current off-time under I <sub>Δn</sub>	≤ 0.1s
Rated residual making and breaking capacity (I <sub>Δm</sub> )	500A(In≤50A)
Rated frequency	50/60Hz
Rated breaking capacity	6,000A
Energy Limiting Class	3
Rated impulse withstand voltage(1.2/50) U <sub>imp</sub>	4,000V
Dielectric test voltage at Ind. Freq.for 1 min	2kV
Thermal release characteristic	(1.13-1.45) x In
Magnetic release characteristic	B:(3-5) x In, C:(5-10) x In
Electrical life	4,000 Cycles
Mechanical life	10,000 Cycles
Contact position indicator	Yes
Ground fault indicator	Yes
Protection degree	IP20
Ambient temperature	-25°C to +40°C, Max.95% humidity
Terminal connection type	Cable/Pin-type busbar
Max.terminal size for cable	16mm <sup>2</sup>
Max.tightening torque	2.5N.m
Installation	Mounting on 35mm DIN rail
Connection	From top

# EKL17-40AFD 6kA RCBO AFDD

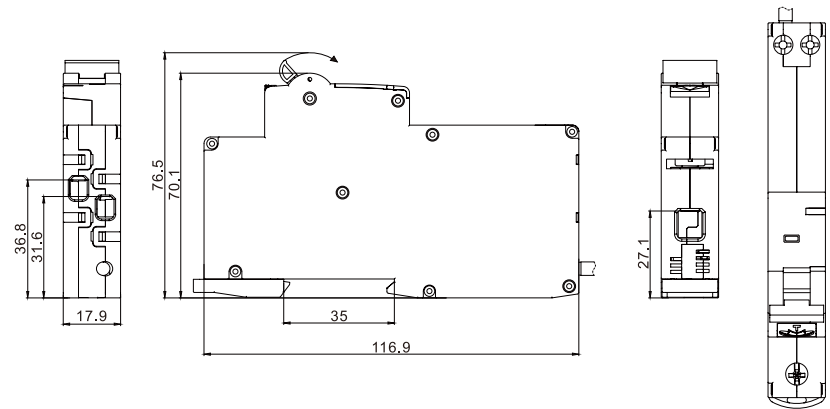


RCBO with Arc Fault Protective

Standard\_ IEC61009-1  
IEC62606



## Overall and Installation Dimension(mm)



## Technical Data

Standard	IEC/EN61009-1, IEC62026
Protection	Arc Fault Protection, Overload Protection, Short-Circuit Protection, Earth-Leakage Protection
Type of trip	Ground fault: Electronic Overload and short circuit: Thermo-magnetic
Type of protection (electric leakage)	AC,A
No.of poles	1P+N (N pole can be connected and disconnected)
Rated voltage (Ue)	230/240V~
Rated currents (In)	6,10,16,20,25,32,40A
Rated sensitivity currents (I $\Delta$ n)	10,30,100,300mA
Residual current off-time under (I $\Delta$ n)	≤ 0.1s
Rated residual making and breaking capacity (I $\Delta$ m)	500A(In≤50A)
Rated frequency	50/60Hz
Rated breaking capacity	6,000A
Energy Limiting Class	3
Rated impulse withstand voltage(1.2/50) (Uimp)	4,000V
Dielectric test voltage at Ind. Freq.for 1 min	2kV
Thermal release characteristic	(1.13-1.45) x In
Magnetic release characteristic	B:(3-5) x In, C:(5-10) x In
Electrical life	4,000 Cycles
Mechanical life	10,000 Cycles
Contact position indicator	Yes
Protection degree	IP20
Ambient temperature	-25°C to +40°C, Max.95% humidity
Terminal connection type	Cable/Pin-type busbar
Max.terminal size for cable	L(in): 25mm <sup>2</sup> , N/L(out): 16mm <sup>2</sup>
Max.tightening torque	L(in): 2.5N.m, N/L(out): 2N.m
Installation	Mounting on 35mm DIN rail
Connection	From bottom

# EKL19-40AFD 6kA RCBO AFDD

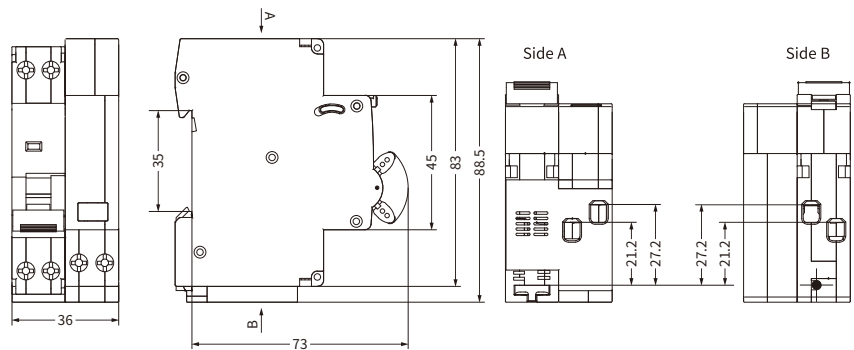
**ETEK®**

RCBO With Arc Fault Protective

Standard\_ IEC61009-1  
IEC62606



## Overall and Installation Dimension(mm)



## Technical Data

Standard	IEC/EN61009-1, IEC62026
Protection	Arc Fault Protection, Overload Protection, Short-Circuit Protection, Earth-Leakage Protection
Type of trip	Ground fault: Electronic Overload and short circuit: Thermo-magnetic
Type of protection (electric leakage)	AC, A
No. of poles	1P+N(Pole N could be On/Off)
Rated voltage (Ue)	230/240V
Rated currents (In)	6,10,16,20,25,32,40A
Rated insulation voltage (Ui)	500V
Rated sensitivity currents (I $\Delta$ n)	10,30,100,300mA
Residual current off-time under (I $\Delta$ n)	≤ 0.1s
Rated residual making and breaking capacity (I $\Delta$ m)	500A(In ≤ 50A)
Rated frequency	50/60Hz
Rated breaking capacity	6,000A
Rated impulse withstand voltage(1.2/50) (Uimp)	4,000V
Dielectric test voltage at Ind. Freq. for 1 min	2kV
Thermal release characteristic	(1.13-1.45) x In
Magnetic release characteristic	B:(3-5) x In, C:(5-10) x In
Electrical life	4,000 Cycles
Mechanical life	10,000 Cycles
Contact position indicator	Yes
Protection degree	IP20
Ambient temperature	-25°C to +40°C, Max.95% humidity
Terminal connection type	Cable/Pin-type busbar
Max.terminal size for cable	16mm <sup>2</sup>
Max.tightening torque	2.5N.m
Installation	Mounting on 35mm DIN rail
Connection	From top

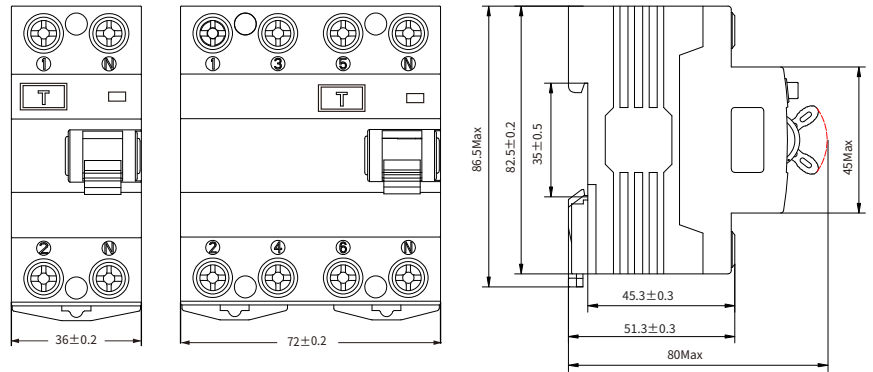
# RCCB EKL1-80(H)

Residual Current Circuit Breaker

Standard\_IEC61008-1



## Overall and Installation Dimension(mm)



## Technical Data

Standard	IEC/EN61008-1
Protection	Ground fault
Type of trip	Electro-magnetic
Type of protection (electric leakage)	AC,A,G,S
No.of poles	2P(1P+N), 4P(3P+N)
Rated voltage (Ue)	1P+N: 230/240V~, 3P+N:400/415V~
Rated currents (In)	25,40,63,80A
Rated sensitivity currents (I $\Delta$ n)	10,30,100,300mA
Residual current off-time under (I $\Delta$ n)	≤ 0.1s
Rated residual making and breaking capacity (I $\Delta$ m)	500A(In≤50A), 10In(In>50A)
Rated frequency	50/60Hz
Rated breaking capacity	6,000A, 10,000A
SCPD fuse	6000  10000
Rated impulse withstand voltage(1.2/50) (Uimp)	4,000V
Dielectric test voltage at Ind. Freq.for 1 min	2.5kV
Electrical life	2,000 Cycles
Mechanical life	4,000 Cycles
Contact position indicator	Yes
Protection degree	IP20
Ambient temperature	-25°C to +40°C, Max.95% humidity
Terminal connection type	Cable/Pin-type busbar/Fork-type busbar
Max.terminal size for cable	25mm <sup>2</sup>
Max.tightening torque	2.5N.m
Installation	Mounting on 35mm DIN rail
Connection	From top and bottom

# RCCB EKL1-125(H)

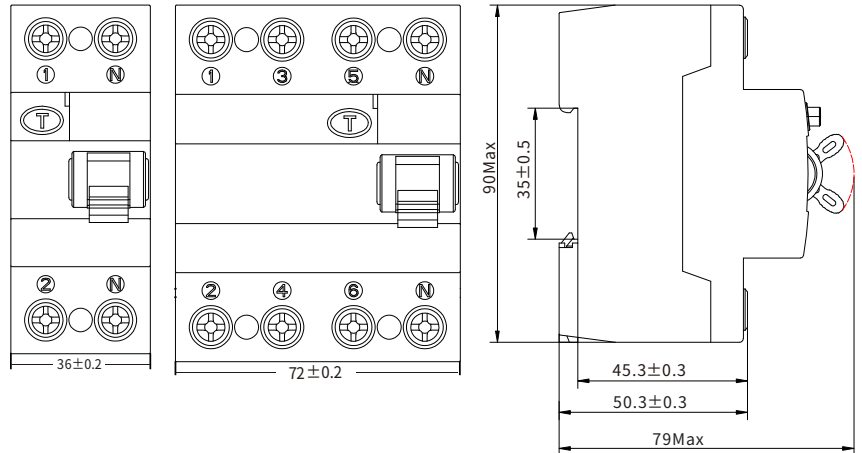


Residual Current Circuit Breaker

Standard\_IEC61008-1



## Overall and Installation Dimension(mm)



## Technical Data

Standard	IEC/EN61008-1
Protection	Ground fault
Type of trip	Electro-magnetic
Type of protection (electric leakage)	AC,A,G,S
No.of poles	2P(1P+N), 4P(3P+N) , N Pole on right
Rated voltage (Ue)	1P+N: 230/240V~, 3P+N: 400/415V~
Rated currents (In)	80,100,125A
Rated sensitivity currents (I $\Delta$ n)	30,100,300mA
Residual current off-time under (I $\Delta$ n)	≤ 0.1s
Rated residual making and breaking capacity (I $\Delta$ m)	10In (In>50A)
Rated frequency	50/60Hz
Rated breaking capacity	6,000A, 10,000A
SCPD fuse	6000  10000
Rated impulse withstand voltage(1.2/50) (Uimp)	4,000V
Dielectric test voltage at Ind. Freq.for 1 min	2kV
Electrical life	2,000 Cycles
Mechanical life	4,000 Cycles
Contact position indicator	Yes
Protection degree	IP20
Ambient temperature	-25°C to +40°C, Max.95% humidity
Terminal connection type	Cable/Pin-type busbar/Fork-type busbar
Max.terminal size for cable	50mm <sup>2</sup>
Max.tightening torque	2.5N.m
Installation	Mounting on 35mm DIN rail
Connection	From top and bottom



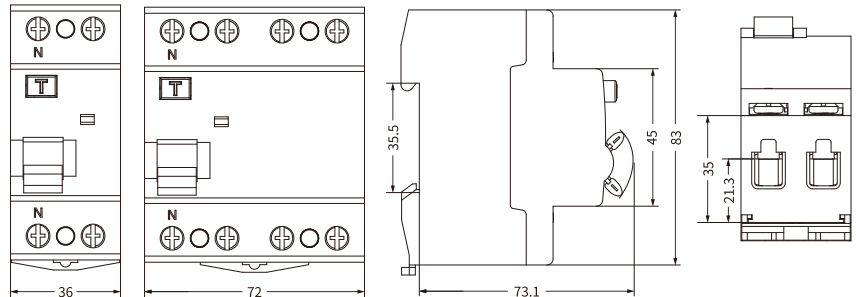
# RCCB EKL6-100(H)

Residual Current Circuit Breaker

Standard\_ IEC61008-1



## Overall and Installation Dimension(mm)



## Technical Data

Standard	IEC/EN61008-1
Protection	Ground fault
Type of trip	Electro-magnetic
Type of protection (electric leakage)	AC, A, A-G / A-SI, A-S
No.of poles	2P(1P+N), 4P(3P+N) , N Pole on left
Rated voltage (Ue)	1P+N: 230/240V~, 3P+N: 400/415V~
Rated currents (In)	16,25,32,40,63,80,100A
Rated sensitivity currents (I $\Delta$ n)	10,30,100,300mA (10mA only for In=16-25A)
Residual current off-time under (I $\Delta$ n)	A/AC $\leq$ 300ms; A-G / A-SI: 10-300ms; A-S:130-500ms
Rated residual making and breaking capacity (I $\Delta$ m)	500A(In $\leq$ 50A), 10In(In>50A)
Rated frequency	50/60Hz
Rated breaking capacity	6,000A, 10,000A
SCPD fuse	
Rated impulse withstand voltage(1.2/50) (Uimp)	4,000V
Dielectric test voltage at Ind. Freq.for 1 min	2kV
Electrical life	2,000 Cycles
Mechanical life	4,000 Cycles
Contact position indicator	Yes
Ground fault indicator	Yes
Protection degree	IP20
Ambient temperature	-25°C to +40°C, Max.95% humidity
Terminal connection type	Cable/Pin-type busbar/Fork-type busbar
Max.terminal size for cable	35mm <sup>2</sup>
Max.tightening torque	2.5N.m
Installation	Mounting on 35mm DIN rail
Connection	From top and bottom

# RCCB Type B EKL6-100B

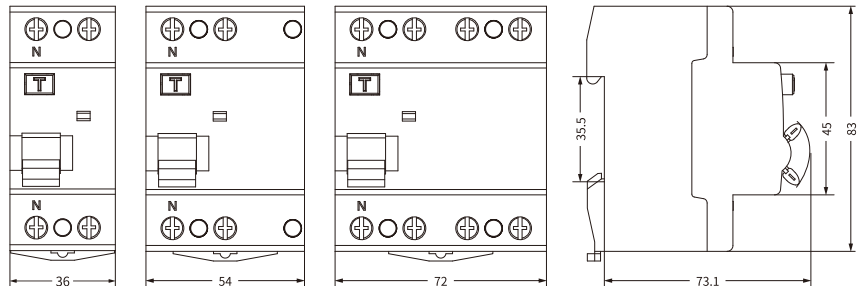
**ETEK®**

Residual Current Circuit Breaker

Standard\_ IEC61008-1  
IEC62423



## Overall and Installation Dimension(mm)



## Technical Data

Standard	IEC61008-1, IEC62423
Protection	Ground fault
Type of trip	Electro-magnetic
Type of protection (electric leakage)	B
No. of poles	2P(1P+N), 4P(3P+N), N Pole on left
Insulation voltage (Ui)	500V
Rated voltage (Ue)	2P(1P+N):110/230/240V~, 4P(3P+N):240/400/415V~
Rated currents (In)	16,25,40,63,80,100A
Rated sensitivity currents (I $\Delta$ n)	30,100,300mA
Residual current off-time under (I $\Delta$ n)	≤ 0.1s
Rated residual making and breaking capacity (I $\Delta$ m)	500A(In≤50A), 10In(In>50A)
Rated frequency	50/60Hz
Rated breaking capacity	10,000A
SCPD fuse	 10000
Rated impulse withstand voltage(1.2/50) (Uimp)	4,000V
Dielectric test voltage at Ind. Freq. for 1 min	2.5kV
Electrical life	2,000 Cycles
Mechanical life	4,000 Cycles
Contact position indicator	Yes
Ground fault indicator	Yes
Protection degree	IP20
Ambient temperature	-25°C to +40°C, Max.95% humidity
Terminal connection type	Cable/Pin-type busbar/Fork-type busbar
Max.terminal size for cable	35mm <sup>2</sup>
Max.tightening torque	2.5N.m
Installation	Mounting on 35mm DIN rail
Connection	From top and bottom

# RCCB Type EV EKL6-63EV

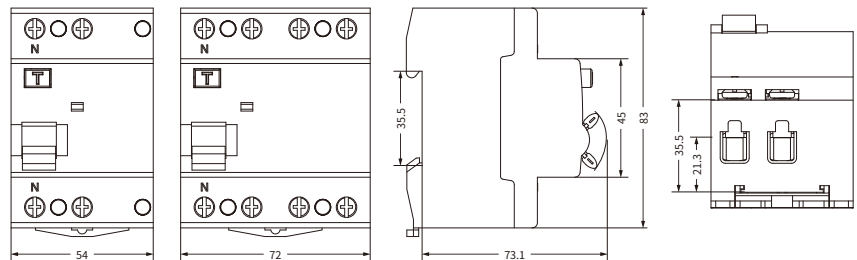
**ETEK®**

Type A RCCB with 6mA RDC-DD


Standard\_ IEC61008-1  
IEC62955



## Overall and Installation Dimension(mm)



## Technical Data

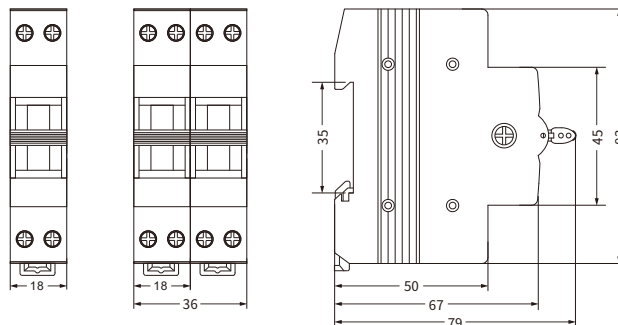
Standard	IEC61008-1, IEC62955
Protection	Ground fault
Type of trip	Electro-magnetic
Type of protection (electric leakage)	A
No. of poles	2P(1P+N), 4P(3P+N), N Pole on left
Insulation voltage (U <sub>i</sub> )	500V
Rated voltage (U <sub>e</sub> )	2P: 240V~, 4P: 415V~
Rated currents (I <sub>n</sub> )	16,25,32,40,63A
Rated sensitivity currents (I <sub>Δn</sub> )	30mA
Rated residual operating current (I <sub>Δdc</sub> )	6mA
Residual current off-time under (I <sub>Δn</sub> )	≤ 0.1s
Rated residual making and breaking capacity (I <sub>Δm</sub> )	500A(I <sub>n</sub> ≤50A), 10I <sub>n</sub> (I <sub>n</sub> >50A)
Rated frequency	50/60Hz
Rated breaking capacity	10,000A
SCPD fuse	 10000
Rated impulse withstand voltage(1.2/50) (U <sub>imp</sub> )	4,000V
Dielectric test voltage at Ind. Freq. for 1 min	2.5kV
Electrical life	2,000 Cycles
Mechanical life	4,000 Cycles
Contact position indicator	Yes
Ground fault indicator	Yes
Protection degree	IP20
Ambient temperature	-25°C to +55°C, Max.95% humidity
Terminal connection type	Cable/Pin-type busbar/Fork-type busbar
Max.terminal size for cable	35mm <sup>2</sup>
Max.tightening torque	2.5N.m
Installation	Mounting on 35mm DIN rail
Connection	From top and bottom



## Technical Data

Standard	IEC/EN60947-3
No.of poles	2P,4P
Rated voltage (Ue)	240/415V~
Rated currents (In)	16,20,25,32,40A
Rated frequency	50/60Hz
Utilization category	AC-22A
Short-time withstand current (Icw)	480A
Rated short-circuit making capacity (Icm)	480A
Rated impulse withstand voltage (Uimp)	4,000V
Rated insulation voltage (Ui)	500V
Electrical life	≥1,500 Cycles
Mechanical life	≥8,500 Cycles
Contact position indicator	Yes
Protection degree	IP20
Ambient temperature	-5°C to +40°C
Terminal connection type	Cable/Pin-type busbar
Terminal protection	Finger and hand touch safe
Terminal capacity	1~10mm <sup>2</sup>
Busbar specification	0.8~2.5mm
Max. tightening torque	1.2N.m
Installation	Mounting on 35mm DIN rail
Connection	From top and bottom

## Overall and Installation Dimension(mm)

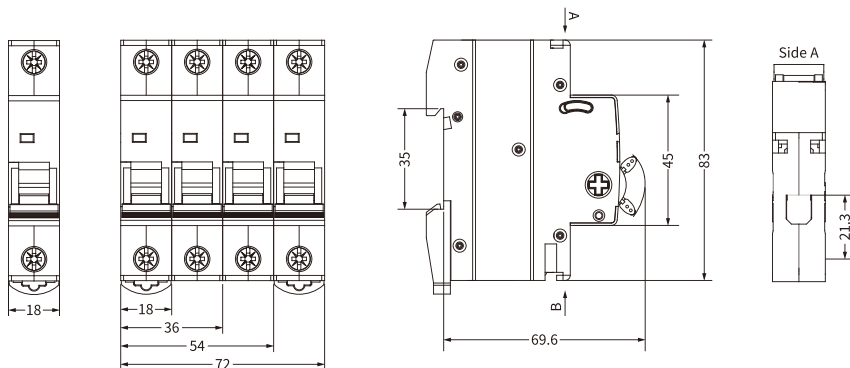




Technical Data

Standard	IEC/EN60947-3
No.of poles	1P,2P,3P,4P
Rated voltage (Ue)	230/240V~(1P), 400/415V~(2,3,4P)
Rated currents (In)	25,32,40,50,63,80,100,125A
Rated frequency	50/60Hz
Utilization category	AC-22A
Short-time withstand current (Icw)	2000A/1s
Rated short-circuit making capacity (Icm)	3000A
Rated making & breaking capacity	3Ie, 1.05Ue, CosΦ=0.65
Rated impulse withstand voltage (Uimp)	6,000V
Dielectric test voltage at Ind. Freq.for 1 min	2kV
Rated insulation voltage (Ui)	500V
Electrical life	2,000 Cycles
Mechanical life	10,000 Cycles
Contact position indicator	Yes
Protection degree	IP20
Ambient temperature	-5°C to +40°C, Max.95% humidity
Terminal connection type	Cable/Pin-type busbar
Max.terminal size for cable	50mm <sup>2</sup>
Max.tightening torque	3.5N.m
Installation	Mounting on 35mm DIN rail
Connection	From top and bottom

Overall and Installation Dimension(mm)

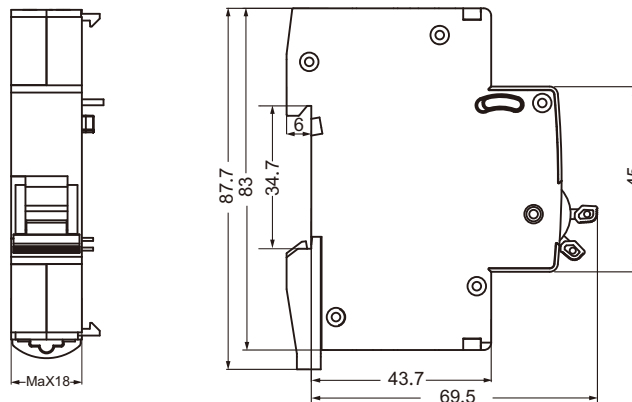




## Technical Data

Rated value	AC230V 50/60Hz
	70-35%Ue, reliable operation
	<35%Ue, prevent breaker from making
	85~110%Ue, reliable operation
Rated impulse withstand voltage (1.2/50)(Uimp)	4,000V
Dielectric test voltage at ind. Freq. for 1min	2kV
Insulation voltage (Ui)	500V
Pollution degree	2
Electrical life	4000 Cycles
Mechanical life	4000 Cycles
Protection degree	IP20
Ambient temperature (with daily average $\leq 35^{\circ}\text{C}$ )	$-5^{\circ}\text{C}\sim+40^{\circ}\text{C}$
Storage temperature	$-25^{\circ}\text{C}\sim+70^{\circ}\text{C}$
Terminal connection type	Cable
Terminal size top/bottom for cable	2.5mm <sup>2</sup> 18-14AWG
Tightening torque	0.8 N.m 7In-lbs

## Overall and Installation Dimension(mm)

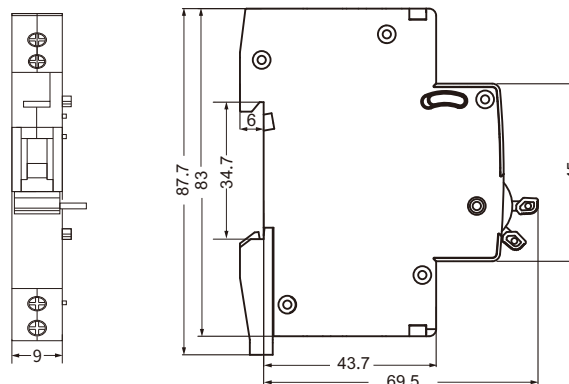




**Technical Data**

	UN(V)	IN(A)
Rated value	AC 415 50/60Hz	3
	AC 240 50/60Hz	6
	DC130	1
	DC48	2
	DC24	6
Configurations	EKM2-OF 1NO+1NC	
	EKM2-FB 1NO+1NC	
Rated impulse withstand voltage (1.2/50)(Uimp)	4,000V	
Dielectric test voltage at ind. Freq. for 1min	2kV	
Insulation voltage (Ui)	500V	
Pollution degree	2	
Electrical life	6,050 Cycles	
Mechanical life	10,000 Cycles	
Protection degree	IP20	
Ambient temperature (with daily average ≤35°C)	-5°C~+40°C	
Storage temperature	-25°C~+70°C	
Terminal connection type	Cable	
Terminal size top/bottom for cable	2.5mm <sup>2</sup> 18-14AWG	
Tightening torque	0.8 N.m 7In-lbs	

**Overall and Installation Dimension(mm)**

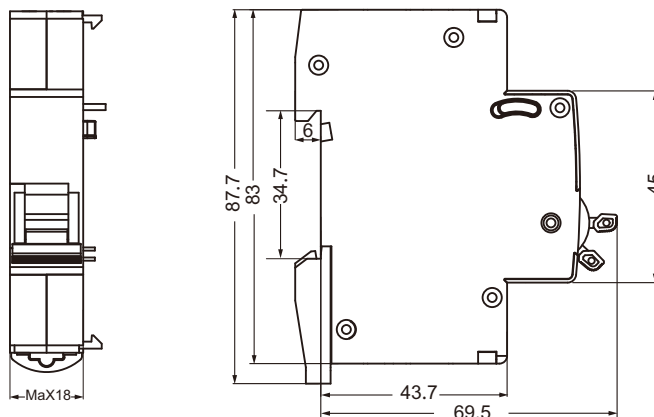




### Technical Data

Rated value	AC230V/400V 50/60Hz
	AC/DC24V
	AC/DC48V
Rated impulse withstand voltage (1.2/50)(Uimp)	4,000V
Dielectric test voltage at ind. Freq. for 1min	2kV
Insulation voltage (Ui)	500V
Pollution degree	2
Electrical life	4000 Cycles
Mechanical life	4000 Cycles
Protection degree	IP20
Ambient temperature (with daily average $\leq 35^{\circ}\text{C}$ )	$-5^{\circ}\text{C}\sim+40^{\circ}\text{C}$
Storage temperature	$-25^{\circ}\text{C}\sim+70^{\circ}\text{C}$
Terminal connection type	Cable
Terminal size top/bottom for cable	$2.5\text{mm}^2$ 18-14AWG
Tightening torque	0.8 N.m 7In-lbs

