

Low-voltage Products

Himel International Catalogue



The Right Choice!

The Right



Right Choice!



Applicable. Available. Accountable.



The Right Choice!

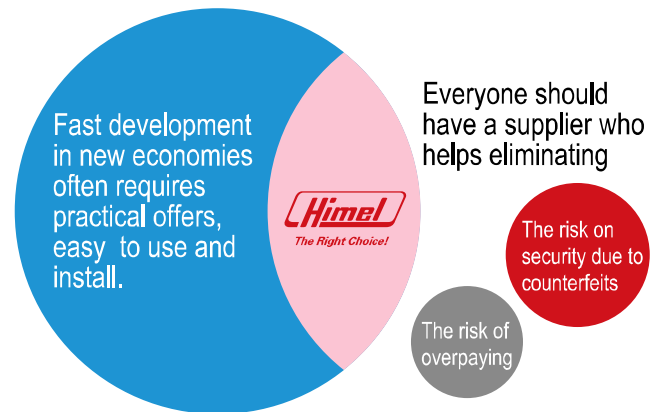
What Himel is..

Himel is an international supplier of high quality electrical products at affordable price points. Himel is an outcome of a Sino-French joint venture that provides the unique blend of technology as well as affordability.

All Himel products are manufactured at state-of-the-art manufacturing facility in China and comply with the relevant international standards.

Himel products are available through a wide network of commercial offices, distributors and local agents.

Our Vision



Any Project can be successfully realized with Himel!

Delixi Electric JV

DELIXI
ELECTRIC



- ★ A unique Sino-French JV
- ★ 1500,000 + MCB poles/day
- ★ 2 factories, top laboratory
- ★ Highest quality control A to Z

R&D 2016 Contribution to Sales

Motivated team of 200+ people

New R&D center in Shanghai, to recruit best talents

2 laboratories to support our developments

Action plans to improve Quality, cost and also product time to market: our 3 top priorities

Innovation: Increase of Patent target 10% per year

Full renewable of core offer, MCBs, MCCBs, Contactors and relays

Collaboration with International Industry leader in offer to enhance R&D capability along with project collaborations



A Reliable Company Serving



The Right Choice!

Our Mission and Values

We deliver the right choice for common usage.

