

Shanghai Liangxin Electrical Co., Ltd.

NDZ3AT-120~250 DC Contactor

Product Specification

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Revision information					
Version	Revised contents and reasons	Date	Prepared	Reviewed	Approved
0	New addition	2021-3-24	Zhao Lan	Xie Qiangqiang	Zhu Hua

1.Application Scope and Purpose

The NDZ3AT-250C/300C series of DC contactors apply to the DC system with the working voltage of DC1000V and working current of 250~300A, which are mainly used in electric vehicles, charging piles, charging stations and other fields.

2. Picture of the Product



3. Specification and Model Description

ND Z 3A T - □ □ / 750V □
1 2 3 4 5 6 7 8

SN	SN name	NDZ3T
1	Enterprise code	ND "Nader" brand low-voltage electrical device
2	Product code	Z DC contactor
3	Design SN	3A
4	Package type	T: Ceramic package
5	Basic specification code	Rated current value
6	Series subdivision code	C
7	Load working voltage	DC 750V
8	Coil voltage	DC12V, DC24V

Parameter name		Description of the specific parameters	
Product model		NDZ3AT-250C	NDZ3AT-300C
Rated current (A)		250A	300A
Load polarity		With polarity	
Coil polarity		Without polarity	
Number of poles		Single pole	
Rated voltage DC(V)		450V/750V	
Insulation voltage Ui		1000V	
Type of circuit		DC	
Rated control voltage Us		DC12、 24V	
Operate voltage		≤9V（DC12V）、≤18V（DC24V）	
Discharge voltage		≥1. 2V（DC12V）、≥2. 4V（DC24V）	
Pull-in/discharge time (rated voltage 20℃):		Pull-in: ≤30ms Discharge: ≤10ms Bounce :≤5ms	
Coil power consumption (20℃):		6W	
Mechanical life		200,000 times, frequency: 3,600 times/h	
Forward electrical life (on 0.6s off 5.4s) resistive load	making	DC20V 140A 75000 times;	DC20V 140A 75000 次;
	Making and breaking	DC450V 250A 1000 times; DC750V 250A 500 times	DC450V 300A 1000 times; DC750V 300A 500 times
		DC450V -250A 1000 times ; DC750V -250A 500 times	DC450V -300A 1000 times; DC750V -300A 500 times
Maximum breaking current:		DC450V 2000A 1 times ; DC500V 1800A 1 times ; DC750V 1500A 1 times	DC750V 2000A 1 times ; DC800V 1500A 1 times
		DC450V -2000A 1 times ; DC500V -1800A 1 times ; DC750V -1500A 1 times	DC750V -2000A 1 times ; DC800V -1500A 1 times
Short-time withstand current:		1000A 20s 900A 25s 500A 120s 350A 8min 250A 持续	1000A 25s 900A 30s 600A 120s 450A 5min 300A 持续
		8000A&5ms With no fire or explosion	
Contact rating(at rated current)		≤0. 5m Ω	
Insulation resistance:		≥1000MΩ, 1000VDC	
Withstand voltage:		Before test: Between open contacts 、 Between contact and coil :AC2600V and 1min.Leak current:1mA; After test: Between open contacts 、 Between contact and coil :AC2600V and 1min.Leak current:1mA;	

Impact strength	Stability: (sinusoidal half-wave pulse: 11ms, detection time 10 μ s) ON: 60g; OFF:20g Destructiveness: (sinusoidal half-wave pulse: 11ms)60g
Vibration strength	10~500Hz 5g
Product weight	Approx.400g

5. Normal Working Environment

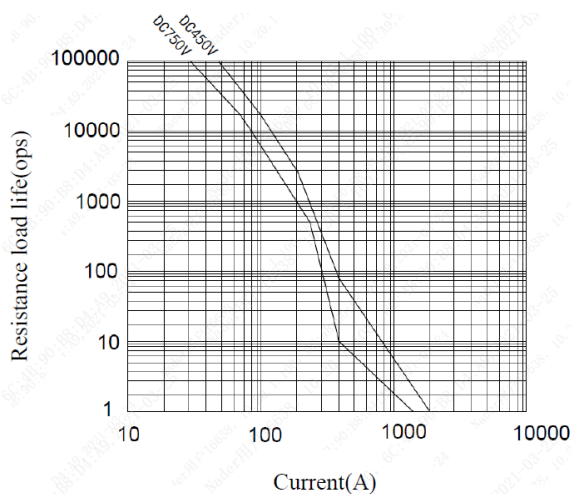
5.1: Operating ambient environment: -40~85°C

