



Product Features

- > One trip mechanism for both overload and short circuit protection, significantly decrease power consumption.
- > Three positions for handle: OFF, Trip and ON.
- > When the handle is at the position of Trip and there is fault in circuit, the handle can not be turned to ON position manually.
- > Temperature stable and trip characteristic depends only on magnetic flux.
- > No warm-up period to response to overload; No cool- down period after overload before it can be reset.
- > The temperature change affects oil viscosity. High viscosity at low temperature means longer delay time, thus enough time must be given to start an equipment at cold state; conversely low viscosity at high temperature means shorter delay time, thus giving rise to immediately trip to protect against overload. Such is inverse time protection.
- > Large opening range between contacts ($\geq 8.5\text{mm}$). Effectively avoid break down and easy to extinguish arc.
- > Tripping characteristic can be designed by adjusting the parameter of coil and the oil viscosity.
- > Accurate current setting value and low repeated trip error.
- > Compact size with modular width of 13mm.
- > Sealed metal tube will not age and there will not be function degradation.
- > Rated current can up to 63A. 3 poles in parallel can reach up to 150A.
- > Max. wiring capacity is 25mm^2 .

Model and Implication

ND B 5 - Z4 10 / 1 P U 1

1 2 3 4 5 6 7 8 9

No.	Implication	NDB5
1	Brand code	ND
2	Product code	B Circuit Breaker for Equipment
3	Design code	5
4	Tripping curve	Z2: DC short delay Z4: DC medium delay Z6: DC long delay J2: AC short delay J4: AC medium delay J6: AC long delay
5	Rated current (A)	0.5, 0.6, 0.7, 0.8, 0.9, 1, 1.5, 2, 2.5, 3, 3.5, 4, 4.5, 5, 5.5, 6, 6.5, 7, 7.5, 8, 8.5, 9, 9.5, 10, 12, 15, 16, 20, 25, 30, 32, 35, 40, 45, 50, 55, 60, 63, 70, 80, 90, 100, 105, 110, 105, 120, 125, 135, 150
6	Number of poles	1, 2, 3
7	Pole type	P: Phase pole, N: With neutral pole
8	Wiring method	U: 2 poles in parallel
9	Accessory code	No code: No accessory 1: Auxiliary contact 2: Alarm contact 3: Auxiliary contact and alarm contact

> Note: Tripping curve, rated current, etc. can be customized upon request. The customized model will not be shown in above table.

Main Specifications



Product Type	NDB5-/1P	NDB5-/2P	NDB5-/1N	NDB5-/3P	NDB5-/3N	NDB5-/2PU
Rated current	0.5, 0.6, 0.7, 0.8, 0.9, 1, 1.5, 2, 2.5, 3, 3.5, 4, 4.5, 5, 5.5, 6, 6.5, 7, 7.5, 8, 8.5, 9, 9.5, 10, 12, 15, 16, 20, 24, 25, 30, 32, 35, 40, 45, 50, 55, 60, 63	0.5, 0.6, 0.7, 0.8, 0.9, 1, 1.5, 2, 2.5, 3, 3.5, 4, 4.5, 5, 5.5, 6, 6.5, 7, 7.5, 8, 8.5, 9, 9.5, 10, 12, 15, 16, 20, 24, 25, 30, 32, 35, 40, 45, 50	0.5, 0.6, 0.7, 0.8, 0.9, 1, 1.5, 2, 2.5, 3, 3.5, 4, 4.5, 5, 5.5, 6, 6.5, 7, 7.5, 8, 8.5, 9, 9.5, 10, 12, 15, 16, 20, 24, 25, 30, 32, 35, 40, 45, 50	20, 30, 40, 50, 60, 63, 70, 80, 90, 100, 110, 120, 125		
Number of poles	1P	2P	1P+N	3P	3P+N	2P
Rated voltage (V)	AC230, DC80	AC230/400, DC80	AC230	AC400	AC400	DC80
Rail type	Mini DIN rail DIN rail					
Tripping curve	Z2/J2, Z4/J4, Z6/J6		J2, J4, J6		Z2, Z4, Z6	
Wiring Schematic						

