HDBK Plug-in Miniature Circuit Breaker

Standard: IEC/EN60898-1

Function

HDBK Miniature standard circuit breaker has the following function:

- Short circuit protection
- Overload protection
- Control

Functions and Features

Electrical features

Rated current In	A	6,10,16,20,25,32,40,50,63
Pole	P	1,2,3
Rated voltage Ue	V	AC 240/415
Insulation voltage Ui	V	500
Rated frequency	Hz	50/60
Rated breaking capacity	A	6000(240V) 10000(120V)
Rated impulse withstandard voltage(1.2/50)Uimp	V	4000
Pollution degree		2
Thermo-magnetic trip characteristic		C

Mechanicalfeatures

Electrical durability	t	4000
Mechanical durability	t	10000
Protection degree	V	IP20
Reference temperature for setting of thermal element	℃	50
Ambient temperature (with daily average≤35℃)	℃	15~+60
Storage temperature	℃	-25~+70

Installation

Terminal size for cable	mm^2	25
Torque	N.m	2
Mounting		Plug in
Connection		Top

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HDBK Selection Guide

Product name	Breaking capacity	Number of poles	Trip type	Rated current	
HDBK	Default	1	C	6	
	Default: 6kA(240V) 10kA(120V)	1: 1P 2: 2P 3: 3P	C: Type C	6: 6A 10: 10A 16: 16A 20: 20A 25: 25A	32: 32A 40: 40A 50: 50A 63: 63A

HDBK Plug-in Miniature Circuit Breaker	Type	Rated Current	Trip Type
			C
6kA	1P	6	HDBK1C6
		10	HDBK1C10
		16	HDBK1C16
		20	HDBK1C20
		25	HDBK1C25
		32	HDBK1C32
		40	HDBK1C40
		50	HDBK1C50
		63	HDBK1C63
6kA	2P	6	HDBK2C6
		10	HDBK2C10
		16	HDBK2C16
		20	HDBK2C20
		25	HDBK2C25
		32	HDBK2C32
		40	HDBK2C40
		50	HDBK2C50
		63	HDBK2C63
6kA	3P	6	HDBK3C6
		10	HDBK3C10
		16	HDBK3C16
		20	HDBK3C20
		25	HDBK3C25
		32	HDBK3C32
		40	HDBK3C40
		50	HDBK3C50
		63	HDBK3C63

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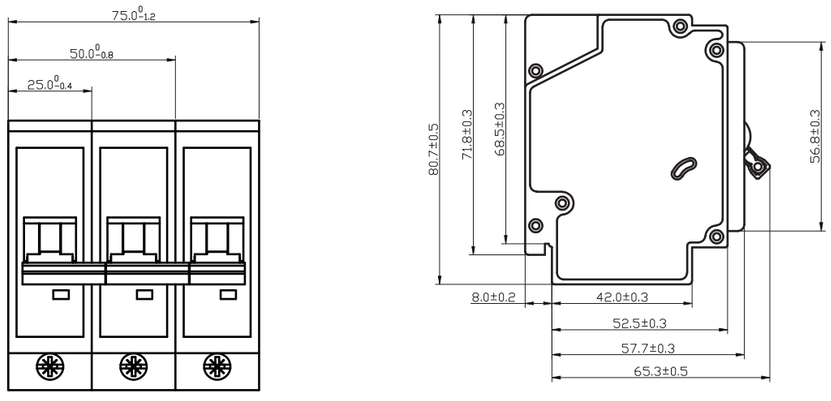
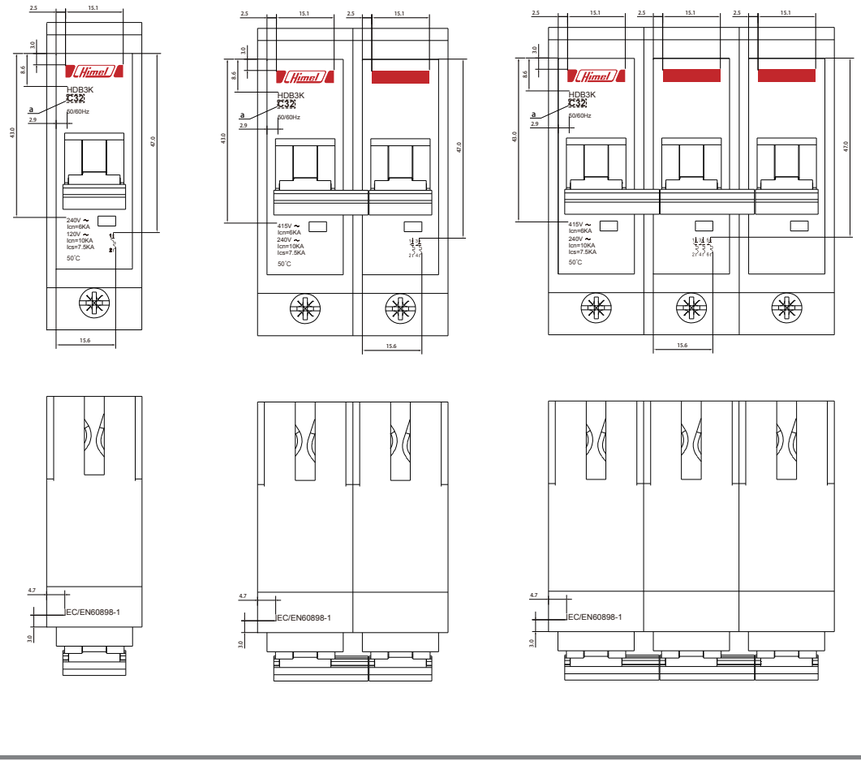
HDBK Installation Dimension





