

## LOADLIMITER 63 MCB

### Main Features

- Exceeds the requirements of EN 60898
- 10kA rated to the requirements of EN 60898
- Contact position indicator
- Maximum cable termination of 35mm<sup>2</sup>

### CATALOGUE NUMBERS

Current Rating (A)	B Type Product Code	C Type Product Code	D Type Product Code
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#### Single-pole MCBs

1	-	K1PC01	-
6	K1PB06	K1PC06	K1PD06
10	K1PB10	K1PC10	K1PD10
16	K1PB16	K1PC16	K1PD16
20	K1PB20	K1PC20	K1PD20
25	K1PB25	K1PC25	K1PD25
32	K1PB32	K1PC32	K1PD32
40	K1PB40	K1PC40	T1PD40 *
50	K1PB50	K1PC50	T1PD50 *
63	K1PB63	K1PC63	T1PD63 *

#### Double-pole MCBs

6	K2PB06	K2PC06	K2PD06
10	K2PB10	K2PC10	K2PD10
16	K2PB16	K2PC16	K2PD16
20	K2PB20	K2PC20	K2PD20
25	K2PB25	K2PC25	K2PD25
32	K2PB32	K2PC32	K2PD32
40	K2PB40	K2PC40	T2PD40 *
50	K2PB50	K2PC50	T2PD50 *
63	K2PB63	K2PC63	T2PD63 *

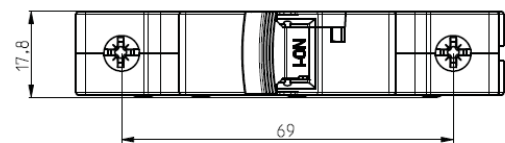
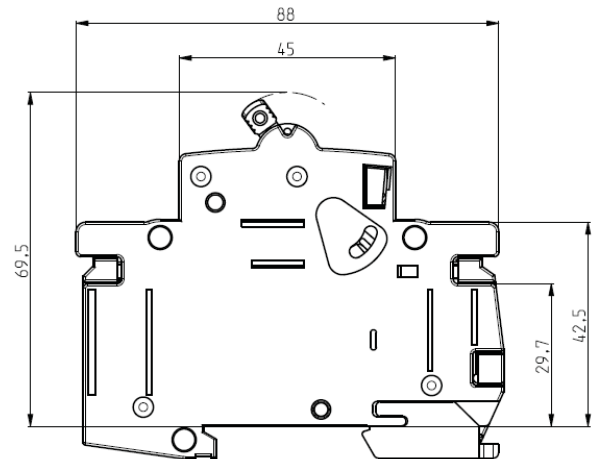
#### Triple-pole MCBs

1	-	K3PC01	-
6	K3PB06	K3PC06	K3PD06
10	K3PB10	K3PC10	K3PD10
16	K3PB16	K3PC16	K3PD16
20	K3PB20	K3PC20	K3PD20
25	K3PB25	K3PC25	K3PD25
32	K3PB32	K3PC32	K3PD32
40	K3PB40	K3PC40	T3PD40 *
50	K3PB50	K3PC50	T3PD50 *
63	K3PB63	K3PC63	T3PD63 *

\* 6kA rated breaking capacity to EN 60898 and 10kA rated breaking capacity to EN 60947. Please be advised that the "T" series MCBs look physically different to the K series.

### MCB Accessories

Description	Product Code
240V AC Shunt Trip for MCB	KST240
Auxiliary / Switching contact for MCB	KAUX1
MCB Dolly locking device	KDL
Padlock for dolly locking device	XPL



MCBs are modular. Single pole shown. Double Pole width = 35mm and Triple Pole = 54mm