- > Standards: IEC 60934, GB 17701, UL1077
- > Rated working voltage: DC 80V, AC 230/400V(50/60Hz)
- > Mechanical endurance: 10000 times (including 6000 times electrical endurance)
- > Certificates: TÜV, CE, CCC, UL
- > Auxiliary contact: AC 250V, 5A
- > Rated breaking capacity:

Type	Rated Current (A)	Voltage (V)	Breaking Capacity (kA)		
			3C	UL	TUV
NDB5	1-63	DC80	10	10	10
		AC230/400	3	3	3
		DC80	10	10	10

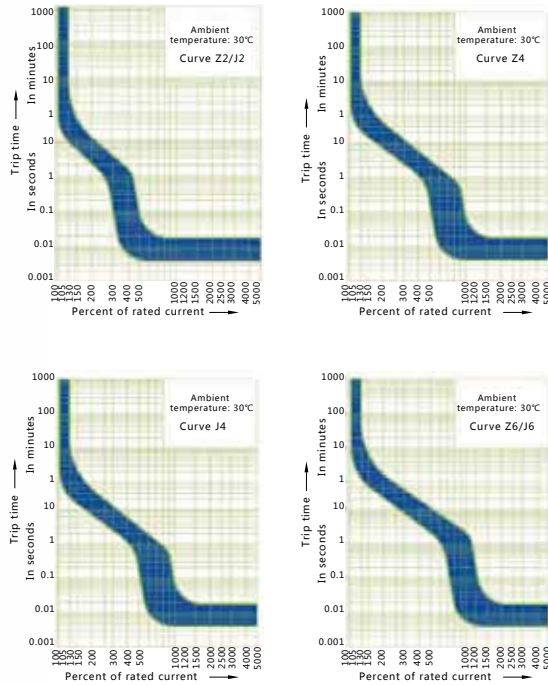
Tripping Characteristic

Tripping timetable (in seconds)

Curve	Percent of rated current							
	105%	130%	150%	200%	500%	600%	800%	1000%
Z2/J2	No trip	9-240	5.5-45	2-12	0.004-0.06	0.004-0.03	0.004-0.018	0.004-0.018
Z4	No trip	15-240	9-80	4-20	0.1-1.8	0.035-0.35	0.0035-0.1	0.0035-0.1
J4	No trip	20-360	15-150	6-40	0.15-3	0.01-1.8	0.0035-0.85	0.0035-0.1
Z6/J6	No trip	60-1200	40-300	20-100	1.8-10	1.2-7	0.02-3	0.02-3.2



Tripping Curves

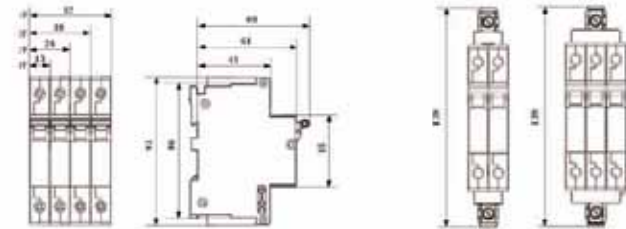


Working Condition

- > Ambient temperature: -40°C ~ +85°C
- > Altitude: ≤2000m
- > Humidity: ≤95%
- > Service place without explosive media, gas and dust which are corrosive and conductive.
- > Be mounted free from rain and snow.

Dimension

Outline Dimension

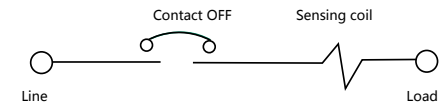


Installation Dimension



Auxiliary Contact

Schematic diagram



Series trip without auxiliary contact