

	文件名称 File Name	使用说明书 Operation instruction	文件编号 File Number	NDT2920109
	产品型号及名称 Model and Name of Product	NDC2(N)-115~170 接触器 NDC2(N)-115~170AC Contactor	版 次 Version	第 1 版
			实施日期 Implementation Date	20160730

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NDC2(N)-115~170 系列 接触器使用说明书

NDC2(N)-115~170 Series Contactor Using Instruction

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修订记录

版次	修订内容	修订日期	修订人员
0	新增	20160610	李祥雨
1	增加 NDC2N-115~170 可逆接触器内容	20160710	李祥雨

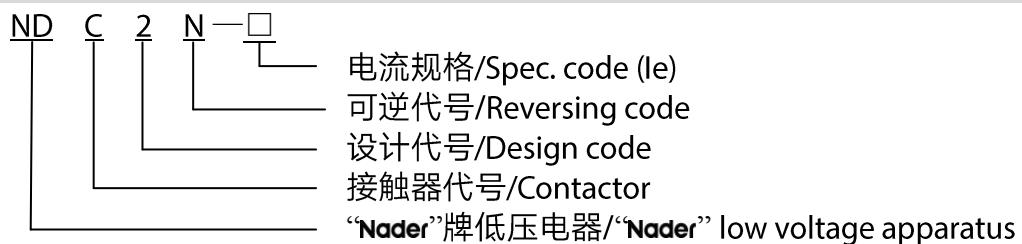
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一、适用范围与用途/Application and use

NDC2(N)-115~170 系列交流接触器主要用于交流 50/60Hz, 额定绝缘电压为 1000V, 在 AC-3 使用类别下, 额定工作电压为 415V 时, 额定电流至 170A 的电气线路中, 供接通与分断电路及频繁起动、控制交流电动机, 并可与适当的热过载继电器组成电磁起动器, 以保护可能发生过负荷的电路。

NDC2(N)-115~170 series AC contactor is mainly used in circuit of AC50/60Hz, rated insulation voltage up to 1000V, and rated current is 170A under rated voltage 415V, to realize distant connection and disconnection of the circuit and constant starting to control AC motors. It can also be used with thermal relay and electric protecting devices to protect circuit against possible overload.

二、型号说明/Model and Implication



三、工作环境/Working Conditions

1、适用工作环境/Working Conditions

1.1、标准使用环境温度/Standard use of ambient temperature $-25^{\circ}\text{C} \sim +40^{\circ}\text{C}$.

1.2、极限使用环境温度/Limit the use of ambient temperature $-40^{\circ}\text{C} \sim +70^{\circ}\text{C}$.¹⁾

1.3、存储温度/Storage temperature $-60^{\circ}\text{C} \sim +80^{\circ}\text{C}$.

1.4、湿度：在温度为 $+40^{\circ}\text{C}$ 时, 空气的相对湿度不超过 50%, 在较低温度下可以允许有较高的相对湿度, 例如 20°C 时达 90%。由于温度变化偶而产生的凝露应采取特殊的措施。

Humidity: The relative humidity of the air does not exceed 50% at the temperature of $+40^{\circ}\text{C}$. Higher relative humidity may be permitted at lower temperature, such as 90% humidity at 20°C . Special measures are necessary in case of occasional condensation due to variations in temperature.

2、海拔/Altitude

正常使用海拔高度： ≤ 3000 米；Normal use Altitude: ≤ 3000 meters;

极限使用海拔高度： ≤ 5000 米；Limit use Altitude: ≤ 5000 meters;²⁾

3、污染等级/ Pollution grade

3 级/Grade 3

4、安装类别/ Installation category

III 类(配电及控制水平级) /class III(Class of power distribution and control).

注/Note: 1)、2) 降容使用方案请与我司联系确认/Please contact the company to confirm the derating factors.