We implement long term partnership with distributors being

Accountable

We react quickly to customers' needs



Available

Our products are always where they are needed



Applicable

Our products meet practical needs

Targeted Customers



Targeted Market Segments

Small / medium size projects

Social housing



Building



Industry



Infrastructure



Our Differentiation

Famous International brand

Controlled quality

Constant innovation

Reliable long - term partners

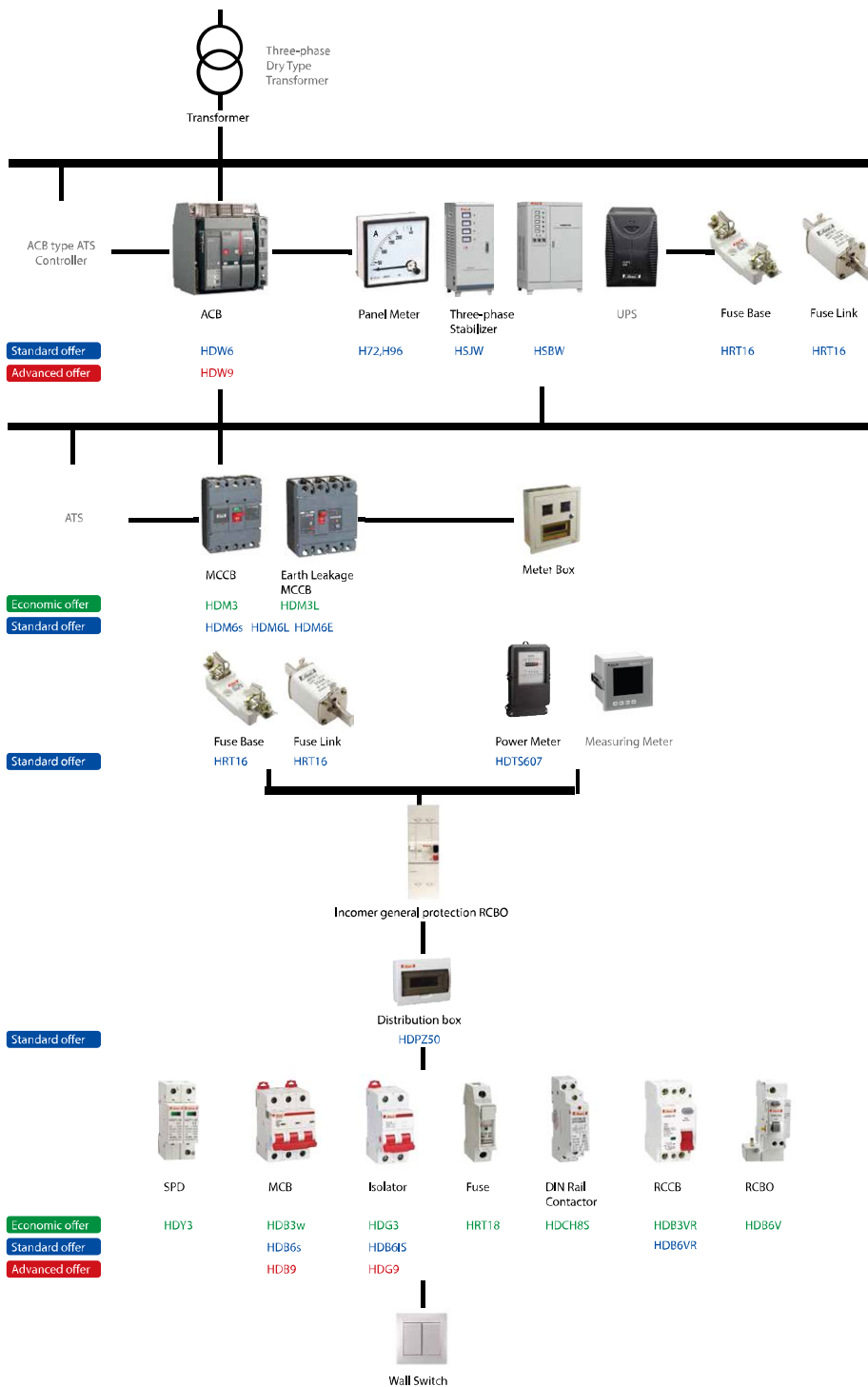


You with Reliable Solutions

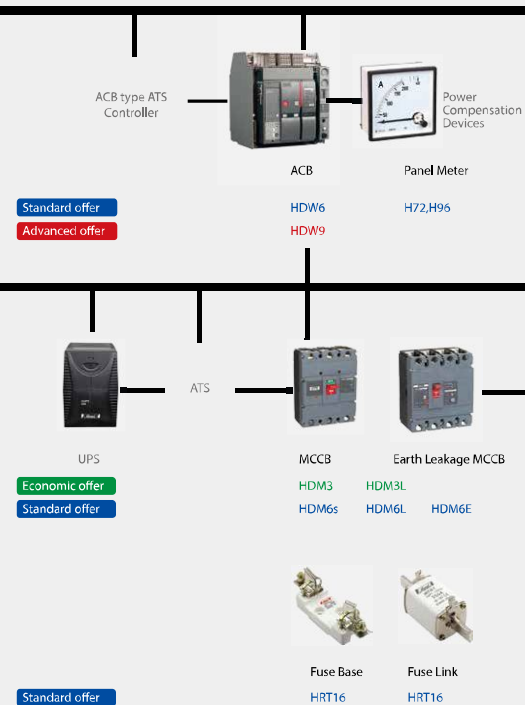


Himel Product Range

Building and residential



Energy Management



Applicable



The Right Choice!