### Overall and Installation Dimension(mm)





# Modular S3 Series Circuit Breakers



# MCB EKM3-63S 4.5kA



Mini Circuit Breaker

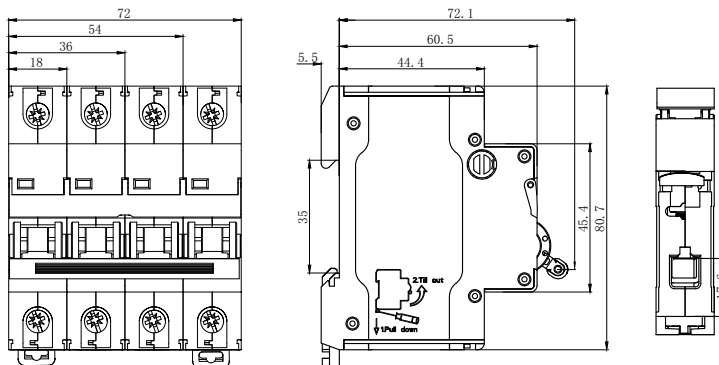
Standard\_IEC60898-1



## Technical Data

Standard	IEC/EN60898-1
Protection	Overcurrent and short circuit
Type of trip	Thermo-magnetic
No.of poles	1P,2P,3P,4P,1P+N,3P+N
Rated voltage (Ue)	240/415V~
Rated currents (In)	1,2,3,4,5,6,10,16,20,25,32,40,50,63A
Rated frequency	50/60Hz
Rated breaking capacity	4,500A
Rated impulse withstand voltage(1.2/50) (Uimp)	4,000V
Dielectric test voltage at Ind. Freq.for 1 min	2kV
Thermal release characteristic	(1.13-1.45) x In
Magnetic release characteristic	B:(3-5) x In, C:(5-10) x In, D:(10-20) x In
Electrical life	4,000 Cycles
Mechanical life	10,000 Cycles
Contact position indicator	Yes
Protection degree	IP20
Ambient temperature	-5°C to +40°C, Max.95% humidity
Terminal connection type	Cable/Pin-type busbar
Max.terminal size for cable	25mm <sup>2</sup>
Max.tightening torque	2.5N.m
Installation	Mounting on 35mm DIN rail
Connection	From top and bottom

## Overall and Installation Dimension(mm)



# MCB EKM3-63 6kA



Mini Circuit Breaker

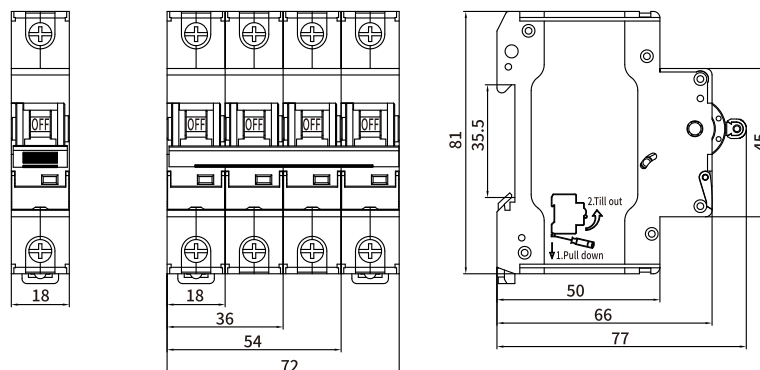
Standard\_ IEC60898-1  
IEC60947-2



## Technical Data

Standard	IEC/EN60898-1	IEC/EN60947-2
Protection	Overcurrent and short circuit	
Type of trip	Thermo-magnetic	
No. of poles	1P, 2P, 3P, 4P, 1P+N, 3P+N	
Rated voltage (Ue)	240/415V~	
Rated currents (In)	1, 2, 3, 4, 5, 6, 10, 16, 20, 25, 32, 40, 50, 63A	
Rated frequency	50/60Hz	
Rated breaking capacity	6,000A	
Energy Limiting Class	3	
Rated impulse withstand voltage(1.2/50) (Uimp)	6,000V	
Dielectric test voltage at Ind. Freq. for 1 min	2kV	
Thermal release characteristic	(1.13-1.45) x In	(1.05-1.30) x In
Magnetic release characteristic	B:(3-5) x In, C:(5-10) x In	(8-12) x In
Electrical life	8,000 Cycles	
Mechanical life	20,000 Cycles	
Contact position indicator	Yes	
Protection degree	IP20	
Ambient temperature	-5°C to +40°C, Max.95% humidity	
Terminal connection type	Cable/Pin-type busbar	
Max.terminal size for cable	25mm <sup>2</sup>	
Max.tightening torque	2.5N.m	
Installation	Mounting on 35mm DIN rail	
Connection	From top and bottom	

## Overall and Installation Dimension(mm)



# MCB EKM3-63H 10kA



Mini Circuit Breaker

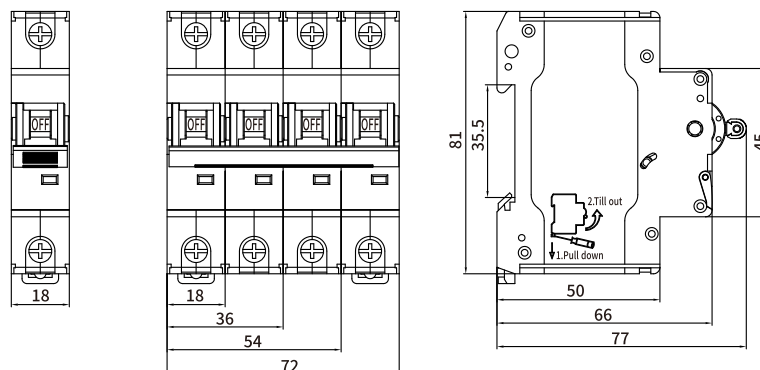
Standard\_IEC60898-1



## Technical Data

Standard	IEC/EN60898-1
Protection	Overcurrent and short circuit
Type of trip	Thermo-magnetic
No.of poles	1P,2P,3P,4P,1P+N,3P+N
Rated voltage (Ue)	240/415V~
Rated currents (In)	1,2,3,4,5,6,10,16,20,25,32,40,50,63A
Rated frequency	50/60Hz
Rated breaking capacity	10,000A
Energy Limiting Class	3
Rated impulse withstand voltage(1.2/50) (Uimp)	4,000V
Dielectric test voltage at Ind. Freq.for 1 min	2kV
Thermal release characteristic	(1.13-1.45) x In
Magnetic release characteristic	B:(3-5) x In, C:(5-10) x In, D:(10-20) x In
Electrical life	4,000 Cycles
Mechanical life	10,000 Cycles
Contact position indicator	Yes
Protection degree	IP20
Ambient temperature	-5°C to +40°C, Max.95% humidity
Terminal connection type	Cable/Pin-type busbar
Max.terminal size for cable	25mm <sup>2</sup>
Max.tightening torque	2.5N.m
Installation	Mounting on 35mm DIN rail
Connection	From top and bottom

## Overall and Installation Dimension(mm)



# Pulg-in MCB EKM3-63P 6kA



Plug-in Miniature Circuit Breaker

Standard\_IEC60898-1

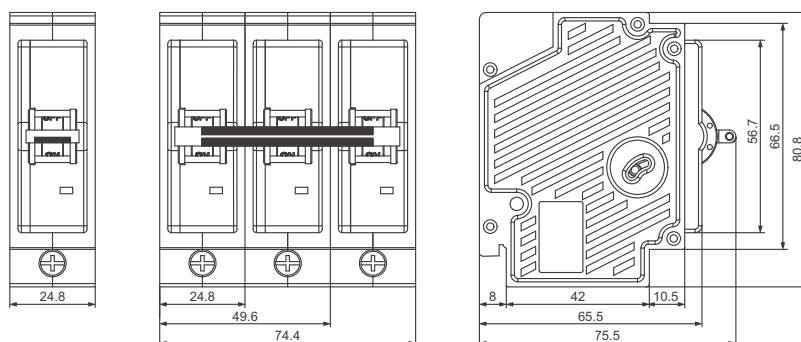


Available in black

## Technical Data

Product standard	IEC 60898-1
Tripping characteristics	B,C
Rated current range (A)	1,2,3,4,5,6,8,10,13,16,20,25,32,40,50,63A
Number of poles	1P, 2P, 3P
Rated operational voltage (Ue) V AC	Single pole: 240/415; Multi pole: 415
Rated insulation voltage (Ui) V AC	500
Rated impulse voltage (Uimp) kV	4
Rated ultimate short circuit breaking capacity Icn (A) at 415V AC	6000
Rated service short circuit breaking capacity Ics (A) at 415V AC	6000
Rated frequency (Hz)	50/60
Suitability for isolation	Yes
Thermal tripping characteristics	(1.13-1.45) × In
Magnetic tripping characteristics	B:(3-5) × In, C: (5-10) × In
Electrical endurance (Number of operation cycles)	≥10000
Energy limiting class	3
Reference ambient air temperature	50°C
Operating Temperature range	-5°C to +55°C
Protection degree	For Housing: IP40; For Terminals: IP20
Terminal capacity (mm <sup>2</sup> )	25
Tightening torque (Nm)	2.5
Mounting type	Plug-in
Type of termination incoming	Busbar Plug-in
Type of termination outgoing	Cables / Busbar

## Overall and Installation Dimension(mm)



# MCB EKM3-100 6kA



Mini Circuit Breaker

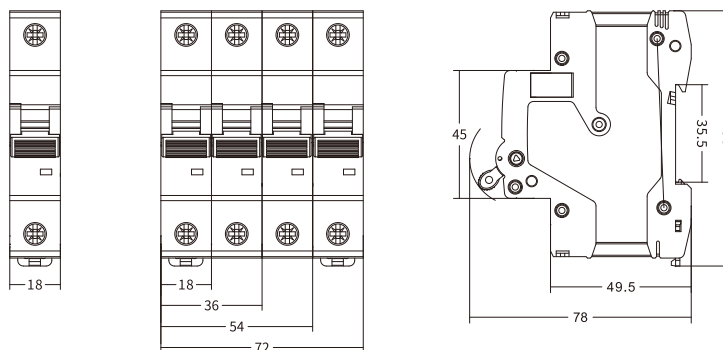
Standard\_IEC60898-1



## Technical Data

Standard	IEC/EN60898-1
Protection	Overcurrent and short circuit
Type of trip	Thermo-magnetic
No.of poles	1P,2P,3P,4P,1P+N,3P+N
Rated voltage (Ue)	240/415V~
Rated currents (In)	80,100A
Rated frequency	50/60Hz
Rated breaking capacity	6,000A
Rated impulse withstand voltage(1.2/50) (Uimp)	4,000V
Dielectric test voltage at Ind. Freq.for 1 min	2kV
Thermal release characteristic	(1.13-1.45) x In
Thermo-magnetic release characteristic	B:(3-5) x In, C:(5-10) x In, D:(10-20) x In
Electrical life	4,000 Cycles
Mechanical life	10,000 Cycles
Contact position indicator	Yes
Protection degree	IP20
Ambient temperature	-5°C to +40°C, Max.95% humidity
Terminal connection type	Cable/Pin-type busbar
Max.terminal size for cable	50mm <sup>2</sup>
Max.tightening torque	3.5N.m
Installation	Mounting on 35mm DIN rail
Connection	From top and bottom

## Overall and Installation Dimension(mm)



# MCB EKM3-125H 10kA



Mini Circuit Breaker

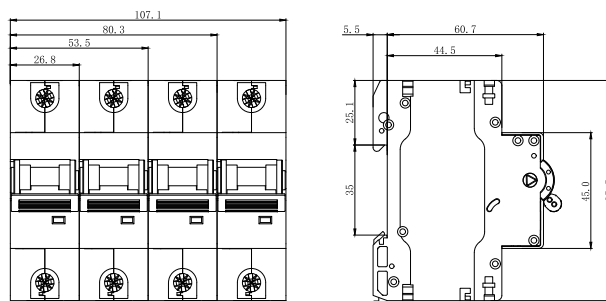
Standard IEC60898-1  
IEC60947-2



## Technical Data

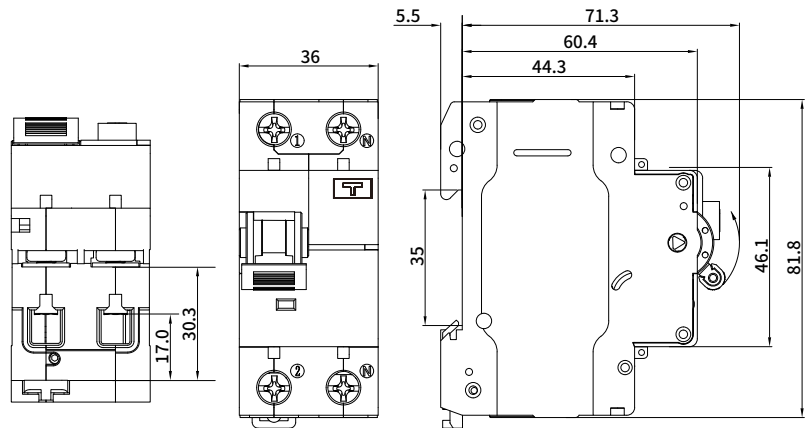
Standard	IEC/EN60898-1	IEC/EN60947-2
Protection	Overcurrent and short circuit	
Type of trip	Thermo-magnetic	
No. of poles	1P, 2P, 3P, 4P, 1P+N, 3P+N	
Rated voltage (Ue)	240/415V~	
Rated currents (In)	63, 80, 100, 125A	
Rated frequency	50/60Hz	
Rated breaking capacity	6,000A	10,000A
Rated impulse withstand voltage(1.2/50) (Uimp)	4,000V	
Dielectric test voltage at Ind. Freq. for 1 min	2kV	
Thermal release characteristic	(1.13-1.45) x In	(1.05-1.30) x In
Thermo-magnetic release characteristic	C:(5-10) x In, D:(10-20) x In	(8-12) x In
Electrical life	4,000 Cycles	
Mechanical life	10,000 Cycles	
Contact position indicator	Yes	
Protection degree	IP20	
Ambient temperature	-5°C to +40°C, Max.95% humidity	
Terminal connection type	Cable/Pin-type busbar	
Max.terminal size for cable	50mm <sup>2</sup>	
Max.tightening torque	3.5N.m	
Installation	Mounting on 35mm DIN rail	
Connection	From top and bottom	

## Overall and Installation Dimension(mm)





### Overall and Installation Dimension(mm)



### Technical Data

Standard	IEC/EN61009-1
Protection	Ground fault, Overcurrent and short circuit, Over-voltage(selectable)
Type of trip	Ground fault : Electronic Overload and short circuit :Thermo-magnetic
Type of protection (electric leakage)	AC,A
No.of poles	1P+N 2module , N line with disconnected
Rated voltage (Ue)	230/240V~
Rated currents (In)	6,10,16,20,25,32,40,50,63A
Rated sensitivity currents (IΔn)	10,30,100,300mA
Residual current off-time under (IΔn)	≤ 0.1s
Rated residual making and breaking capacity(IΔm)	500A(In≤50A), 10In(In>50A)
Rated frequency	50/60Hz
Rated breaking capacity	6,000A
Energy Limiting Class	3
Rated impulse withstand voltage(1.2/50) (Uimp)	4,000V
Dielectric test voltage at Ind. Freq.for 1 min	2kV
Thermal release characteristic	(1.13-1.45) x In
Magnetic release characteristic	B:(3-5) x In, C:(5-10) x In
Electrical life	4,000 Cycles
Mechanical life	10,000 Cycles
Contact position indicator	Yes
Ground fault indicator	Yes
Protection degree	IP20
Ambient temperature	-25°C to +55°C, Max.95% humidity
Terminal connection type	Cable/Pin-type busbar/Fork-type busbar
Max.terminal size for cable	25mm <sup>2</sup>
Max.tightening torque	2.5N.m
Installation	Mounting on 35mm DIN rail
Connection	From top and bottom



# RCBO EKL15-63(H)

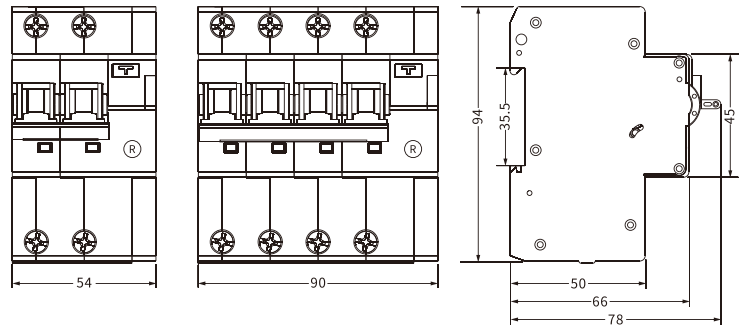


RCCB with Overcurrent Protection

Standard\_IEC61009-1



## Overall and Installation Dimension(mm)



## Technical Data

Standard	IEC/EN61009-1
Protection	Ground fault, Overcurrent and short circuit, Over-voltage(selectable)
Type of trip	Ground fault : Electronic Overload and short circuit :Thermo-magnetic
Type of protection (electric leakage)	AC,A,S
No.of poles	1P+N 3module , 3P+N 5module, N line with disconnected
Rated voltage (Ue)	1P+N:230/240V~,3P+N:400/415V~
Rated currents (In)	6,10,16,20,25,32,40,50,63A
Rated sensitivity currents (I $\Delta$ n)	10,30,100,300mA
Residual current off-time under (I $\Delta$ n)	≤ 0.1s
Rated residual making and breaking capacity (I $\Delta$ m)	500A(In≤50A), 10In(In>50A)
Rated frequency	50/60Hz
Rated breaking capacity	6,000A, 10,000A
Energy Limiting Class	3
Rated impulse withstand voltage(1.2/50) (Uimp)	4,000V
Dielectric test voltage at Ind. Freq.for 1 min	2kV
Thermal release characteristic	(1.13-1.45) x In
Magnetic release characteristic	B:(3-5) x In, C:(5-10) x In, D:(10-20) x In
Electrical life	4,000 Cycles
Mechanical life	10,000 Cycles
Contact position indicator	Yes
Ground fault indicator	Yes
Protection degree	IP20
Ambient temperature	-25°C to +40°C, Max.95% humidity
Terminal connection type	Cable/Pin-type busbar/Fork-type busbar
Max.terminal size for cable	25mm <sup>2</sup>
Max.tightening torque	2.5N.m
Installation	Mounting on 35mm DIN rail
Connection	From top

# RCBO EKL15-63B

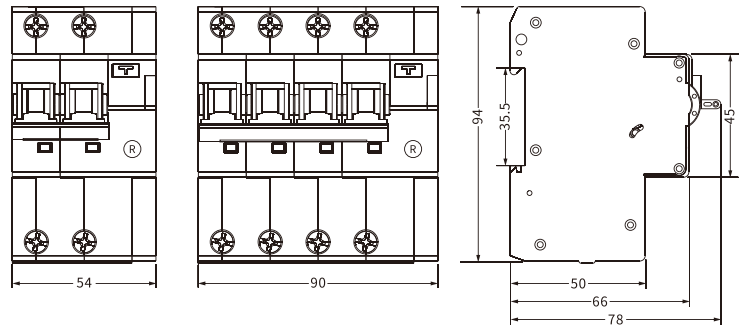


RCCB with Overcurrent Protection

Standard\_IEC61009-1



## Overall and Installation Dimension(mm)

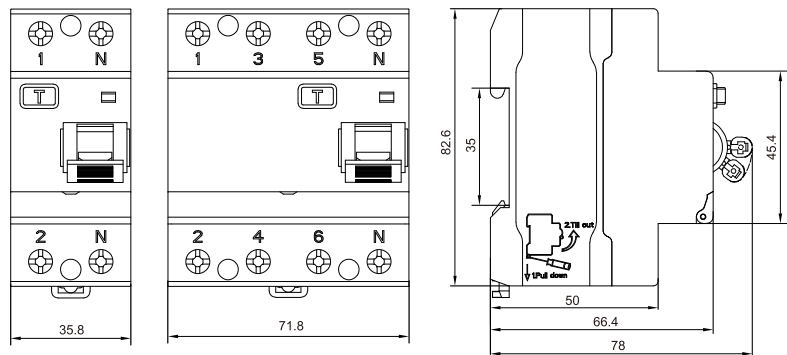


## Technical Data

Standard	IEC/EN61009-1 ,IEC/EN62423
Protection	Ground fault, Overcurrent and short circuit, Over-voltage(selectable)
Type of trip	Ground fault : Electronic Overload and short circuit :Thermo-magnetic
Type of protection (electric leakage)	B
No.of poles	1P+N 3module , 3P+N 5module, N line with disconnected
Rated voltage (Ue)	1P+N:230/240V~,3P+N:400/415V~
Rated currents (In)	6,10,16,20,25,32,40,50,63A
Rated sensitivity currents (IΔn)	30,100,300mA
Residual current off-time under (IΔn)	≤ 0.1s
Rated residual making and breaking capacity (IΔm)	500A(In≤50A), 10In(In>50A)
Rated frequency	50/60Hz
Rated breaking capacity	10,000A
Energy Limiting Class	3
Rated impulse withstand voltage(1.2/50) (Uimp)	4,000V
Dielectric test voltage at Ind. Freq.for 1 min	2kV
Thermal release characteristic	(1.13-1.45) x In
Magnetic release characteristic	B:(3-5) x In, C:(5-10) x In, D:(10-20) x In
Electrical life	4,000 Cycles
Mechanical life	10,000 Cycles
Contact position indicator	Yes
Ground fault indicator	Yes
Protection degree	IP20
Ambient temperature	-25°C to +55°C, Max.95% humidity
Terminal connection type	Cable/Pin-type busbar/Fork-type busbar
Max.terminal size for cable	25mm <sup>2</sup>
Max.tightening torque	2.5N.m
Installation	Mounting on 35mm DIN rail
Connection	From top



### Overall and Installation Dimension(mm)



### Technical Data

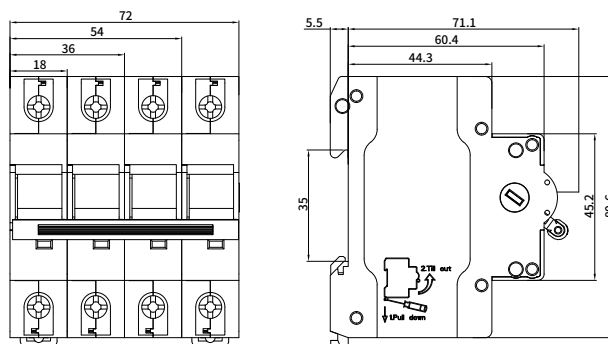
Model	EKL11-63(H)T	EKL11-63(H)
	With Transparent Cover for Line Mark	Without Transparent Cover
Standard	IEC/EN61008-1	
Protection	Ground fault	
Type of trip	Electro-magnetic	
Type of protection (electric leakage)	AC,A,G,S	
No.of poles	2P(1P+N), 4P(3P+N) , N Pole on right	
Rated voltage (Ue)	1P+N: 230/240V~, 3P+N:400/415V~	
Rated currents (In)	16,25,32,40,63A	
Rated sensitivity currents (IΔn)	10,30,100,300mA (10mA only for In=16-25A)	
Residual current off-time under (IΔn)	≤ 0.1s	
Rated residual making and breaking capacity (IΔm)	500A(In≤50A), 10In(In>50A)	
Rated frequency	50/60Hz	
Rated breaking capacity	6,000A, 10,000A	
SCPD fuse		
Rated impulse withstand voltage(1.2/50) (Uimp)	4,000V	
Dielectric test voltage at Ind. Freq.for 1 min	2kV	
Electrical life	2,000 Cycles	
Mechanical life	4,000 Cycles	
Contact position indicator	Yes	
Protection degree	IP20	
Ambient temperature	-25°C to +40°C, Max.95% humidity	
Terminal connection type	Cable/Pin-type busbar/Fork-type busbar	
Max.terminal size for cable	25mm <sup>2</sup>	
Max.tightening torque	2.5N.m	
Installation	Mounting on 35mm DIN rail	
Connection	From top and bottom	



### Technical Data

Standard	IEC/EN60947-3
No.of poles	1P,2P,3P,4P
Rated voltage (Ue)	240/415V~
Rated currents (In)	25,32,40,50,63,80,100,125A
Rated frequency	50/60Hz
Utilization category	AC-22A
Short-time withstand current (Icw)	12Ie, t=1s
Rated short-circuit making capacity (Icm)	20Ie, t=0.1s
Rated making & breaking capacity	3Ie, 1.05Ue, CosΦ=0.65
Rated impulse withstand voltage (Uimp)	4,000V
Dielectric test voltage at Ind. Freq.for 1 min	2kV
Rated insulation voltage (Ui)	500V
Electrical life	2,000 Cycles
Mechanical life	10,000 Cycles
Contact position indicator	Yes
Protection degree	IP20
Ambient temperature	-5°C to +40°C, Max.95% humidity
Terminal connection type	Cable/Pin-type busbar
Max.terminal size for cable	50mm <sup>2</sup>
Max.tightening torque	3.5N.m
Installation	Mounting on 35mm DIN rail
Connection	From top and bottom

### Overall and Installation Dimension(mm)



# DZ47-63S Economic Type MCB 4.5KA



Mini Circuit Breaker

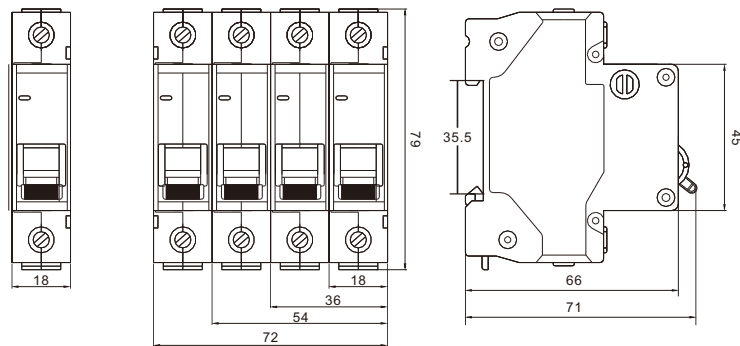
Standard\_IEC60898-1



## Technical Data

Standard	IEC/EN60898-1
Type of trip	Thermo-magnetic
No.of poles	1P,2P,3P,4P,1P+N,3P+N
Rated voltage (Ue)	240/415V~
Rated currents (In)	1,2,3,4,5,6,10,16,20,25,32,40,50,63A
Rated frequency	50/60Hz
Rated breaking capacity	4,500A
Rated impulse withstand voltage(1.2/50) (Uimp)	4,000V
Dielectric test voltage at Ind. Freq.for 1 min	2kV
Rated insulation voltage (Ui)	500V
Thermal release characteristic	(1.13-1.45) x In
Magnetic release characteristic	B:(3-5) x In, C:(5-10) x In, D:(10-20) x In
Electrical life	4,000 Cycles
Mechanical life	10,000 Cycles
Contact position indicator	Yes
Protection degree	IP20
Ambient temperature	-5°C to +40°C, Max.95% humidity
Terminal connection type	Cable/Pin-type busbar
Max.terminal size for cable	25mm <sup>2</sup>
Max.tightening torque	2.5N.m
Installation	Mounting on 35mm DIN rail
Connection	From top and bottom

## Overall and Installation Dimension(mm)



# EKM2-63M Economic Type MCB 4.5KA



Mini Circuit Breaker

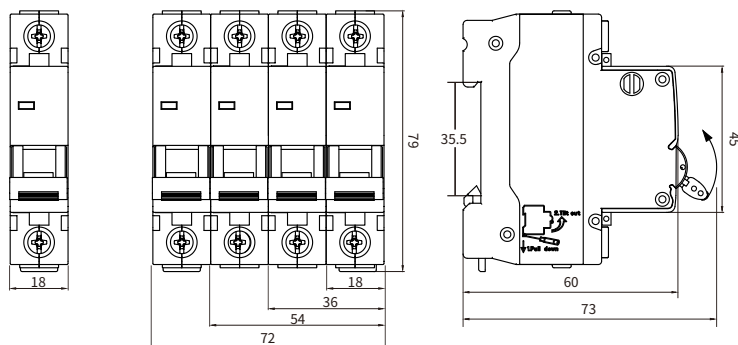
Standard\_IEC60898-1



## TechnicalData

Standard	IEC/EN60898-1
Protection	Overcurrent and short circuit
Type of trip	Thermo-magnetic
No.of poles	1P,1P+N,2P,3P,3P+N,4P
Rated voltage (Ue)	240/415V~
Rated currents (In)	1,2,3,4,5,6,10,16,20,25,32,40,50,63A
Rated frequency	50/60Hz
Rated breaking capacity	4,500A
Rated impulse with standard voltage (1.5/50)(Uimp)	4,000V
Dielectric test voltage at Ind. Freq. for 1min	2kV
Thermal release characteristic	(1.13-1.45) x In
Magnetic release characteristic	B:(3-5) x In, C:(5-10) x In, D:(10-20) x In
Electrical life	4,000 Cycles
Mechanical life	10,000 Cycles
Contact position indicator	Yes
Protection degree	IP20
Ambient temperature	-5°C to +40°C Max. 95% humidity
Terminal connection type	Cable/Pin-type busbar
Max. terminal size for cable	25mm <sup>2</sup>
Max. tightening torque	2.5N.m
Installation	Mounting on 35mm DIN rail
Connection	From top and bottom