四、技术参数/Specifications

型号规格/Spec.	NDC2-115	NDC2-150	NDC2-170	NDC2N-115	NDC2N-150	NDC2N-170
额定工作电流 Ie: A(Ue \leq 400V) Rated operational current (Ue \leq 400V) (AC-3)	115	150	170	115	150	170
约定发热电流/Conventional thermal current Ith: A	200					
额定工作电压/Rated operational voltage Ue: V	220/230/240、380/400/415、660/690					

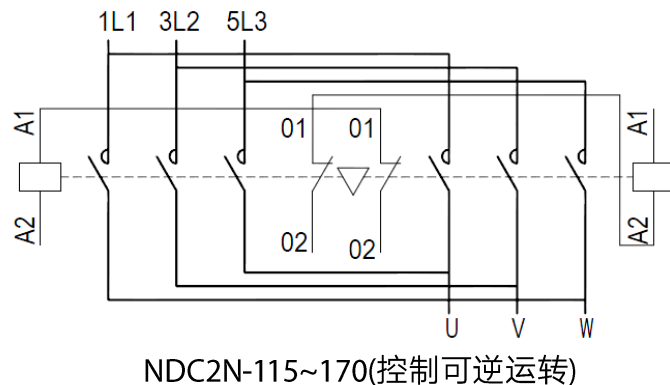
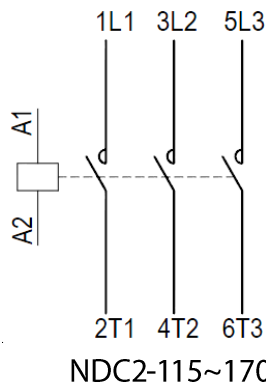
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续表






AC-3 (6le、le)	电寿命/Electric durability 10 ⁴ 次	40	30	30	40	30	30
	操作频率/Operating frequency h ⁻¹	600	300	300	600	300	300
AC-4 (6le、6le)	电寿命/Electric durability 10 ⁴ 次	2					
	操作频率/Operating frequency h ⁻¹	300					
线圈 Coil	额定控制电压 Us: V Rated control voltage	AC 50/60Hz 24、36、48、110、200、220、230、380、400、415、480					