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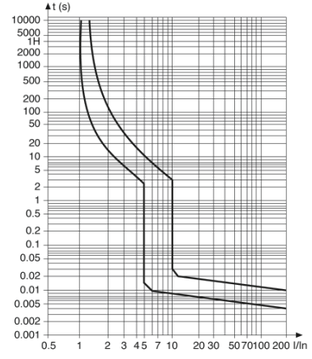
Tripping Curve



Temperature Correction Coefficient Table

Rated current	Rated current correction value A								
A	-20	-10	0	10	20	30	40	50	60
1	1.22	1.18	1.15	1.1	1.05	1	0.94	0.9	0.84
2	2.43	2.31	2.25	2.17	2.06	2	1.93	1.85	1.63
3	3.68	3.57	3.43	3.29	3.18	3	2.82	2.63	2.57
4	4.89	4.75	4.67	4.48	4.24	4	3.98	3.52	3.25
5	6.21	5.98	5.83	5.77	5.42	5	4.85	4.57	4.19
6	7.33	7.05	6.84	6.62	6.3	6	5.64	5.42	5.06
8	9.78	9.44	9.15	8.51	7.98	8	7.1	6.92	6.75
10	12.25	11.87	11.64	11.15	10.62	10	9.3	8.96	8.48
13	15.78	15.34	14.83	14.22	13.75	13	12.1	11.75	10.93
16	19.49	18.72	18.06	17.98	16.96	16	15.04	14.42	13.47
20	24.35	23.68	22.82	22.47	21.2	20	18.8	17.85	16.78
25	30.52	29.61	28.78	28.09	26.5	25	23.25	22.52	21.02
32	38.96	37.68	36.62	35.96	33.92	32	30.08	28.81	26.84
40	48.85	47.13	46.32	45.8	42.8	40	36.8	36.21	33.5
50	61.58	59.52	57.35	55.04	52.59	50	46	44.25	42.36
63	76.86	74.25	71.18	69.13	67.41	63	58.59	56.83	52.93

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Derating Table for Using in High Altitude Area

- IEC60947.2 standard stipulates the relationship between the altitude and the dielectric property. The altitude below 2,000m does not have significant impact on the properties of the circuit breaker.
- When the altitude is higher than 2,000m, the air cooling, dielectric property falling and other conditions must be considered, so the manufacturer shall discuss with the user on the working conditions or doing special design.
- The following table provides the correct value made for the rated current when the breaking capacity remains unchanged at the altitude above 2,000m.

Altitude (m)	2000	3000	4000
Dielectric strength	2500	2200	1950
Maximum working voltage (V)	440	440	440
Rated current	In	0.96In	0.93In