## OverallandInstallationDimension(mm)



# MCB EKM1-63X 6kA



Mini Circuit Breaker

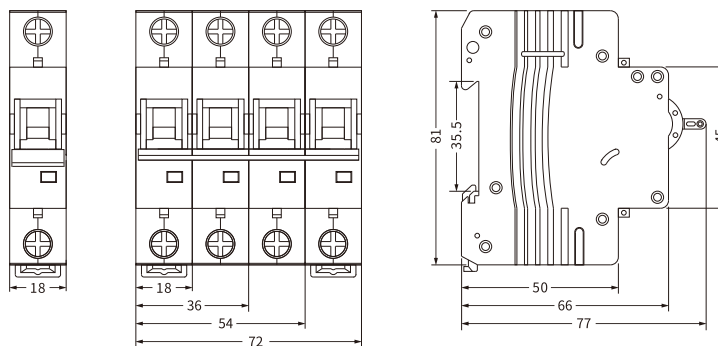
Standard\_ IEC60898-1



## Technical Data

Standard	IEC/EN60898-1
Protection	Overcurrent and short circuit
Type of trip	Thermo-magnetic
No. of poles	1P,2P,3P,4P,1P+N,3P+N
Rated voltage (Ue)	240/415V~
Rated currents (In)	1,2,3,4,5,6,10,16,20,25,32,40,50,63A
Rated frequency	50/60Hz
Rated breaking capacity	6,000A
Energy Limiting Class	3
Rated impulse withstand voltage(1.2/50) (Uimp)	4,000V
Dielectric test voltage at Ind. Freq. for 1 min	2kV
Thermal release characteristic	(1.13-1.45) x In
Magnetic release characteristic	B:(3-5) x In, C:(5-10) x In, D:(10-20) x In
Electrical life	4,000 Cycles
Mechanical life	10,000 Cycles
Contact position indicator	Yes
Protection degree	IP20
Ambient temperature	-5°C to +40°C, Max.95% humidity
Terminal connection type	Cable/Pin-type busbar
Max.terminal size for cable	25mm <sup>2</sup>
Max.tightening torque	2.5N.m
Installation	Mounting on 35mm DIN rail
Connection	From top and bottom

## Overall and Installation Dimension(mm)



# EKM12-63X Economic Type MCB 6kA



Mini Circuit Breaker

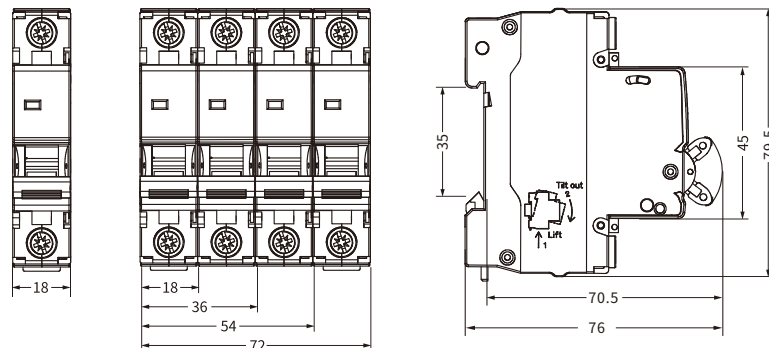
Standard\_IEC60898-1



## Technical Data

Standard	IEC/EN60898-1
Protection	Overcurrent and short circuit
Type of trip	Thermo-magnetic
No.of poles	1P,2P,3P,4P,1P+N,3P+N
Rated voltage (Ue)	240/415V~
Rated currents (In)	1,2,3,4,5,6,10,16,20,25,32,40,50,63A
Rated frequency	50/60Hz
Rated breaking capacity	6,000A
Rated impulse withstand voltage(1.2/50) Uimp	4,000V
Dielectric test voltage at Ind. Freq.for 1 min	2kV
Thermal release characteristic	(1.13-1.45) x In
Magnetic release characteristic	B:(3-5) x In, C:(5-10) x In, D:(10-20) x In
Electrical life	4,000 Cycles
Mechanical life	10,000 Cycles
Contact position indicator	Yes
Protection degree	IP20
Ambient temperature	-5°C to +40°C, Max.95% humidity
Terminal connection type	Cable/Pin-type busbar
Max.terminal size for cable	25mm <sup>2</sup>
Max.tightening torque	2.5N.m
Installation	Mounting on 35mm DIN rail
Connection	From top and bottom

## Overall and Installation Dimension(mm)





# EKM2-125 Economic Type MCB 6kA



Mini Circuit Breaker

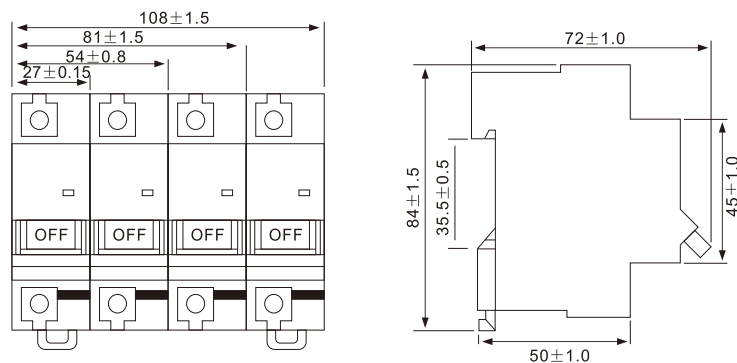
Standard IEC60898-1  
IEC60947-2



## Technical Data

Standard	IEC/EN60898-1	IEC/EN60947-2
Type of trip	Thermo-magnetic	
No.of poles	1P,2P,3P,4P,1P+N,3P+N	
Rated voltage (Ue)	240/415V~	
Rated currents (In)	63,80,100,125A	
Rated frequency	50/60Hz	
Rated breaking capacity	6,000A	
Rated impulse withstand voltage (1.2/50)(Uimp)	4,000V	
Dielectric test voltage at Ind. Freq.for 1 min	2kV	
Rated insulation voltage (Ui)	500V	
Thermal release characteristic	(1.13-1.45) x In	(1.05-1.30) x In
Thermo-magnetic release characteristic	B:(3-5) x In, C:(5-10) x In	(8-12) x In
Electrical life	4,000 Cycles	
Mechanical life	10,000 Cycles	
Contact position indicator	Yes	
Protection degree	IP20	
Ambient temperature	-5°C to +40°C, Max.95% humidity	
Terminal connection type	Cable/Pin-type busbar	
Max.terminal size for cable	50mm <sup>2</sup>	
Max.tightening torque	3.5N.m	
Installation	Mounting on 35mm DIN rail	
Connection	From top and bottom	

## Overall and Installation Dimension(mm)



# EKL21-63M Economic Type RCCB 4.5/6kA

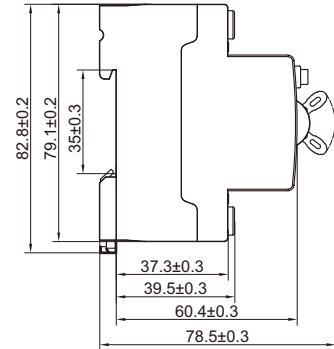
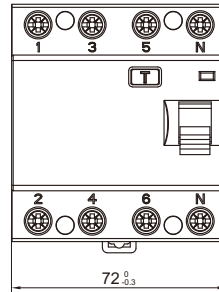
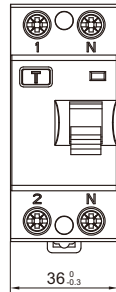


Small Size Residual Current Circuit Breaker

Standard\_IEC61008-1



## Circuit Diagram and Dimension(mm)



## Technical Data

Standard	IEC/EN61008-1
Protection	Ground fault
Type of trip	Electro-magnetic
Type of protection (electric leakage)	AC,A,G,S
No.of poles	2P(1P+N), 4P(3P+N)
Rated voltage (Ue)	1P+N: 230/240V~, 3P+N:400/415V~
Rated currents (In)	16,25,32,40,63A
Rated sensitivity currents (I $\Delta$ n)	10,30,100,300mA
Residual current off-time under (I $\Delta$ n)	≤ 0.1s
Rated residual making and breaking capacity (I $\Delta$ m)	500A(In≤50A), 10In(In>50A)
Rated frequency	50/60Hz
Rated breaking capacity	4,500/6,000A
SCPD fuse	4500  6000
Rated impulse withstand voltage(1.2/50) (Uimp)	4,000V
Dielectric test voltage at Ind. Freq.for 1 min	2.5kV
Electrical life	2,000 Cycles
Mechanical life	4,000 Cycles
Contact position indicator	Yes
Protection degree	IP20
Ambient temperature	-25°C to +40°C, Max.95% humidity
Terminal connection type	Cable/Pin-type busbar
Max.terminal size for cable	16mm <sup>2</sup>
Max.tightening torque	2N.m
Installation	Mounting on 35mm DIN rail
Connection	From top and bottom
Matching MCB	EKM2-63M
Operating mechanism	Plastic structure

# EKL21-63S Economic Type RCCB 4.5/6kA

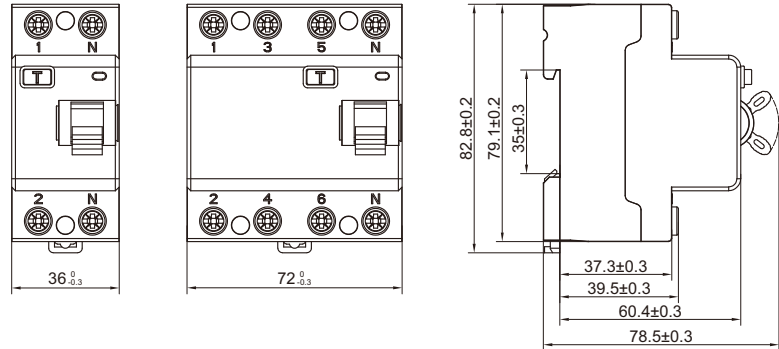


Small Size Residual Current Circuit Breaker

Standard\_IEC61008-1



## Circuit Diagram and Dimension(mm)



## Technical Data

Standard	IEC/EN61008-1
Protection	Ground fault
Type of trip	Electro-magnetic
Type of protection (electric leakage)	AC,A,G,S
No.of poles	2P(1P+N), 4P(3P+N)
Rated voltage (Ue)	1P+N: 230/240V~, 3P+N:400/415V~
Rated currents (In)	16,25,32,40,63A
Rated sensitivity currents (I $\Delta$ n)	10,30,100,300mA
Residual current off-time under (I $\Delta$ n)	≤ 0.1s
Rated residual making and breaking capacity (I $\Delta$ m)	500A(In≤50A), 10In(In>50A)
Rated frequency	50/60Hz
Rated breaking capacity	4,500/6,000A
SCPD fuse	4500  6000
Rated impulse withstand voltage(1.2/50) (Uimp)	4,000V
Dielectric test voltage at Ind. Freq.for 1 min	2.5kV
Electrical life	2,000 Cycles
Mechanical life	4,000 Cycles
Contact position indicator	Yes
Protection degree	IP20
Ambient temperature	-25°C to +40°C, Max.95% humidity
Terminal connection type	Cable/Pin-type busbar
Max.terminal size for cable	16mm <sup>2</sup>
Max.tightening torque	2N.m
Installation	Mounting on 35mm DIN rail
Connection	From top and bottom
Matching MCB	DZ47-63S
Operating mechanism	Plastic structure

# Surge Protective Device





## Product Selection Guide

**EK**   **U4**   -   **T2**   -   **20**   -   **1P**   -   **275**   **S**

EK	ETEK
U4	SPD series No.4
T2	Class II / Type 2
20	I.max: 20kA
1P	No. of Poles: 1:1P; 2:2P; 3:3P; 4:4P; 1PN:1P+NPE; 3PN:3P+NPE
275	Uc: 275:275V; 320:320V; 385:385V; 440:440V
S	With Remote Signaling

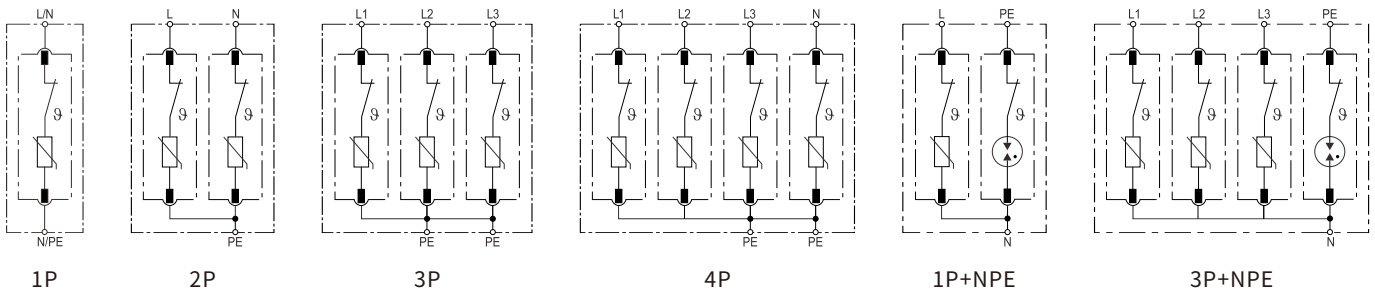
## SPD Type Reference List

No. of Poles	Max. Continuous Operating AC Voltage			
	275V	320V	385V	440V
1P	EKU4-T2-20-1P275	EKU4-T2-20-1P320	EKU4-T2-20-1P385	EKU4-T2-20-1P440
2P	EKU4-T2-20-2P275	EKU4-T2-20-2P320	EKU4-T2-20-2P385	EKU4-T2-20-2P440
3P	EKU4-T2-20-3P275	EKU4-T2-20-3P320	EKU4-T2-20-3P385	EKU4-T2-20-3P440
4P	EKU4-T2-20-4P275	EKU4-T2-20-4P320	EKU4-T2-20-4P385	EKU4-T2-20-4P440
1P+NPE	EKU4-T2-20-1PN275	EKU4-T2-20-1PN320	EKU4-T2-20-1PN385	EKU4-T2-20-1PN440
3P+NPE	EKU4-T2-20-3PN275	EKU4-T2-20-3PN320	EKU4-T2-20-3PN385	EKU4-T2-20-3PN440
With Remote Signaling				
1P	EKU4-T2-20-1P275S	EKU4-T2-20-1P320S	EKU4-T2-20-1P385S	EKU4-T2-20-1P440S
2P	EKU4-T2-20-2P275S	EKU4-T2-20-2P320S	EKU4-T2-20-2P385S	EKU4-T2-20-2P440S
3P	EKU4-T2-20-3P275S	EKU4-T2-20-3P320S	EKU4-T2-20-3P385S	EKU4-T2-20-3P440S
4P	EKU4-T2-20-4P275S	EKU4-T2-20-4P320S	EKU4-T2-20-4P385S	EKU4-T2-20-4P440S
1P+NPE	EKU4-T2-20-1PN275S	EKU4-T2-20-1PN320S	EKU4-T2-20-1PN385S	EKU4-T2-20-1PN440S
3P+NPE	EKU4-T2-20-3PN275S	EKU4-T2-20-3PN320S	EKU4-T2-20-3PN385S	EKU4-T2-20-3PN440S

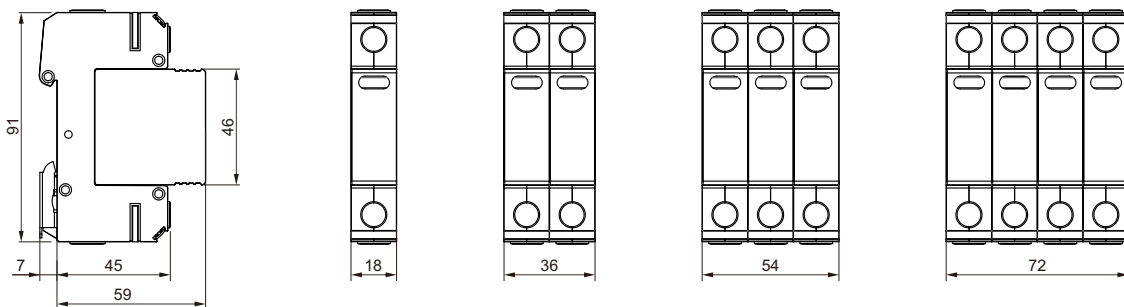
## Technical Data

No. of poles	1P	2P	3P	4P	1P+NPE	3P+NPE
Network systems	TN-S, TN-C, TT(only L-N)	TN-S	TN-C	TN-S	TT, TN-S	
Mode of protection	L-PE, N-PE(only TN-S), L-PEN, L-N	L-PE, N-PE	L-PEN	L-PE, N-PE	L-N, N-PE	
Protective elements	High Energy MOV				High Energy MOV and GDT	
Maximum continuous operating voltage (L-N)	Uc	275V	320V	385V	440V	
Maximum continuous operating voltage (N-PE)	Uc	255V				
Norminal discharge current (8/20μs) (L-N)/(N-PE)	In	10kA				
Maximum discharge current (8/20μs) (L-N)/(N-PE)	I <sub>max</sub>	20kA				
Voltage protection level (L-N)/(N-PE)	Up	1.0kV/1.5kV	1.2kV/1.5kV	1.45kV/1.5kV	1.6kV/1.5kV	
Voltage protection level 5kA	Up	0.8kV	1.0kV	1.2kV	1.4kV	
Response time (L-N)/(N-PE)	t <sub>A</sub>	≤25ns/≤100ns				
Operating temperature range	T <sub>u</sub>	-40°C to +80°C				
Max. Back-up fuse					125 A gL/gG	
Operating state/fault indication					Green/Red(L-N), Yellow(N-PE)	
Cross-section area (Min.)/(Max.)					4mm <sup>2</sup> /35mm <sup>2</sup>	
Mounting					35 mm DIN Rail, EN 60715	
Enclosure material					Thermal Plastic UL94-V0	
Degree of protection					IP20 (built-in)	

## Basic Circuit Diagram



## Overall and Installation Dimension(mm)





## Product Selection Guide

EK U4 - T2 - 40 - 1P - 275 S

EK	ETEK
U4	SPD series No.4
T2	Class II / Type 2
40	I.max: 40kA
1P	No. of Poles: 1:1P; 2:2P; 3:3P; 4:4P; 1PN:1P+NPE; 3PN:3P+NPE
275	Uc: 275:275V; 320:320V; 385:385V; 440:440V
S	With Remote Signaling

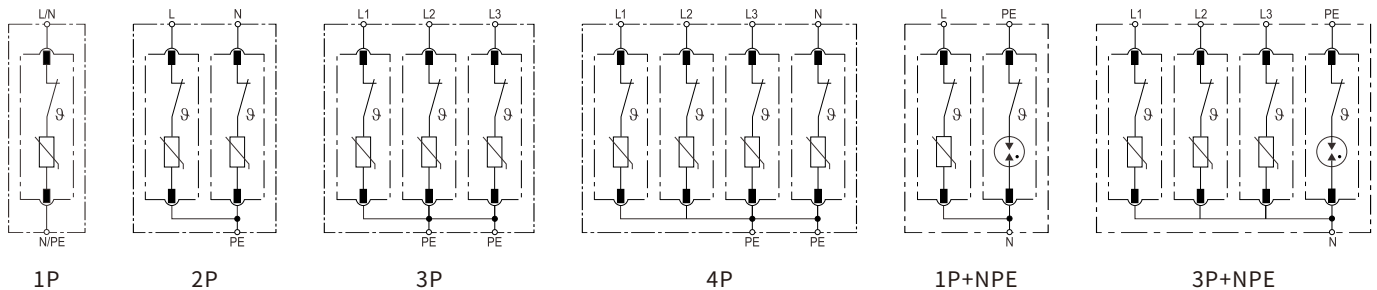
## SPD Type Reference List

No. of Poles	Max. Continuous Operating AC Voltage			
	275V	320V	385V	440V
1P	EKU4-T2-40-1P275	EKU4-T2-40-1P320	EKU4-T2-40-1P385	EKU4-T2-40-1P440
2P	EKU4-T2-40-2P275	EKU4-T2-40-2P320	EKU4-T2-40-2P385	EKU4-T2-40-2P440
3P	EKU4-T2-40-3P275	EKU4-T2-40-3P320	EKU4-T2-40-3P385	EKU4-T2-40-3P440
4P	EKU4-T2-40-4P275	EKU4-T2-40-4P320	EKU4-T2-40-4P385	EKU4-T2-40-4P440
1P+NPE	EKU4-T2-40-1PN275	EKU4-T2-40-1PN320	EKU4-T2-40-1PN385	EKU4-T2-40-1PN440
3P+NPE	EKU4-T2-40-3PN275	EKU4-T2-40-3PN320	EKU4-T2-40-3PN385	EKU4-T2-40-3PN440
With Remote Signaling				
1P	EKU4-T2-40-1P275S	EKU4-T2-40-1P320S	EKU4-T2-40-1P385S	EKU4-T2-40-1P440S
2P	EKU4-T2-40-2P275S	EKU4-T2-40-2P320S	EKU4-T2-40-2P385S	EKU4-T2-40-2P440S
3P	EKU4-T2-40-3P275S	EKU4-T2-40-3P320S	EKU4-T2-40-3P385S	EKU4-T2-40-3P440S
4P	EKU4-T2-40-4P275S	EKU4-T2-40-4P320S	EKU4-T2-40-4P385S	EKU4-T2-40-4P440S
1P+NPE	EKU4-T2-40-1PN275S	EKU4-T2-40-1PN320S	EKU4-T2-40-1PN385S	EKU4-T2-40-1PN440S
3P+NPE	EKU4-T2-40-3PN275S	EKU4-T2-40-3PN320S	EKU4-T2-40-3PN385S	EKU4-T2-40-3PN440S

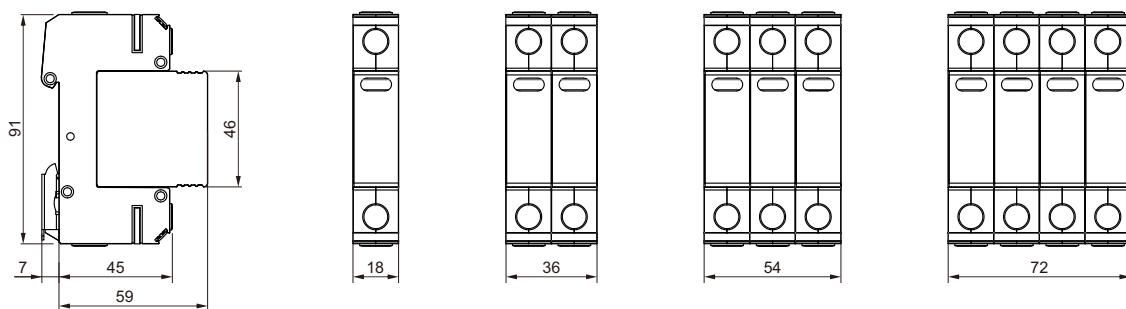
## Technical Data

No. of poles	1P	2P	3P	4P	1P+NPE	3P+NPE
Network systems	TN-S, TN-C, TT(only L-N)	TN-S	TN-C	TN-S	TT, TN-S	
Mode of protection	L-PE, N-PE(only TN-S), L-PEN, L-N	L-PE, N-PE	L-PEN	L-PE, N-PE	L-N, N-PE	
Protective elements	High Energy MOV				High Energy MOV and GDT	
Maximum continuous operating voltage (L-N)	Uc	275V	320V	385V	440V	
Maximum continuous operating voltage (N-PE)	Uc	255V				
Norminal discharge current (8/20μs) (L-N)/(N-PE)	In	20kA				
Maximum discharge current (8/20μs) (L-N)/(N-PE)	I <sub>max</sub>	40kA				
Voltage protection level (L-N)/(N-PE)	Up	1.3kV/1.5kV	1.5kV/1.5kV	1.8kV/1.5kV	2.0kV/1.5kV	
Voltage protection level 5kA	Up	1.0kV	1.2kV	1.4kV	1.6kV	
Response time (L-N)/(N-PE)	t <sub>A</sub>	≤25ns/≤100ns				
Operating temperature range	Tu	-40°C to +80°C				
Max. Back-up fuse					125 A gL/gG	
Operating state/fault indication					Green/Red(L-N),Yellow(N-PE)	
Cross-section area (Min.)/(Max.)					4mm <sup>2</sup> /35mm <sup>2</sup>	
Mounting					35 mm DIN Rail, EN 60715	
Enclosure material					Thermal Plastic UL94-V0	
Degree of protection					IP20 (built-in)	

## Basic Circuit Diagram



## Overall and Installation Dimension(mm)







## Product Selection Guide

EK U5 - T1+T2 - 7 - 1P - 275 S

EK	ETEK
U5	SPD series No.5
T1+T2	Class I + II / Type 1+2
7	Iimp: 7kA
1P	No. of Poles: 1:1P; 2:2P; 3:3P; 4:4P; 1PN:1P+NPE; 3PN:3P+NPE
275	Uc: 150:150V; 275:275V; 320:320V; 385:385V; 440:440V
S	With Remote Signaling

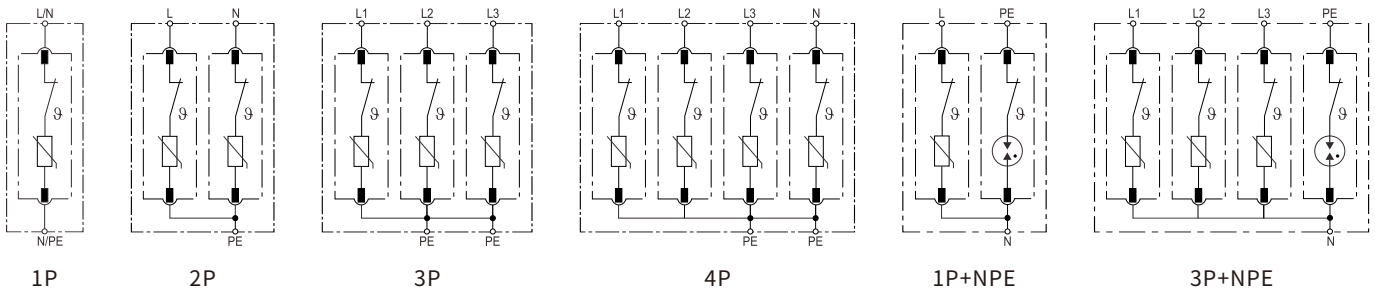
## SPD Type Reference List

No. of Poles	Max. Continuous Operating AC Voltage				
	150V	275V	320V	385V	440V
1P	EKU5-T1+T2-7-1P150	EKU5-T1+T2-7-1P275	EKU5-T1+T2-7-1P320	EKU5-T1+T2-7-1P385	EKU5-T1+T2-7-1P440
2P	EKU5-T1+T2-7-2P150	EKU5-T1+T2-7-2P275	EKU5-T1+T2-7-2P320	EKU5-T1+T2-7-2P385	EKU5-T1+T2-7-2P440
3P	EKU5-T1+T2-7-3P150	EKU5-T1+T2-7-3P275	EKU5-T1+T2-7-3P320	EKU5-T1+T2-7-3P385	EKU5-T1+T2-7-3P440
4P	EKU5-T1+T2-7-4P150	EKU5-T1+T2-7-4P275	EKU5-T1+T2-7-4P320	EKU5-T1+T2-7-4P385	EKU5-T1+T2-7-4P440
1P+NPE	EKU5-T1+T2-7-1PN150	EKU5-T1+T2-7-1PN275	EKU5-T1+T2-7-1PN320	EKU5-T1+T2-7-1PN385	EKU5-T1+T2-7-1PN440
3P+NPE	EKU5-T1+T2-7-3PN150	EKU5-T1+T2-7-3PN275	EKU5-T1+T2-7-3PN320	EKU5-T1+T2-7-3PN385	EKU5-T1+T2-7-3PN440
With Remote Signaling					
1P	EKU5-T1+T2-7-1P150S	EKU5-T1+T2-7-1P275S	EKU5-T1+T2-7-1P320S	EKU5-T1+T2-7-1P385S	EKU5-T1+T2-7-1P440S
2P	EKU5-T1+T2-7-2P150S	EKU5-T1+T2-7-2P275S	EKU5-T1+T2-7-2P320S	EKU5-T1+T2-7-2P385S	EKU5-T1+T2-7-2P440S
3P	EKU5-T1+T2-7-3P150S	EKU5-T1+T2-7-3P275S	EKU5-T1+T2-7-3P320S	EKU5-T1+T2-7-3P385S	EKU5-T1+T2-7-3P440S
4P	EKU5-T1+T2-7-4P150S	EKU5-T1+T2-7-4P275S	EKU5-T1+T2-7-4P320S	EKU5-T1+T2-7-4P385S	EKU5-T1+T2-7-4P440S
1P+NPE	EKU5-T1+T2-7-1PN150S	EKU5-T1+T2-7-1PN275S	EKU5-T1+T2-7-1PN320S	EKU5-T1+T2-7-1PN385S	EKU5-T1+T2-7-1PN440S
3P+NPE	EKU5-T1+T2-7-3PN150S	EKU5-T1+T2-7-3PN275S	EKU5-T1+T2-7-3PN320S	EKU5-T1+T2-7-3PN385S	EKU5-T1+T2-7-3PN440S