	吸合电压/Operation voltage	0.85Us ~ 1.10Us					
	释放电压/Drop-out voltage	0.20Us ~ 0.75Us					
	平均功耗 VA Average consumption	吸合/Inrush	350				
		保持/Sealed	22				
机械寿命/Mechanical durability 10 ⁴ 次		800					
操作频率/Operating frequency h ⁻¹		1200					

五、接线/Wiring diagram

1、接线图/Wiring diagram



2、接线能力/Connecting characteristics

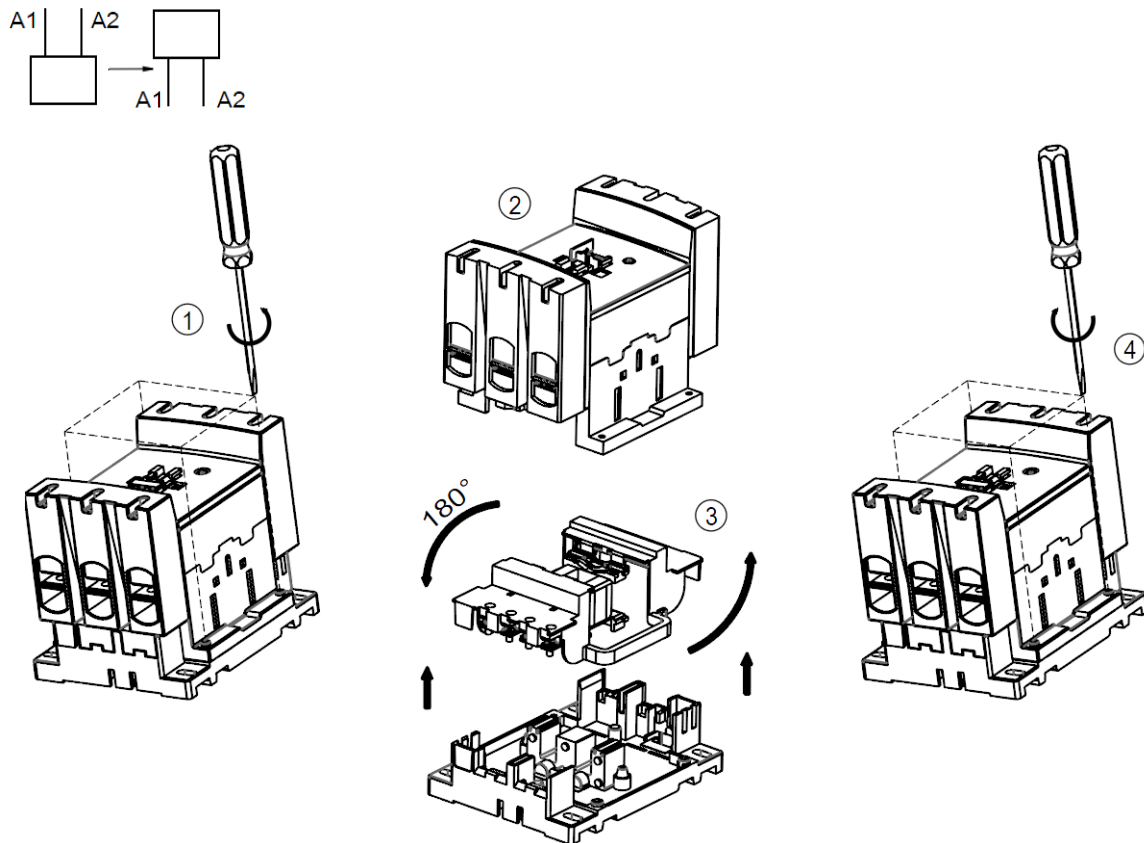
	硬线 Rigid solid		软线 Flexible		冷压端头软线 Cold-compacting terminals		十字螺刀 Philips screwdriver	六角螺刀 Hexagon		
	一根/One	两根/Two	一根/One	两根/Two	一根/One	两根/Two				
						mm ²	mm ²	mm ²	Φ6 N·m	4mm N·m
主端子 Main terminal	10~120	10~120 + 10~50	10~120	10~120 + 10~50	10~120	10~120 + 10~50	—	12		
线圈端子 Coil terminal	1~2.5	1~2.5 + 1~2.5	1~2.5	1~2.5 + 1~2.5	1~2.5	1~2.5 + 1~2.5	1.2	—		

