

Shanghai Liangxin Electrical Co., Ltd.

(NDZ3AT-60010H DC Contactor)

Product Specification

(IPD-ENG-DEV-T20 A1 2016-09-23)

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Revision information					
Version	Revised contents and reason	Date	Prepared	Reviewed	Approved
0	New Add	2022.5.8	LanZhao	Qiangqiang Xie	Xiaomiao Lu

1、Application Scope and Purpose

NDZ3AT-60010H series of DC contactors apply to the DC system with the working voltage of DC1500V and working current of 600A, 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 - 600	10	H	/	□	□
1	2	3	4	5	6	7	8	9

SN	SN NAME	NDZ3AT
1	Enterprise code	ND:NADER brand lowvoltage electrical device
2	Product code	Z: DC Contactor
3	Design SN	3A
4	Package Type	T: Ceramic package
5	Basic Specification code	Rate current value
6	Auxiliary contact	10: With a set of NO auxiliary contacts
7	Series subdivision code	H
8	Load working voltage	DC 1500V 1000VDC 750VDC
9	Coil Voltage	DC12V、DC24V

4、Main Technical Parameter

Parameter name		Description of the specific parameters
		NDZ3AT-60010H
Rated current (A)		600A
Load polarity		Without polarity
Rated voltage DC(V)		DC12~DC1500V
Control Coil	Coil polarity	With Polarity
	Rated Control Voltage Us	DC12V DC24V
	Operate voltage	≤9V (DC12V) 、≤18V (DC24V)
	Discharge voltage	≥1.2V (DC12V) 、≥2.4V (DC24V)

	Pull-in/discharge time(rate d voltage 20℃):	≤50ms
	Discharge: (20℃)	≤15ms

	Bounce (20℃)	≤5ms
	Coil power consumption (20℃)	Start: <55W; keep: <5.5W
Auxiliary contact	auxiliary contact	one set of normal open
	nominal road	24Vd.c
Mechanical life		20000 times
Electrical life(on 0.6s, off 5.4s)		DC1500V 600A 5 次;DC1000V 600A 200 次;DC750V 600A 800 次
Maximum breaking current (on 0.6s)		DC1000V 2000A 1 times; DC1500V 1000A 1 times
Short time withstand current		8000A 10ms; 3000A 4s; 1000A 5min; 800A 20min;600A Continue
Contact rating (20℃)		≤0.2mΩ
Insulation resistance:		Before test: 1500VDC 1000MΩ, After test 1500V 50MΩ
Withstand voltage:		Before test:4000 Va.c. (50/60 Hz 1 min), After test 3000 Va.c. (50/60 Hz 1 min), (Leak current:≤1mA)
Impact strength		Stability: 10g (sinusoidal half-wave pulse:11ms, detection time 10us), 6times, on and off status X Y Z each direction 6 times, total 36times Strength: 50g (sinusoidal half-wave pulse:6ms), 300times, on and off status X Y Z each direction 50 times, total 300 time, no change happened of Appearance, structure and performance
Vibration strength		Sinusoidal wave 10Hz~55Hz, Double amplitude 1.5mm

5、Normal Working Environment

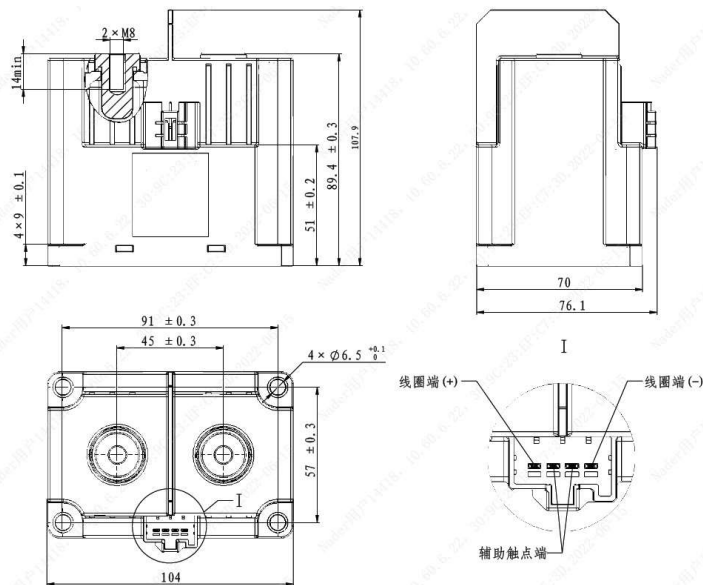
5.1: Operating ambient environment:-40~85℃

5.2: Operating humidity: 5%~95%

5.3: Pollution level:3

5.4: Installation direction: Vertical installation, horizontal installation.