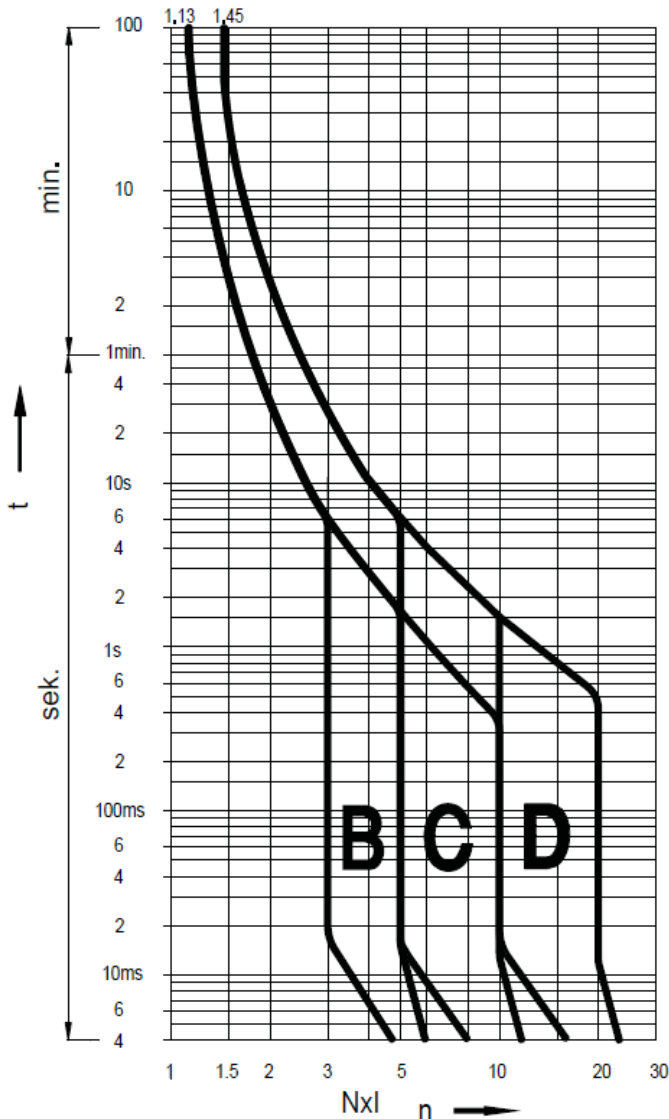


## LOADLIMITER 63 MCB

### Technical data

Rated voltage	230/400 V AC; max. 60 V DC / pole
Rated frequency	50/60Hz
Shock resistance	30g.min. 2 shocks, t = 13ms
Rated short-circuit capacity	10 kA
Energy limiting class	3; B,C
Back-up fuse	100A gG
Index of protection	IP 20 (IP 40)
Terminals	1-25mm <sup>2</sup> , max. 2,5Nm
Terminal screw	M5 (Pozidrive PZ2)
Mechanical endurance	20000 op.c.
Electrical endurance	20000 op.c. (In≤32A), 10000 op.c. (In>32A)
Ambient temperature	max. -25°C ... +55°C
Storage temperature	max. -40°C ... +70°C
Supply possibility	top or bottom
Insulating class	B
Overvoltage category	III
Resistance to vibrations acc. to IEC 60068-2-7	5g (10,60 & 500Hz)

### I/t Characteristic at 50 & 60Hz



### Maximum Zs for Loadlimiter MCBs

Current rating (A)	B Type MCB		C Type MCB		D Type MCB	
	0.4s	5s	0.4s	5s	0.4s	5s
6	7.28	7.28	3.64	6.27	1.81	6.27
10	4.37	4.37	2.19	3.76	1.09	3.76
13	3.35	3.35	1.67	2.90	0.84	2.90
16	2.73	2.73	1.36	2.35	0.67	2.35
20	2.19	2.19	1.09	1.88	0.54	1.88
25	1.75	1.75	0.87	1.50	0.44	1.50
32	1.36	1.36	0.67	1.17	0.33	1.17
40	1.09	1.09	0.54	0.94	0.27	0.94
50	0.87	0.87	0.44	0.75	0.22	0.75
63	0.69	0.69	0.34	0.59	0.17	0.59

Maximum Allowable Earth Loop Impedance Values in accordance with BS7671:2008 incorporating Amendment 3, 2015.

