NS2 Series Manual Motor Starters

NS2-25、NS2-32

NS2-25X、NS2-32X

NS2-32H

1.General

1.1 Certificates: SEMKO, CE, UkrSEPRO, EAC, UL;
1.2 Electric ratings: AC690V, 25A, 32A, 80A;
1.3 Standard: IEC/EN 60947-2, IEC60947-4-1

2.Type designation

N S 2 - □ □ / □ □ □

- Current specifications
- Accessories specifications (none, canbe omitted)
- Code of structural modification
- Frame size rated current(A)
- Design sequence No.
- AC motor starter
- Company code

3. Operating conditions

3.1 Temperature: -5℃~ +40℃ ,
average temperature in 24 hours not exceed +35℃
3.2 Altitude: not exceed 2000m
3.3 Air conditions:
At mounting site, relative humidity not exceed 50% at the max temperature of +40℃ , higher relative humidity is allowable under lower temperature, for example, RH could be 90% at +20℃
3.4 Pollution grade: Grade Ⅲ
3.5 Trip class:
10A(NS2-25, NS2-25X, NS2-32, NS2-32X,NS2-32H,NS2-80)
3.6 Rated operational system:
eight-hour day (working system)
3.7 Mounting conditions:
The inclination between the mounting plane and the vertical plane shall not exceed 5°
The product shall be installed and operated at a place without obvious shake, impact and vibration.

4. Technical data

4.1 Rated insulation voltage Ui(V):690
4.2 Rated operating voltage Ue(V):AC230/240,AC400/415,AC440,AC500,AC690.
4.3 Rated frequency (Hz):50/60.
4.4 Rating current of frame class Inm (A):25(NS2-25,25X),32(NS2-32,32X NS2-32H), 80(NS2-80)
4.5 Rated current of release In (A):(see table4).
4.6 Setting current range:(see table4).
4.7 Rated limit short circuit breaking capacity Icu (kA):(see table4).
4.8 Short circuit breaking capability Ics (kA) for rated operation:(see table4).
4.9 Rated shock tolerance voltage Uimp (kV):8.
4.10 Selective category (Class A or B) and application category:Class A and AC-3
4.11 Insulation length (mm):10;15(NS2-80) Before inserting conductor (conductor/conductor bar) into terminal
4.12 Cross-sectional area of conductor (conductor/conductor bar)mm^2:1-6;2.5~25 (NS2-80)

NS2-80

4.13 Maximum number of roots allowed to clip into the conductor (conductor/conductor bar):2;1(NS2-80)

4.14 Screw (or bolt) size of wiring end:M4;M8(NS2-80)

4.15 Terminal screw tightening torque (N.m):1.7;6(NS2-80)

4.16 Operation frequency (times/hour):≤30;≤25(NS2-80)

4.17 Adaptable contactor:NC1;NC8

4.18 Action characteristics of each phase of the starter when load balancing (see Table 1).

Table 1

Series No.	Multiple of setting current	Initial status	Time		Expected results	Ambient temperature
1	1.05	Cold status	t≥2h		Non-tripping	+20℃ ±2℃
2	1.20	Heat status (right after test.1)	t<2h		Tripping	+20℃ ±2℃
3	1.50	Heat status (right after test.1)	Tripping class	10A t<2min	Tripping	+20℃ ±2℃
4	7.20	Cold status	Tripping class	10A 2s<t≤10s	Tripping	+20℃ ±2℃

4.19 The action characteristics of phase failure protection properties (see Table 2)

Table 2

Series No.	Multiple of setting current		Initial status	Time	Expected results	Ambient temperature
	Any 2 phases	The other phase				
1	1.0	0.9	Cold status	t≥2h	Non-tripping	+20℃ ±2℃
2	1.15	0	Heat status (right after test.1)	t<2h	Tripping	+20℃ ±2℃

4.20 The action characteristics owf temperature compensation properties (see Table 3)

Table 3

Series No.	Multiple of setting current	Initial status	Time	Expected results	Ambient temperature
1	1.0	Cold status	t≥2h	Non-tripping	+40℃ ±2℃
2	1.2	Heat status (right after test.1)	t<2h	Tripping	+40℃ ±2℃
3	1.5	Heat status (through 1.0 times rated current, after thermal equilibrium is reached)	t<2min	Tripping	+40℃ ±2℃
4	1.05	Cold status	t≥2h	Non-tripping	-5℃ ±2℃
5	1.3	Heat status (right after test.3)	t<2h	Tripping	-5℃ ±2℃
6	1.5	Heat status (through 1.0 times rated current, after thermal equilibrium is reached)	t<4min	Tripping	-5℃ ±2℃

