

Shanghai Liangxin Electrical Co., Ltd.

NDZ3T-350~400 DC Contactor

# Product Specification

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

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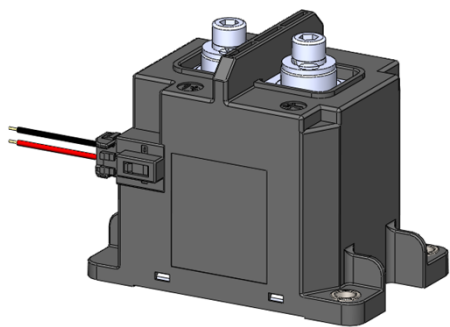


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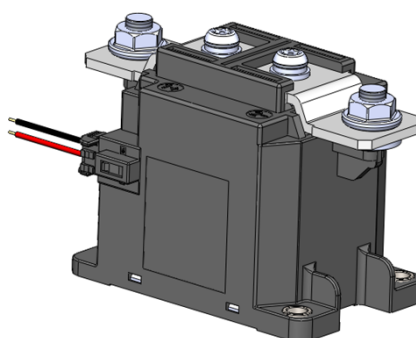
### 1. Application Scope and Purpose

The NDZ3T-350~400 series of DC contactors apply to the DC system with the working voltage of DC750V and working current of 350~400A, which are mainly used in electric vehicles, charging piles, charging stations and other fields.

### 2. Picture of the Product



NDZ3T-350/400



NDZ3T-350P/400P

### 3. Specification and Model Description

**ND Z 3 T - 350 □/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	3
4	Package type	T: Ceramic package
5	Basic specification code	Rated current value 350A、400A
6	Load outlet form	P: Busbars; none: Without busbars
7	Load working voltage	DC 750V
8	Coil voltage	DC12V、 DC24V、 DC48V

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## 4. Main Technical Parameters

Parameter name	Description of the specific parameters	
Shell frame current level	350A	400A
Load polarity	With polarity	
Coil polarity	With polarity	
Number of poles	Single pole	
Rated current (A)	350	400
Rated voltage DC(V)	750	
Insulation voltage Ui	1000V	
Type of circuit	DC	
Rated control voltage Us	DC12V/24V/48V Pull-in voltage: 75%~110%Us Discharge voltage: 10%~60%Us	
Mechanical life	200,000 times, frequency: 3,600 times/h	
Forward electrical life (on 0.6s off 5.4s) resistive load	750VDC 350A 1,000 times	750VDC 400A 1,000 times
	500VDC 350A 2,000 times	500VDC 400A 2,000 times
Reverse electrical life (on 0.6s off 5.4s) resistive load	-500VDC 350A 1,000 times	-500VDC 400A 1,000 times
Maximum breaking current:	DC750V 3000A once	
Short-time withstand current:	3000A 600ms	
Insulation resistance:	$\geq 1000M\Omega$ , 1000VDC	
Withstand voltage:	3000VAC 60s	
Coil power consumption (20°C):	Starting $\leq 45W$	
	Retention $\leq 4.5W$	
Pull-in/discharge time (rated voltage 20°C):	Pull-in: $\leq 30ms$	
	Discharge: $\leq 10ms$	
Impact strength	Stability: (sinusoidal half-wave pulse: 11ms, detection time 10 $\mu s$ ) ON:20g;OFF:10g	
	Destructiveness: 50g (sinusoidal half-wave pulse: 6ms)	
Vibration strength	10~500Hz 5g	
Product weight	810g with busbars;	
	710g without busbars	

## 5. Normal Working Environment

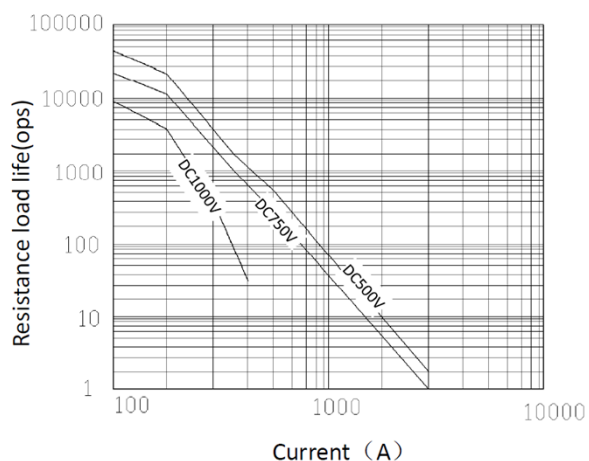
5.1: Operating ambient environment: -40~85℃