5.2: Operating humidity: 5%~95%

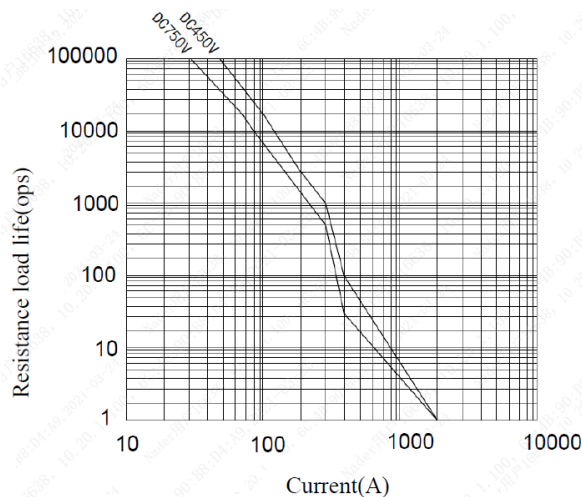
5.3: Pollution level: 3

5.4: Installation direction: Vertical installation, horizontal installation.

6. Electrical Endurance

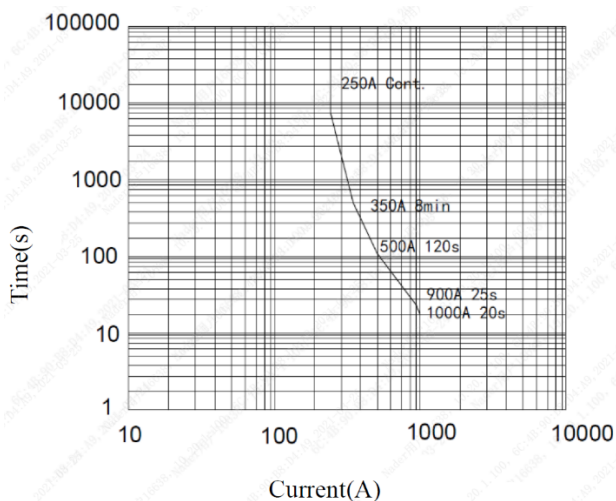


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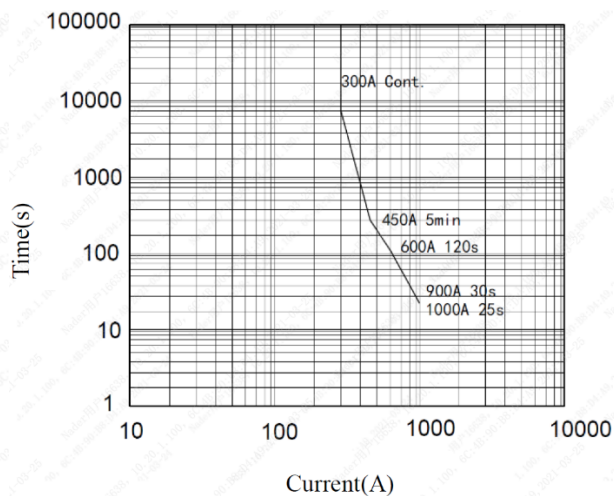