3、变换接线端子位置/Change the terminals position

接触器的控制回路接线端子可以颠倒位置使用。

The terminals of contactor control circuit can be reversed.

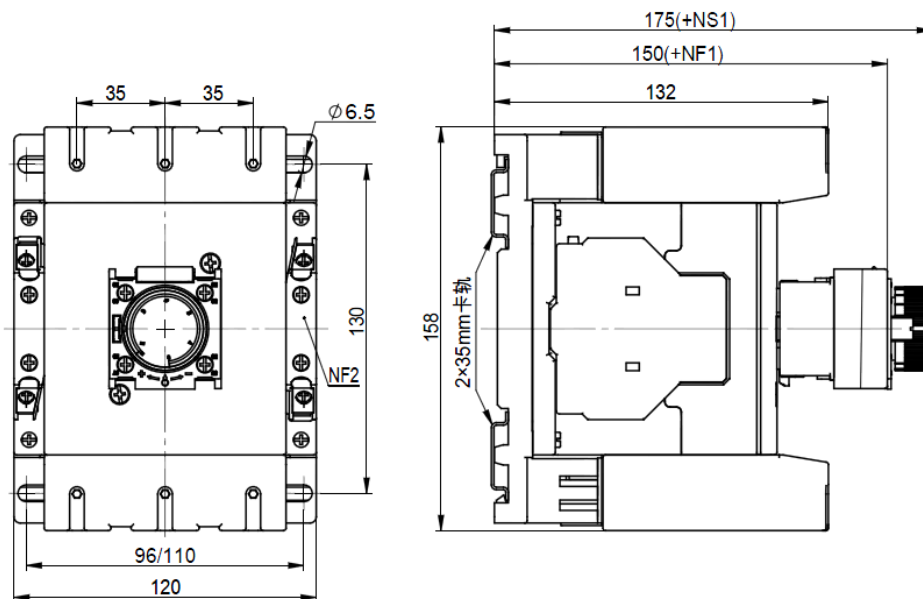
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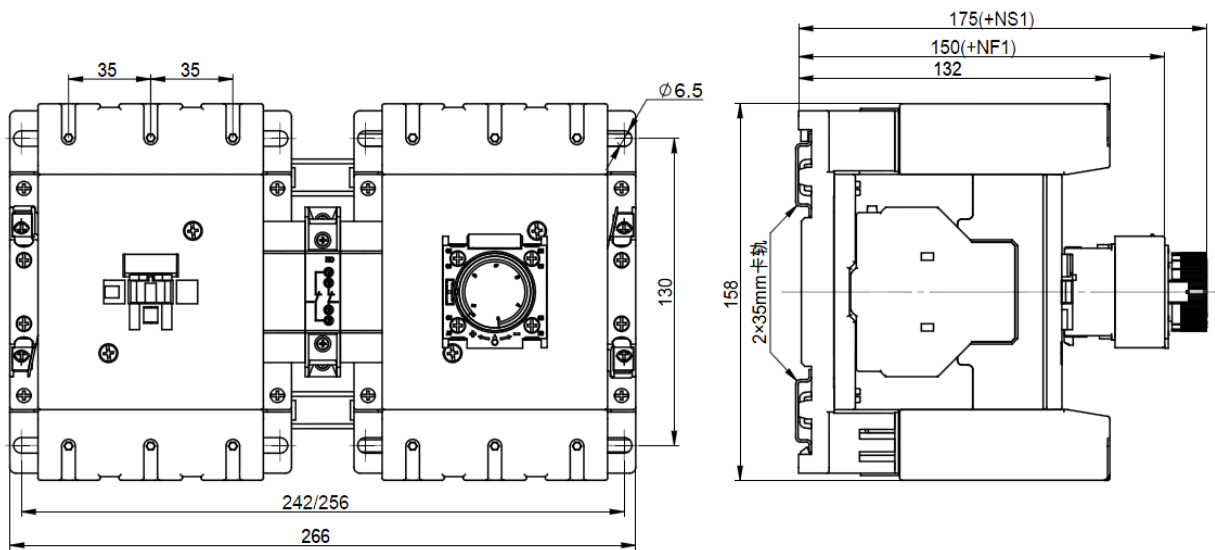
- ① 使用十字螺刀取下四个固定螺钉/Remove the four setscrews by phillips screwdrivers.
- ② 取下产品上壳体/Take off upper shell body of the products.
- ③ 取下线圈及防护罩，并旋转 180° /Take off the coil and cover,and rotate them 180°.
- ④ 重新将线圈及防护罩、上壳体装回下壳体，并重新装回四个固定螺钉/Install the coil,cover and upper shell body with the bottom shell body,and reload the four setscrews.

