



**CHNT**

Empower the World

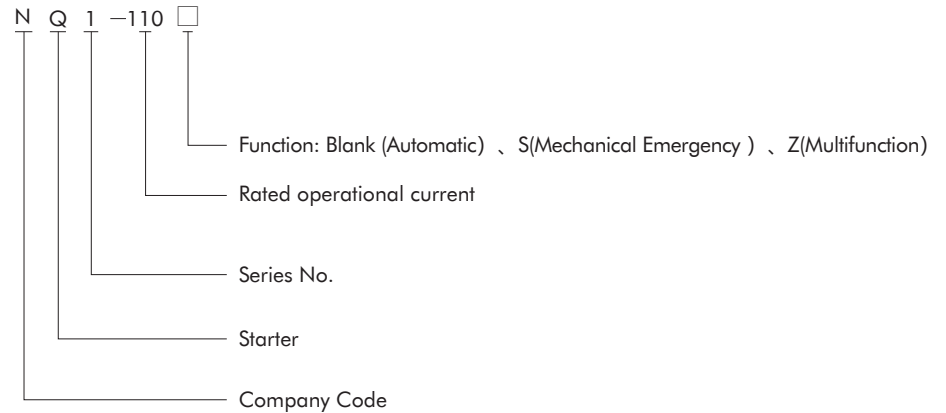
# **NQ1 Series Intelligent Integrated Star-Delta Starter**

# NQ1 Series Intelligent Integrated Star-Delta Starter

## 1. Application

- NQ1 series intelligent integrated star-delta starter is mainly used for the motors with rated operational current up to 110A and rated power up to 75kW, to control the motors' start, operation and stop from star to delta.
- The starter integrates contactor, intelligent controller and auxiliary contacts together, and the intelligent controller can complete the star-delta start of the motor by running the presetting program.

## 2. Type designation



## 3. Main parameters and functions

Table 1

Main parameters		Unit	NQ1					
Rated operational current Ie(AC-3)		A	65	75	85	95	100	110
Rated operational voltage Ue		V	380V/400V					
Rated insulation voltage Ui		V	800					
Poles		P	3					
Mechanical life	Automatic/multifunction		600,000 operations					
	Mechanical emergency (manual operation)		3,000 operations					
Suggested motor power for controlling (AC-3)			45	45	55	55	75	75
Suitable fuse			100	100	125	160	160	160
Cable connection			35		50			
Parameters for the coil	Rated control voltage Us	V	220V/230V					
	Pick-up voltage	%Us	80% ~110%					
	Release voltage	%Us	20% ~75%					
	Pick-up power	VA	230					
	Maintain power	VA	32					

Table 2

Functions	Automatic	S Mechanical Emergency	Z Multifunction
Star-delta changeover	■	■	■
Time adjustable for star operation	■	■	■
Mechanical emergency ( manual start)	-	■	-
Overload protection	-	-	■
Motor locked protection	-	-	■
Phase failure protection	-	-	■
3 phases unbalance protection	-	-	■
Overvoltage protection	-	-	■
Undervoltage protection	-	-	■
Trouble display	-	-	■
Trouble alarm	-	-	■
Status display	-	-	■
Communication	-	-	□

Note: — do not have, □ optional, ■ standard



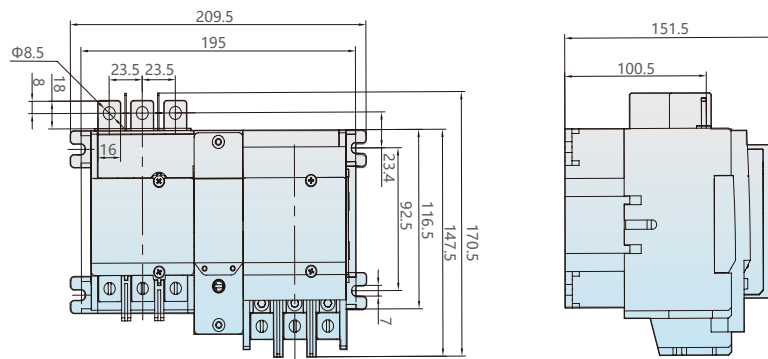
## 4. Normal working conditions

- 4.1 Altitude: not exceeding 2000m.
- 4.2 Environmental temperature: normal working temperature  $-5^{\circ}\text{C} \sim +40^{\circ}\text{C}$  , with an average value not exceeding  $+35^{\circ}\text{C}$  within 24 hours.
- 4.3 The starter should be installed vertically, and the inclination angle between install surface and vertical surface should not exceed  $\pm 5^{\circ}$ .
- 4.4 No abnormal vibration and impact.
- 4.5 Pollution lever: 3
- 4.6 Fixing method: screw installstion