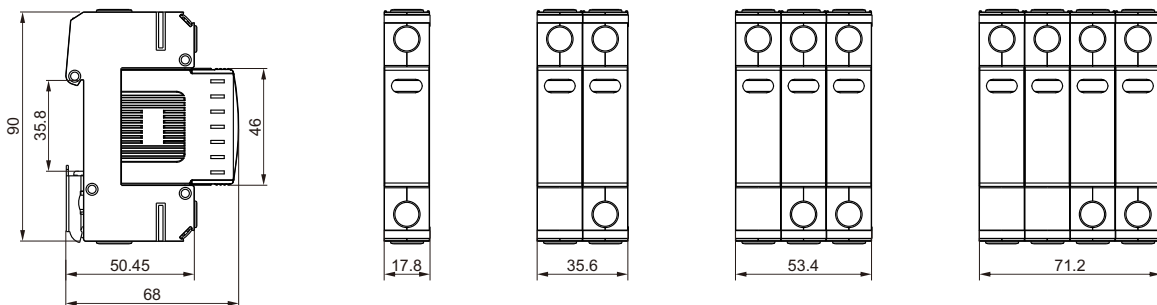
## Technical Data

No. of poles	1P	2P	3P	4P	1P+NPE	3P+NPE
Network systems	TN-S, TN-C, TT(only L-N)	TN-S	TN-C	TN-S	TT, TN-S	
Mode of protection	L-PE, N-PE(only TN-S), L-PEN, L-N	L-PE, N-PE	L-PEN	L-PE, N-PE	L-N, N-PE	
Protective elements	High Energy MOV				High Energy MOV and GDT	
Maximum continuous operating voltage (L-N)	Uc	150V	275V	320V	385V	440V
Maximum continuous operating voltage (N-PE)	Uc			255V		
Impulse discharge current (10/350µs)	Iimp			7kA		
Norminal discharge current (8/20µs)	In			25kA		
Maximum discharge current (8/20µs)	Imax			50kA		
Voltage protection level (L-N)/(N-PE)	Up	1.2kV/1.5kV	1.4kV/1.5kV	1.6kV/1.5kV	1.8kV/1.5kV	2.0kV/1.5kV
Voltage protection level 5kA	Up	1.0kV	1.2kV	1.4kV	1.5kV	1.6kV
Response time (L-N)/(N-PE)	tA			≤25ns/≤100ns		
Operating temperature range	Tu	-40°C to +80°C				
Max. Back-up fuse		160 A gL/gG				
Operating state/fault indication		Green/Red(L-N),Yellow(N-PE)				
Cross-section area (Min.)/(Max.)		4mm <sup>2</sup> /35mm <sup>2</sup>				
Mounting		35 mm DIN Rail, EN 60715				
Enclosure material		Thermal Plastic UL94-V0				
Degree of protection		IP20 (built-in)				

## Basic Circuit Diagram



## Overall and Installation Dimension(mm)





## Product Selection Guide

EK U5 - T1+T2 - 12 - 1P - 275 S

EK	ETEK
U5	SPD series No.5
T1+T2	Class I + II / Type 1+2
12	limp: 12.5kA
1P	No. of Poles: 1:1P; 2:2P; 3:3P; 4:4P; 1PN:1P+NPE; 3PN:3P+NPE
275	Uc: 150:150V; 275:275V; 320:320V; 385:385V
S	With Remote Signaling

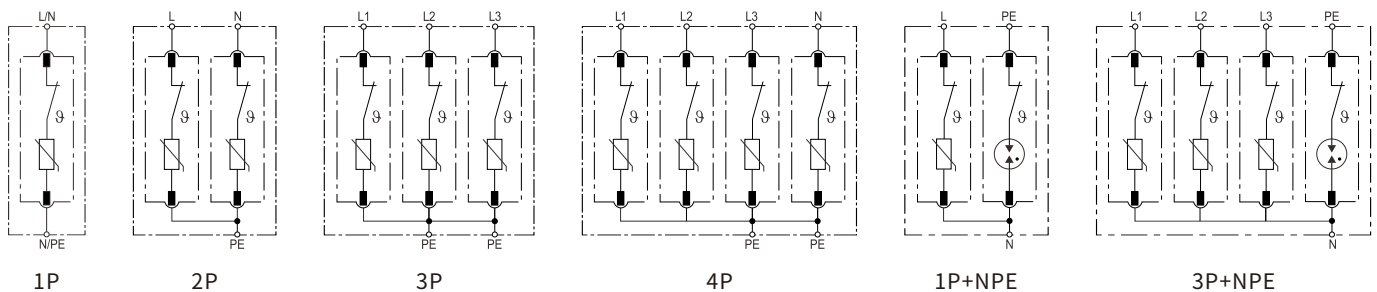
## SPD Type Reference List

No. of Poles	Max. Continuous Operating AC Voltage			
	150V	275V	320V	385V
1P	EKU5-T1+T2-12-1P150	EKU5-T1+T2-12-1P275	EKU5-T1+T2-12-1P320	EKU5-T1+T2-12-1P385
2P	EKU5-T1+T2-12-2P150	EKU5-T1+T2-12-2P275	EKU5-T1+T2-12-2P320	EKU5-T1+T2-12-2P385
3P	EKU5-T1+T2-12-3P150	EKU5-T1+T2-12-3P275	EKU5-T1+T2-12-3P320	EKU5-T1+T2-12-3P385
4P	EKU5-T1+T2-12-4P150	EKU5-T1+T2-12-4P275	EKU5-T1+T2-12-4P320	EKU5-T1+T2-12-4P385
1P+NPE	EKU5-T1+T2-12-1PN150	EKU5-T1+T2-12-1PN275	EKU5-T1+T2-12-1PN320	EKU5-T1+T2-12-1PN385
3P+NPE	EKU5-T1+T2-12-3PN150	EKU5-T1+T2-12-3PN275	EKU5-T1+T2-12-3PN320	EKU5-T1+T2-12-3PN385
With Remote Signaling				
1P	EKU5-T1+T2-12-1P150S	EKU5-T1+T2-12-1P275S	EKU5-T1+T2-12-1P320S	EKU5-T1+T2-12-1P385S
2P	EKU5-T1+T2-12-2P150S	EKU5-T1+T2-12-2P275S	EKU5-T1+T2-12-2P320S	EKU5-T1+T2-12-2P385S
3P	EKU5-T1+T2-12-3P150S	EKU5-T1+T2-12-3P275S	EKU5-T1+T2-12-3P320S	EKU5-T1+T2-12-3P385S
4P	EKU5-T1+T2-12-4P150S	EKU5-T1+T2-12-4P275S	EKU5-T1+T2-12-4P320S	EKU5-T1+T2-12-4P385S
1P+NPE	EKU5-T1+T2-12-1PN150S	EKU5-T1+T2-12-1PN275S	EKU5-T1+T2-12-1PN320S	EKU5-T1+T2-12-1PN385S
3P+NPE	EKU5-T1+T2-12-3PN150S	EKU5-T1+T2-12-3PN275S	EKU5-T1+T2-12-3PN320S	EKU5-T1+T2-12-3PN385S

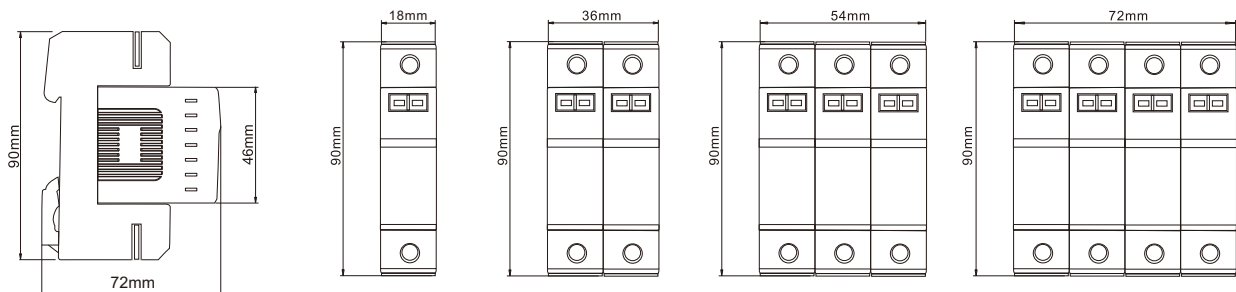
## Technical Data

No. of poles	1P	2P	3P	4P	1P+NPE	3P+NPE
Network systems	TN-S, TN-C, TT(only L-N)	TN-S	TN-C	TN-S	TT, TN-S	
Mode of protection	L-PE, N-PE(only TN-S), L-PEN, L-N	L-PE, N-PE	L-PEN	L-PE, N-PE	L-N, N-PE	
Protective elements	High Energy MOV				High Energy MOV and GDT	
Maximum continuous operating voltage (L-N)	Uc	150V	275V	320V	385V	
Maximum continuous operating voltage (N-PE)	Uc	255V				
Impulse discharge current (10/350µs)	Iimp	12.5kA				
Norminal discharge current (8/20µs)	In	30kA				
Maximum discharge current (8/20µs)	I <sub>max</sub>	60kA				
Voltage protection level (L-N)/(N-PE)	Up	1.2kV/1.5kV	1.5kV/1.5kV	1.6kV/1.5kV	1.8kV/1.5kV	
Voltage protection level 5kA	Up	0.6kV	1.0kV	1.2kV	1.3kV	
Response time (L-N)/(N-PE)	tA	≤25ns/≤100ns				
Operating temperature range	Tu	-40°C to +80°C				
Max. Back-up fuse		160 A gL/gG				
Operating state/fault indication		Green/Red(L-N),Yellow(N-PE)				
Cross-section area (Min.)/(Max.)		4mm <sup>2</sup> /35mm <sup>2</sup>				
Mounting		35 mm DIN Rail, EN 60715				
Enclosure material		Thermal Plastic UL94-V0				
Degree of protection		IP20 (built-in)				

## Basic Circuit Diagram



## Overall and Installation Dimension(mm)





## Product Selection Guide

EK	U5	-	T2	-	20	-	1P	-	275	S
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EK	ETEK
U5	SPD series No.5
T2	Class II / Type 2
20	I.max: 20kA
1P	No. of Poles: 1:1P; 2:2P; 3:3P; 4:4P; 1PN:1P+NPE; 3PN:3P+NPE
275	Uc: 150:150V; 275:275V; 320:320V; 385:385V; 440:440V
S	With Remote Signaling

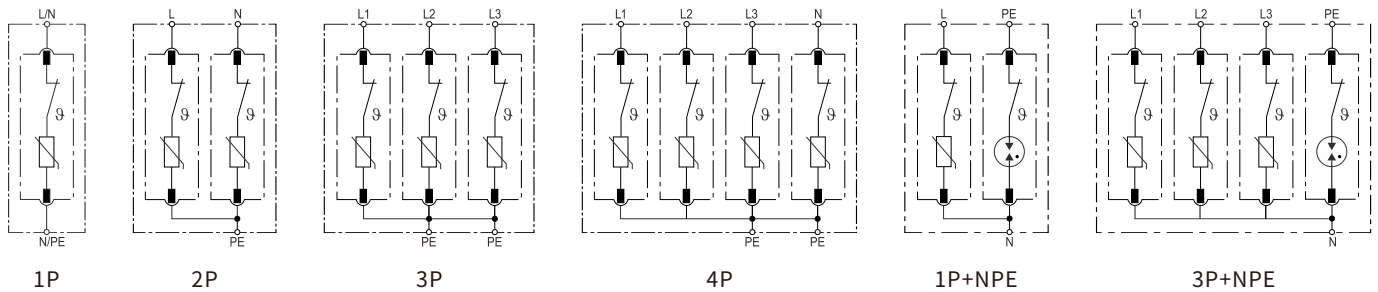
## SPD Type Reference List

No. of Poles	Max. Continuous Operating AC Voltage				
	150V	275V	320V	385V	440V
1P	EKU5-T2-20-1P150	EKU5-T2-20-1P275	EKU5-T2-20-1P320	EKU5-T2-20-1P385	EKU5-T2-20-1P440
2P	EKU5-T2-20-2P150	EKU5-T2-20-2P275	EKU5-T2-20-2P320	EKU5-T2-20-2P385	EKU5-T2-20-2P440
3P	EKU5-T2-20-3P150	EKU5-T2-20-3P275	EKU5-T2-20-3P320	EKU5-T2-20-3P385	EKU5-T2-20-3P440
4P	EKU5-T2-20-4P150	EKU5-T2-20-4P275	EKU5-T2-20-4P320	EKU5-T2-20-4P385	EKU5-T2-20-4P440
1P+NPE	EKU5-T2-20-1PN150	EKU5-T2-20-1PN275	EKU5-T2-20-1PN320	EKU5-T2-20-1PN385	EKU5-T2-20-1PN440
3P+NPE	EKU5-T2-20-3PN150	EKU5-T2-20-3PN275	EKU5-T2-20-3PN320	EKU5-T2-20-3PN385	EKU5-T2-20-3PN440
With Remote Signaling					
1P	EKU5-T2-20-1P150S	EKU5-T2-20-1P275S	EKU5-T2-20-1P320S	EKU5-T2-20-1P385S	EKU5-T2-20-1P440S
2P	EKU5-T2-20-2P150S	EKU5-T2-20-2P275S	EKU5-T2-20-2P320S	EKU5-T2-20-2P385S	EKU5-T2-20-2P440S
3P	EKU5-T2-20-3P150S	EKU5-T2-20-3P275S	EKU5-T2-20-3P320S	EKU5-T2-20-3P385S	EKU5-T2-20-3P440S
4P	EKU5-T2-20-4P150S	EKU5-T2-20-4P275S	EKU5-T2-20-4P320S	EKU5-T2-20-4P385S	EKU5-T2-20-4P440S
1P+NPE	EKU5-T2-20-1PN150S	EKU5-T2-20-1PN275S	EKU5-T2-20-1PN320S	EKU5-T2-20-1PN385S	EKU5-T2-20-1PN440S
3P+NPE	EKU5-T2-20-3PN150S	EKU5-T2-20-3PN275S	EKU5-T2-20-3PN320S	EKU5-T2-20-3PN385S	EKU5-T2-20-3PN440S

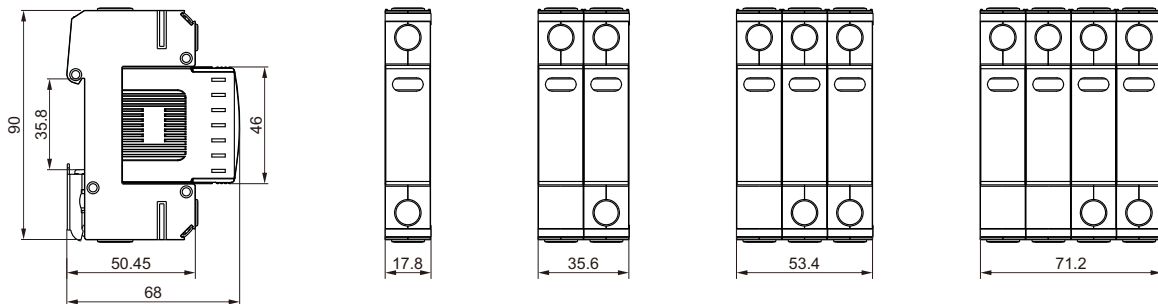
## Technical Data

No. of poles	1P	2P	3P	4P	1P+NPE	3P+NPE
Network systems	TN-S, TN-C, TT(only L-N)	TN-S	TN-C	TN-S	TT, TN-S	
Mode of protection	L-PE, N-PE(only TN-S), L-PEN, L-N	L-PE, N-PE	L-PEN	L-PE, N-PE	L-N, N-PE	
Protective elements	High Energy MOV				High Energy MOV and GDT	
Maximum continuous operating voltage (L-N)	Uc	150V	275V	320V	385V	440V
Maximum continuous operating voltage (N-PE)	Uc			255V		
Norminal discharge current (8/20 $\mu$ s) (L-N)/(N-PE)	In			10kA		
Maximum discharge current (8/20 $\mu$ s) (L-N)/(N-PE)	I <sub>max</sub>			20kA		
Voltage protection level (L-N)/(N-PE)	Up	0.8kV/1.5kV	1.0kV/1.5kV	1.2kV/1.5kV	1.45kV/1.5kV	1.6kV/1.5kV
Voltage protection level 5kA	Up	0.5kV	0.8kV	1.0kV	1.2kV	1.4kV
Response time (L-N)/(N-PE)	t <sub>A</sub>	$\leq 25\text{ns}/\leq 100\text{ns}$				
Operating temperature range	T <sub>u</sub>	-40°C to +80°C				
Max. Back-up fuse		125 A gL/gG				
Operating state/fault indication		Green/Red(L-N), Yellow(N-PE)				
Cross-section area (Min.)/(Max.)		4mm <sup>2</sup> /35mm <sup>2</sup>				
Mounting		35 mm DIN Rail, EN 60715				
Enclosure material		Thermal Plastic UL94-V0				
Degree of protection		IP20 (built-in)				

## Basic Circuit Diagram



## Overall and Installation Dimension(mm)





## Product Selection Guide

EK	U5	-	T2	-	40	-	1P	-	275	S
EK	E TEK									
U5	SPD series No.5									
T2	Class II / Type 2									
40	I.max: 40kA									
1P	No. of Poles: 1:1P; 2:2P; 3:3P; 4:4P; 1PN:1P+NPE; 3PN:3P+NPE									
275	Uc: 150:150V; 275:275V; 320:320V; 385:385V; 440:440V									
S	With Remote Signaling									

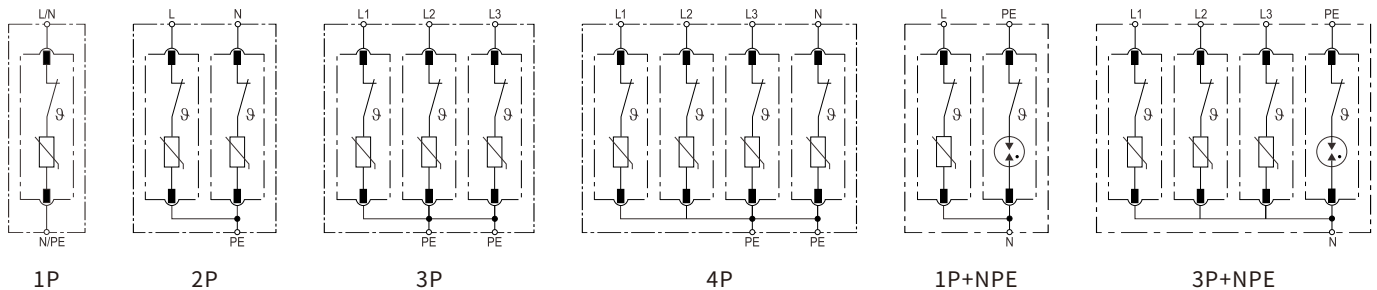
## SPD Type Reference List

No. of Poles	Max. Continuous Operating AC Voltage				
	150V	275V	320V	385V	440V
1P	EKU5-T2-40-1P150	EKU5-T2-40-1P275	EKU5-T2-40-1P320	EKU5-T2-40-1P385	EKU5-T2-40-1P440
2P	EKU5-T2-40-2P150	EKU5-T2-40-2P275	EKU5-T2-40-2P320	EKU5-T2-40-2P385	EKU5-T2-40-2P440
3P	EKU5-T2-40-3P150	EKU5-T2-40-3P275	EKU5-T2-40-3P320	EKU5-T2-40-3P385	EKU5-T2-40-3P440
4P	EKU5-T2-40-4P150	EKU5-T2-40-4P275	EKU5-T2-40-4P320	EKU5-T2-40-4P385	EKU5-T2-40-4P440
1P+NPE	EKU5-T2-40-1PN150	EKU5-T2-40-1PN275	EKU5-T2-40-1PN320	EKU5-T2-40-1PN385	EKU5-T2-40-1PN440
3P+NPE	EKU5-T2-40-3PN150	EKU5-T2-40-3PN275	EKU5-T2-40-3PN320	EKU5-T2-40-3PN385	EKU5-T2-40-3PN440
With Remote Signaling					
1P	EKU5-T2-40-1P150S	EKU5-T2-40-1P275S	EKU5-T2-40-1P320S	EKU5-T2-40-1P385S	EKU5-T2-40-1P440S
2P	EKU5-T2-40-2P150S	EKU5-T2-40-2P275S	EKU5-T2-40-2P320S	EKU5-T2-40-2P385S	EKU5-T2-40-2P440S
3P	EKU5-T2-40-3P150S	EKU5-T2-40-3P275S	EKU5-T2-40-3P320S	EKU5-T2-40-3P385S	EKU5-T2-40-3P440S
4P	EKU5-T2-40-4P150S	EKU5-T2-40-4P275S	EKU5-T2-40-4P320S	EKU5-T2-40-4P385S	EKU5-T2-40-4P440S
1P+NPE	EKU5-T2-40-1PN150S	EKU5-T2-40-1PN275S	EKU5-T2-40-1PN320S	EKU5-T2-40-1PN385S	EKU5-T2-40-1PN440S
3P+NPE	EKU5-T2-40-3PN150S	EKU5-T2-40-3PN275S	EKU5-T2-40-3PN320S	EKU5-T2-40-3PN385S	EKU5-T2-40-3PN440S

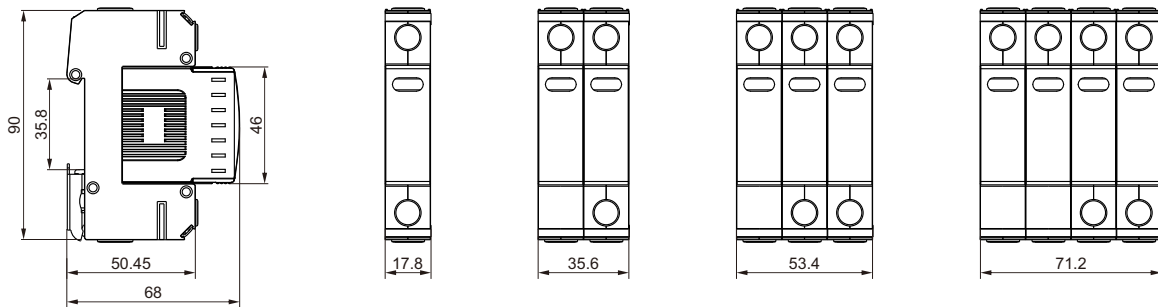
## Technical Data

No. of poles	1P	2P	3P	4P	1P+NPE	3P+NPE
Network systems	TN-S, TN-C, TT(only L-N)	TN-S	TN-C	TN-S	TT, TN-S	
Mode of protection	L-PE, N-PE(only TN-S), L-PEN, L-N	L-PE, N-PE	L-PEN	L-PE, N-PE	L-N, N-PE	
Protective elements	High Energy MOV				High Energy MOV and GDT	
Maximum continuous operating voltage (L-N)	Uc	150V	275V	320V	385V	440V
Maximum continuous operating voltage (N-PE)	Uc			255V		
Norminal discharge current (8/20 $\mu$ s) (L-N)/(N-PE)	In			20kA		
Maximum discharge current (8/20 $\mu$ s) (L-N)/(N-PE)	I <sub>max</sub>			40kA		
Voltage protection level (L-N)/(N-PE)	Up	0.8kV/1.5kV	1.3kV/1.5kV	1.5kV/1.5kV	1.8kV/1.5kV	2.0kV/1.5kV
Voltage protection level 5kA	Up	0.6kV	1.0kV	1.2kV	1.4kV	1.6kV
Response time (L-N)/(N-PE)	t <sub>A</sub>	$\leq 25\text{ns}/\leq 100\text{ns}$				
Operating temperature range	Tu	-40°C to +80°C				
Max. Back-up fuse		125 A gL/gG				
Operating state/fault indication		Green/Red(L-N), Yellow(N-PE)				
Cross-section area (Min.)/(Max.)		4mm <sup>2</sup> /35mm <sup>2</sup>				
Mounting		35 mm DIN Rail, EN 60715				
Enclosure material		Thermal Plastic UL94-V0				
Degree of protection		IP20 (built-in)				

## Basic Circuit Diagram



## Overall and Installation Dimension(mm)







## Product Selection Guide

EK	U5	-	T2	-	20	PV	-	2M	-	600	S
EK	ETEK										
U5	SPD series No.5										
T2	Class II / Type 2										
40	I.max: 20kA										
PV	Solar PV System										
2M	No. of Module: 2:2Module; 3:3Module										
600	Uc: 600: DC600V; 800: DC800V; 1000: DC1000V; 1500: DC1500V										
S	With Remote Signaling										

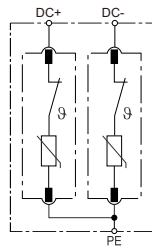
## SPD Type Reference List

No. of Module	Max. Continuous Operating DC Voltage			
	600VDC	800VDC	1000VDC	1500VDC
2Module	EKU5-T2-20PV-2M600	EKU5-T2-20PV-2M800	EKU5-T2-20PV-2M1000	-
3Module	-	-	EKU5-T2-20PV-3M1000	EKU5-T2-20PV-3M1500
With Remote Signaling				
2Module	EKU5-T2-20PV-2M600S	EKU5-T2-20PV-2M800S	EKU5-T2-20PV-2M1000S	-
3Module	-	-	EKU5-T2-20PV-3M1000S	EKU5-T2-20PV-3M1500S

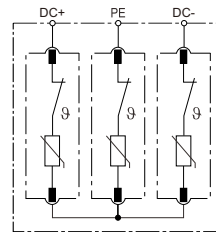
## Technical Data

No. of poles	2P(2Mods),3P(3Mods)				
Location of Use	String box, Inverter				
Mode of protection	(DC+)-PE,(DC-)-PE,(DC+)-(DC-)				
Protective elements	High Energy MOV				
Maximum continuous operating DC voltage	Ucpv	600V	800V	1000V	1500V
Norminal discharge current (8/20μs)	In	10kA			
Total discharge current (8/20μs)	ITotal	20kA			
Maximum discharge current (8/20μs)	Imax	20kA			
Voltage protection level (2P)	Up	2.6kV	3.5kV	4.0kV	-
Voltage protection level (3P)	Up	-	-	4.0kV	5.2kV
Response time	tA	≤25ns			
Operating temperature range	Tu	-40°C to +80°C			
Operating state/fault indication	Green/Red				
Cross-section area (Min.)/(Max.)	4mm <sup>2</sup> /35mm <sup>2</sup>				
Mounting	35 mm DIN Rail, EN 60715				
Enclosure material	Thermal Plastic UL94-V0				
Degree of protection	IP20 (built-in)				

## Basic Circuit Diagram

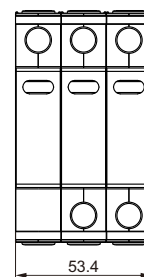
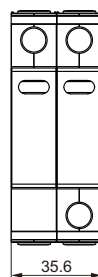
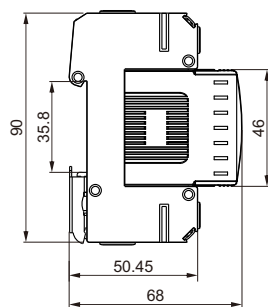


2P



3P

## Overall and Installation Dimension(mm)





## Product Selection Guide

EK U5 - T2 - 40 PV - 2M - 600 S

EK	ETEK
U5	SPD series No.5
T2	Class II / Type 2
40	I.max: 40kA
PV	Solar PV System
2M	No. of Module: 2:2Module; 3:3Module
600	Uc: 600: DC600V; 800: DC800V; 1000: DC1000V; 1500: DC1500V
S	With Remote Signaling

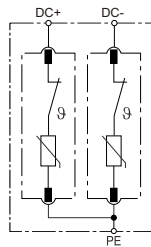
## SPD Type Reference List

No. of Module	Max. Continuous Operating DC Voltage			
	600VDC	800VDC	1000VDC	1500VDC
2Module	EKU5-T2-40PV-2M600	EKU5-T2-40PV-2M800	EKU5-T2-40PV-2M1000	-
3Module	-	-	EKU5-T2-40PV-3M1000	EKU5-T2-40PV-3M1500
With Remote Signaling				
2Module	EKU5-T2-40PV-2M600S	EKU5-T2-40PV-2M800S	EKU5-T2-40PV-2M1000S	-
3Module	-	-	EKU5-T2-40PV-3M1000S	EKU5-T2-40PV-3M1500S

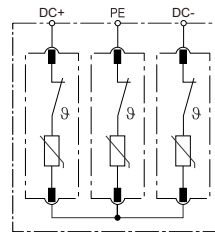
## Technical Data

No. of poles	2P(2Mods),3P(3Mods)				
Location of Use	String box, Inverter				
Mode of protection	(DC+)-PE,(DC-)-PE,(DC+)-(DC-)				
Protective elements	High Energy MOV				
Maximum continuous operating DC voltage	Ucpv	600V	800V	1000V	1500V
Norminal discharge current (8/20μs)	In	20kA			
Total discharge current (8/20μs)	ITotal	40kA			
Maximum discharge current (8/20μs)	I <sub>max</sub>	40kA			
Voltage protection level (2P)	Up	2.6kV	3.5kV	4.0kV	-
Voltage protection level (3P)	Up	-	-	4.0kV	5.2kV
Response time	tA	≤25ns			
Operating temperature range	Tu	-40°C to +80°C			
Operating state/fault indication	Green/Red				
Cross-section area (Min.)/(Max.)	4mm <sup>2</sup> /35mm <sup>2</sup>				
Mounting	35 mm DIN Rail, EN 60715				
Enclosure material	Thermal Plastic UL94-V0				
Degree of protection	IP20 (built-in)				