六、外形和安装/Overall and installation

1、外形及安装尺寸/ Overall and installation dimensions

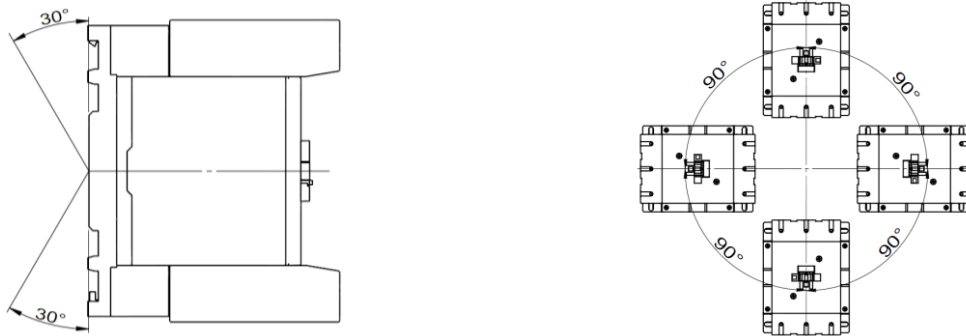


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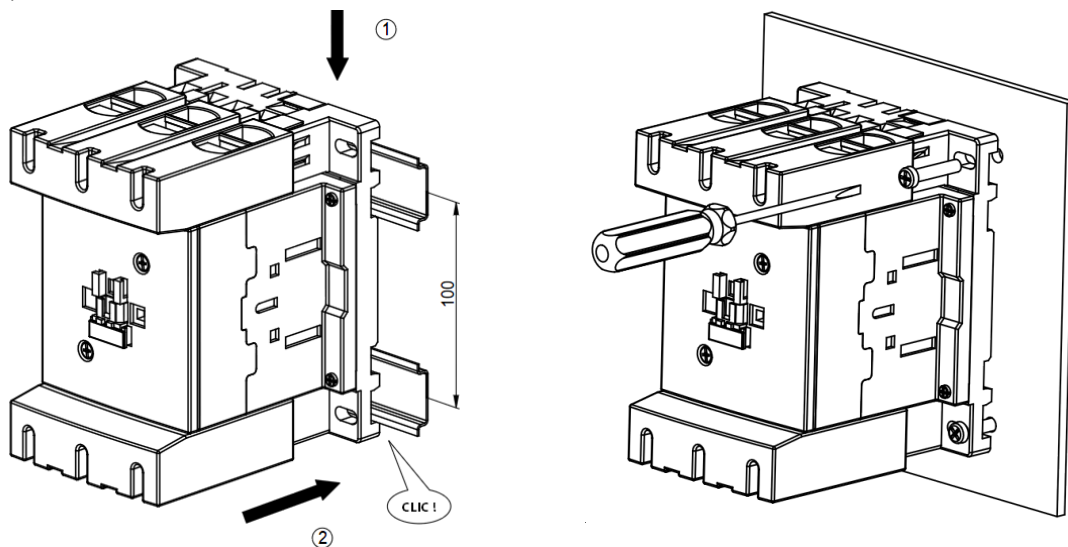
NDC2N-115~170

2、安装要求/Mounting position



3、安装及拆卸/Installation and disassembly

3.1 安装/ Installation



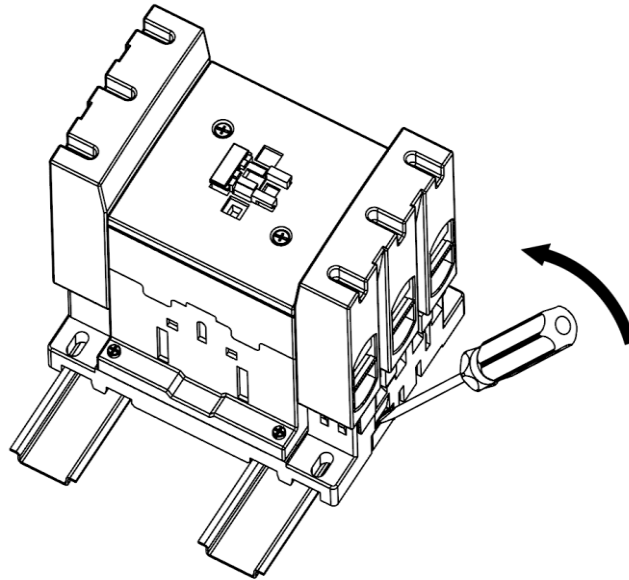
将接触器放在两个间距 100mm 的平行 35mm 标准卡规上用力按下，当听到“啪”的响声时，说明接触器已经正确安装到卡规上。轻微摇晃并推动接触器，可以在卡规上移动到适当位置。如果没有卡规，接触器可以用螺钉固定在所需要的位置上。

Fit contactor on to two parallel 35mm DIN tracks that the center distance is 100mm, then push it hard. When there is a sound "CLIC", contactor is installed on the right position. Shake the

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product from side to side can speed up the installation.If there is no DIN track,the contactor can be fixed on the right position with screws.