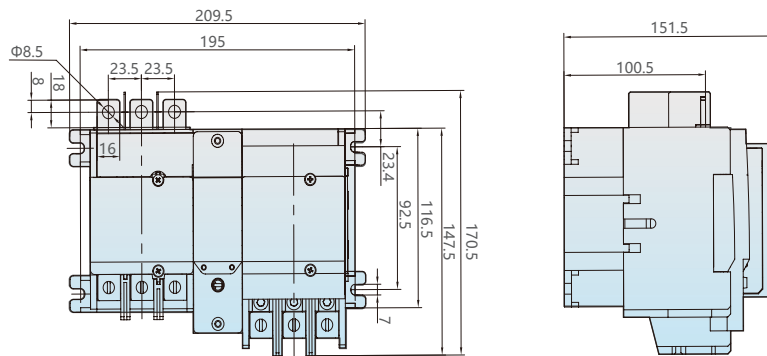
## 5. Overall dimensions

### 5.1 Automatic star-delta starter

65A、75A、85A、95A

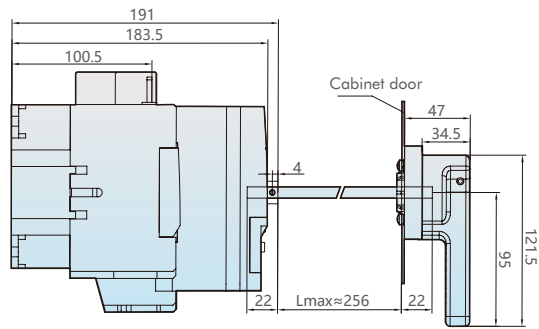
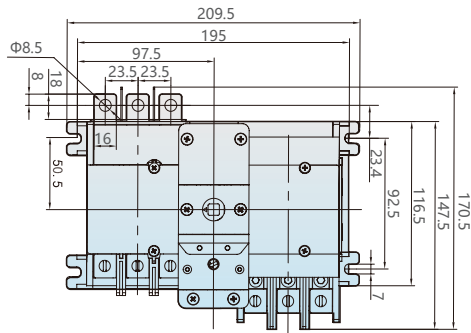


100A、110A



5.2 Mechanical emergency star-delta starter

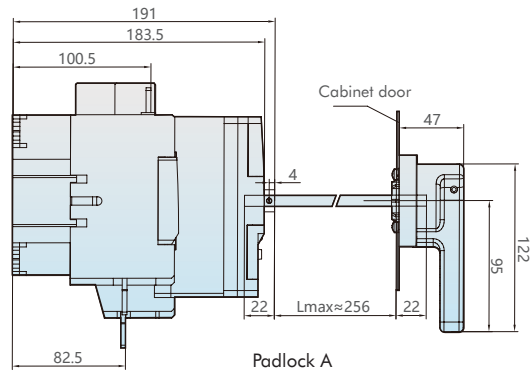
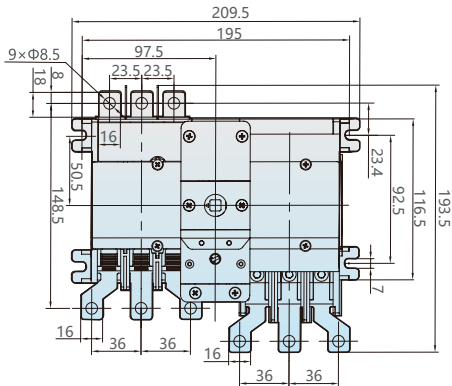
65A, 75A, 85A, 95A



Padlock A

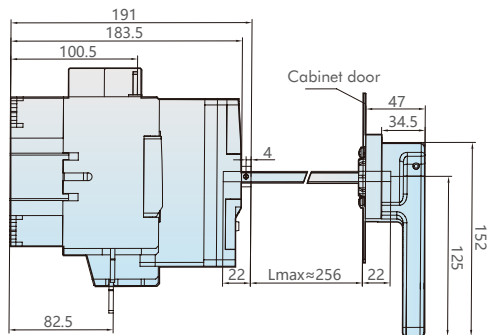
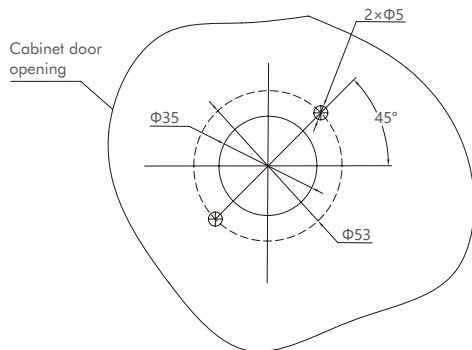
No.	Handles	Length
1	padlock A	L=122mm
2	padlock B	L=152mm
3	lockable	L=140mm