Industry control



Three-phase
Stabilizer
HSJW HSBW



Metal Box
HJXF HLMK



Power Meter
HDS607
Timer
HJSZ3
Timer
HKG316T

ACB type ATS
Controller



ACB
HDW6
HDW9



Panel Meter
H72 H96

Power
Compensation
Devices



Three-phase
Stabilizer
HSJW HSBW

UPS

Standard offer
Advanced offer



AC contactor

HDC3
HDC6



Thermal Overload
Relay
HDR3
HDR6

Motor Protector Relay

Economic offer
Standard offer

Economic offer
Standard offer

Standard offer

Definite Purpose
Contactor



Thermal Overload
Relay
HDR3
HDR6



Motor Circuit
Breaker
HDP6



Capacitor
Switching
Contactor
HDC19s

Capacitor



Magnetic
Starter
HDS6



Motor Load

Available

Accountable

MORE VALUE FOR PRICE!



- ✈ Smarter Design
- ✈ Greater Performance
- ✈ Wider Application



Himel

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Miniature Circuit Breaker & Switch Disconnectors Product Overview

18mm MCB



HDB3w 228

In: 1-63A
Breaking Capacity:
3/4.5/6kA



HDB6s 240

In: 1-63A
Breaking Capacity:
4.5/6kA



HDB9 244

In: 1-63A
Breaking Capacity:
6/10kA



HDB9z 249

In: 1-63A
Breaking Capacity:
6/10kA



HDB3w-125 253

In: 63-125A
Breaking Capacity: 6kA,
10kA

18mm 1P+N MCB



HDB3wP 259

In: 6-32A
Breaking
Capacity: 4.5kA



HDB6p 263

In: 6-32A
Breaking
Capacity: 4.5kA



HDB9p 265

In: 6-40A
Breaking
Capacity: 4.5/6kA



HDG3 267

In: 20-125A



HDB6IS 271

In: 20-125A



HDG9 273

In: 20-100A

Switch Disconnectors

Accessories



MX+OF



SD



OF

HDB3w Miniature Circuit Breaker

Standard: IEC/EN60898-1

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Function

HDB3w Miniature standard circuit breaker has the following features:

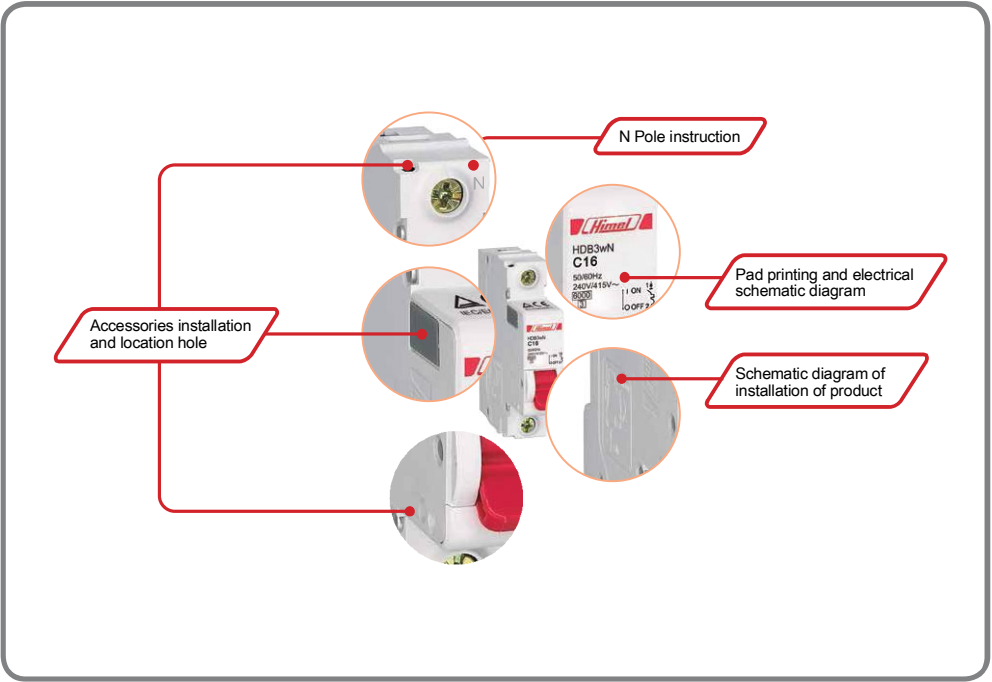
- Short circuit protection
- Overload protection
- Control
- Isolation