6、External Dimensions and Installation Dimensions (mm)

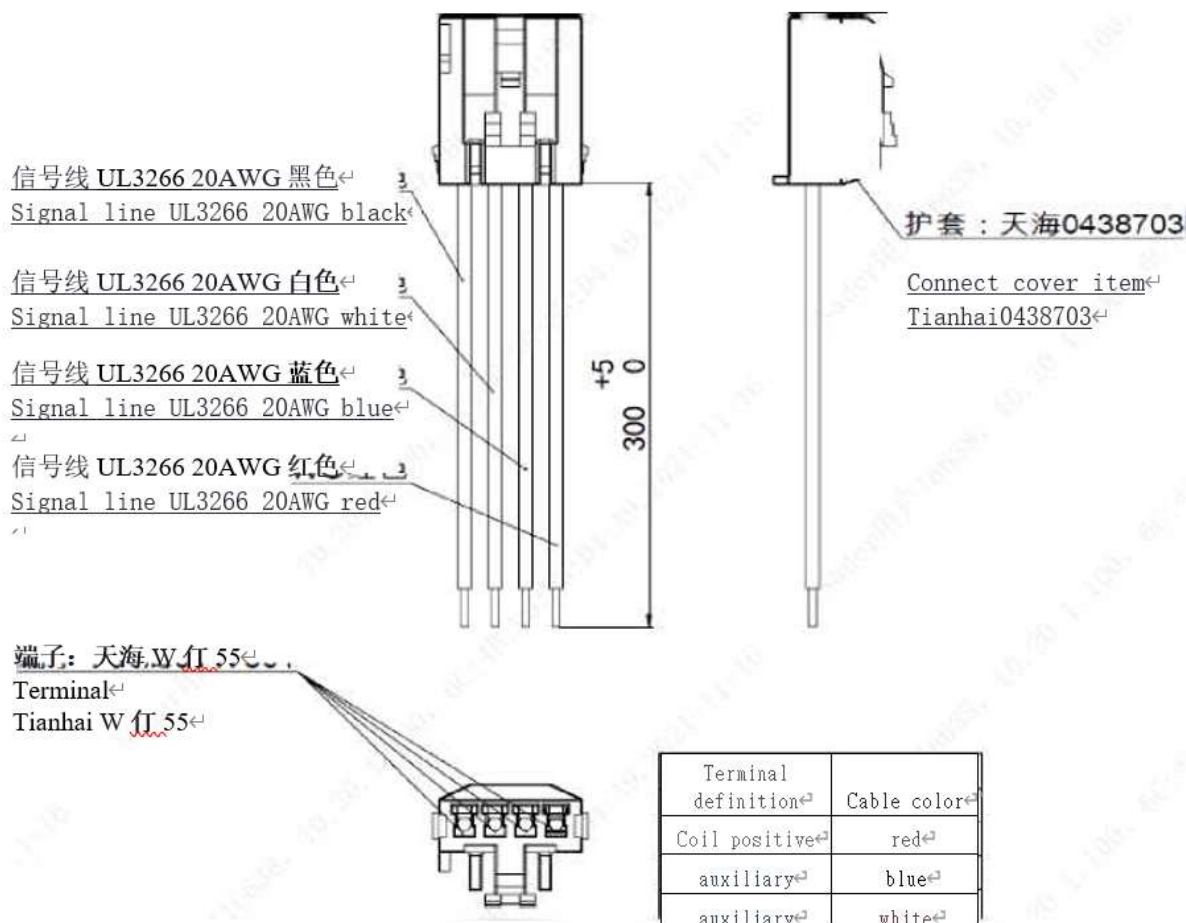


NDZ3AT-60010H

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

7、Coil connector (mm)



8、Installation Mode

Screw mounting

9、Environmental Compliance

Comply with the RoHS directives

10、Precautions

- a、The drive circuit power of the contactor coil must be greater than the starting power of the product;
- b、It is strictly forbidden to use the product in places with strong magnetic fields or in proximity to thermal radiation;
- c、The product is equipped with an energy saving board, and the coil will be switched after 0.2s of driving. Please do not start it repeatedly within less than 0.2s;
- d、Do not use the method of slowly rising voltage to drive, otherwise the product will not act, and will directly use pulse voltage to drive;
- e、Wiring terminal torque;

Type	Wiring Terminal torque	Installation position torque
NDZ3AT-600	M8 screw: 9-10 N • m	M5 screw: 3-4 N • m

- f、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-600	350mm ²