NDZ3AT-300C

7. Current Endurance

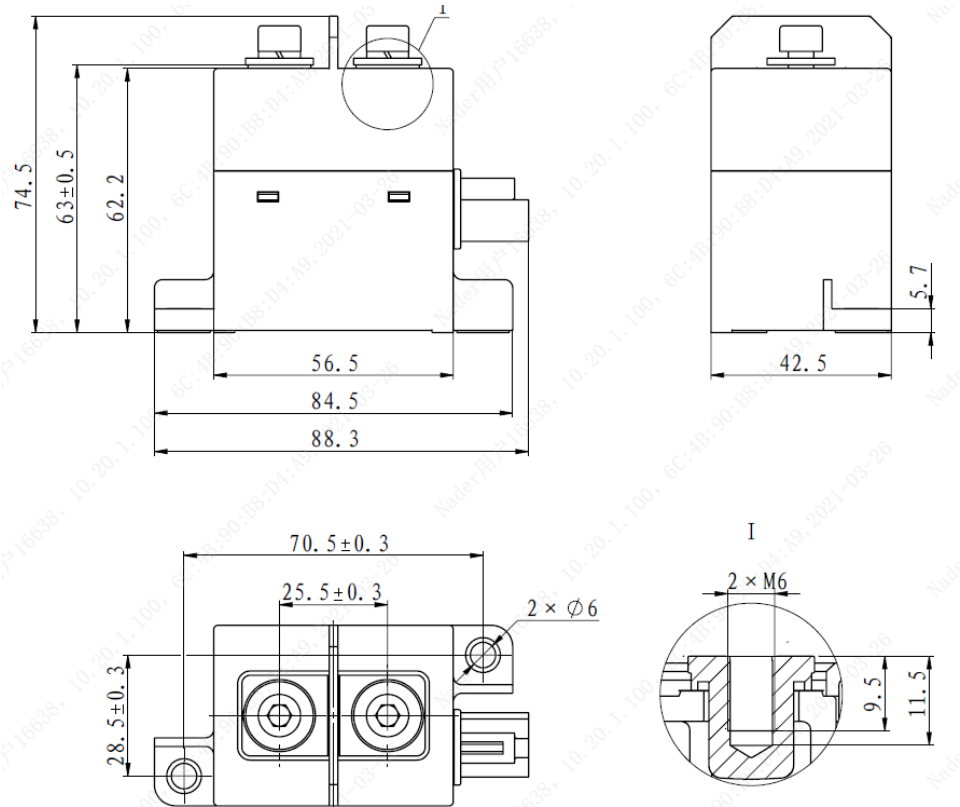


NDZ3AT-250C



NDZ3AT-300C

8.External Dimensions and Installation Dimensions (mm)

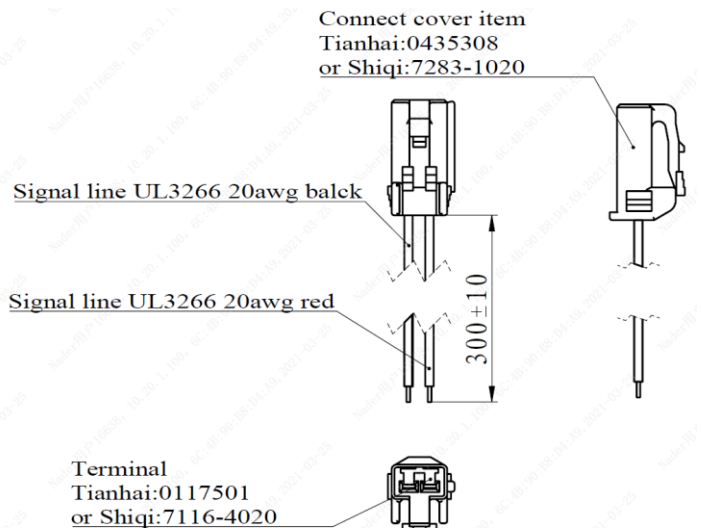


NDZ3AT-250C/300C

Note: All unspecified tolerance according to following table.

Outline dimensions hadn't specified tolerance	
Outline Dimensions	Tolerance
≤10mm	±0.3 mm
10~50 mm	±0.5 mm
>50mm	±0.8 mm

9. Coil connector (mm)



10. Installation Mode

Screw mounting

11. Environmental Compliance

Comply with the RoHS directives

12. Precautions

a. It is strictly forbidden to use the product in places with strong magnetic fields or in proximity to thermal radiation;

b. Wiring terminal torque;

Type	Wiring terminal torque	Installation position torque
NDZ3AT-250C/300C	M6 crew: 6~8N•m	M5 crew: 3~4 N•m

c. Avoid adhering grease and other foreign matters on the wiring terminal and use the connecting conductor with the following specifications, which may otherwise lead to the abnormal heating of the wiring part;

Type	Wire cross-section area
NDZ3AT-250C	$\geq 60\text{mm}^2$
NDZ3AT-300C	$\geq 100\text{mm}^2$