3.2、拆卸/Disassembly

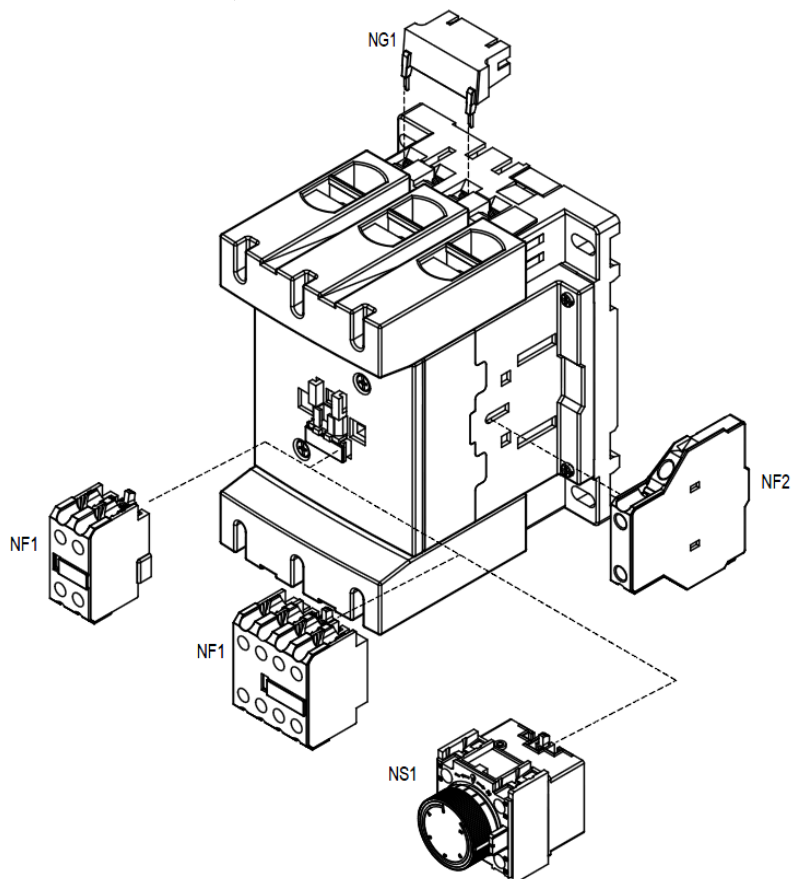


用一字螺丝刀将白色卡块撬起，即可将接触器从卡规上取下。

Use the flat tip screwdriver to release the white fixing claw,then take contactor down from the DIN track.

七、附件/Accessory

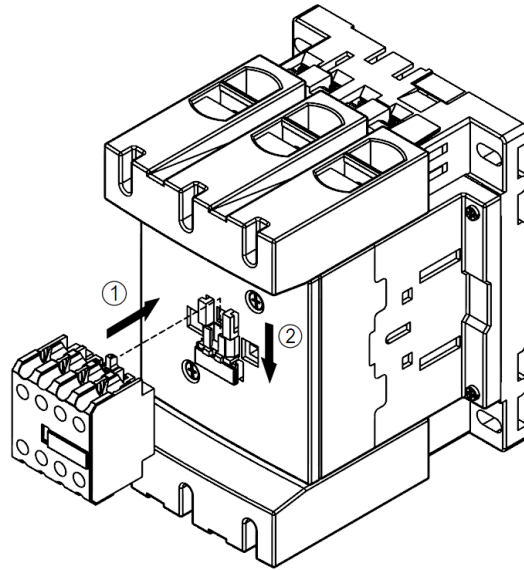
1、附件一览/The list of accessory



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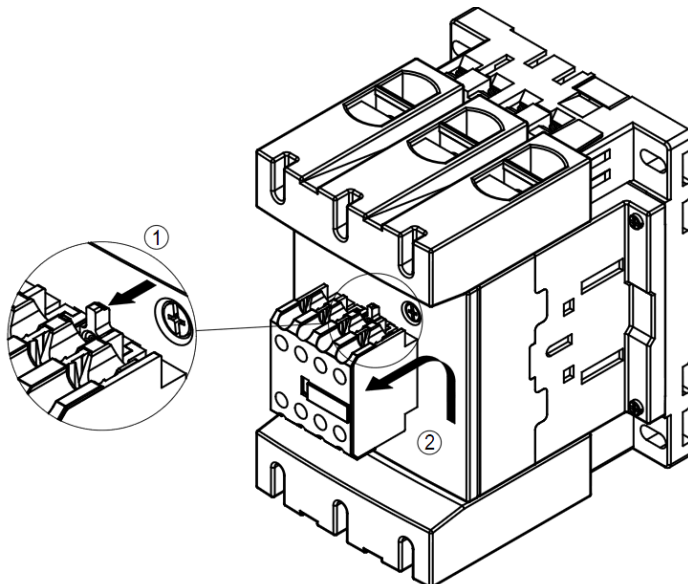
2、附件安装/Accessories installation

2.1、NF1 系列辅助触头组的安装/Installation of NF1 series auxiliary contact group



- ① 将 NF1 放在接触器面板相应的挂钩处。
Put NF1 on the corresponding position of bracket of contactor.
- ② 将 NF1 沿接触器本体方向向下移动，直到听见“啪”的响声。
Move NF1 down along the surface of main body until there is a sound “CLIC”.