4.13 Technical parameters

Table 4

Type	Rated current of release In(A)	Setting current regulation range (A)	Rated ultimate short-circuit breaking Icu, Rated service short-circuit breaking capacity Ics				Arcing distance (mm)
			400/415V		690V		
			Icu	Ics	Icu	Ics	
NS2-25(X)	0.16	0.1 ~ 0.16	100	100	100	100	40
NS2-25(X)	0.25	0.16 ~ 0.25	100	100	100	100	40
NS2-25(X)	0.4	0.25 ~ 0.4	100	100	100	100	40
NS2-25(X)	0.63	0.4 ~ 0.63	100	100	100	100	40
NS2-25(X)	1	0.63 ~ 1	100	100	100	100	40
NS2-25(X)	1.6	1 ~ 1.6	100	100	100	100	40
NS2-25(X)	2.5	1.6 ~ 2.5	100	100	3	2.25	40
NS2-25(X)	4	2.5 ~ 4	100	100	3	2.25	40
NS2-25(X)	6.3	4 ~ 6.3	100	100	3	2.25	40
NS2-25(X)	10	6 ~ 10	100	100	3	2.25	40
NS2-25(X)	14	9 ~ 14	15	7.5	3	2.25	40
NS2-25(X)	18	13 ~ 18	15	7.5	3	2.25	40
NS2-25(X)	23	17 ~ 23	15	6	3	2.25	40
NS2-25(X)	25	20 ~ 25	15	6	3	2.25	40
NS2-32(X)	32	24 ~ 32	10	5	3	2.25	40
NS2-32H	0.16	0.1 ~ 0.16	100	100	100	100	40
NS2-32H	0.25	0.16 ~ 0.25	100	100	100	100	40
NS2-32H	0.4	0.25 ~ 0.4	100	100	100	100	40
NS2-32H	0.63	0.4 ~ 0.63	100	100	100	100	40
NS2-32H	1	0.63 ~ 1	100	100	100	100	40
NS2-32H	1.6	1 ~ 1.6	100	100	100	100	40
NS2-32H	2.5	1.6 ~ 2.5	100	100	4	4	40
NS2-32H	4	2.5 ~ 4	100	100	4	4	40
NS2-32H	6.3	4 ~ 6.3	100	100	4	4	40
NS2-32H	10	6 ~ 10	100	100	4	4	40
NS2-32H	14	9 ~ 14	50	25	4	4	40
NS2-32H	18	13 ~ 18	50	25	4	4	40
NS2-32H	23	17 ~ 23	50	25	4	4	40
NS2-32H	25	20 ~ 25	50	25	4	4	40
NS2-32H	32	24 ~ 32	50	25	4	4	40
NS2-80	25	20~25	50	17.5	4	2	50
NS2-80	32	23~32	50	17.5	4	2	50
NS2-80	40	30~40	50	17.5	4	2	50
NS2-80	50	37~50	50	17.5	4	2	50
NS2-80	65	48~65	50	17.5	4	2	50
NS2-80	80	63~80	50	17.5	4	2	50

4.13.1 Rated power of three phase motor controlled by starter

Type	Rated current of release In(A)	Setting current regulation range (A)	Standard Rated Power Three Phase Motor(kW) AC-3,50Hz/60Hz					
			230/240V	400V	415V	440V	500V	690V
NS2-25(X)、NS2-32H	0.16	0.1-0.16	-	-	-	-	-	-
NS2-25(X)、NS2-32H	0.25	0.16-0.25	-	-	-	-	-	-
NS2-25(X)、NS2-32H	0.4	0.25-0.4	-	-	-	-	-	-
NS2-25(X)、NS2-32H	0.63	0.4-0.63	-	-	-	-	-	0.37
NS2-25(X)、NS2-32H	1	0.63-1	-	-	-	0.37	0.37	0.55
NS2-25(X)、NS2-32H	1.6	1-1.6	-	0.37	-	0.55	0.75	1.1
NS2-25(X)、NS2-32H	2.5	1.6-2.5	0.37	0.75	0.75	1.1	1.1	1.5
NS2-25(X)、NS2-32H	4	2.5-4	0.75	1.5	1.5	1.5	2.2	3
NS2-25(X)、NS2-32H	6.3	4-6.3	1.1	2.2	2.2	3	3.7	4
NS2-25(X)、NS2-32H	10	6-10	2.2	4	4	4	5.5	7.5
NS2-25(X)、NS2-32H	14	9-14	3	5.5	5.5	7.5	7.5	9
NS2-25(X)、NS2-32H	18	13-18	4	7.5	9	9	9	11
NS2-25(X)、NS2-32H	23	17-23	5.5	11	11	11	11	15
NS2-25(X)、NS2-32H	25	20-25	5.5	11	11	11	15	18.5
NS2-32(X)、NS2-32H	32	24-32	7.5	15	15	15	18.5	25