Main Features

Rated operating voltage (V)	1P: 240 AC 1P+N: 240 AC 2P, 3P, 3P+N, 4P: 415 AC
Rated current (A)	1-63
Rated frequency (Hz)	50/60
Number of poles	1P, 1P+N, 2P, 3P, 3P+N, 4P
Breaking capacity (kA)	3, 4.5, 6



Product Details Display



HDB3w Miniature Circuit Breaker

Standard: IEC/EN60898-1

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Functions and Features

Electrical Characteristics

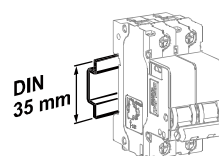
Nominal insulation voltage U_i	(V)	250 (phase-to-ground) 500 (phase-to-phase)
Maximum working voltage U_{Bmax}	1P, 1P+N (V) 2P, 3P, 4P, 3P+N (V)	240/415 AC 415 AC
Rated short-circuit capacity I_{cn} (IEC/EN60898)	(kA)	3, 4.5, 6
Rated impulse withstand voltage U_{imp} (1.2/50)	(kA)	4
Dielectric test voltage		2kV (50/60HZ, 1min)
Over-voltage category		II
Isolating function		Available
Pollution class		2
Electric shock protection grade		II
Trip type:		Thermal magnetic trip
Thermal magnetic trip characteristics:	Type B curve (3I _n ~5I _n) Type C curve (5I _n ~10I _n) Type D curve (10I _n ~14I _n)	
Electrical and mechanical accessories		

Mechanical Characteristics

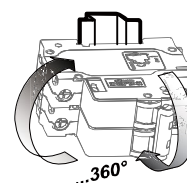
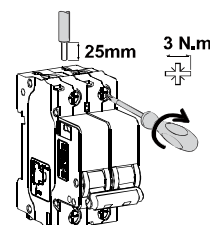
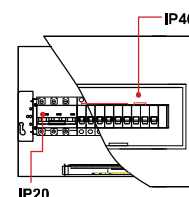
Handle	Red, pad printing indicating ON-OFF position
Mechanical endurance	Times 25,000
Electrical endurance	Times 6,000
Protection grade	Installed in distribution box IP40 Installed directly IP20
Mechanical shock resistance	30g, 3 shocks, lasting 11ms (No significant vibration or shock)
Anti-vibration (IEC/EN 60947-2)	No significant vibration or shock
Rated ambient temperature	30°C
Operating ambient temperature (daily mean temperature)	-20° C~+60°C
Storage temperature	-40° C~+70°C

Installation Features

Terminal form	U terminal
Maximum wiring capacity (A)	Current ratings 1-63 25mm ²
Maximum ultimate torque (A)	Current ratings 1-63:3 N.m
Tool:	Crosshead screwdriver or flathead screwdriver
Installation	Installed on standard DIN guide rail (35mm)
Wiring Type	Top or bottom