## Basic Circuit Diagram

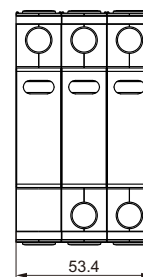
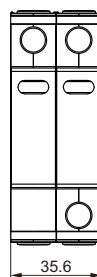
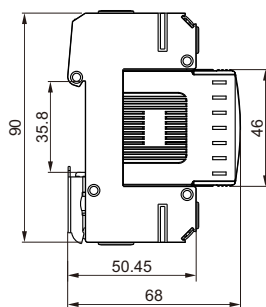


2P



3P

## Overall and Installation Dimension(mm)





## Product Selection Guide

EK U5 - T1+T2 - 40 PV - 3M - 1500 S

EK	ETEK
U5	SPD series No.5
T1+T2	Class I + II / Type 1+2
40	I.max: 40kA
PV	Solar PV System
3M	No. of Module: 3:3Module
1500	Uc: 1000: DC1000V; 1500: DC1500V
S	With Remote Signaling

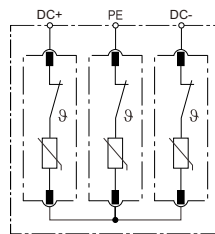
## SPD Type Reference List

No. of Module	Max. Continuous Operating DC Voltage	
	1000VDC	1500VDC
3Module	EKU5-T1+T2-40PV-3M1000	EKU5-T1+T2-40PV-3M1500
With Remote Signaling		
3Module	EKU5-T1+T2-40PV-3M1000S	EKU5-T1+T2-40PV-3M1500S

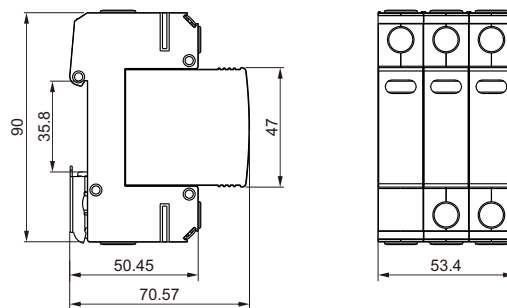
## Technical Data

No. of poles	3P		
Location of Use	String box, Inverter		
Mode of protection	(DC+)-PE,(DC-)-PE,(DC+)-(DC-)		
Protective elements	High Energy MOV		
Maximum continuous operating DC voltage	Ucpv	1000V	1500V
Norminal discharge current (8/20μs)	In	20kA	
Impulse discharge current (10/350μs)	Iimp	6.25kA	
Total discharge current (10/350μs)	ITotal	12.5kA	
Total discharge current (8/20μs)	ITotal	40kA	
Maximum discharge current (8/20μs)	I <sub>max</sub>	40kA	
Voltage protection level (DC+)-PE,(DC-)-PE	Up	4.0kV	5.2kV
Voltage protection level (DC+)-(DC-)	Up	4.0kV	5.2kV
Response time	tA	≤25ns	
Operating temperature range	Tu	-40°C to +80°C	
Operating state/fault indication	Green/Red		
Cross-section area (Min.)/(Max.)	4mm <sup>2</sup> /35mm <sup>2</sup>		
Mounting	35 mm DIN Rail, EN 60715		
Enclosure material	Thermal Plastic UL94-V0		
Degree of protection	IP20 (built-in)		

## Basic Circuit Diagram



## Overall and Installation Dimension(mm)





## Product Selection Guide

EK U6 - T2 - 40S - 1PN - 275 S

EK	ETEK
U6	SPD series No.6
T2	Class II / Type 2
40S	I <sub>max</sub> : 40kA, Small size
1PN	No. of Poles: 1PN:1+NPE; 2P:2P
275	U <sub>c</sub> : 275V
S	With Remote Signaling

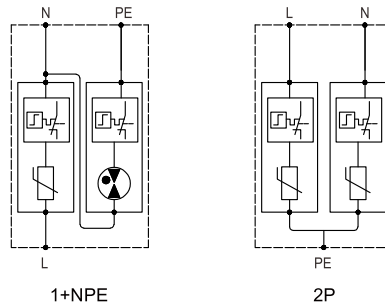
## SPD Type Reference List

No. of Poles	Max. Continuous Operating AC Voltage	
	275V	
1P+NPE	EKU6-T2-40S-1PN275	
2P	EKU6-T2-40S-2P275	
With Remote Signaling		
1P+NPE	EKU6-T2-40S-1PN275S	
2P	EKU6-T2-40S-2P275S	

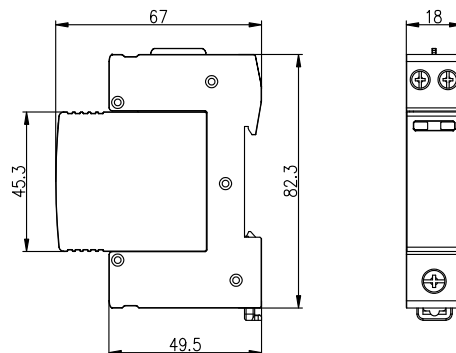
## Technical Data

No. of poles		2P	1P+NPE
Network systems		TN-S	TT, TN-S
Mode of protection		L-PE, N-PE	L-N, N-PE
Protective elements		High Energy MOV	High Energy MOV and GDT
Maximum continuous operating voltage (L-N)	Uc		275V
Maximum continuous operating voltage (N-PE)	Uc		255V
Norminal discharge current (8/20μs) (L-N)/(N-PE)	In		20kA
Maximum discharge current (8/20μs) (L-N)/(N-PE)	I <sub>max</sub>		40kA
Voltage protection level (L-N)/(N-PE)	Up		1.5kV/1.5kV
Voltage protection level 5kA	Up		1.0kV
Response time (L-N)/(N-PE)	t <sub>A</sub>		≤25ns/≤100ns
Operating temperature range	Tu		-40°C to +80°C
Max. Back-up fuse			125 A gL/gG
Operating state/fault indication			Green/Red
Cross-section area (Min.)/(Max.)			4mm <sup>2</sup> /10mm <sup>2</sup> (L/N), 16mm <sup>2</sup> (PE)
Mounting			35 mm DIN Rail, EN 60715
Enclosure material			Thermal Plastic UL94-V0
Degree of protection			IP20 (built-in)

## Schematic Diagram



## Overall and Installation Dimension(mm)





# Other Modular Devices

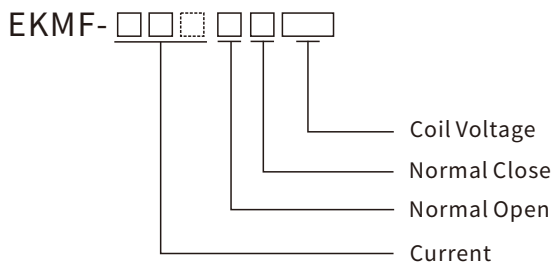


### Applicable Scope

The EKMF modular contactor (hereinafter referred to as contactor) is mainly suitable for AC 50Hz (or 60Hz), rated working voltage to 400V and rated current operation in the circuit up to 125A, it can control the low-inductance and low-inductance load of household appliances and similar purposes; it can also be used to control the load of household motors. The power should be reduced accordingly.

The EKMF contactors according to standard IEC/EN61095, IEC60947-4-1 and are used mainly in buildings for switching and controlling lighting, heating, ventilation and pumps. They are part of the complete range of Din rail products and can be integrated easily in dedicated panels.

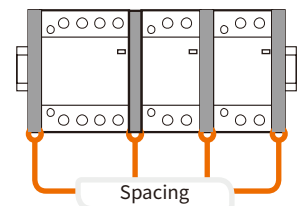
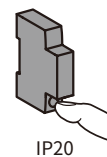
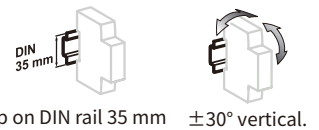
### Modular Contactor



(eg. EKMF-2520-230. It is 25A, 2NO, 230VAC current coil voltage)




### Main Technical Data




















Rated operational voltage (Ue)	250VAC	1P(1NO,1NC),2P(2NO,2NC,1NO+1NC)
	400VAC	3P(3NO,3NC),4P(4NO,4NC,2NO+2NC,3NO+1NC)
Frequency	50/60Hz	
Mechanical life	1,000,000 cycles	
Electrical life	100,000 cycles	
Maximum number of switching operation a day	100	
Insulation voltage (Ui)	500V AC	
Pollution degree	2	
Rated impulse withstand voltage (Uimp)	2.5kV (4kV for 12/24/48VAC)	
Degree of protection (IEC 60529)	IP20	
Operating temperature	-5°C~+60°C (1)	
Storage temperature	-40°C~+70°C	
Tropicalization (IEC 60068.1)	Treatment 2 (relative humidity 95% at 55°C)	
ELSV compliance (Extra Low Safety Voltage) for 12/24/48VAC versions		
The product control conforms to the SELV (safety extra low voltage) requirements		






(1) In the case of contactor mounting in a enclosure for which the interior temperature is in range between 50 °C and 60 °C, it is necessary to use a spacer, between each contactor


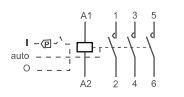
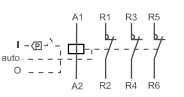
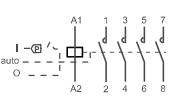
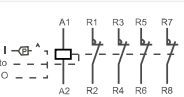
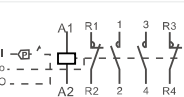
### Automatic Type Product Selection Form

Width	Coil voltage VAC	Poles	Contacts NO+NC	Contactor Model	Rated Current		Circuit Diagram
					AC-1, AC-7a	AC-3, AC-7b	
 1 Modules	24 110 230	1P	1NO	EKMF-1610	16A	6A	
				EKMF-2010	20A	7A	
				EKMF-2510	25A	9A	
			1NC	EKMF-1601	16A	6A	
				EKMF-2001	20A	7A	
				EKMF-2501	25A	9A	
		2P	2NO	EKMF-1620	16A	6A	
				EKMF-2020	20A	7A	
				EKMF-2520	25A	9A	
			1NO+1NC	EKMF-1611	16A	6A	
				EKMF-2011	20A	7A	
				EKMF-2511	25A	9A	
2NC	EKMF-1602	16A	6A				
	EKMF-2002	20A	7A				
	EKMF-2502	25A	9A				
 2 Modules	24 110 230	1P	1NO	EKMF-3210	32A	12A	
				EKMF-4010	40A	18A	
				EKMF-6310	63A	25A	
			1NC	EKMF-3201	32A	12A	
				EKMF-4001	40A	18A	
				EKMF-6301	63A	25A	
		2P	2NO	EKMF-3220	32A	12A	
				EKMF-4020	40A	18A	
				EKMF-6320	63A	25A	
			1NO+1NC	EKMF-3211	32A	12A	
				EKMF-4011	40A	18A	
				EKMF-6311	63A	25A	
2NC	EKMF-3202	32A	12A				
	EKMF-4002	40A	18A				
	EKMF-6302	63A	25A				
 3 Modules	24 110 230	2P	2NO	EKMF-8020	80A	32A	
				EKMF-10020	100A	40A	
				EKMF-12520	125A	50A	
		1NO+1NC	EKMF-8011	80A	32A		
			EKMF-10011	100A	40A		
			EKMF-12511	125A	50A		
		2NC	EKMF-8002	80A	32A		
			EKMF-10002	100A	40A		
			EKMF-12502	125A	50A		

Width	Coil voltage VAC	Poles	Contacts NO+NC	Contactor Model	Rated Current		Circuit Diagram
					AC-1, AC-7a	AC-3, AC-7b	
 <p>2 Modules</p>	24 110 230 380	3P	3NO	EKMF-1630	16A	6A	
				EKMF-2030	20A	7A	
				EKMF-2530	25A	9A	
			3NC	EKMF-1603	16A	6A	
				EKMF-2003	20A	7A	
				EKMF-2503	25A	9A	
		4P	4NO	EKMF-1640	16A	6A	
				EKMF-2040	20A	7A	
				EKMF-2540	25A	9A	
			4NC	EKMF-1604	16A	6A	
				EKMF-2004	20A	7A	
				EKMF-2504	25A	9A	
			2NO+2NC	EKMF-1622	16A	6A	
				EKMF-2022	20A	7A	
				EKMF-2522	25A	9A	
3NO+1NC	EKMF-1631	16A	6A				
	EKMF-2031	20A	7A				
	EKMF-2531	25A	9A				
 <p>3 Modules</p>	24 110 230 380	3P	3NO	EKMF-3230	32A	12A	
				EKMF-4030	40A	18A	
				EKMF-6330	63A	25A	
			3NC	EKMF-3203	32A	12A	
				EKMF-4003	40A	18A	
				EKMF-6303	63A	25A	
		4P	4NO	EKMF-3240	32A	12A	
				EKMF-4040	40A	18A	
				EKMF-6340	63A	25A	
			4NC	EKMF-3204	32A	12A	
				EKMF-4004	40A	18A	
				EKMF-6304	63A	25A	
			2NO+2NC	EKMF-3222	32A	12A	
				EKMF-4022	40A	18A	
				EKMF-6322	63A	25A	
3NO+1NC	EKMF-3231	32A	12A				
	EKMF-4031	40A	18A				
	EKMF-6331	63A	25A				
 <p>6 Modules</p>	24 110 230 380	4P	4NO	EKMF-8040	80A	32A	
				EKMF-10040	100A	40A	
				EKMF-12540	125A	50A	
			4NC	EKMF-8004	80A	32A	
				EKMF-10004	100A	40A	
				EKMF-12504	125A	50A	
		2NO+2NC	EKMF-8022	80A	32A		
			EKMF-10022	100A	40A		
			EKMF-12522	125A	50A		
		3NO+1NC	EKMF-8031	80A	32A		
			EKMF-10031	100A	40A		
			EKMF-12531	125A	50A		

### Manual Type Product Selection Form



Width	Coil voltage VAC	Poles	Contacts NO+NC	Contactor Model	Rated Current		Circuit Diagram		
					AC-1, AC-7a	AC-3, AC-7b			
 1 Modules	24 110 230	1P	1NO	EKMF-1610M	16A	6A			
				EKMF-2010M	20A	7A			
				EKMF-2510M	25A	9A			
			1NC	EKMF-1601M	16A	6A			
				EKMF-2001M	20A	7A			
				EKMF-2501M	25A	9A			
		2P	2NO	EKMF-1620M	16A	6A			
				EKMF-2020M	20A	7A			
				EKMF-2520M	25A	9A			
			1NO+1NC	EKMF-1611M	16A	6A			
				EKMF-2011M	20A	7A			
				EKMF-2511M	25A	9A			
2NC	EKMF-1602M	16A	6A						
	EKMF-2002M	20A	7A						
	EKMF-2502M	25A	9A						
 2 Modules	24 110 230	2P	2NO	EKMF-3220M	32A	12A			
				EKMF-4020M	40A	18A			
				EKMF-6320M	63A	25A			
			1NO+1NC	EKMF-3211M	32A	12A			
				EKMF-4011M	40A	18A			
				EKMF-6311M	63A	25A			
		2NC	EKMF-3202M	32A	12A				
			EKMF-4002M	40A	18A				
			EKMF-6302M	63A	25A				
		 2 Modules	24 110 230 380	3P	3NO	EKMF-1630M	16A	6A	
						EKMF-2030M	20A	7A	
						EKMF-2530M	25A	9A	
3NC	EKMF-1603M				16A	6A			
	EKMF-2003M				20A	7A			
	EKMF-2503M				25A	9A			
4P	4NO			EKMF-1640M	16A	6A			
				EKMF-2040M	20A	7A			
				EKMF-2540M	25A	9A			
	4NC			EKMF-1604M	16A	6A			
				EKMF-2004M	20A	7A			
				EKMF-2504M	25A	9A			
	2NO+2NC	EKMF-1622M	16A	6A					
		EKMF-2022M	20A	7A					
		EKMF-2522M	25A	9A					
3NO+1NC	EKMF-1631M	16A	6A						
	EKMF-2031M	20A	7A						
	EKMF-2531M	25A	9A						

Width	Coil voltage VAC	Poles	Contacts NO+NC	Contactor Model	Rated Current		Circuit Diagram		
					AC-1, AC-7a	AC-3, AC-7b			
 <p>3 Modules</p>	24 110 230 380	3P	3NO	EKMF-3230M	32A	12A			
				EKMF-4030M	40A	18A			
				EKMF-6330M	63A	25A			
			3NC	EKMF-3203M	32A	12A			
				EKMF-4003M	40A	18A			
				EKMF-6303M	63A	25A			
		4P	4NO	EKMF-3240M	32A	12A			
				EKMF-4040M	40A	18A			
				EKMF-6340M	63A	25A			
				4NC	EKMF-3204M	32A		12A	
					EKMF-4004M	40A		18A	
					EKMF-6304M	63A		25A	
			2NO+2NC	EKMF-3222M	32A	12A			
				EKMF-4022M	40A	18A			
				EKMF-6322M	63A	25A			
			3NO+1NC	EKMF-3231M	32A	12A			
				EKMF-4031M	40A	18A			
				EKMF-6331M	63A	25A			

## Modular Contactor Auxiliary

### Auxiliary Contacts

The Auxiliary contacts are indicator contactor contacts status switch OFF or ON

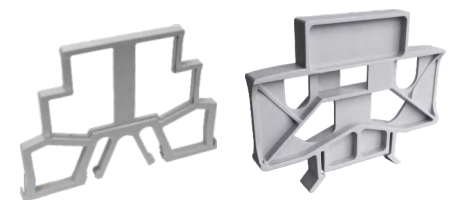
	AC-12		AC-15		DC-13		Rated Current	Circuit Diagram
	C.V.	C.A.	C.V.	C.A.	C.V.	C.A.		
EKMF-OF-11	240V	5A	230V	2A	DC 130V	1A	5A	
EKMF-OF-20	240V	5A	230V	2A	DC 130V	1A	5A	



### Spacing Piece

Spacers are used to reduce the temperature rise of devices mounted side by side. It is recommended to separate electronic equipment (temperature adjustment devices, programmable timer etc.) from electromechanical equipment (impulse relays, contactors)

	Technical specifications
Spacing piece	3mm Spacing piece
	9mm Spacing piece

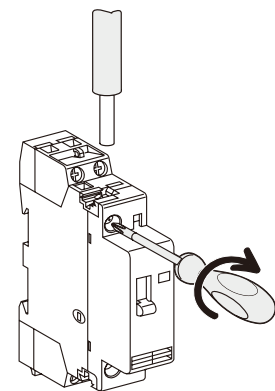


### Consumption

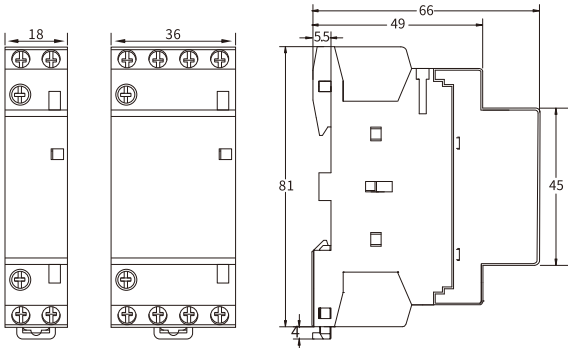
Poles	Rated Current		Control voltage (VAC)	Power consumption		Max. power
	AC-7a	AC-7b		Holding	Inrush	
1P	16A	6A	230	2.8VA	11.5VA	1.2W
	20A	7A	230	2.8VA	11.5VA	1.2W
	25A	9A	230	2.8VA	11.5VA	1.2W
2P	16A	6A	230	2.8VA	11.5VA	1.2W
	20A	7A	230	2.8VA	11.5VA	1.2W
	25A	9A	230	2.8VA	11.5VA	1.2W
	32A	12A	230	4.1VA	31VA	1.6W
	40A	18A	230	4.1VA	31VA	1.6W
	63A	25A	230	4.1VA	31VA	1.6W
	100A	-	230	4.1VA	31VA	2.1W
3P	16A	6A	230	4.1VA	31VA	1.6W
	20A	7A	230	4.1VA	31VA	1.6W
	25A	9A	230	4.1VA	31VA	1.6W
	32A	12A	230	7VA	48VA	2.1W
	40A	18A	230	7VA	48VA	2.1W
	63A	25A	230	7VA	48VA	2.1W
4P	16A	6A	230	4.1VA	31VA	1.6W
	20A	7A	230	4.1VA	31VA	1.6W
	25A	9A	230	4.1VA	31VA	1.6W
	32A	12A	230	7VA	48VA	2.1W
	40A	18A	230	7VA	48VA	2.1W
	63A	25A	230	7VA	48VA	2.1W
	100A	-	230	13VA	106VA	4.2W

### Connection Parameter

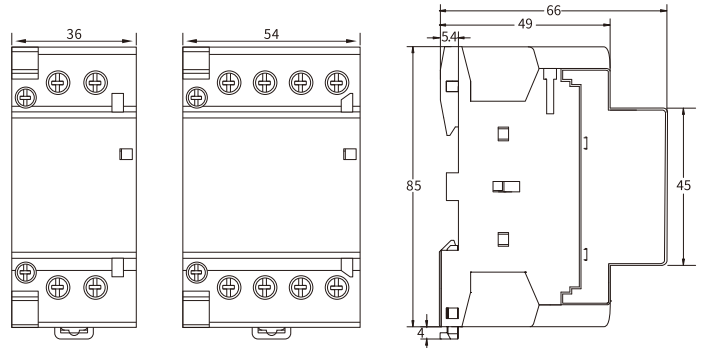
Type	Rated Current	Length tripping	Circuit	Tightening torque	Copper cables		
					Rigid	Flexible or Ferrule	
EKMF	PZ1: 4mm	16-100A	9mm	Control	0.8N.m	1.5~2.5mm <sup>2</sup> 2x1.5mm <sup>2</sup>	1.5~2.5mm <sup>2</sup> 2x2.5mm <sup>2</sup>
		16-25A	9mm	Power	0.8N.m	1.5~6mm <sup>2</sup>	1~4mm <sup>2</sup>
	PZ2: 6mm	40-63A	14mm	Power	3.5N.m	6~25mm <sup>2</sup>	6~16mm <sup>2</sup>
		100A	14mm	Power	3.5N.m	6x3.5mm <sup>2</sup>	6~35mm <sup>2</sup>



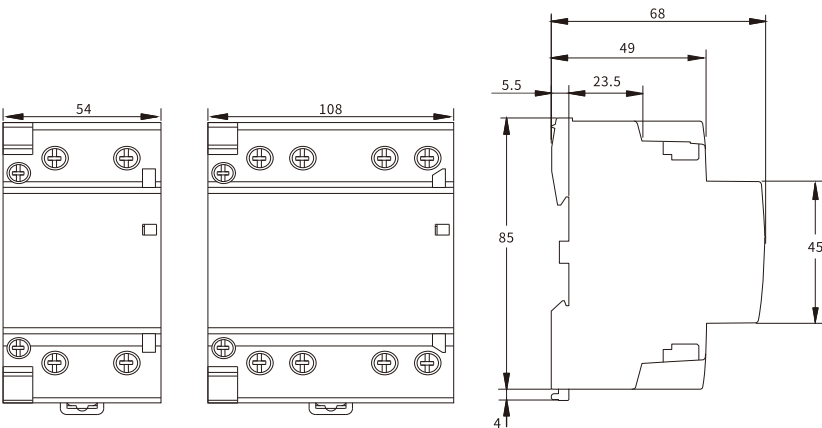
Overall and Installation Dimension(mm)



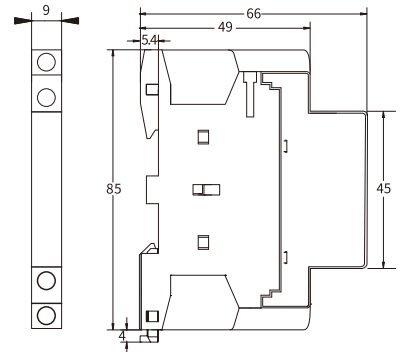
EKMF-16/20/25A



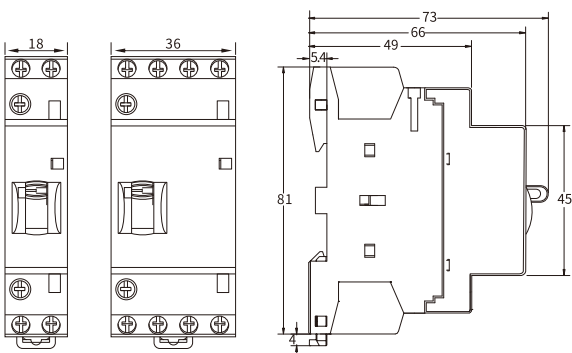
EKMF-32/40/63A



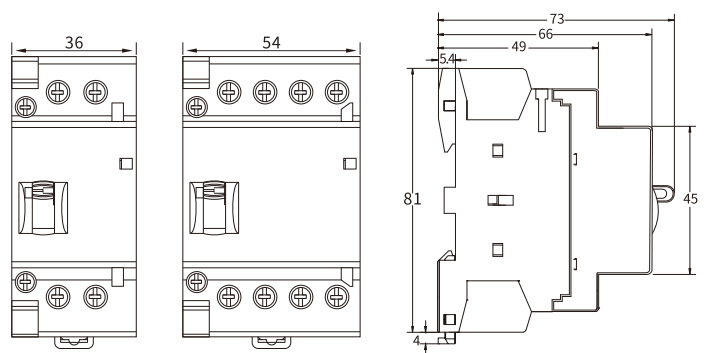
EKMF-80/100/125A



EKMF-OF



EKMF manual control contactor 16/25A



EKMF manual control contactor 40/63A

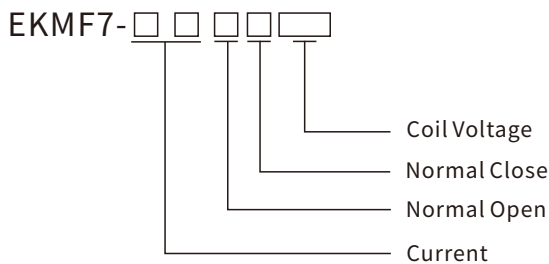


### Applicable Scope

The EKMF7 modular contactor (hereinafter referred to as contactor) is mainly suitable for AC 50Hz (or 60Hz), rated working voltage to 400V and rated current operation in the circuit up to 63A, it can control the low-inductance and low-inductance load of household appliances and similar purposes; it can also be used to control the load of household motors. The power should be reduced accordingly.

The EKMF7 contactors according to standard IEC/EN61095, IEC60947-4-1 and are used mainly in buildings for switching and controlling lighting, heating, ventilation and pumps. They are part of the complete range of Din rail products and can be integrated easily in dedicated panels.