100A, 110A



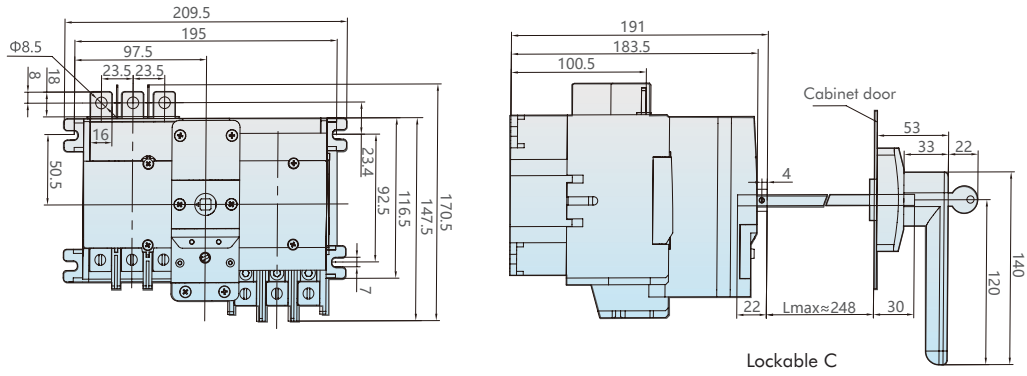
Padlock A

Holes opening drawing for padlock A and B

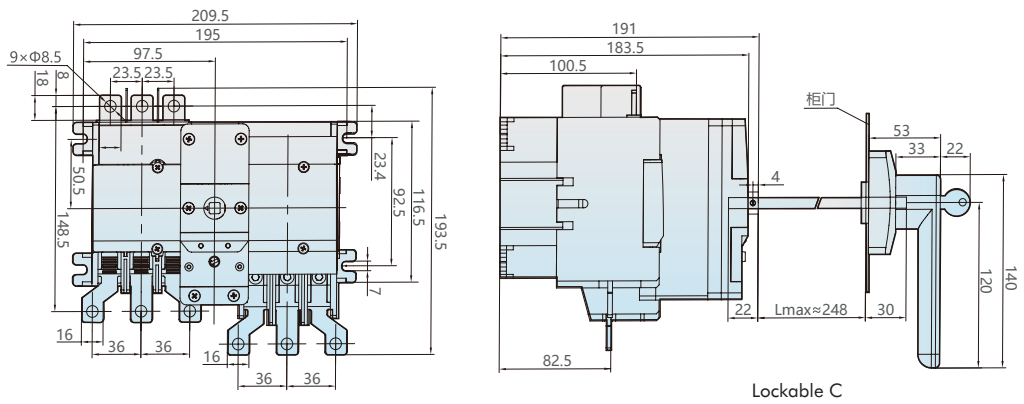


Padlock B

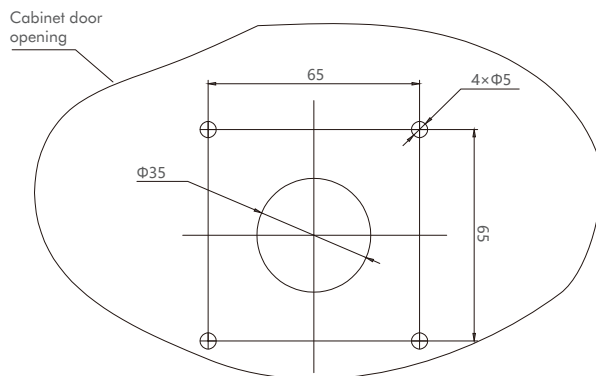
65A, 75A, 85A, 95A



100A, 110A

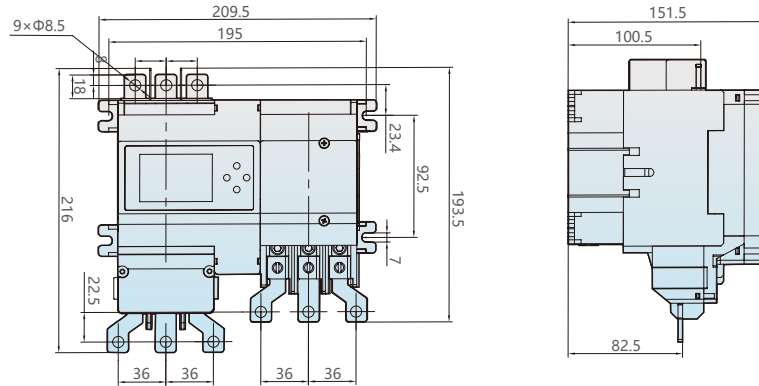


Holes opening drawing for lockable C



5.3 Multifunction star-delta starter

65~110A



6. Ordering information

NQ1	110	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NQ1 starter	Rated operational current	Function: Blank: automatic S:mechanical emergency Z: multifunction	Rated operational current: 65A, 75A, 85A, 95A, 100A, 110A	Rated operational voltage: 220V/230V	Auxiliary contact(1NO+1NC) F11: mounted on left side Z11: mounted on right side F22: mounted on both sides	Handles A: padlock (L=122mm) B: padlock(L=152mm) C: lockable(L=140mm)

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