Installed on 35mm standard guide rail



Flexible installation direction

HDB3w Miniature Circuit breaker

Standard: IEC/EN60898-1

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HDB3w Selection Guide

HDB3wN Miniature standard circuit breaker	Type	Rated current	Trip type		
			B	C	D
6kA 	1P	1	-	HDB3wN1C1	HDB3wN1D1
		2	-	HDB3wN1C2	HDB3wN1D2
		3	-	HDB3wN1C3	HDB3wN1D3
		4	-	HDB3wN1C4	HDB3wN1D4
		5	-	HDB3wN1C5	HDB3wN1D5
		6	HDB3wN1B6	HDB3wN1C6	HDB3wN1D6
		8	HDB3wN1B8	HDB3wN1C8	HDB3wN1D8
		10	HDB3wN1B10	*HDB3wN1C10	HDB3wN1D10
		13	HDB3wN1B13	*HDB3wN1C13	HDB3wN1D13
		16	HDB3wN1B16	*HDB3wN1C16	HDB3wN1D16
		20	HDB3wN1B20	*HDB3wN1C20	HDB3wN1D20
		25	HDB3wN1B25	*HDB3wN1C25	HDB3wN1D25
		32	HDB3wN1B32	*HDB3wN1C32	HDB3wN1D32
		40	HDB3wN1B40	*HDB3wN1C40	HDB3wN1D40
		50	HDB3wN1B50	*HDB3wN1C50	HDB3wN1D50
		63	HDB3wN1B63	*HDB3wN1C63	HDB3wN1D63
6kA 	1P+N	10	HDB3wN5B10	HDB3wN5C10	HDB3wN5D10
		13	HDB3wN5B13	HDB3wN5C13	HDB3wN5D13
		16	HDB3wN5B16	HDB3wN5C16	HDB3wN5D16
		20	HDB3wN5B20	HDB3wN5C20	HDB3wN5D20
		25	HDB3wN5B25	HDB3wN5C25	HDB3wN5D25
		32	HDB3wN5B32	HDB3wN5C32	HDB3wN5D32
		40	HDB3wN5B40	HDB3wN5C40	HDB3wN5D40
		50	HDB3wN5B50	HDB3wN5C50	HDB3wN5D50
6kA 	2C	1	-	HDB3wN2C1	HDB3wN2D1
		2	-	HDB3wN2C2	HDB3wN2D2
		3	-	HDB3wN2C3	HDB3wN2D3
		4	-	HDB3wN2C4	HDB3wN2D4
		5	-	HDB3wN2C5	HDB3wN2D5
		6	HDB3wN2B6	HDB3wN2C6	HDB3wN2D6
		8	HDB3wN2B8	HDB3wN2C8	HDB3wN2D8
		10	HDB3wN2B10	*HDB3wN2C10	HDB3wN2D10
		13	HDB3wN2B13	*HDB3wN2C13	HDB3wN2D13
		16	HDB3wN2B16	*HDB3wN2C16	HDB3wN2D16
		20	HDB3wN2B20	*HDB3wN2C20	HDB3wN2D20
		25	HDB3wN2B25	*HDB3wN2C25	HDB3wN2D25
		32	HDB3wN2B32	*HDB3wN2C32	HDB3wN2D32
		40	HDB3wN2B40	*HDB3wN2C40	HDB3wN2D40
		50	HDB3wN2B50	*HDB3wN2C50	HDB3wN2D50
		63	HDB3wN2B63	*HDB3wN2C63	HDB3wN2D63

The reference with "*" means that it has 40°C and 50°C. Please add "50D" at the end as 50°C reference.