### Modular Contactor



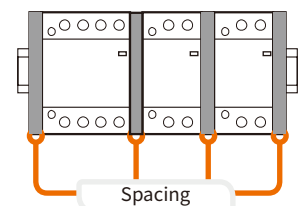
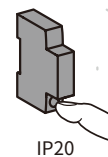
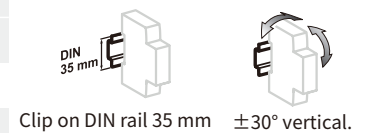
(eg. EKMF7-2520-24V AC/DC . It is 25A, 2NO, 24V AC/DC current coil voltage)

### Main Technical Data


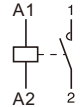
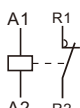
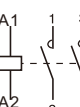
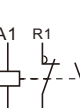
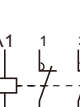

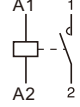
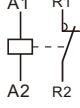
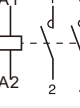
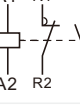
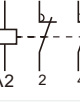
Rated voltage (Ue)	250VAC	1P(1NO,1NC),2P(2NO,2NC,1NO+1NC)
	400VAC	3P(3NO,3NC),4P(4NO,4NC,2NO+2NC,3NO+1NC)
Frequency	50/60Hz	
Mechanical life	1,000,000 cycles	
Electrical life	100,000 cycles	
Maximum number of switching operation a day	100	
Insulation voltage (Ui)	500V AC	
Pollution degree	2	
Rated impulse withstand voltage (Uimp)	2.5kV (4kV for 12/24/48VAC)	
Degree of protection (IEC 60529)	IP20	
Operating temperature	-5°C~+60°C	
Storage temperature	-40°C~+70°C	
Tropicalization (IEC 60068.1)	Treatment 2 (relative humidity 95% at 55°C)	
ELSV compliance (Extra Low Safety Voltage) for 12/24/48VAC versions		


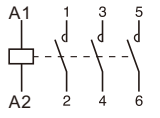
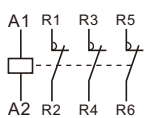
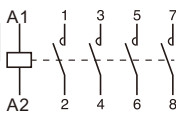
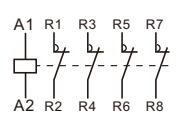
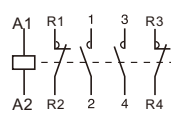
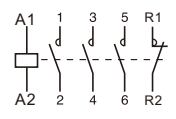

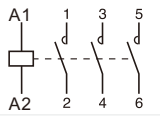
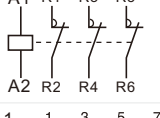
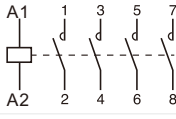
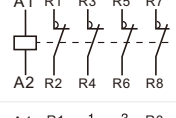
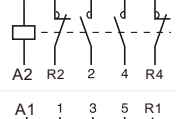

The product control conforms to the SELV (safety extra low voltage) requirements

(1)In the case of contactor mounting in a enclosure for which the interior temperature is in range between 50 °C and 60 °C, it is necessary to use a spacer, between each contactor



### Product Selection Form

Width	Coil voltage VAC	Poles	Contacts NO+NC	Contactor Model	Rated Current		Circuit Diagram		
					AC-1, AC-7a	AC-3, AC-7b			
 1 Modules	12V AC/DC 24V AC/DC 48V AC/DC 110V AC/DC 230V AC/DC	1P	1NO	EKMF7-1610	16A	6A			
				EKMF7-2010	20A	7A			
				EKMF7-2510	25A	9A			
				EKMF7-3210	32A	12A			
		1P	1NC	EKMF7-1601	16A	6A			
				EKMF7-2001	20A	7A			
				EKMF7-2501	25A	9A			
				EKMF7-3201	32A	12A			
		2P	2NO	EKMF7-1620	16A	6A			
				EKMF7-2020	20A	7A			
				EKMF7-2520	25A	9A			
				EKMF7-3220	32A	12A			
		2P	1NO+1NC	EKMF7-1611	16A	6A			
				EKMF7-2011	20A	7A			
				EKMF7-2511	25A	9A			
				EKMF7-3211	32A	12A			
2P	2NC	EKMF7-1602	16A	6A					
		EKMF7-2002	20A	7A					
		EKMF7-2502	25A	9A					
		EKMF7-3202	32A	12A					
 2 Modules	12V AC/DC 24V AC/DC 48V AC/DC 110V AC/DC 230V AC/DC	1P	1NO	EKMF7-4010	40A	18A			
				EKMF7-6310	63A	25A			
		1P	1NC	EKMF7-4001	40A	18A			
				EKMF7-6301	63A	25A			
		2P	2NO	EKMF7-4020	40A	18A			
				EKMF7-6320	63A	25A			
			2P	1NO+1NC	EKMF7-4011	40A		18A	
					EKMF7-6311	63A		25A	
		2P	2NC	EKMF7-4002	40A	18A			
				EKMF7-6302	63A	25A			

Width	Coil voltage VAC	Poles	Contacts NO+NC	Contactor Model	Rated Current		Circuit Diagram	
					AC-1, AC-7a	AC-3, AC-7b		
 <p>2 Modules</p>	12V AC/DC 24V AC/DC 48V AC/DC 110V AC/DC 230V AC/DC	3P	3NO	EKMF7-1630	16A	6A		
				EKMF7-2030	20A	7A		
				EKMF7-2530	25A	9A		
				EKMF7-3230	32A	12A		
			3NC	EKMF7-1603	16A	6A		
				EKMF7-2003	20A	7A		
				EKMF7-2503	25A	9A		
				EKMF7-3203	32A	12A		
		4P	4NO	EKMF7-1640	16A	6A		
				EKMF7-2040	20A	7A		
				EKMF7-2540	25A	9A		
				EKMF7-3240	32A	12A		
			4NC	EKMF7-1604	16A	6A		
				EKMF7-2004	20A	7A		
				EKMF7-2504	25A	9A		
				EKMF7-3204	32A	12A		
2NO+2NC	EKMF7-1622	16A	6A					
	EKMF7-2022	20A	7A					
	EKMF7-2522	25A	9A					
	EKMF7-3222	32A	12A					
3NO+1NC	EKMF7-1631	16A	6A					
	EKMF7-2031	20A	7A					
	EKMF7-2531	25A	9A					
	EKMF7-3231	32A	12A					
 <p>3 Modules</p>	12V AC/DC 24V AC/DC 48V AC/DC 110V AC/DC 230V AC/DC	3P	3NO	EKMF7-4030	40A	18A		
				EKMF7-6330	63A	25A		
			3NC	EKMF7-4003	40A	18A		
				EKMF7-6303	63A	25A		
			4P	4NO	EKMF7-4040	40A	18A	
					EKMF7-6340	63A	25A	
		4NC		EKMF7-4004	40A	18A		
				EKMF7-6304	63A	25A		
		2NO+2NC		EKMF7-4022	40A	18A		
				EKMF7-6322	63A	25A		
		3NO+1NC	EKMF7-4031	40A	18A			
			EKMF7-6331	63A	25A			

### Modular Contactor Power Consumption

Poles	Rated Current		Control voltage (VAC)	Power consumption		Max Power
	AC-7a	AC-7b		Hold on	Pull in	
2P	16A	6A	230	2.1VA	2.1VA	2.0W
	20A	7A	230	2.1VA	2.1VA	2.0W
	25A	9A	230	2.1VA	2.1VA	2.0W
	32A	12A	230	2.1VA	2.1VA	2.0W
	40A	18A	230	2.3VA	2.3VA	2.0W
	63A	25A	230	2.3VA	2.3VA	2.0W
4P	16A	6A	230	2.3VA	2.3VA	2.0W
	20A	7A	230	2.3VA	2.3VA	2.0W
	25A	9A	230	2.3VA	2.3VA	2.0W
	32A	12A	230	2.3VA	2.3VA	2.0W
	40A	18A	230	6.0VA	6.0VA	5.5W
	63A	25A	230	6.0VA	6.0VA	5.5W

### Modular Contactor Auxiliary

#### Auxiliary Contacts

The Auxiliary contacts are indicator contactor contacts status switch OFF or ON

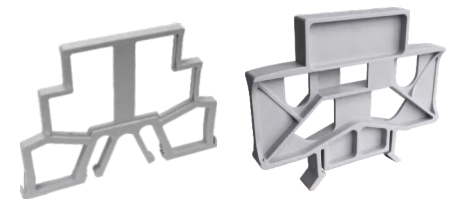
	AC-12		AC-15		DC-13		Rated Current	Circuit Diagram
	C.V.	C.A.	C.V.	C.A.	C.V.	C.A.		
EKMF-OF-11	240V	5A	230V	2A	DC 130V	1A	5A	
EKMF-OF-20	240V	5A	230V	2A	DC 130V	1A	5A	



#### Spacing Piece

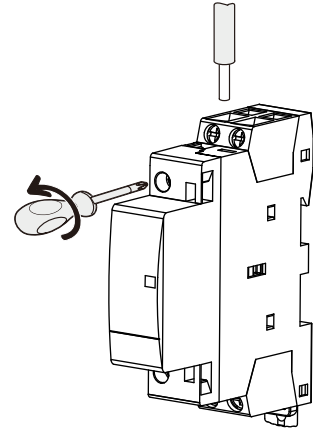
Spacers are used to reduce the temperature rise of devices mounted side by side. It is recommended to separate electronic equipment (temperature adjustment devices, programmable timer etc.) from electromechanical equipment (impulse relays, contactors)

	Technical specifications
Spacing piece	3mm Spacing piece
	9mm Spacing piece

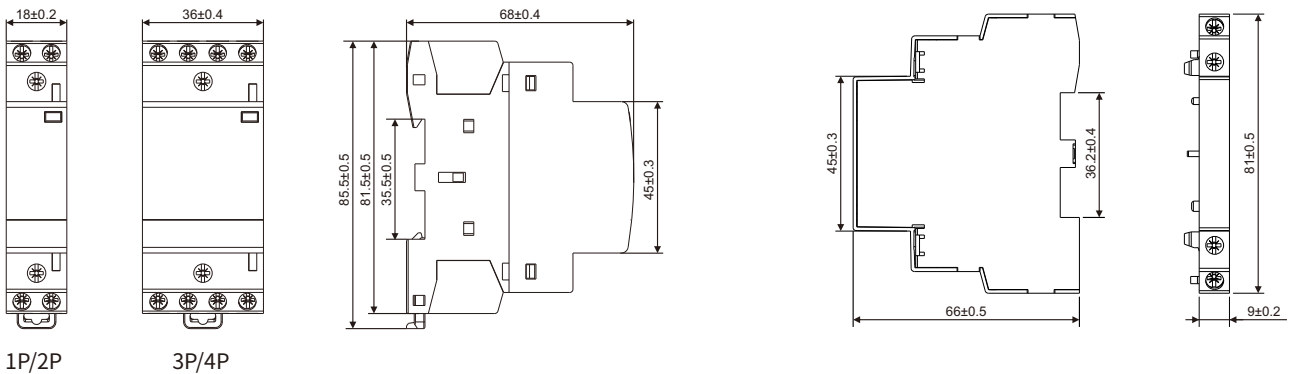


### Connection Parameter

Type	Rated Current	Length tripping	Circuit	Tightening torque	Copper cables		
					Rigid	Flexible or Ferrule	
EKMF7	PZ1: 4mm	16-63A	9mm	Control	0.8N.m	1.5~2.5mm <sup>2</sup> 2x1.5mm <sup>2</sup>	1.5~2.5mm <sup>2</sup> 2x2.5mm <sup>2</sup>
		16-32A	9mm	Power	0.8N.m	1.5~6mm <sup>2</sup>	1~4mm <sup>2</sup>
	PZ2: 6mm	40-63A	14mm	Power	3.5N.m	6~25mm <sup>2</sup>	6~16mm <sup>2</sup>
EKMF-OF	PZ1: 4mm	-	9mm	-	0.8N.m	1.5~2.5mm <sup>2</sup> 2x1.5mm <sup>2</sup>	1.5~2.5mm <sup>2</sup> 2x2.5mm <sup>2</sup>



### Overall and Installation Dimension(mm)

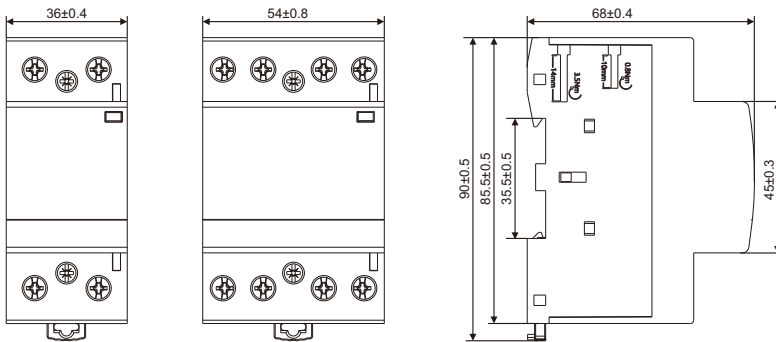


1P/2P

3P/4P

EKMF7-16/20/25/32

EKMF-OF



1P/2P

3P/4P

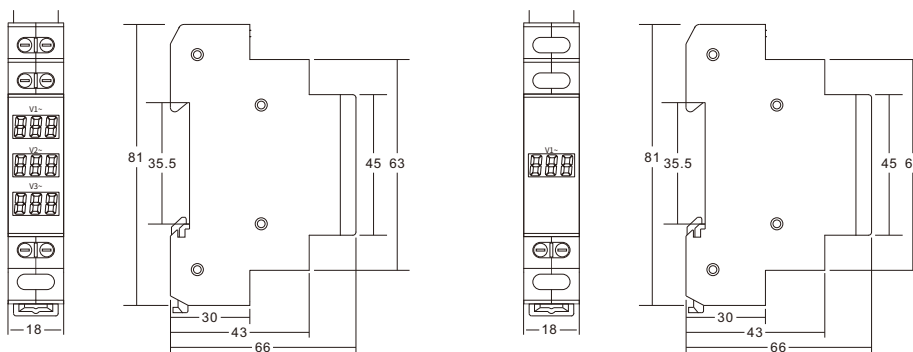
EKMF7-40/63



### Technical Data

<b>Electrical Features</b>	Type	EKMV1: Single phase 1 LED digital display EKMV3: Three phase 3 LED digital display
	Terminal for wiring	Single phase L+N Three phase 3L+3N
	Digital colour	Red, Green
	Measurement voltage range	AC 80V~500V
	Rated frequency	50/60Hz
	Working current	≤20mA
	Measuring accuracy	1.0
	Measuring rate	>200MS/time
	Protection degree	IP20
Electrical Life	≥15000 hours	
<b>Working Conditions</b>	Ambient temperature(with daily average≤35°C)	-5°C~+40°C
	Storage temperature	-25°C~+70°C
	Air relative humidity	10-80%(no condensation)
	Working pressure	80~160Kpa
	Sunniness	No sunniness
<b>Installation</b>	Terminal for wiring	1.5mm <sup>2</sup>
	Mounting	On DIN rail EN60715(35mm) by means of fast clip device

### Overall and Installation Dimension(mm)





## Technical Data

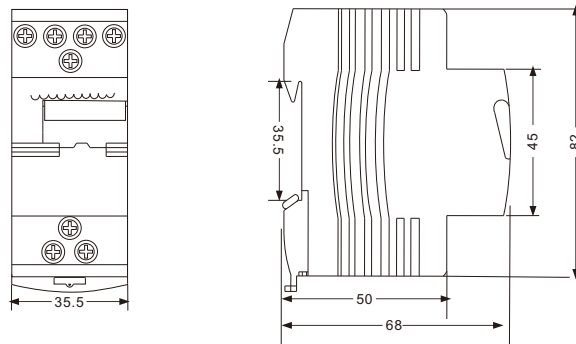
**Application** Applicable to circuit with rated voltage 230V~and rated frequency 50/60Hz,used to power electric bell of extra low voltage.

**Construction and Feature**

- Safe electrical separation between primary and secondary circuit
- Provides extra low voltage up to 24V
- Low temperature rising
- High output accuracy
- Extra overload capacity up to 25% within 24 hours

<b>Electrical Features</b>	Rated input voltage	230V AC
	Rated output voltage	8, 12, 16, 24V
	Rated frequency	50/60Hz
	Rated power output	8VA
	Consumption	0.9W
	Service period	Continuous operating
	Pollution class	2
	Connection terminals	Pillar terminal with clamp
	Connection capacity	Rigid conductor 10mm <sup>2</sup>
	Installation	On symmetrical DIN rail 35mm Panel mounting
Terminal Connection Height	H=15.5mm	

## Overall and Installation Dimension(mm)





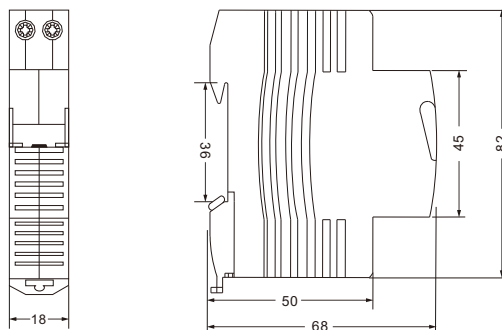
Technical Data

**Application** The electric bell is suitable for audible signaling for intermittent use only in domestic and commercial installations.

**Construction and Feature** Elegant appearance, compact size and easy installation  
 Low consumption  
 Product with rated current up to 24V AC to be powered by bell transformer EKEB.

<b>Electrical Features</b>	Rated voltage	8,12,24,230V AC
	Rated frequency	50/60Hz50/60Hz
	Service mode	Intermittent
	Connection terminal	Pillar terminal with clamp
	Connection capacity	Rigid conductor 10mm <sup>2</sup>
	Installation	On symmetrical DIN rail 35mm Panel mounting
	Terminal Connection Height	H=17mm

Overall and Installation Dimension(mm)





# EKSL1, EKSL3, EKSL1M, EKSL3M



Modular Signal Lamp

Standard\_ IEC60947-5-1

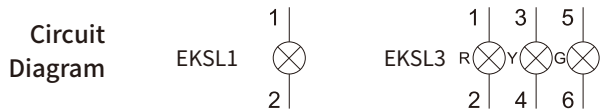


## Technical Data

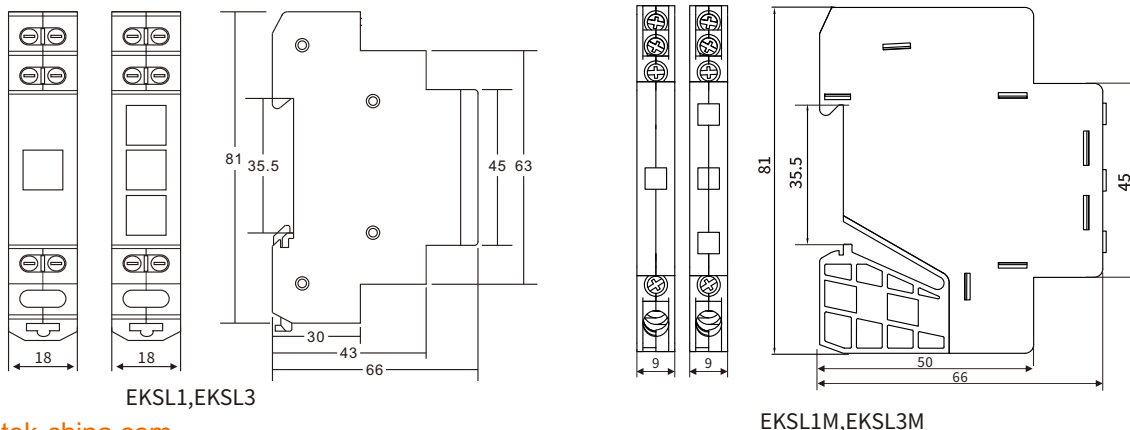
**Application** The Modular Signal Lamp is applicable to circuit with rated voltage 230V~and frequency 50/60Hz for visual indication and signaling.

**Construction and Feature**  
 Low service duration, minimum power consumption  
 Compact design in modular size  
 Easy installation

<b>Technical Data</b>	Rated voltage	230V AC, 100V AC, 48V AC/DC, 24V AC/DC
	Rated frequency	50/60Hz
	Colour	EKSL1 Red, green, yellow EKSL3 Red/Green/Yellow, Red/Green/Blue
	Connection terminal	Pillar terminal with clamp
	Connection capacity	Rigid conductor 1.5mm <sup>2</sup>
	Installation	On symmetrical DIN rail 35mm Panel mounting
<b>EKSL1 EKSL3 signal lamp</b>	Max power	0.6W
	Illumination	LED
	Service duration	30,000 hours



## Overall and Installation Dimension(mm)



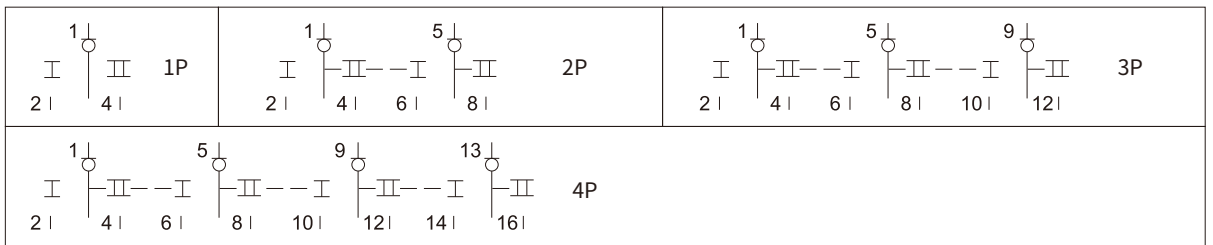


### Application

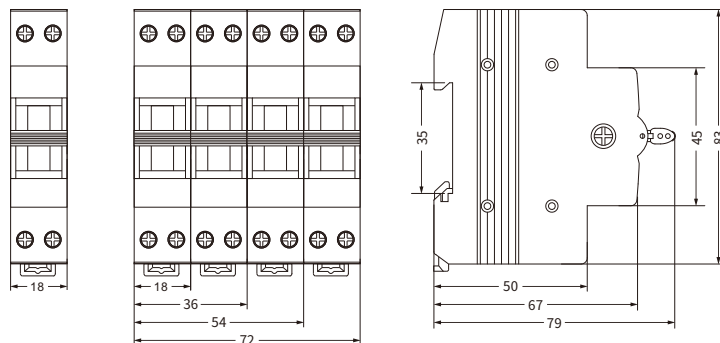
The Changeover Switch can switch on, Load and break the circuit under normal conditions, using as Switch Disconnectors.

<b>Technical Data</b>	Rated Voltage	240/415V~
	Rated Current	16,25,32,40A
	Rated Frequency	50/60Hz
	Number of Poles	1,2,3,4P
	Contact form	1-0-2
<b>Electrical Features</b>	Electrical Life	1500 Cycles
	Mechanical Life	8500 Cycles
	Protection degree	IP20
	Ambient Temperature	-5°C...40°C
<b>Electrical Features</b>	Terminal/Cable size	16mm <sup>2</sup>
	Mounting	On DIN rail EN60715(35mm) by means of fast clip device.

### Circuit Diagram



### Overall and Installation Dimension(mm)

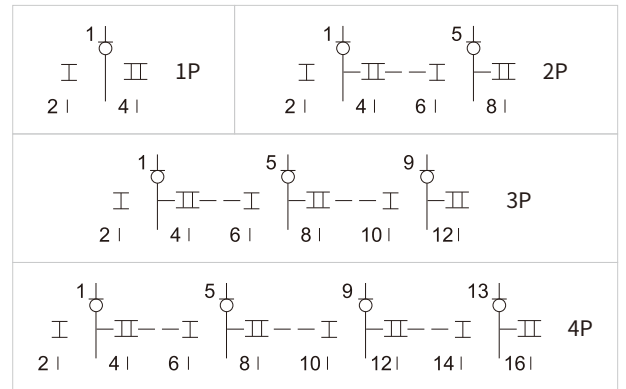




### Technical Data

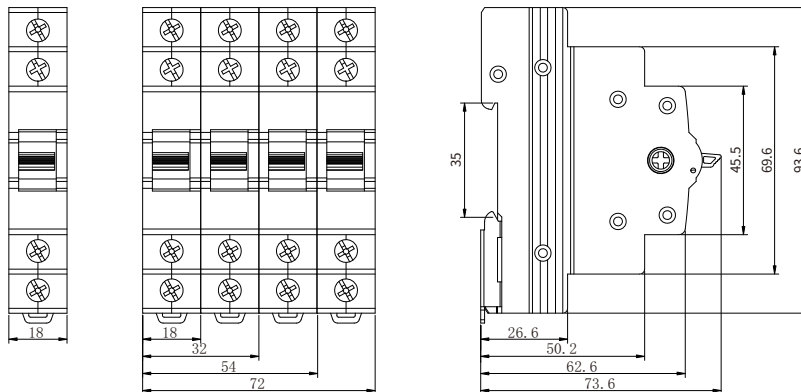
Rated Voltage	240/415V~
Rated Current	16,25,32,40,63,80A
Rated Frequency	50/60Hz
Number of Poles	1,2,3,4P
Contact form	I-0-II
Electrical Life	1500 Cycles
Mechanical Life	10000 Cycles
Protection degree	IP20
Ambient Temperature	-5°C to 40°C
Terminal/Cable size	25mm <sup>2</sup>
Installation	Mounting on 35mm DIN rail

### Connection Diagrams / Technical Marking



- "I" Incoming Terminals(MainSupply) 2, 6, 10 & 14
- "II" Incoming Terminals(StandbySupply) 4, 8, 12 & 16
- Outgoing Terminals(to load) 1, 5, 9 & 13
- Mid position of knob is 'OFF' position

### Overall and Installation Dimension(mm)

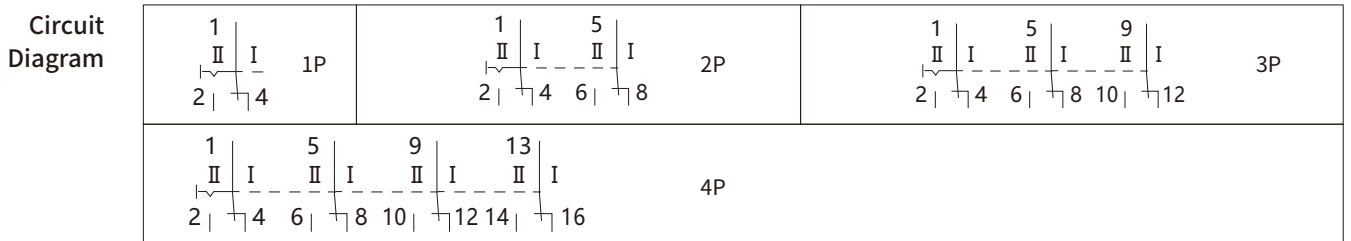




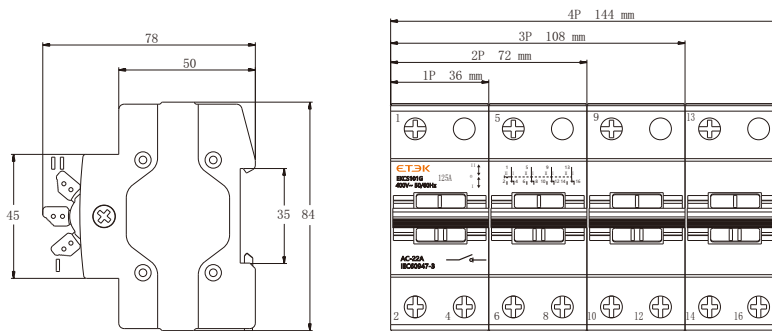
### Application

The Changeover Switch can switch on, Load and break the circuit under normal conditions, using as Switch Disconnectors.

<b>Technical Data</b>	Rated Voltage	240/415V~
	Rated Current	63,80,100,125A
	Rated Frequency	50/60Hz
	Number of Poles	1,2,3,4P
	Contact form	1-0-2
<b>Electrical Features</b>	Electrical Life	1500 Cycles
	Mechanical Life	8500 Cycles
	Protection degree	IP20
	Ambient Temperature	-5°C to +40°C
<b>Electrical Features</b>	Terminal/Cable size	50mm <sup>2</sup>
	Mounting	On DIN rail EN60715(35mm) by means of fast clip device.



### Overall and Installation Dimension(mm)

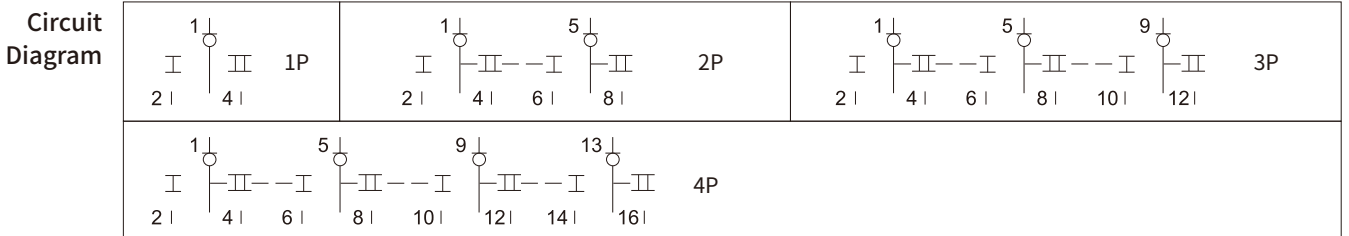




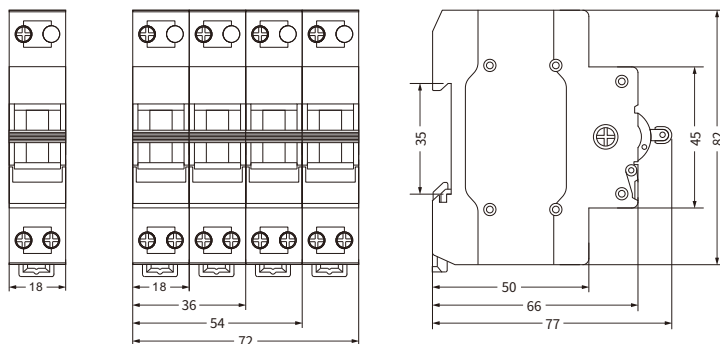
### Application

The Changeover Switch can switch on, Load and break the circuit under normal conditions, using as Switch Disconnectors.

<b>Technical Data</b>	Rated Voltage	240/415V~
	Rated Current	16,25,32,40A
	Rated Frequency	50/60Hz
	Number of Poles	1,2,3,4P
	Contact form	1-0-2
<b>Electrical Features</b>	Electrical Life	1500 Cycles
	Mechanical Life	8500 Cycles
	Protection degree	IP20
	Ambient Temperature	-5°C...40°C
<b>Electrical Features</b>	Terminal/Cable size	16mm <sup>2</sup>
	Mounting	On DIN rail EN60715(35mm) by means of fast clip device.