### Minimum Fuse Rating for Discrimination

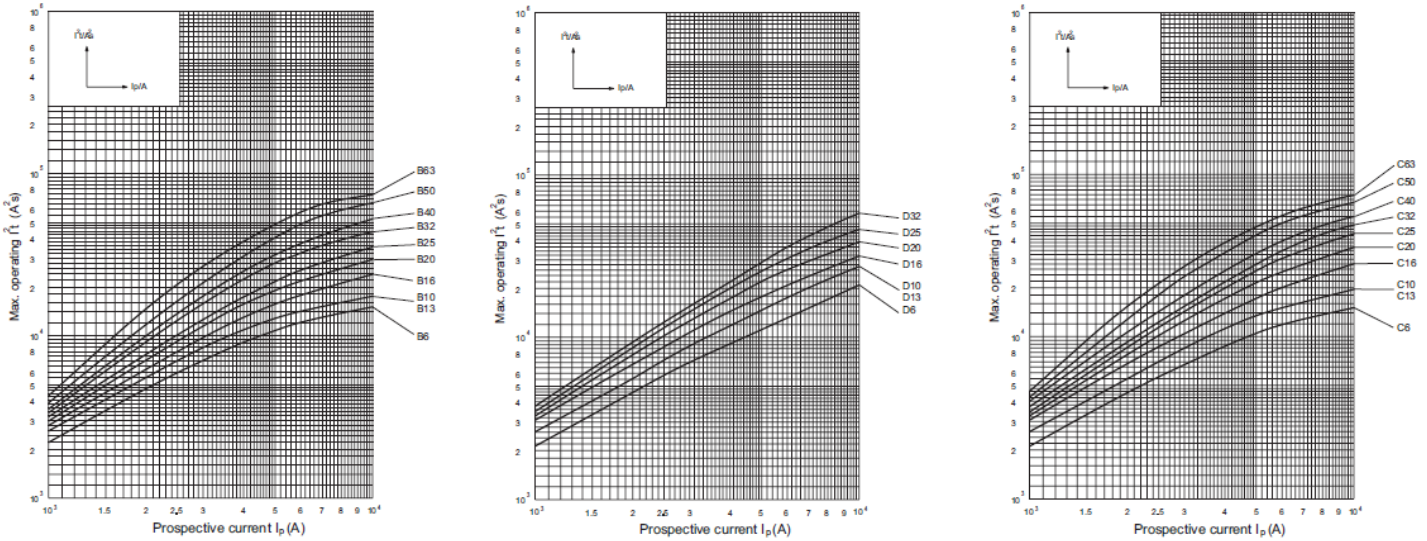
Current rating (A)	B Type MCB	C Type MCB	D Type MCB
	Fuse link rating (A)		
6	20	32	25
10	20	32	40
13	20	32	40
16	32	50	63
20	40	63	63
25	50	80	80
32	63	100	100
40	80	100	125
50	100	125	125
63	125	125	125

### Maximum Back-up Fuse Rating for Protection

Current rating (A)	B Type MCB	C Type MCB	D Type MCB
	Fuse link rating (A)		
6	63	40	40
10	80	63	63
13	80	63	63
16	80	80	80
20	80	80	80
25	100	100	100
32	100	100	100
40	125	125	125
50	160	160	160
63	160	160	160

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### Energy Let-through Characteristics



The following table indicates the maximum energy let-through values permissible in each class, stated in Watt-seconds. In practice, compliance with the standard is checked on the circuit breakers with the highest applicable rated current within the range, normally 40A.