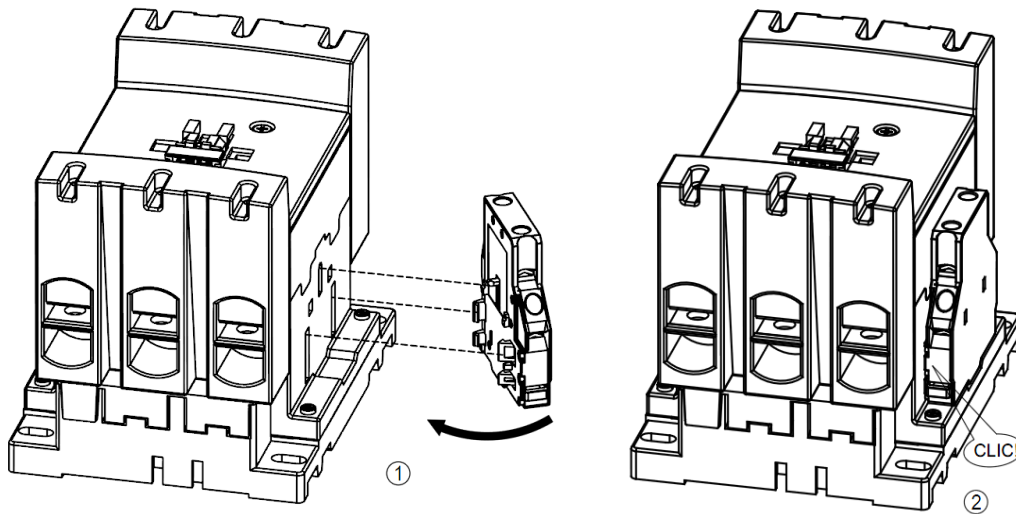
2.2、NF1 系列辅助触头组的拆卸/Disassembly of NF1 series auxiliary contact group



- ① 按下 NF1 下面的白色卡块使其接触与接触器的连接。
Pull the fixing claw of NF1 to make it release from the contactor.
 - ② 沿接触器面板向上移动 NF1 直到与接触器分离。
Move NF1 up along the surface of main body.
- NS1 的安装与拆卸方法与 NF1 相同。
The method of NS1 installation and disassembly is the same as NF1.

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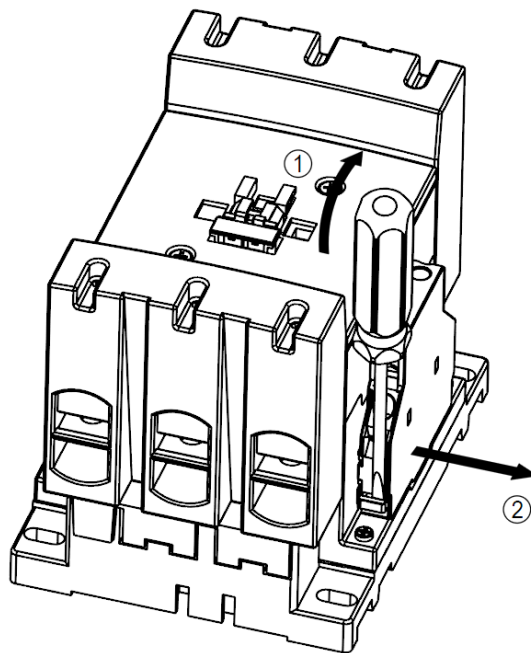
2.3、NF2 系列辅助触头组的安装/Installation of NF2 series auxiliary contact group



将 NF2 有挂钩一侧放在接触器相应位置，然后挂上一侧挂钩后，用力按下 NF2 使其与接触器本体接触。

Put the upper part of NF2 on the corresponding position of contactor, then press the bottom part of NF2 on the main body hard, and make it clamp the main body of contactor.