HDB3w Miniature Circuit breaker

Standard: IEC/EN60898-1

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HDB3w Selection Guide

HDB3wN Miniature standard circuit breaker	Type	Rated current	Trip type		
			B	C	D
6kA 	3P	1	-	HDB3wN3C1	HDB3wN3D1
		2	-	HDB3wN3C2	HDB3wN3D2
		3	-	HDB3wN3C3	HDB3wN3D3
		4	-	HDB3wN3C4	HDB3wN3D4
		5	-	HDB3wN3C5	HDB3wN3D5
		6	HDB3wN3B6	HDB3wN3C6	HDB3wN3D6
		8	HDB3wN3B8	HDB3wN3C8	HDB3wN3D8
		10	HDB3wN3B10	*HDB3wN3C10	HDB3wN3D10
		13	HDB3wN3B13	*HDB3wN3C13	HDB3wN3D13
		16	HDB3wN3B16	*HDB3wN3C16	HDB3wN3D16
		20	HDB3wN3B20	*HDB3wN3C20	HDB3wN3D20
		25	HDB3wN3B25	*HDB3wN3C25	HDB3wN3D25
		32	HDB3wN3B32	*HDB3wN3C32	HDB3wN3D32
		40	HDB3wN3B40	*HDB3wN3C40	HDB3wN3D40
		50	HDB3wN3B50	*HDB3wN3C50	HDB3wN3D50
		63	HDB3wN3B63	*HDB3wN3C63	HDB3wN3D63
6kA 	3P+N	10	HDB3wN6B10	HDB3wN6C10	HDB3wN6D10
		13	HDB3wN6B13	HDB3wN6C13	HDB3wN6D13
		16	HDB3wN6B16	HDB3wN6C16	HDB3wN6D16
		20	HDB3wN6B20	HDB3wN6C20	HDB3wN6D20
		25	HDB3wN6B25	HDB3wN6C25	HDB3wN6D25
		32	HDB3wN6B32	HDB3wN6C32	HDB3wN6D32
		40	HDB3wN6B40	HDB3wN6C40	HDB3wN6D40
		50	HDB3wN6B50	HDB3wN6C50	HDB3wN6D50
		63	HDB3wN6B63	HDB3wN6C63	HDB3wN6D63
6kA 	4P	1	-	HDB3wN4C1	HDB3wN4D1
		2	-	HDB3wN4C2	HDB3wN4D2
		3	-	HDB3wN4C3	HDB3wN4D3
		4	-	HDB3wN4C4	HDB3wN4D4
		5	-	HDB3wN4C5	HDB3wN4D5
		6	HDB3wN4B6	HDB3wN4C6	HDB3wN4D6
		8	HDB3wN4B8	HDB3wN4C8	HDB3wN4D8
		10	HDB3wN4B10	HDB3wN4C10	HDB3wN4D10
		13	HDB3wN4B13	HDB3wN4C13	HDB3wN4D13
		16	HDB3wN4B16	HDB3wN4C16	HDB3wN4D16
		20	HDB3wN4B20	HDB3wN4C20	HDB3wN4D20
		25	HDB3wN4B25	HDB3wN4C25	HDB3wN4D25
		32	HDB3wN4B32	HDB3wN4C32	HDB3wN4D32
		40	HDB3wN4B40	HDB3wN4C40	HDB3wN4D40
		50	HDB3wN4B50	HDB3wN4C50	HDB3wN4D50
		63	HDB3wN4B63	HDB3wN4C63	HDB3wN4D63

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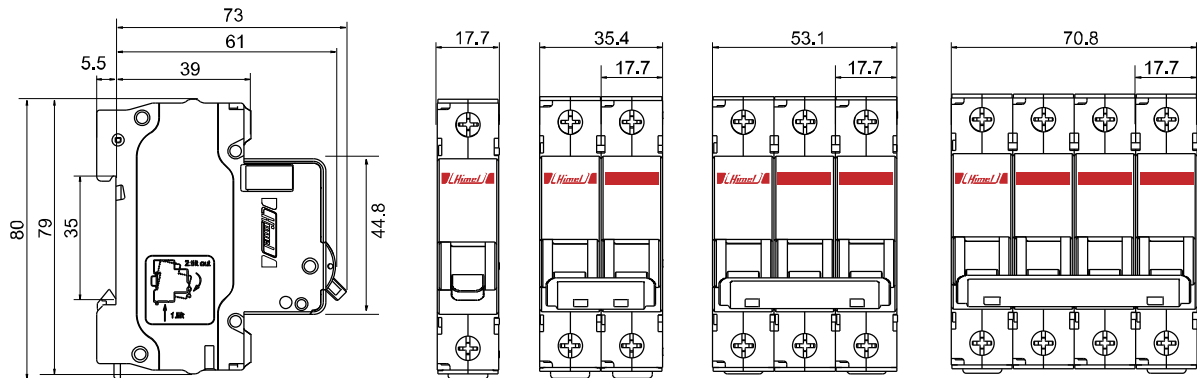
HDB3w Miniature Circuit breaker