### Overall and Installation Dimension(mm)





EKP20

EKP7

EKP20B

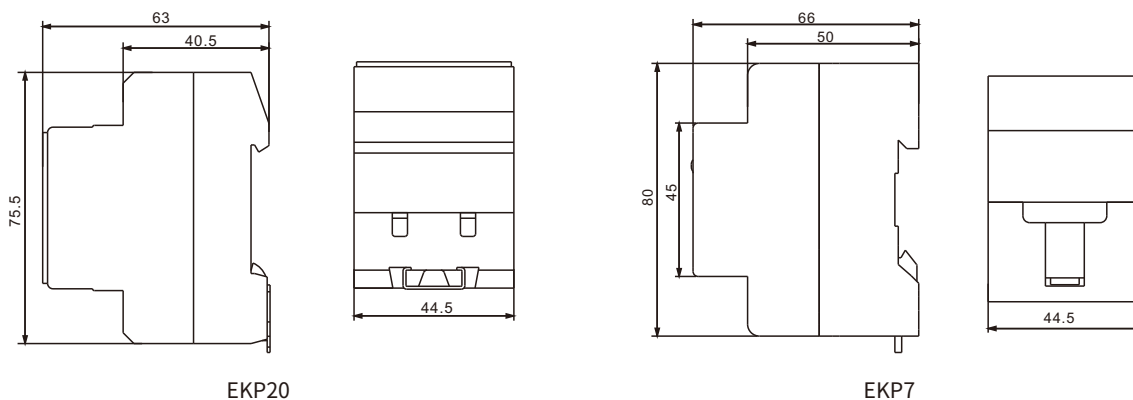
## Technical Data

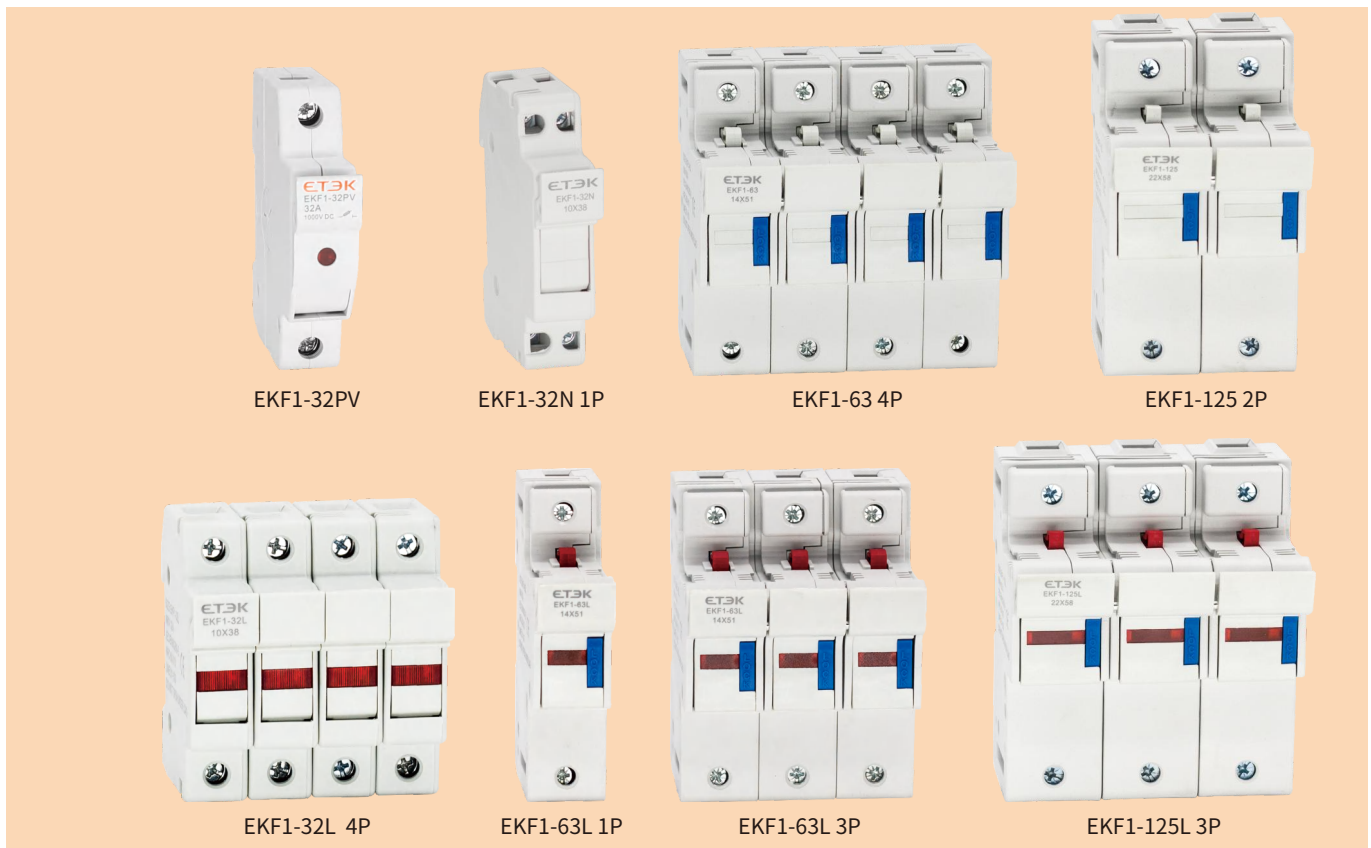
EKP20, EKP20B and EKP7 Modular Socket can be used together with our modular products for connection of mobile devices, tools or electric and electronic non-Modular equipments directly inside civil and industrial switchboards.

Application	Model	Rated current(A)	Standard	Width(mm)	Connection capacity
	EKP20	16A	Germany	44.5	≤4mm <sup>2</sup>
	EKP7	16A	France	44.5	≤4mm <sup>2</sup>
	EKP20B	13A	UK	44.5	≤4mm <sup>2</sup>

Electrical Features	Value
Main voltage	230/400V, 50Hz/60Hz
Electric life	5,000 times
Rated insulation voltage (Ui)	500V
Rated impulse withstand voltage (Uimp)	5,000V
Dielectric test voltage at ind. Freq. For 1 min.	2.8kV
Mounting category	II, III
Pollution degree	2
Protection class	IP20
Standard mounting	35mm DIN rail
Ambient temperature	-5°C to +40°C
Storage temperature	-25°C to +70°C

## Overall and Installation Dimension(mm)





### Technical Data

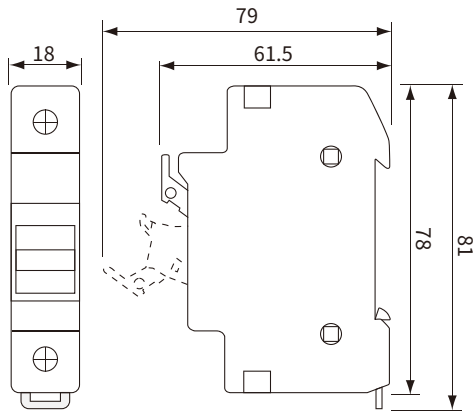
Rated current $I_n$		32A,63A,125A
Model No.	General type	EKF1-32,EKF1-63,EKF1-125
	With Indicator type	EKF1-32L,EKF1-63L,EKF1-125L
Poles		1P,2P,3P,4P,1P+N,3P+N
Utilization category		AC-22A
Rated voltage ( $U_e$ )		240/415V~
Insulation voltage ( $U_i$ )		500V
Rated frequency		50/60Hz
Rated impulse withstand voltage(1.5/50) ( $U_{imp}$ )		4,000V
Electrical life		1,500Cycles
Mechanical life		8,500Cycles
Operating frequency		120/h
Protection degree		IP20
Tightening torque	EKF1-32	1.5Nm 14In-lbs
	EKF1-63	2.5Nm 22In-lbs
	EKF1-125	3.5Nm 30In-lbs
Terminal size for cable	EKF1-32	16mm <sup>2</sup> 18-5AWG
	EKF1-63	25mm <sup>2</sup> 18-3AWG
	EKF1-125	50mm <sup>2</sup> 18-2AWG
Ambient temperature(with daily average $\leq 35^\circ\text{C}$ )		-5°C~+40°C
Storage temperature		-25°C~+70°C
Mounting		On DIN rail EN60715(35mm) by means of fast clip device

## Specifications

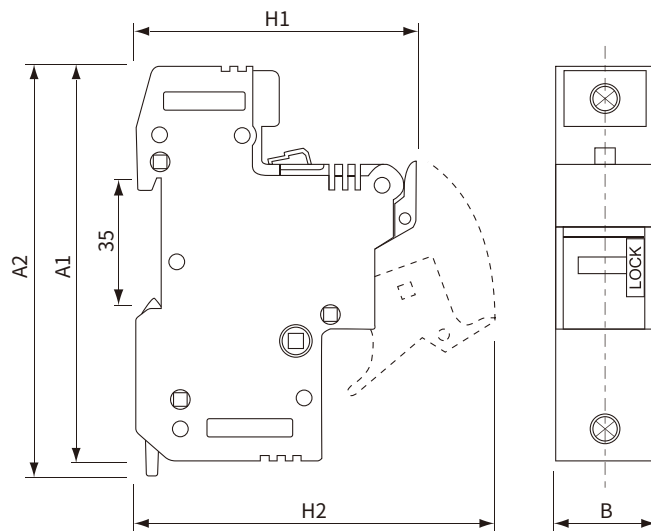
Model No.	Poles	Wide / Pole(mm)	Current Rating	Fuse Link Matched	Size of Fuse Link
EKF1-32N	1P+N	18	32A	EKFL10	10x38mm
EKF1-32NL					
EKF1-32	1-4P,3P+N	18	32A	EKFL10,EKFL10DC	10x38mm
EKF1-32L					
EKF1-63	1-4P,3P+N	27	63A	EKFL14	14x51mm
EKF1-63L					
EKF1-125	1-4P,3P+N	35	125A	EKFL22	22x58mm
EKF1-125L					

## Overall and Installation Dimension(mm)

EKF1-32



EKF1-63, EKF1-125




Size	A1	A2	B	H1	H2
EKF1-63	108	111	27	76	100
EKF1-125	127	128	35	77	104



Technical Data

Material	Porcelain,Copper
Rated Voltage (Ui)	AC 500V,600V
Rated current (In)	1-125A
Dimensions	10x38,14x51,22x58
Character	gG,aM,oR
Breaking capacity	100kA,120kA

Specifications

Current Rating	Size & Mode No.			
				
	10x38mm	14x51mm	22x58mm	10x38mm(DC)
1A	EKFL1001			EKFL1001DC
2A	EKFL1002			EKFL1002DC
4A	EKFL1004			EKFL1004DC
6A	EKFL1006	EKFL1406		EKFL1006DC
8A	EKFL1008	EKFL1408		EKFL1008DC
10A	EKFL1010	EKFL1410		EKFL1010DC
12A	EKFL1012	EKFL1412		EKFL1012DC
16A	EKFL1016	EKFL1416		EKFL1016DC
20A	EKFL1020	EKFL1420		EKFL1020DC
25A	EKFL1025	EKFL1425	EKFL2225	EKFL1025DC
32A	EKFL1032	EKFL1432	EKFL2232	
40A		EKFL1440	EKFL2240	
50A		EKFL1450	EKFL2250	
63A		EKFL1463	EKFL2263	
80A			EKFL2280	
100A			EKFL22100	
125A			EKFL22125	
Breaking capacity	gG type AC 500V	120kA	120kA	120kA
	aM type AC 500V	100kA	100kA	100kA
	oR type AC 600V	100kA	100kA	100kA
	Gpv type DC 1000V			
Voltage Rating	AC 690V	AC 690	AC 690	DC 1000V
Weight(g)	8.4	20.5	58	10.3



### Impulse Relays

The impulse relays are used to control, by means of pushbuttons, lighting circuits consisting of:

- Incandescent lamps, low-voltage halogen lamps, etc. (resistive loads)
- Fluorescent lamps, discharge lamps, etc. (inductive loads)

### Impulse Relays Are Used

- Closing of the impulse relay pole(s) is triggered by an impulse on the coil.
- Having two stable mechanical positions, the pole(s) will be opened by the next impulse. Each impulse received by the coil reverses the position of the pole(s).
- Can be controlled by an unlimited number of pushbuttons.
- Zero energy consumption.

### Yellow Clip

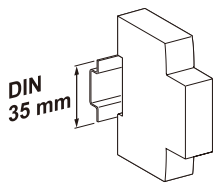
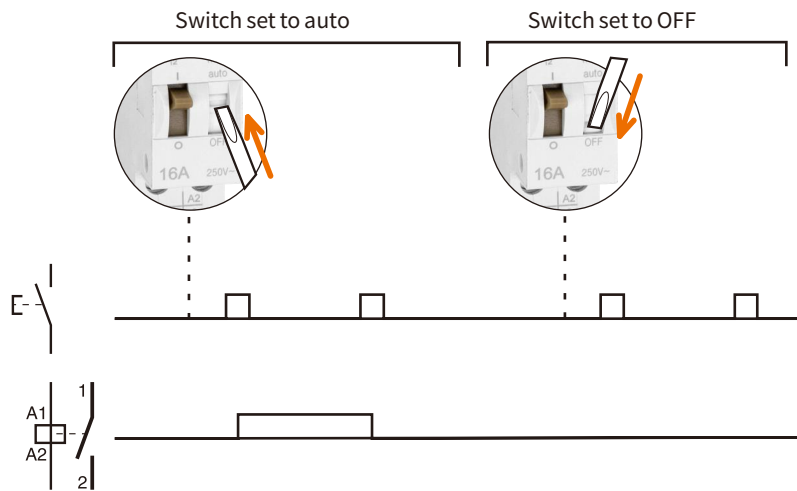
- A simple clip-on system for flexible auxiliaries combination and improved robustness
- For electrical and mechanical connections
- Insulated terminals IP20
- Built-in or optional auxiliary function: state indication, centralised control, latched control, control for illuminated pushbutton, step-by-step control, time delay
- Manual controls on front face: direct and priority manual control by O-I toggle
- Mechanical contact position indicator
- Disconnection of remote control by selector switch (except for 4P single-piece EKLR16) for maintenance operation

		Choice impulse relays auxiliaries				
Type		Standard EKLR16				
Rating	A	16				
Control voltage	V AC	230/240	130	48	24	45
	V DC	110	48	24	12	6

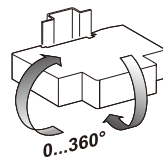
## Connection

	Type	Rating	Circuit	Tightening torque	Copper cables		
					0.8122945	Rigid or ferrule	Flexible or ferrule
	EKLR16	16 A	Control Power	1 N.m		0.5 to 4 mm <sup>2</sup> 1.5 to 4 mm <sup>2</sup>	1 to 4 mm <sup>2</sup> 1.5 to 4 mm <sup>2</sup>

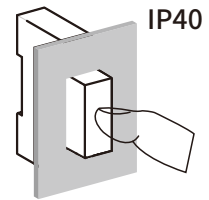
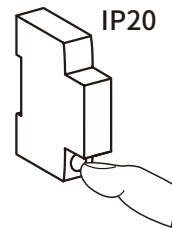
## Operation



Clip on DIN rail 35 mm.



Indifferent position of installation.





## Technical Data

Control circuit		
Dissipated power (during the impulse)	1P, 2P	19 VA
Illuminated PB control		Max. current 3 mA (if > use an ATLz)
Operating threshold		Min. 85 % of Un in conformance with IEC/EN60669-2-2
Duration of the control order		50 ms to 1 s (200 ms recommended)
Response time		
Power circuit		
Voltage rating (Ue)	1P, 2P	24 ...250 V AC
Frequency		50 Hz or 60 Hz
Maximum number of operations per minute		5
Maximum number of switching operation a day		100
Additional characteristics to IEC/EN 60947-3		
Insulation voltage (Ui)		440 V AC
Pollution degree		3
Rated impulse withstand voltage (Uimp)		6 kV

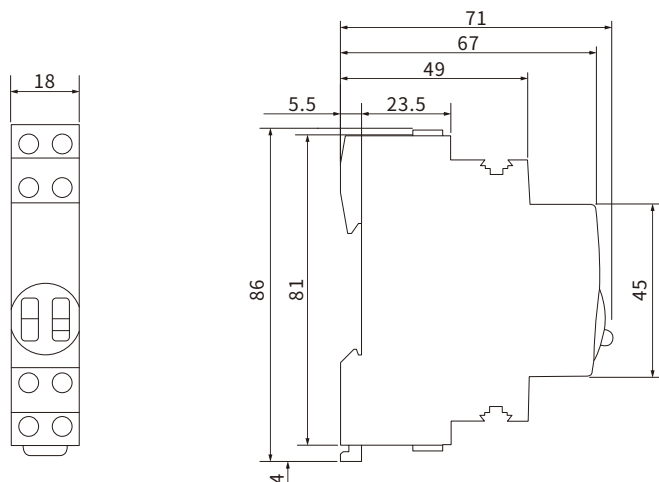
### Technical Data





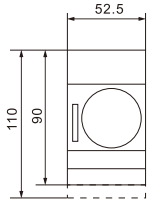
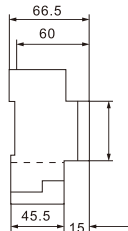
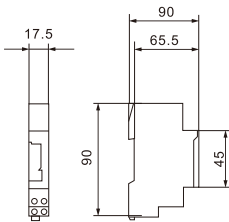
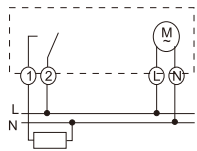
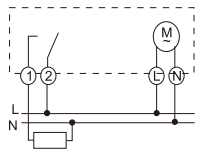
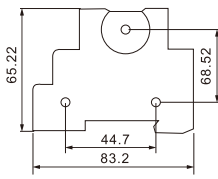
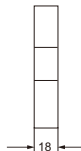
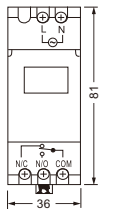
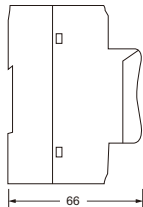
Endurance (O-C)		
Electrical to IEC/EN 60947-3		200,000 cycles (AC21)
		100,000 cycles (AC22)
Overvoltage category		IV
Other characteristics		
Degree of protection (IEC 60529)	Device only	IP20
	Device in modular enclosure	IP40 Insulation class II
Operating temperature		-20°C to +50°C
Storage temperature		-40°C to +70°C
Tropicalization (IEC 60068-1)		Treatment 2 (relative humidity 95 % at 55°C)

### Security

Accessories	Yellow clips	Spacer
		
Function		
	Ensure the mechanical and/or electrical link between impulse relays and their auxiliaries	Required to reduce temperature rise of modular devices installed side by side. Recommended to separate electronic devices (thermostat, programmable clock, etc.) from electromechanical devices (relays, contactors).
Specifications		
Width in 9 mm modules	-	1

### Overall and Installation Dimension(mm)



Classification	24 Hours Timer		Timer	Weekly Programmable Timer
Model	EKTM-181H	EKTM-180A	EKTM-E8	EKTM-20A
Appearance				
Contact Capacity	AC250V 16A	AC250V 16A	AC250V 16A	AC250V 20A
Full Timing Range	24h	24h	7m	Per week or per day cycle
Contact resistance	$\leq 50\text{m}\Omega$	$\leq 50\text{m}\Omega$	$\leq 50\text{m}\Omega$	$\leq 50\text{m}\Omega$
Insulation Resistance	$\geq 100\text{m}\Omega$	$\geq 100\text{m}\Omega$	$\geq 100\text{m}\Omega$	$\geq 100\text{m}\Omega$
Coil Voltage	110,230V AC	110,230V AC	110,230V AC	230V AC 85%~110%
Life	Electrical	$10^5$ times	$10^5$ times	$10^5$ times
	Mechanical	$10^7$ times	$10^7$ times	$10^7$ times
Operating Temperature	-40°C+55°C	-10°C+55°C	-40°C+55°C	-20°C+55°C
Dimensions(mm)	 	  	 	 
Storage Battery (Working Reserve)	Time 150h	Time 70h	—	Rated Voltage: AC200V 50Hz 85%~110% Contact Form:1NC/1NO Accuracy : $\leq 2\text{s/day}(25^\circ\text{C})$ Expectancy Display:LCD Mounting Form: From panel,DIN Rail
Minimum Setting Unit	30Minutes	15Minutes	0.5Minutes	Programmable: 8time week or day Memory Backup:15days
Set up Times	30m/per times 48 times	15m/per times 96 times	1M,1.5M,2M,2.5M 3M,3.5M,4.5M,5M 5.5M,6M,6.5M,7M	



## Description

The Distribution Box is used for Terminal power distributing system	
The Distribution Box are completed with Din-rail 35mm and Neutral Terminal	
Electrical Rating	100A/single phase,63A/three phase,240/415V AC 50/60Hz
Protection Degree	IP40
Material	Shell: ABS,ABS-UV Fire-proof
	Door: Transparent PC
Installation Method	Surface-Mounted and Flush-Mounted

## General Type-Full Plastic

### Surface-Mounted type

Model No.				Ways	Dimension(mm)			Specification of N terminal		
ABS	Code	ABS-UV	Code		L	W	H	W*H	Screw Qty	Bar Qty
EKDB2S2	601101	EKDB2S2V	601201	2	49	130	85			
EKDB2S3	601102	EKDB2S3V	601202	3	94	148	85			
EKDB2S4	601103	EKDB2S4V	601203	4	111	200	93	6*8	4	1
EKDB2S6	601104	EKDB2S6V	601204	6	148	200	97	6*8	6	2
EKDB2S8	601105	EKDB2S8V	601205	8	184	200	96	6*8	8	2
EKDB2S10	601106	EKDB2S10V	601206	10	220	200	92	6*8	10	2
EKDB2S12	601107	EKDB2S12V	601207	12	254	200	96	6*8	12	2
EKDB2S15	601108	EKDB2S15V	601208	15	310	200	97	6*8	15	2
EKDB2S18	601109	EKDB2S18V	601209	18	362	219	97	6*8	18	3
EKDB2S24	601110	EKDB2S24V	601210	24(2x12)	271	324	98	6*8	24	4
EKDB2S36	601111	EKDB2S36V	601211	36(3x12)	269	457	100	6*8	36	6

### Flush-Mounted type

Model No.				Ways	Dimension(mm)				Specification of N terminal		
ABS	Code	ABS-UV	Code		L	W	H1	H2	W*H	Screw Qty	Bar Qty
EKDB2F2	601121	EKDB2F2V	601221	2	66	137	85	25			
EKDB2F3	601122	EKDB2F3V	601222	3	94	148	85	26			
EKDB2F4	601123	EKDB2F4V	601223	4	135	221	87	26	6*8	4	1
EKDB2F6	601124	EKDB2F6V	601224	6	171	221	88	26	6*8	6	2
EKDB2F8	601125	EKDB2F8V	601225	8	208	221	87	26	6*8	8	2
EKDB2F10	601126	EKDB2F10V	601226	10	244	221	86	26	6*8	10	2
EKDB2F12	601127	EKDB2F12V	601227	12	280	221	88	24	6*8	12	2
EKDB2F15	601128	EKDB2F15V	601228	15	334	221	89	29	6*8	15	2
EKDB2F18	601129	EKDB2F18V	601229	18	399	252	86	27	6*8	18	3
EKDB2F24	601130	EKDB2F24V	601230	24(2x12)	300	341	98	31	6*8	24	4
EKDB2F36	601131	EKDB2F36V	601231	36(3x12)	300	480	98	31	6*8	36	6

## Double Rows Terminal type-Full Plastic (Australia Type)

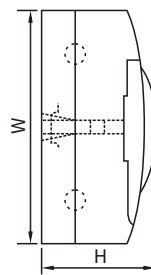
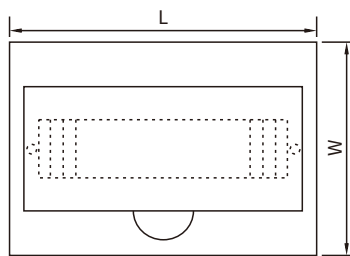
### Surface-Mounted type

Model No.				Ways	Dimension(mm)			Specification of N terminal		
ABS	Code	ABS-UV	Code		L	W	H	W*H	Screw Qty	Bar Qty
EKDB2S4T2	601303	EKDB2S4VT2	601403	4	111	200	93	10*14	8	1
EKDB2S6T2	601304	EKDB2S6VT2	601404	6	148	200	97	10*14	12	2
EKDB2S8T2	601305	EKDB2S8VT2	601405	8	184	200	96	10*14	16	2
EKDB2S12T2	601307	EKDB2S12VT2	601407	12	254	200	96	10*14	24	2
EKDB2S18T2	601309	EKDB2S18VT2	601409	18	362	219	97	10*14	36	3
EKDB2S24T2	601310	EKDB2S24VT2	601410	24(2x12)	271	324	98	10*14	48	4
EKDB2S36T2	601311	EKDB2S36VT2	601411	36(3x12)	269	457	100	10*14	72	6

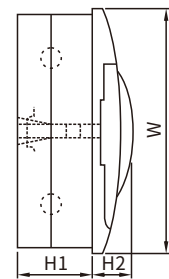
### Flush-Mounted type

Model No.				Ways	Dimension(mm)				Specification of N terminal		
ABS	Code	ABS-UV	Code		L	W	H1	H2	W*H	Screw Qty	Bar Qty
EKDB2F4T2	601323	EKDB2F4VT2	601423	4	135	221	87	26	10*14	8	1
EKDB2F6T2	601324	EKDB2F6VT2	601424	6	171	221	88	26	10*14	12	2
EKDB2F8T2	601325	EKDB2F8VT2	601425	8	208	221	87	26	10*14	16	2
EKDB2F12T2	601327	EKDB2F12VT2	601427	12	280	221	88	24	10*14	24	2
EKDB2F18T2	601329	EKDB2F18VT2	601429	18	399	252	86	27	10*14	36	3
EKDB2F24T2	601330	EKDB2F24VT2	601430	24(2x12)	300	341	98	31	10*14	48	4
EKDB2F36T2	601331	EKDB2F36VT2	601431	36(3x12)	300	480	98	31	10*14	72	6

## Overall and Installation Dimension(mm)



Surface-Mounted type



Flush-Mounted type



### Description

The Distribution Box is used for Terminal power distributing system  
 The Distribution Box are completed with Din-rail 35mm and Neutral Terminal (Selectable)

Electrical Rating	100A/single phase,63A/three phase,240/415V AC 50/60Hz
Protection Degree	IP65
Material	Base and frame: PC RAL 7035 grey
	Transparent window: PC tinted window
Installation Method	Surface-Mounted

### Type of open door from right to left

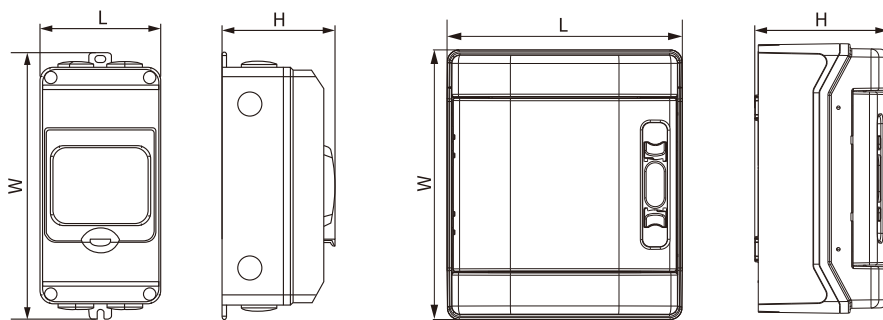
#### Without Neutral Terminal Model

Model No.		Ways	Dimension(mm)		
PC	Code		L	W	H
EKDB4P4R	604241	4	100	221	94
EKDB4P6R	604242	6	201	230	114
EKDB4P8R	604243	8	237	230	114
EKDB4P12R	604245	12	308	230	114
EKDB4P18R	604246	18	417	230	114
EKDB4P24R	604247	24(2x12)	309	391	114

#### With Neutral Terminal Model

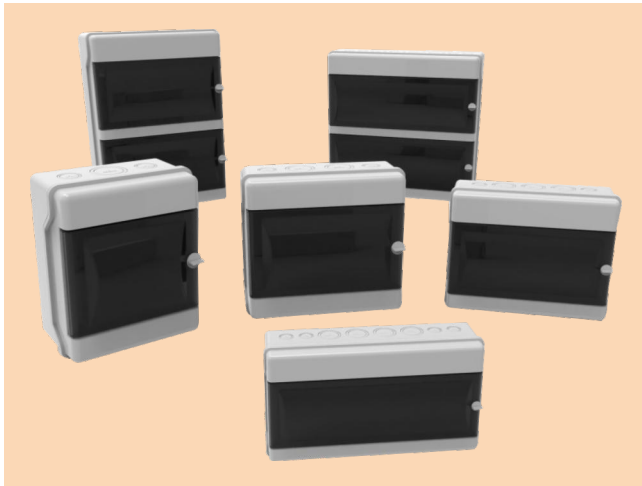
Model No.		Ways	Dimension(mm)		
PC	Code		L	W	H
EKDB4P4RT	604211	4	100	221	94
EKDB4P6RT	604212	6	201	230	114
EKDB4P8RT	604213	8	237	230	114
EKDB4P12RT	604215	12	308	230	114
EKDB4P18RT	604216	18	417	230	114
EKDB4P24RT	604217	24(2x12)	309	391	114

### Overall and Installation Dimension(mm)



Ways: 4





### Description

- Suitable for PV system, equipped with a surge protector and an isolator, providing isolation, leakage and grounding protection.
- Enclosures are made of polycarbonate(PC-ABS) materials. IK08 high impact-resistance and light enough to easily carry. IP65 rating for outdoor installation, resisting UV radiation, water, dust, reducing corrosion.
- Through transparency cover, you can observe interior mechanism directly.
- Reliable components, with TUV, CE certificated, in accordance with IEC standard.
- IP65 cable connector. Waterproof cable connector & MC4 connector are optional.