2.4、NF2 系列辅助触头组的拆卸/Disassembly of NF2 series auxiliary contact group

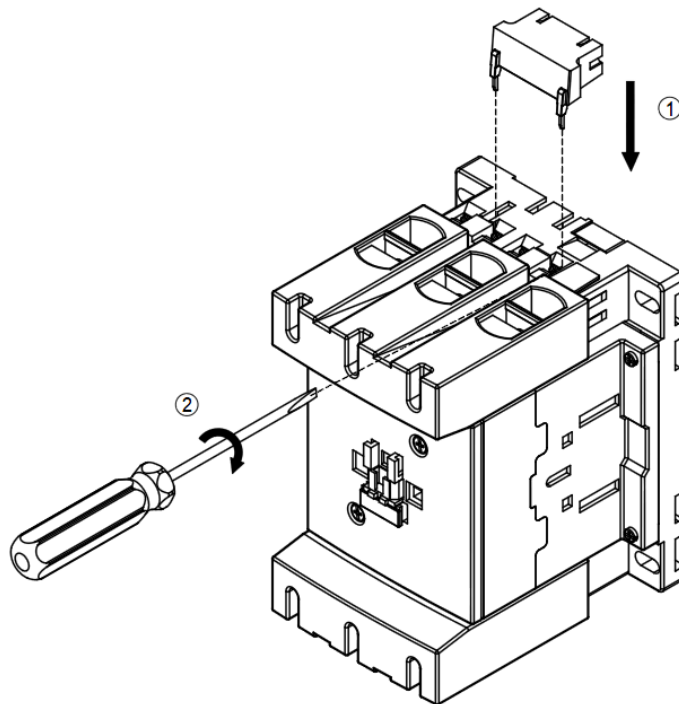


用一字螺丝刀将 NF2 的固定挂钩撬起，然后移动 NF2 与接触器分离。

Release the fixing crew of NF2 with flat tip screwdriver, then remove NF2 from the main body of contactor.

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2.5、NG1 线圈浪涌抑制模块的安装/Installation of NG1 series coil surge refraining module



将 NG1 的两个插头插入接触器线圈接线螺钉处，用螺丝刀拧紧固定即可。

Put the two lugs of NG1 (insert type) into the right terminals of contactor, then use screwdriver to fasten it.

2.6、附件规格/Accessories Specification

附件名称 Accessories	备注 Remarks	附件名称 Accessories	备注 Remarks	附件名称 Accessories	线圈控制电压 Uc
NF1-02	2"NC"	NF2-11	1"NO"+1"NC"	NG1-2RCE	24~48V
NF1-11	1"NO"+1"NC"	NF2-20	2"NO"	NG1-2RCG	50~127V
NF1-20	2"NO"	NS1-220	0.1~3s On-delay	NG1-2RCU	110~240V
NF1-04	4"NC"	NS1-222	0.1~30s On-delay	NG1-2RCN	380~415V
NF1-13	1"NO"+3"NC"	NS1-224	10~180s On-delay	NG1-2NRE	24~48V
NF1-22	2"NO"+2"NC"	NS1-320	0.1~3s Off-delay	NG1-2NRG	50~127V
NF1-31	3"NO"+1"NC"	NS1-322	0.1~30s Off-delay	NG1-2NRU	110~240V
NF1-40	4"NO"	NS1-324	10~180s Off-delay	NG1-2NRN	380~415V

八、包装储存/Packing and storage

应贮存在空气流通和相对湿度不大于 80%，温度不高于+55℃，不低于-25℃的仓库中。周围空气中无酸性，碱性或其它腐蚀性气体的库房里贮存。在上述条件下，贮存期自生产日期不超过半年。

It shall be stored in a warehouse with good ventilation, RH not more than 80%, and temperature not more than +55℃ or not lower than -25℃. The warehouse shall be free of acid, alkali or other corrosive gas. Under the above circumference, the storage period shall not be more than half a year from the date of manufacture.

九、订货须知/Ordering notice

用户订货须指明下列事项/Please specify following information when placing an order:

- 1、接触器的全部型号及名称/Entitle type of contactor;
- 2、控制线圈频率及电压/Frequency and voltage of control coil;

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3、订购数量/Quantity;

例如：NDC2-150 AC220V 50/60Hz 交流接触器 10 台

Example: AC contactor NDC2-150 220V 50/60Hz 10 sets

表示：额定工作电流为 150A 交流接触器，控制电压的频率为 50/60Hz,电压为 220V，订货数量 10 台。

Representing: order 10 sets of contactors with rated operational current of 150A, rated voltage of 220V and control voltage frequency of 50/60Hz.

4、特殊电压规格产品，如客户需要可特殊订货/Special voltage character product, can special customize if need.

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