Standard: IEC/EN60898-1

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HDB3w Installation Dimension



HDB3w Miniature Circuit breaker

Appendix

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Trip Characteristic

B features

The miniature circuit breaker with B tripping features meets IEC 60898 standard and applies to providing protection for the resistive load or the load without impulse current.

C features

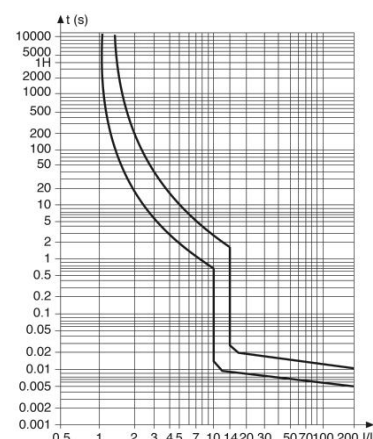
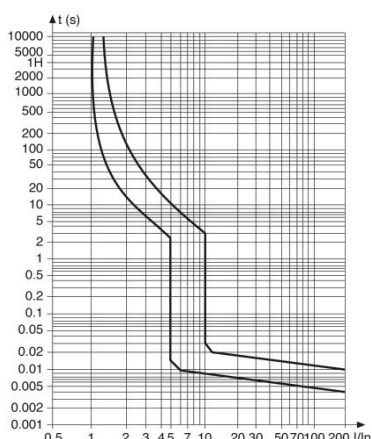
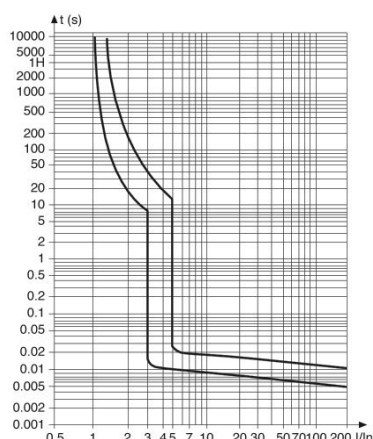
The miniature circuit breaker with C trip features meets IEC60898 standard and applies to providing protection for the resistive load and the inductive load with lower impulse current

D features

The miniature circuit breaker with D trip features meets IEC60898 standard and applies to providing protection for the load with higher impulse current at circuit connection.

Tripping type	Compliance standard	Thermal trip characteristics				Electro-magnetic trip characteristics			
		Test current	Test time	Initial state	Expected result	AC test current	Test time	Initial state	Expected result
B	IEC60898	1.13I _n	1h	Cold state	Non tripping	3I _n	0.1s	Cold state	Non-tripping
		1.45I _n	1h	Heated state	Tripping	5I _n	0.1s		Tripping
C	IEC60898	1.13I _n	≥1h(≤ 63A) ≥ 2h(63A)	Cold state	Non tripping	10I _n	≥0.1s		Non-tripping
		1.45I _n	1h (≤ 63A) 2h (63A)	Heated state	Tripping	10I _n	0.1s		Tripping
D	IEC60898	1.13I _n	≥1h	Cold state	Non tripping	20I _n	≥0.1s		Non-tripping
		1.45I _n	1h	Heated state	Tripping		0.1s		Tripping

Tripping Curve



HDB3w Miniature Circuit breaker

Performance Influencing factors

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Temperature Correction Factor 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

HDB3w Miniature Circuit breaker

HDB3w Miniature Circuit breaker

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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 conduct 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	I_n	$0.96I_n$	$0.93I_n$