

LFBKN Miniature Circuit Breaker

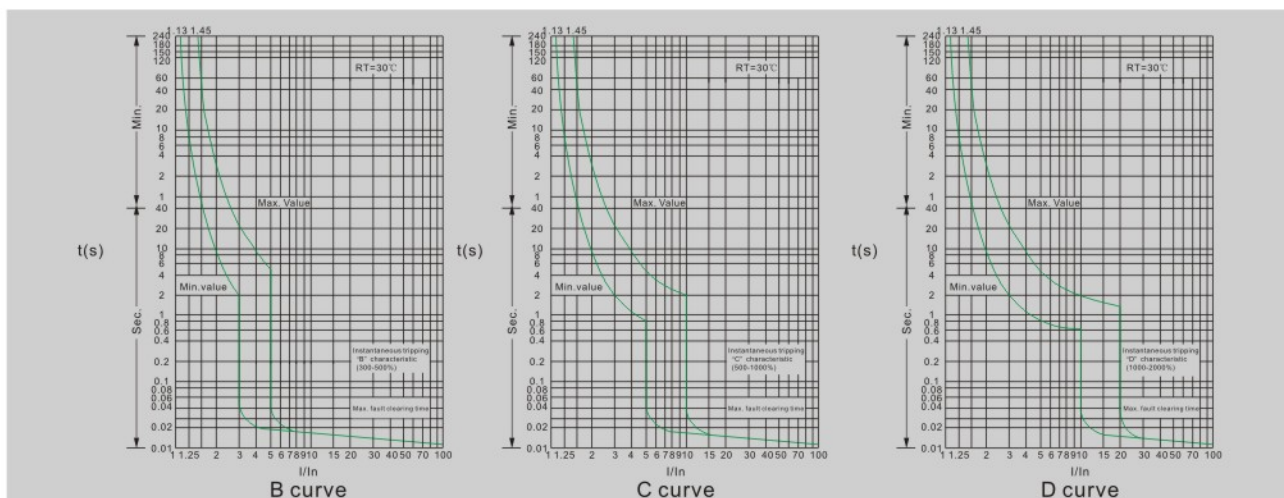


1. General

1. Application: For protecting cables and equipments against overload and short circuit.
2. General rules for choosing MCB.
 - a. Technical data of the network at the point considered:
The earthing systems, short-circuit current at the circuit breaker installation point, which must always be less than the breaking capacity of this device, network normal voltage.
 - b. There are 3 curve characteristics for magnetic operation:
 - B curve (3-5 I_n) protection and control of the circuits against length cables in TN and IT systems.
 - C curve (5-10 I_n) protection and control of the circuits against overloads and short-circuits; protection for resistive and inductive loads with low inrush current.
 - D curve (10-20 I_n) protection and control of the circuits against overloads and short-circuits; protection for circuits which supply loads with high inrush current at the circuit closing (LV/LV transformers, breakdown lamps).

2. Specifications

Curves



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Standard			IEC/EN 60898-1
Electrical features	Rated current In	A	1,2,3,4,6,10,16,20,25,32,40,50,63
	Poles	P	1,2,3,4
	Rated voltage Ue	V	230/400
	Insulation voltage Ui	V	500
	Rated frequency	Hz	50/60
	Rated breaking capacity	A	3000, 4500
	Rated impulse withstand voltage(1.2/50) Uimp	V	4000
	Dielectric test voltage at ind. Freq. for 1min	kV	2
	Pollution degree		2
	Thermo-magnetic release characteristic		B, C, D
Mechanical features	Electrical life	t	4000
	Mechanical life	t	10000
	Protection degree		IP20
	Reference temperature for setting of thermal element	℃	30
	Ambient temperature (with daily average≤35℃)	℃	-5~+40(Special application please refer to temperature compensation correction)
Installation	Storage temperature	℃	-25~+70
	Terminal connection type		Cable / Pin-type busbar
	Terminal size top / bottom for cable	mm ²	25
		AWG	18-3
	Terminal size top/bottom for busbar	mm ²	25
		AWG	18-3
	Tightening torque	N*m	2
		In-lbs.	18
	Mounting		On DIN rail EN 60715(35mm)by means of fast clip device
	Connection		From top and bottom

3. Temperature derating

In(A)	20℃	25℃	30℃	35℃	40℃	45℃	50℃	55℃	60℃
1	1.05	1.02	1.0	0.98	0.95	0.93	0.9	0.88	0.85
2	2.08	2.04	2.0	1.98	1.92	1.88	1.84	1.8	1.74
3	3.18	3.09	3.0	2.91	2.82	2.7	2.61	2.49	2.37
4	4.24	4.12	4.0	3.88	3.76	3.64	3.52	3.36	3.24
6	6.24	6.12	6.0	5.88	5.76	5.64	5.52	5.4	5.3
10	10.6	10.3	10.0	9.7	9.3	9.0	8.6	8.2	7.8
16	16.8	16.5	16.0	15.5	15.2	14.7	14.2	13.8	13.3

In(A)	20℃	25℃	30℃	35℃	40℃	45℃	50℃	55℃	60℃
20	21.0	20.6	20.0	19.4	19.0	18.4	17.8	17.4	16.8
25	26.2	25.7	25.0	24.2	23.7	23.0	22.2	21.5	20.7
32	33.5	32.9	32.0	31.4	30.4	29.8	28.4	28.2	27.5
40	42.0	41.2	40.0	38.8	38.0	36.8	35.6	34.4	33.2
50	52.5	51.5	50.0	48.5	47.4	45.5	44.0	42.5	40.5
63	66.2	64.9	63.0	61.0	58.0	56.7	54.2	51.7	49.2

I1:113% In, I2:145% In according to IEC60898-1