Rated short-circuit capacity	Current rating (A)	Class 1 I²t max. B type and C type	Class 2 I²t max.		Class 3 I²t max.	
			B type	C type	B type	C type
6kA	1-16	No	100,000	120,000	35,000	42,000
	20-32	limit	130,000	160,000	45,000	55,000
	40	specified	156,000	192,000	54,000	66,000
10kA	1-16		240,000	290,000	70,000	84,000
	20-32		310,000	370,000	90,000	110,000
	40		372,000	444,000	108,000	132,000

### Short-circuit Discrimination Levels Between an Upstream Fuse and downstream MCB

MCB, type B Current rating (A)	Fuse Sizes								
	20	25	35	50	63	80	100	125	160
6	0.5	0.8	1.7	3.1	7.0	10.0	10.0	10.0	10.0
10	0.4	0.7	1.4	2.3	3.4	4.8	7.5	10.0	10.0
13		0.7	1.4	2.3	3.4	4.8	7.5	10.0	10.0
16			1.3	2.0	2.9	4.2	6.0	9.5	10.0
20				1.9	2.7	3.8	5.6	8.5	10.0
25				1.8	2.6	3.6	5.4	8.0	10.0
32					2.4	3.2	4.2	6.8	10.0
40						3.2	4.2	6.8	9.5
50							3.8	5.7	8.5
63							3.8	5.7	8.5

MCB, type C Current rating (A)	Fuse Sizes								
	20	25	35	50	63	80	100	125	160
6	0.5	0.8	1.7	3.1	7.0	10.0	10.0	10.0	10.0
10			1.4	2.3	3.4	4.8	7.5	10.0	10.0
13				2.3	3.4	4.8	7.5	10.0	10.0
16				2.0	2.9	4.2	6.0	9.5	10.0
20					2.7	3.8	5.6	8.5	10.0
25						3.6	5.4	8.0	10.0
32							4.2	6.8	10.0
40							4.2	6.8	9.5
50								5.7	8.5
63								5.7	8.5

MCB, type D Current rating (A)	Fuse Sizes								
	20	25	35	50	63	80	100	125	160
6	0.7	1.7	3.0	5.9	6.0	6.0	6.0	6.0	6.0
10			1.3	2.2	3.6	6.0	6.0	6.0	6.0
13				1.7	2.5	4.0	6.0	6.0	6.0
16				1.6	2.2	3.1	4.6	6.0	6.0
20					2.2	3.1	4.6	6.0	6.0
25						3.1	4.6	6.0	6.0
32						2.6	3.5	6.0	6.0
40							3.5	6.0	6.0
50								6.0	6.0
63								5.5	6.0

### Effect of the ambient temperature on the tripping characteristic

In [A]	Ambient temperature T/°C												
	-40	-30	-20	-10	0	10	20	30	40	50	60	70	
1	1,22	1,2	1,18	1,15	1,12	1,09	1,05	1	0,94	0,88	0,82	0,75	
6	7,32	7,2	7,09	6,91	6,73	6,54	6,31	6	5,66	5,33	4,94	4,5	
10	12,2	12	11,8	11,5	11,2	10,9	10,5	10	9,44	8,89	8,23	7,5	
13	15,9	15,6	15,4	14,9	14,5	14,1	13,6	13	12,2	11,5	10,7	9,75	
16	19,5	19,2	18,9	18,4	17,9	17,4	16,8	16	15,1	14,2	13,2	12	
20	24,4	24	23,6	23	22,4	21,8	21	21	18,8	17,7	16,5	15	
25	30,5	30	2,5	28,8	28	27,2	26,3	25	23,6	22,2	20,6	18,8	
32	39	38,4	37,8	36,9	35,9	34,9	33,6	32	30,2	28,4	26,3	24	
40	48,8	48	47,8	46,1	44,9	43,6	42	40	37,7	35,5	32,9	30	
50	61	60	59,1	57,6	56,1	54,5	52,6	50	47,2	44,4	41,2	37,5	
63	76,9	75,6	74,4	72,6	70,7	68,7	66,2	63	59,4	56	51,9	47,3	

Correct factor is valid for current with times over 30s.