### Type of open door from right to left

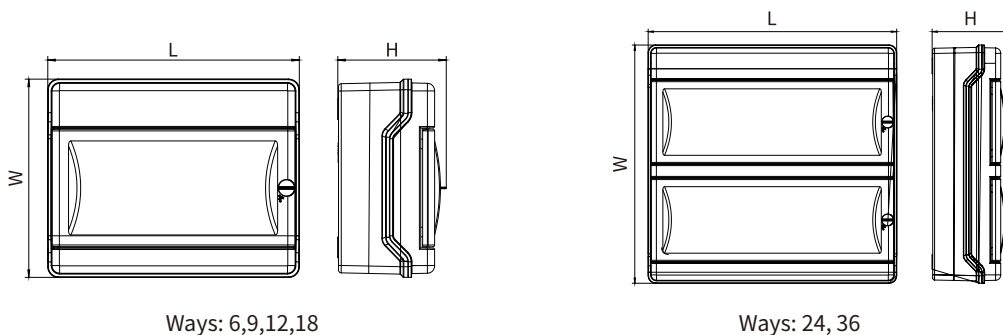
#### Without Neutral Terminal Model

Model No.		Ways	Dimension(mm)		
PC	Code		L	W	H
EKDB4S6R	604342	6	165	200	108
EKDB4S9R	604343	9	219	200	108
EKDB4S12R	604344	12	273	215	118
EKDB4S18R	604345	18	381	215	118
EKDB4S24R	604346	24(2x12)	273	365	118
EKDB4S36R	604347	36(2x18)	381	365	118

#### With Neutral Terminal Model

Model No.		Ways	Dimension(mm)		
PC	Code		L	W	H
EKDB4S6RT	604312	6	165	200	108
EKDB4S9RT	604313	9	219	200	108
EKDB4S12RT	604314	12	273	215	118
EKDB4S18RT	604315	18	381	215	118
EKDB4S24RT	604316	24(2x12)	273	365	118
EKDB4S36RT	604317	36(2x18)	381	365	118

### Overall and Installation Dimension(mm)





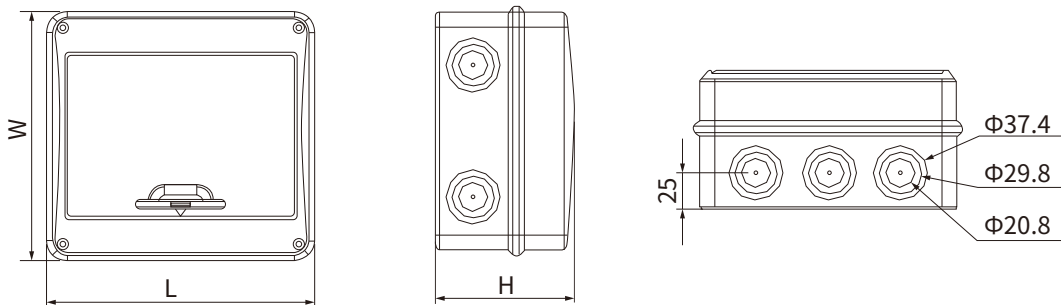
### Product Function Introduction

- IP65 degree of protection
- Lock structure
- Cover hinge structure
- With accessory bag installation kit
- Built-in circuit baffle
- Surface frame loose structure
- With multiple ring knockout
- With copper terminal assemblies

### EKDB9 Series Surface-Mounted Waterproof Distribution Box Product Data Summary Table

No.	Model and name	Ways	Ranked	Dimensions LxWxH	Neutral and ground bar configuration
1	EKDB9-5	5	Single row	129x170x95	Neutral bar: 3 holes Ground bar: 3 holes
2	EKDB9-8	8		183x170x95	Neutral bar: 5 holes Ground bar: 5 holes
3	EKDB9-12	12		255x200x105	Neutral bar: 8 holes Ground bar: 8 holes
4	EKDB9-15	15		309x200x105	Neutral bar: 8 holes Ground bar: 8 holes
5	EKDB9-18	18		363x200x110	Neutral bar:8 holes Ground bar: 8 holes

### Overall and Installation Dimension(mm)





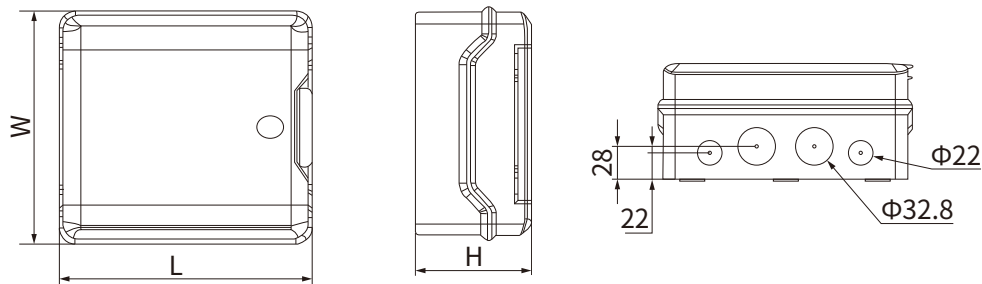
### Product Function Introduction

- IP65 degree of protection
- Lock structure
- Reserved position for functional stickers
- Reserved for installation of anti-theft locks
- Circuit baffle structure
- Surface frame loose structure
- With knockout hole
- With copper terminal assemblies

### EKDB10 Series Surface-Mounted Waterproof Distribution Box Product Data Summary Table

No.	Model and name	Ways	Ranked	Dimensions LxWxH	Neutral and ground bar configuration
1	EKDB10-4	4	Single row	128x200x100	Neutral bar: 3 holes Ground bar: 3 holes
2	EKDB10-6	6		164x200x100	Neutral bar: 5 holes Ground bar: 5 holes
3	EKDB10-9	9		218x200x100	Neutral bar: 5 holes Ground bar: 5 holes
4	EKDB10-13	13		296x230x120	Neutral bar: 8 holes Ground bar: 8 holes
5	EKDB10-15	15		332x230x120	Neutral bar: 8 holes Ground bar: 8 holes
6	EKDB10-18	18		380x230x120	Neutral bar: 8 holes Ground bar: 8 holes
7	EKDB10-26	26(2x13)	Double row	296x390x130	Neutral bar:2 x 8 holes Ground bar:2 x 8 holes

### Overall and Installation Dimension(mm)





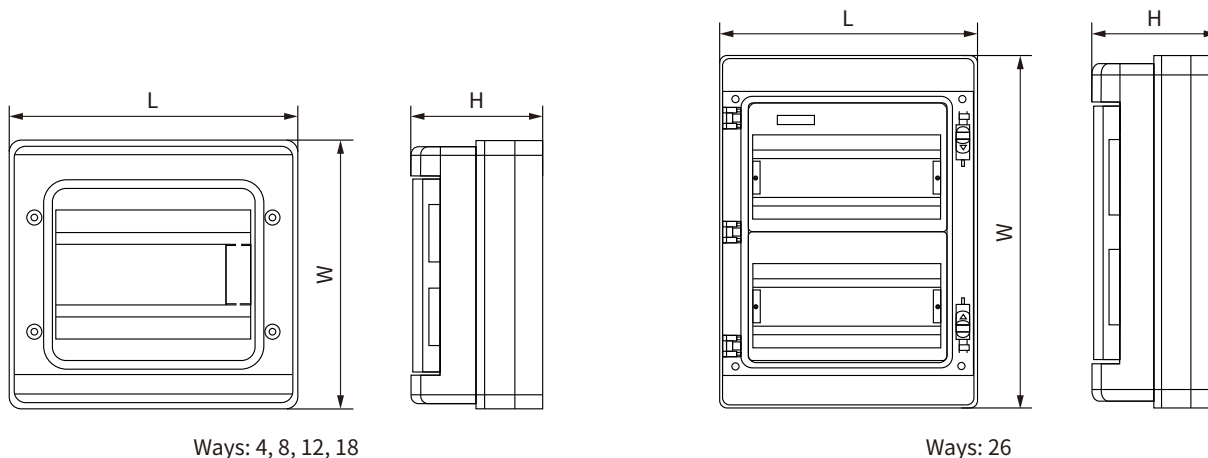
### Product Function Introduction

Protection class	IP65
Insulation	Class II
Material	Polycarbonate/ABS
Shock resistance	IK10
Protection against chemicals and weather conditions	Water.saline solutions.acids. basics.mineral oils.UV rays
Operating temperature	-25°C~+100°C
Performance	
Nominal insulation voltage	1000V AC-1500V DC

### HA Series Surface-Mounted Waterproof Distribution Box Product Data Summary Table

Model No.	Ways	Dimensions(mm)		
		L	W	H
HA-4	4	142.8	210.3	99.5
HA-8	8	215	209	98
HA-12	12	298	259	140
HA-18	18	411	286.3	137.8
HA-26	26(2x13)	323.5	420	139.5

### Overall and Installation Dimension(mm)





## Description

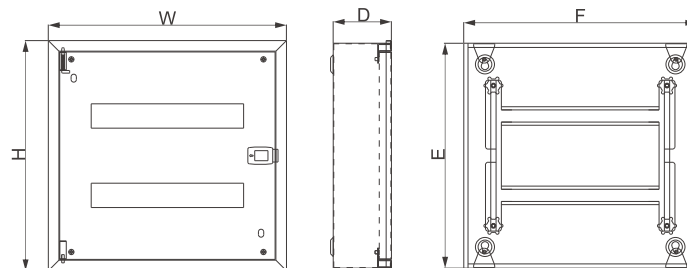
The Distribution Box is used for Terminal power distributing system

The Distribution Box are completed with Din-rail 35mm and Neutral Terminal (Selectable)

Electrical Rating	125A single phase, 240VAC 50/60Hz
Protection Degree	IP40
Material	Steel
Installation Method	Surface-Mounted and Flush-Mounted

## Specifications

Surface model	H	W	D	E	F	Flush model	H	W	D	E	F
1×16WAY	280	450	110	270	440	1×16WAY	290	460	110	270	440
2×16WAY	430	450	110	420	440	2×16WAY	440	460	110	420	440
3×16WAY	580	450	110	570	440	3×16WAY	590	460	110	570	440
4×16WAY	730	450	110	720	440	4×16WAY	740	460	110	720	440
5×16WAY	880	450	110	870	440	5×16WAY	890	460	110	870	440
6×16WAY	1030	450	110	1020	440	6×16WAY	1040	460	110	1020	440





## Description

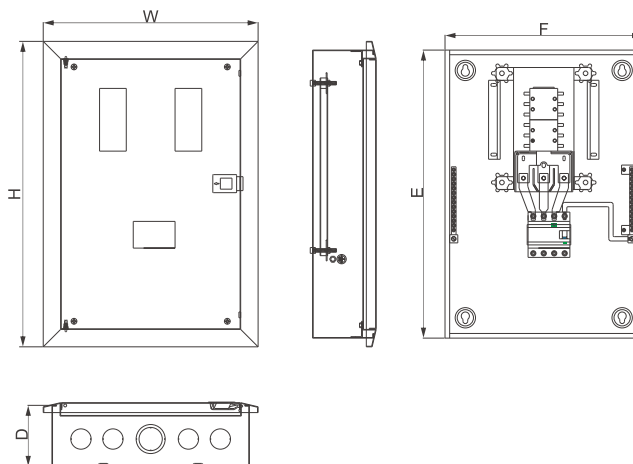
The Distribution Box is used for Terminal power distributing system

The Distribution Box are completed with Din-rail 35mm and Neutral Terminal (Selectable)

Electrical Rating	250A three phase,240/415V AC 50/60Hz
Protection Degree	IP40
Material	Steel
Installation Method	Surface-Mounted and Flush-Mounted

## Specifications

Flush model	H	W	D	E	F
4WAY	526	370	105	496	340
6WAY	580	370	105	550	340
8WAY	634	370	105	604	340
10WAY	688	370	105	658	340
12WAY	742	370	105	712	340





### Description

The Distribution Box is used for Terminal power distributing system

Electrical Rating	63-1250A, Single phase/Three phase, 240/415V AC 50/60Hz
Protection Degree	IP65
Material	Steel
Installation Method	Surface-Mounted

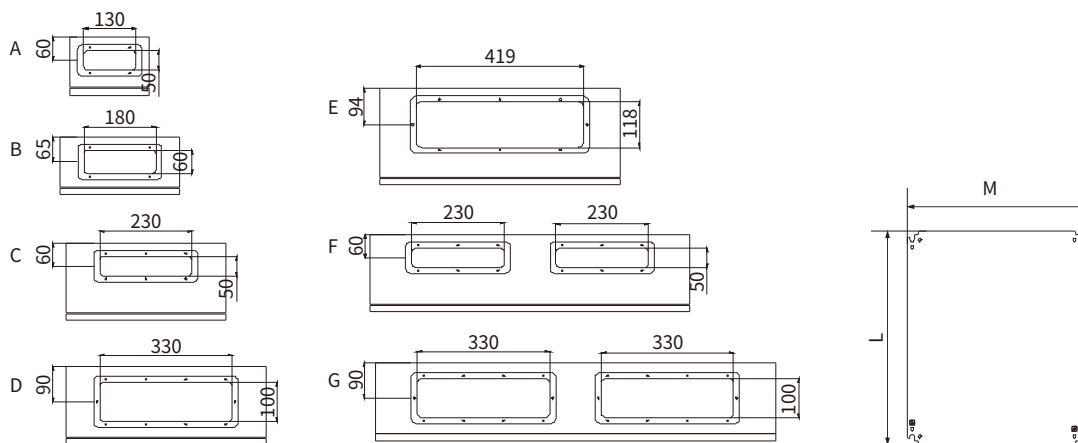
### Main Technique Parameter

Model No.		Size(mm)			Thickness(mm)			Bottom hole size	Lock QTY	Mounting plate size(mm)	
Model	Code	H	W	D	Door	Body	M.P			L	M
EKDB8 2020/15	610001	200	200	150	1.2	1.2	2	A	1	150	150
EKDB8 2520/15	610002	250	200	150	1.2	1.2	2	A	1	250	150
EKDB8 3020/15	610003	300	200	150	1.2	1.2	2	A	1	250	150
EKDB8 3020/20	610004	300	200	200	1.2	1.2	2	A	1	250	150
EKDB8 3025/15	610005	300	250	150	1.2	1.2	2	A	1	250	200
EKDB8 3025/20	610006	300	250	200	1.2	1.2	2	A	1	250	200
EKDB8 3030/15	610007	300	300	150	1.2	1.2	2	B	1	250	250
EKDB8 3030/20	610008	300	300	200	1.2	1.2	2	B	1	250	250
EKDB8 3030/25	610009	300	300	250	1.2	1.2	2	B	1	250	250
EKDB8 4030/15	610010	400	300	150	1.2	1.2	2	B	1	350	250
EKDB8 4030/20	610011	400	300	200	1.2	1.2	2	B	1	350	250
EKDB8 4030/25	610012	400	300	250	1.2	1.2	2	B	1	350	250
EKDB8 4030/30	610013	400	300	300	1.2	1.2	2	B	1	350	250
EKDB8 4040/15	610014	400	400	150	1.2	1.2	2	C	1	350	250
EKDB8 4040/20	610015	400	400	200	1.2	1.2	2	C	1	350	350
EKDB8 4040/25	610016	400	400	250	1.2	1.2	2	C	1	350	350
EKDB8 4040/30	610017	400	400	300	1.2	1.2	2	C	1	350	350
EKDB8 5030/15	610018	500	300	150	1.2	1.2	2	B	1	450	350
EKDB8 5030/20	610019	500	300	200	1.2	1.2	2	B	1	450	250
EKDB8 5030/25	610020	500	300	250	1.2	1.2	2	B	1	450	250
EKDB8 5040/15	610021	500	400	150	1.2	1.2	2	C	1	450	350
EKDB8 5040/20	610022	500	400	200	1.2	1.2	2	C	1	450	350
EKDB8 5040/25	610023	500	400	250	1.2	1.2	2	C	1	450	350
EKDB8 5040/30	610024	500	400	300	1.2	1.2	2	C	1	450	350
EKDB8 5050/20	610025	500	500	200	1.2	1.2	2	D	1	450	450
EKDB8 5050/25	610026	500	500	250	1.2	1.2	2	D	1	450	450
EKDB8 5050/30	610027	500	500	300	1.2	1.2	2	D	1	450	450
EKDB8 6040/15	610028	600	400	150	1.2	1.2	2	C	2	550	350
EKDB8 6040/20	610029	600	400	200	1.2	1.2	2	C	2	550	350
EKDB8 6040/25	610030	600	400	250	1.2	1.2	2	C	2	550	350
EKDB8 6040/30	610031	600	400	300	1.2	1.2	2	C	2	550	350
EKDB8 6050/15	610032	600	500	150	1.2	1.2	2	D	2	550	450
EKDB8 6050/20	610033	600	500	200	1.2	1.2	2	D	2	550	450
EKDB8 6050/25	610034	600	500	250	1.2	1.2	2	D	2	550	450
EKDB8 6050/30	610035	600	500	300	1.2	1.2	2	D	2	550	450
EKDB8 6060/15	610036	600	600	150	1.2	1.2	2	D	2	550	550
EKDB8 6060/20	610037	600	600	200	1.2	1.2	2	D	2	550	550
EKDB8 6060/25	610038	600	600	250	1.2	1.2	2	D	2	550	550
EKDB8 6060/30	610039	600	600	300	1.2	1.2	2	D	2	550	550

## Main Technique Parameter

Model No.		Size(mm)			Thickness(mm)			Bottom hole size	Lock QTY	Mounting plate size(mm)	
Model	Code	H	W	D	Door	Body	M.P			L	M
EKDB8 7050/15	610040	700	500	150	1.2	1.2	2	D	2	650	450
EKDB8 7050/20	610041	700	500	200	1.2	1.2	2	D	2	650	450
EKDB8 7050/25	610042	700	500	250	1.2	1.2	2	D	2	650	450
EKDB8 7060/20	610043	700	600	200	1.2	1.2	2	D	2	650	550
EKDB8 7060/25	610044	700	600	250	1.2	1.2	2	D	2	650	550
EKDB8 7060/30	610045	700	600	300	1.5	1.5	2	D	2	650	550
EKDB8 8060/20	610046	800	600	200	1.5	1.5	2	D	2	750	550
EKDB8 8060/25	610047	800	600	250	1.5	1.5	2	D	2	750	550
EKDB8 8060/30	610048	800	600	300	1.5	1.5	2	D	2	750	550
EKDB8 8080/20	610049	800	800	200	1.5	1.5	2	F	2	750	750
EKDB8 8080/25	610050	800	800	250	1.5	1.5	2	F	2	750	750
EKDB8 8080/30	610051	800	800	300	1.5	1.5	2	F	2	750	750
EKDB8 10060/20	610052	1000	600	200	1.5	1.5	2	D	2	950	550
EKDB8 10060/25	610053	1000	600	250	1.5	1.5	2	D	3	950	550
EKDB8 10060/30	610054	1000	600	300	1.5	1.5	2	D	3	950	550
EKDB8 10070/20	610055	1000	700	200	1.5	1.5	2	D	3	950	650
EKDB8 10080/20	610056	1000	800	200	1.5	1.5	2	F	3	950	750
EKDB8 10080/25	610057	1000	800	250	1.5	1.5	2	F	3	950	750
EKDB8 10080/30	610058	1000	800	300	1.5	1.5	2	F	3	950	750
EKDB8 10080/40	610059	1000	800	400	1.5	1.5	2	F	3	950	750
EKDB8 100100/25	610060	1000	1000	250	1.5	1.5	2	G	3	950	950
EKDB8 100100/30	610061	1000	1000	300	1.5	1.5	2	G	3	950	950
EKDB8 12060/20	610062	1200	600	200	1.5	1.5	2	D	3	1150	550
EKDB8 12060/25	610063	1200	600	250	1.5	1.5	2	D	3	1150	550
EKDB8 12060/30	610064	1200	600	300	1.5	1.5	2	D	3	1150	550
EKDB8 12080/20	610065	1200	800	200	1.5	1.5	2	F	3	1150	750
EKDB8 12080/25	610066	1200	800	250	1.5	1.5	2	F	3	1150	750
EKDB8 12080/30	610067	1200	800	300	1.5	1.5	2	F	3	1150	750
EKDB8 12080/40	610068	1200	800	400	1.5	1.5	2	F	3	1150	750
EKDB8 120100/25	610069	1200	1000	250	1.5	1.5	2	G	3	1150	750
EKDB8 120100/30	610070	1200	1000	300	1.5	1.5	2	G	3	1150	950
EKDB8 120100/40	610071	1200	1000	400	1.5	1.5	2	G	3	1150	950
EKDB8 14060/30	610072	1400	600	300	1.5	1.5	2	D	3	1350	550
EKDB8 14080/30	610073	1400	800	300	1.5	1.5	2	F	3	1350	750
EKDB8 14080/40	610074	1400	800	400	1.5	1.5	2	F	3	1350	750
EKDB8 140100/30	610075	1400	1000	300	1.5	1.5	2	G	3	1350	950
EKDB8 140120/30	610076	1400	1200	300	1.5	1.5	2	G	3	1350	1150

## Overall and Installation Dimension(mm)







## Description

The Distribution Box is used for Terminal power distributing system

The Distribution Box are completed with Din-rail 35mm and Neutral Terminal (Selectable)

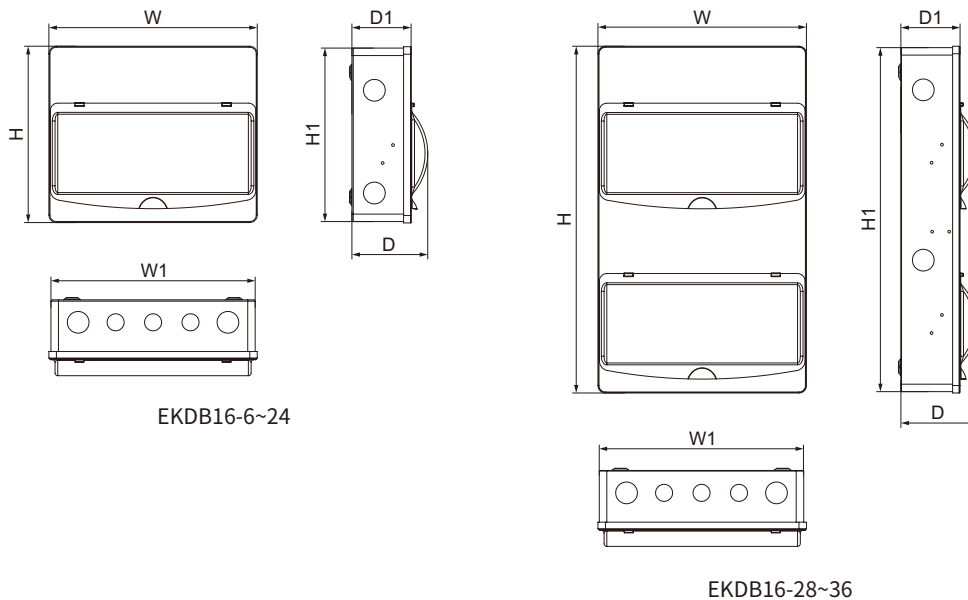
Electrical Rating	100A/single phase,240/415V AC 50/60Hz
Protection Degree	IP40
Material	Steel
Installation Method	Surface-Mounted

## Empty Box

With Neutral and Earth Terminal

Model	Ways	Dimension(mm)					
		H	W	D	D1	W1	H1
EKDB16-6	6	259	162	114.5	90	156	255
EKDB16-10	10	259	234	114.5	90	225	255
EKDB16-14	14	259	306	114.5	90	300	255
EKDB16-18	18	259	378	114.5	90	372	255
EKDB16-24	24	259	486	114.5	90	480	255
EKDB16-28	2x14	509	306	114.5	90	300	505
EKDB16-36	2x18	509	378	114.5	90	372	505

## Overall and Installation Dimension(mm)



# EKDB11 Plug-in Type

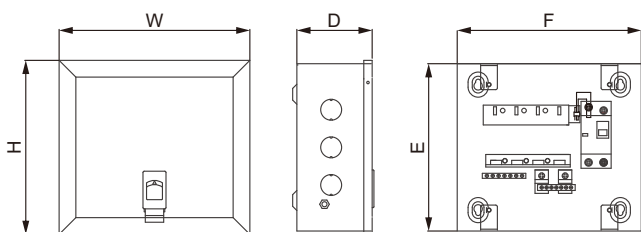
## Plug-in Type Metal Distribution Box

### EKDB11-S Single Phase

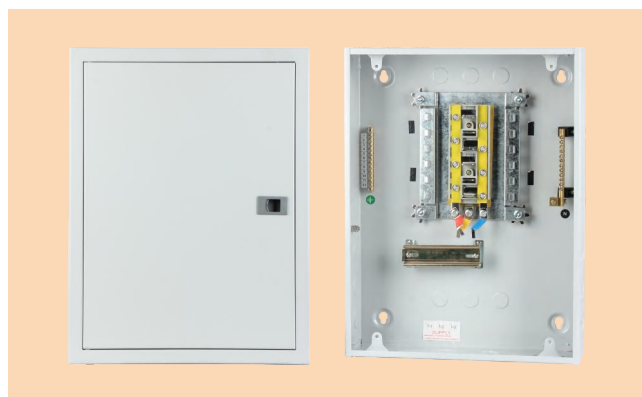


Mounting	Type	Phase	Way	Main switch
Surface	Plug-in	Single	4,6,8,10,12	RCCB Isolator RCCB + Isolator

Surface model	H	W	D	E	F
EKDB11-4S	210	230	90	200	220
EKDB11-6S	210	280	90	200	270
EKDB11-8S	210	330	90	200	320
EKDB11-10S	210	380	90	200	370
EKDB11-12S	210	430	90	200	420

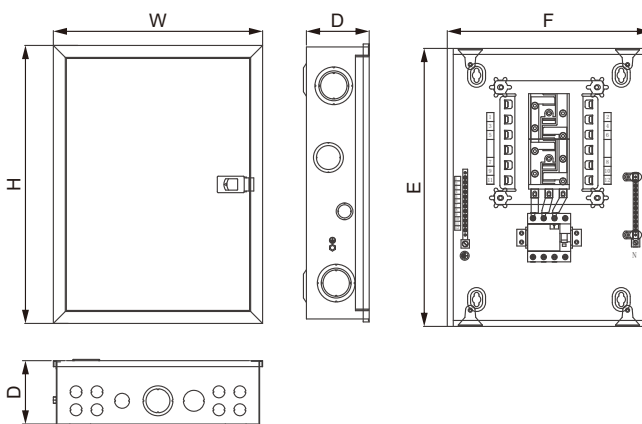


### EKDB11-T Three Phase



Mounting	Type	Phase	Way	Main switch
Surface	Plug-in	Three	4,6,8,10,12	MCB, RCCB MCCB, Isolator RCCB + Isolator

Surface model	H	W	D	E	F
EKDB11-4T	475	350	105	465	340
EKDB11-6T	550	350	105	540	340
EKDB11-8T	625	350	105	615	340
EKDB11-10T	700	350	105	690	340
EKDB11-12T	775	350	105	765	340




### Terminal Capacity

Main MCB/Isolator/MCCB frame size 125A		50mm <sup>2</sup>
Main RCCB frame size 100A		35mm <sup>2</sup>
Branch MCB frame size 63A		25mm <sup>2</sup>
Neutral terminal bar	Incoming	50mm <sup>2</sup>
	Outgoing	16mm <sup>2</sup>
Earth terminal bar	Incoming	50mm <sup>2</sup>
	Outgoing	16mm <sup>2</sup>

# Notes

A series of horizontal dashed lines for writing notes.

 The product data referred to in the company shall be subject to material object. Subject to change without notice.  
The company has the final right to interpret.

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