5.2: Operating humidity: 5%~95%

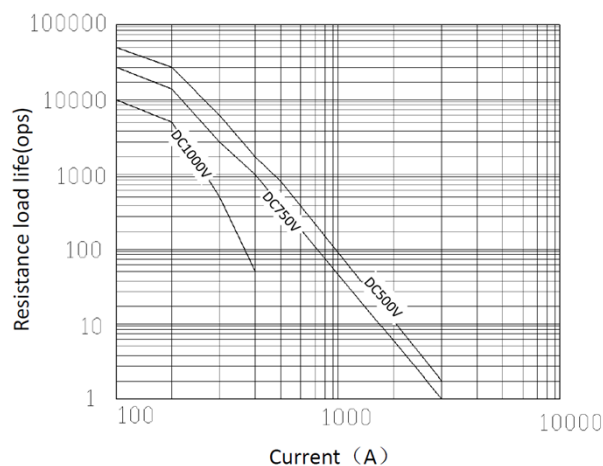
5.3: Pollution level: 3

5.4: Installation direction: Vertical installation, horizontal installation.

## 6. Electrical Endurance

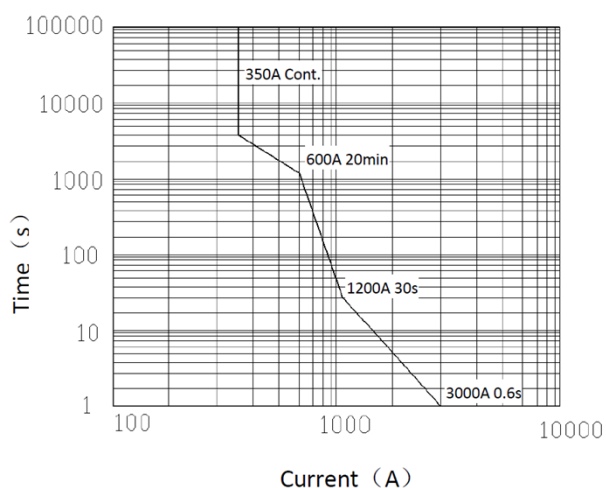


NDZ3T-350

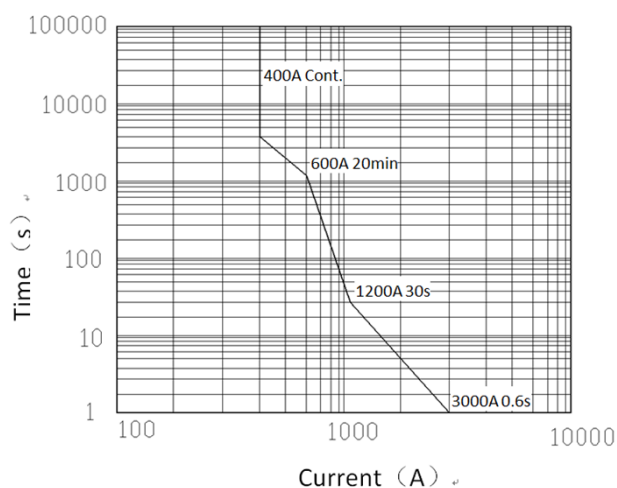


NDZ3T-400

## 7. Current Endurance



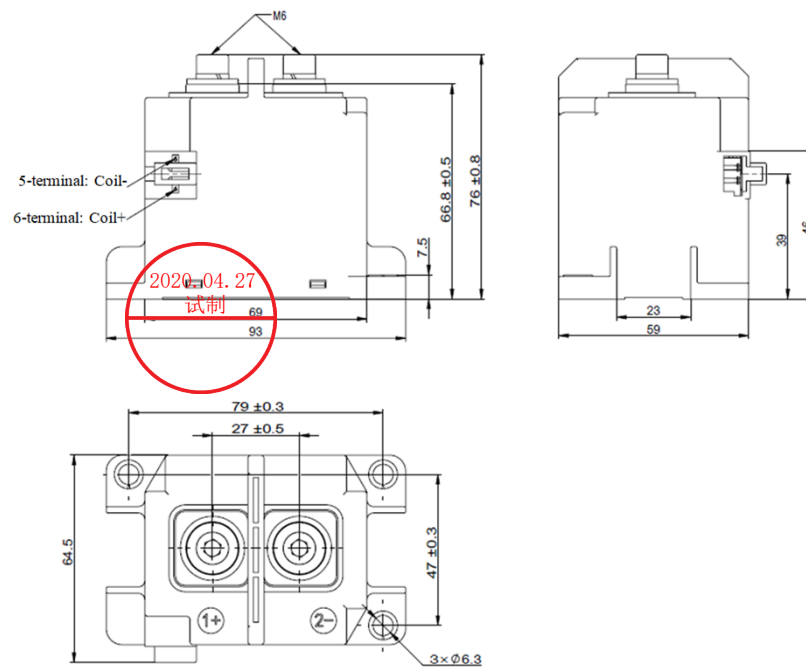
NDZ3T-350



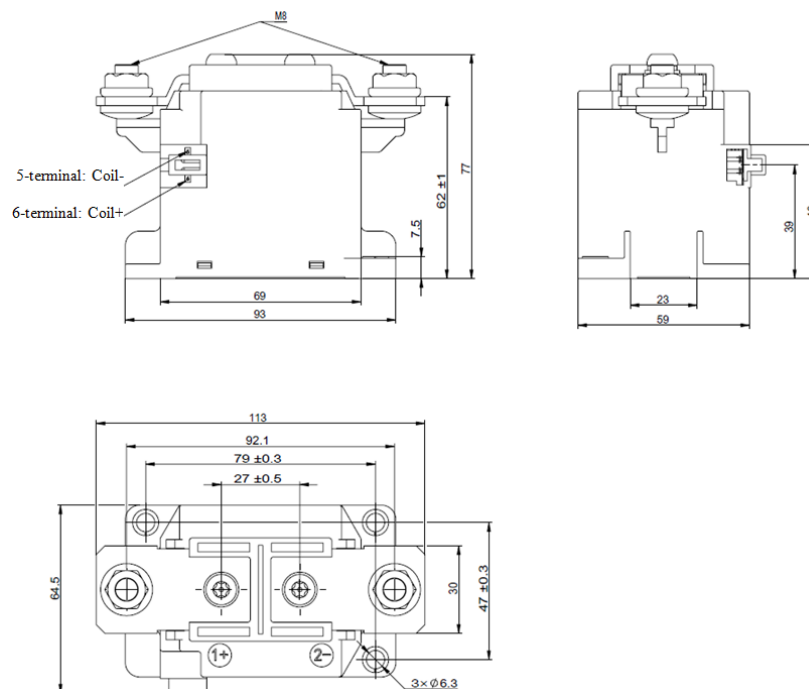
NDZ3T-400

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## 8. External Dimensions and Installation Dimensions (mm)



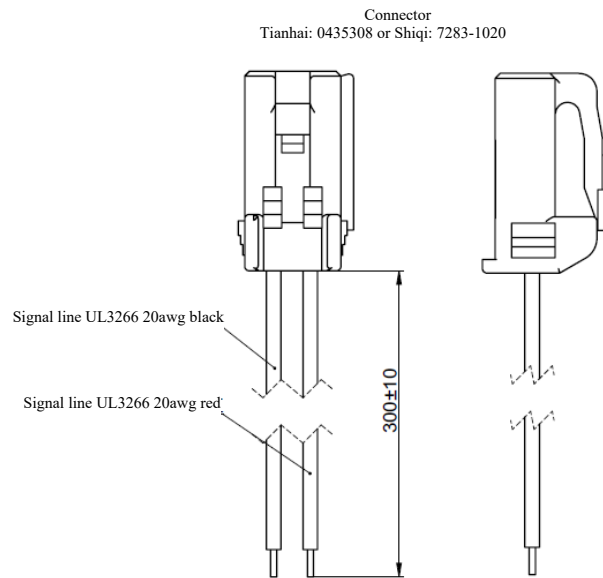
NDZ3T-350~400



NDZ3T-350P/400P

## 9. Coil connector

(mm)



## 10. Installation Mode

Screw mounting

## 11. Environmental Compliance

Comply with the RoHS directives

## 12. Precautions

- The drive circuit power of the contactor coil must be greater than the coil's starting power;
- It is strictly forbidden to use the product in places with strong magnetic fields or in proximity to thermal radiation;
- With the built-in energy-saving board, the product will perform coil switching after driven for 0.2s. Do not repeat starting within  $<0.2s$ .
- The product can't be driven by the slowly rising voltage, ; otherwise, the product will not act. It will be directly driven with the pulse voltage.
- Wiring terminal torque
 

NDZ3T-350/400 (M6 screw)	6~8N • m
NDZ3T-350P/400P (M8 screw)	9~11N • m

 Installation position torque  
 M5 screw    3~4N • m
- 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;  
 Wire cross-section area  $\geq 120\text{mm}^2$ ;

