

Shanghai Liangxin Electrical Co., Ltd.

Product Specification of NDB6AZ-63H

(IPD-ENG-DEV-T22 A1 2016-09-23)

Product Name: Moulded Case Circuit Breaker

Product type: NDB6AZ-63H

Date: 20230602

Prepared	<u>Zhang Liwen</u>	Date	<u>2023-06-02</u>
Reviewed	<u>Zhan Lijiang</u>	Date	<u>2023-06-02</u>
Approved	<u>Chen Chuang</u>	Date	<u>2023-06-02</u>

Revision information					
Version	Revised contents and reasons	Date	Prepared	Reviewed	Approved
0	Initial release	20190827	Yang Yanqun	Zhang Yang	Yang Hairong
1	Rated voltage and Rated limit breaking capacity changed	20190930	Yang Yanqun	Zhang Yang	Yang Hairong
2	Change of cross-sectional area of ferrule	20191125	Zhou Juan	Zhang Yang	Yang Hairong
3	Update Outline and installation dimensions; Add temperature derating parameters and side by side derating parameters	20191212	Zhou Juan	Zhang Yang	Yang Hairong
4	Update picture and add compliance; UL1077 parameters table; Update product shape and installation size picture	20200619	Shi Nengquan	Wang Junjun	Lin Chen
5	Add 4A specification	20201116	Shi Nengquan	Wang Junjun	Lin Chen
6	Add operation breaking capacity and standard; Update product shape and installation size picture	20230602	Zhang Liwen	Zhan Lijiang	Chen Chuang

1、Application

- Short -circuit protection
- Over-load protection
- Isolation protection

NDB6AZ-63H series products are mainly used in telecommunications equipment rooms or communication cabinets, as isolation, short circuit and overload protection for cabinets, equipment rooms or downstream subscriber lines.

2、Product picture(The physical effect shall prevail)



NDB6AZ-63H breaker

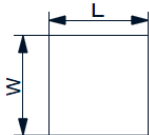
3、Model and implication

ND	B	6A	Z	-	63	H	/	50	B	/	1PN
Nader	Bre-	Design	DC		Shelf	Black		Rated current	Battery:B		Number of poles
Low	aker	number			Rank			(A)6, 10, 16,	Load:none		N pole straight through
voltage					(A)			20, 25, 32, 40,			
electrical					63			50, 63			
appliance											

4、Main technical parameters

- Electrical and wiring parameter table

Parameter name	Specific parameter description	Parameter name	Specific parameter description
Model	NDB6AZ-63H	Rated voltage (V)	DC80
Rated limit breaking capacity (kA)	10	Electrical endurance (times)	4000
Operation breaking capacity (kA)	7.5	Meet a criterion	GB/T 14048.2 IEC60947-2

Wiring area (mm ²)	Bare wire:0.75~16 ferrule with plastic sleeve:0.75~10 ferrule without plastic sleeve:16 the schematic diagram of the ferrule' s cross-sectional area is as follows:  cross-sectional area of ferrule: $1.3\text{ mm} \leq L \leq 6.2\text{ mm}$, $1.3\text{ mm} \leq W \leq 5\text{ mm}$ insulation sleeve or heat shrinkable tube diameter $\leq 9.5\text{ mm}$ when ferrule is inserted into 25mm depth	Mechanical life (times)	6000
Plug depth (mm)	23~25	Stripping length (mm)	0.75~6mm ² :12~18 10mm ² :14~18 16mm ² :18±1
Insertion frame force (N)	≤80	Pull out frame force (N)	≤75
Circuit breaker insertion and removal times	200	Cold pressed end Length (mm)	0.75~6mm ² :10~16 10mm ² :12~16 16mm ² :16±1

- Conform to UL1077 parameter table

Model	Type	UG	FW	Voltage(V)	Current (A)	Hz	TC	OL	SC
NDB6AZ -63H	OC	A, B, D	0	80 Vdc	6~63	-	1	0	10kA, U1
				65 Vdc					
				60 Vdc					

5、Working conditions

- Height:≤2000m, if you want to apply it more than 2000m, you must refer to Miniature Circuit Breaker' s derating ratio table:

Altitude H(km)	Rated operating current	Maximum operating voltage	Rated power frequency withstand voltage	Rated impulse withstand voltage	Rated short circuit breaking capacity and electrical life
2	I_n	U_e	1.00	1.00	1.00
3	$0.99I_n$	U_e	0.89	0.89	0.83
4	$0.96I_n$	U_e	0.80	0.80	0.71
5	$0.94I_n$	U_e	0.73	0.73	0.63

- Ambient temperature: -40℃~+70℃
- Can withstand the effects of humid air(Temperature @+40℃ and above, air relative humidity does not exceed 50%, allows greater relative humidity at lower temperatures, for example, 95% @+20℃)

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- Can withstand salt spray for 48 hours
- In a medium without explosion hazard, and the medium does not have enough gas and conductive dust to corrode metal and destroy insulation
- In places where there is no rain or snow
- Temperature correction coefficient table

额定电流 (A) 修正电流 (A) 环境温度 (°C)	6	10	16	20	25	32	40	50	63
-40	10.88	17.04	25.35	28.95	37.34	47.21	60.81	74.06	92.22
-35	10.64	16.69	24.86	28.48	36.69	46.40	59.73	72.79	90.67
-30	10.39	16.33	24.37	27.99	36.03	45.59	58.62	71.50	89.10
-25	10.14	15.96	23.87	27.50	35.36	44.75	57.49	70.18	87.49
-20	9.89	15.58	23.36	27.00	34.67	43.90	56.34	68.84	85.85
-15	9.62	15.20	22.84	26.48	33.97	43.04	55.16	67.47	84.19
-10	9.35	14.80	22.30	25.96	33.25	42.15	53.96	66.07	82.49
-5	9.07	14.39	21.76	25.43	32.52	41.25	52.73	64.65	80.75
0	8.78	13.97	21.19	24.88	31.77	40.33	51.47	63.19	78.97
5	8.49	13.54	20.62	24.33	31.01	39.38	50.18	61.69	77.16
10	8.18	13.09	20.02	23.76	30.22	38.42	48.86	60.16	75.30
15	7.86	12.63	19.41	23.17	29.42	37.42	47.49	58.59	73.39
20	7.52	12.15	18.78	22.57	28.59	36.40	46.09	56.98	71.44
25	7.17	11.65	18.12	21.96	27.74	35.35	44.65	55.31	69.42
30	6.80	11.13	17.44	21.33	26.85	34.27	43.15	53.60	67.35
35	6.41	10.58	16.74	20.67	25.94	33.16	41.61	51.83	65.21
40	6.00	10.00	16.00	20.00	25.00	32.00	40.00	50.00	63.00
45	5.55	9.39	15.23	19.30	24.02	30.80	38.33	48.10	60.71
50	5.07	8.73	14.41	18.58	23.00	29.55	36.57	46.12	58.33
55	4.54	8.02	13.55	17.83	21.93	28.25	34.74	44.05	55.84
60	3.93	7.24	12.63	17.04	20.80	26.89	32.79	41.88	53.24
65	3.21	6.36	11.63	16.22	19.61	25.45	30.73	39.59	50.51
70	2.27	5.35	10.54	15.35	18.34	23.92	28.52	37.16	47.62

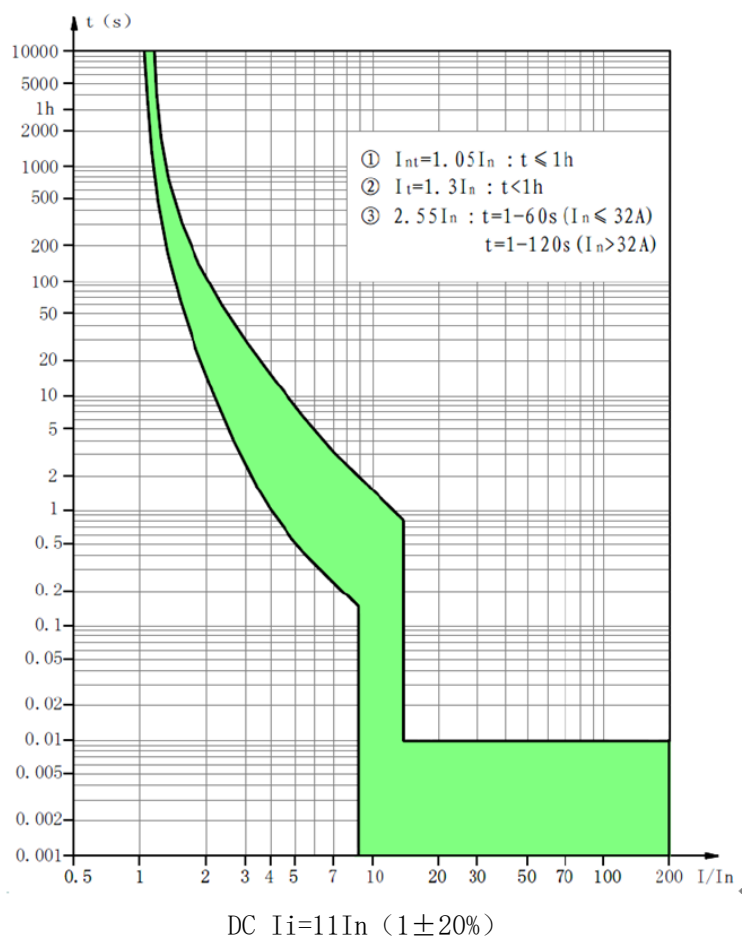
● Side by side derating coefficient table

断路器并 排数量	1	2~3	4~5	6~9	10
降容系数	1	0.9	0.85	0.8	0.8

6、Time-Current curves

● Direct-current

- Protect conventional and distribution cables
- Specify ampere rating: 6A、10A、16A、20A、25A、32A、40A、50A、63A
- Tripping characteristics: instantaneous trip range $11I_n(1\pm 20\%)$



9、Packaging and storage

Maximum number of packages:8/box, packed in boxes:24 boxes/box, it should stored in a warehouse where air circulation and relative humidity is not more than 80%, temperature is not lower than -40℃ but not higher than 80℃. Store in the warehouse without acid, alkaline or other corrosive gases in the surrounding air.

Under the above conditions, the storage period shall not exceed 1 year from the date of manufacture.

10、Environment

Product design meets ROHS requirements.

11、Accessory list and installation

None.

12、Notices

1、Take responsibility for yourself if product quality problems caused by unpacking products privately;

2、Do not touch the exposed part of the non-insulated part of the circuit breaker when the work is energized;

3、Please do not arbitrarily debug the characteristics of the circuit breaker. The manufacturer will not be responsible for the product quality problems caused by this;

4、The wiring should be reliable to prevent the breaker from circuit breaker malfunction and terminal burned caused by abnormal heat at the terminals.