Type	Read current of release In(A)	Regulating range of setting current of thermal element(A)	Currentsetting value of instantaneous electromagnetic release Ii(A)
NS2-32(H)	0.16	0.1-0.16	1.5
	0.25	0.16-0.25	2.4
	0.4	0.25-0.4	5
	0.63	0.4-0.63	8
	1	0.63-1	13
	1.6	1-1.6	22.5
	2.5	1.6-2.5	33.5
	4	2.5-4	51
	6.3	4-6.3	78
	10	6-10	138
	14	9-14	170
	18	13-18	223
	23	17-23	327
	25	20-25	327
NS2-32(X)、NS2-32H	32	24-32	416
NS2-80	25	20-25	350
	32	23-32	448
	40	30-40	560
	50	37-50	700
	65	48-65	910
	80	63-80	1120

4.14.1 Action characteristics of instantaneous electromagnetic trip of starter

Test current	Initial state	Set time	Expected results	Ambientair temperature
0.8Ii	Cold st ate	t≥0.2s	No trip	+20℃ ±5℃
1.2Ii	Cold st ate	t<0.2s	Trip	+20℃ ±5℃

4.15 Selection of backup fuse

When the expected short-circuit current of the installation site is greater than the rated limit short-circuit breaking capacity of the starter, the type and melt current specification of the backup short-circuit protection fuse shall be provided. For example, gG type fuse can be selected.

Type	Rated current of release In(A)	Setting currentregulation range (A)	Current rating of fuse-link of back-up fuse,which Icc>Icu									
			230/240V		400/415V		440V		500V		690V	
			aM A	gL/gG A	aM A	gL/gG A	aM A	gL/gG A	aM A	gL/gG A	aM A	gL/gG A
NS2-25(X)	0.16	0.1-0.16	★	★	★	★	★	★	★	★	★	★
NS2-25(X)	0.25	0.16-0.25	★	★	★	★	★	★	★	★	★	★
NS2-25(X)	0.4	0.25-0.4	★	★	★	★	★	★	★	★	★	★
NS2-25(X)	0.63	0.4-0.63	★	★	★	★	★	★	★	★	★	★
NS2-25(X)	1	0.63-1	★	★	★	★	★	★	★	★	★	★
NS2-25(X)	1.6	1-1.6	★	★	★	★	★	★	★	★	★	★
NS2-25(X)	2.5	1.6-2.5	★	★	★	★	★	★	★	★	16	20
NS2-25(X)	4	2.5-4	★	★	★	★	★	★	★	★	25	32
NS2-25(X)	6.3	4-6.3	★	★	★	★	50	63	50	63	32	40
NS2-25(X)	10	6-10	★	★	★	★	50	63	50	63	32	40
NS2-25(X)	14	9-14	★	★	63	80	50	63	50	63	40	50
NS2-25(X)	18	13-18	★	★	63	80	50	63	50	63	40	50
NS2-25(X)	23	17-23	80	100	80	100	63	80	50	63	40	50
NS2-25(X)	25	20-25	80	100	80	100	63	80	50	63	40	50
NS2-32(X)	32	24-32	80	100	80	100	63	80	50	63	40	50
NS2-32H	0.16	0.1-0.16	★	★	★	★	★	★	★	★	★	★
NS2-32H	0.25	0.16-0.25	★	★	★	★	★	★	★	★	★	★
NS2-32H	0.4	0.25-0.4	★	★	★	★	★	★	★	★	★	★
NS2-32H	0.63	0.4-0.63	★	★	★	★	★	★	★	★	★	★
NS2-32H	1	0.63-1	★	★	★	★	★	★	★	★	★	★
NS2-32H	1.6	1-1.6	★	★	★	★	★	★	★	★	★	★
NS2-32H	2.5	1.6-2.5	★	★	★	★	★	★	★	★	20	25
NS2-32H	4	2.5-4	★	★	★	★	★	★	★	★	25	32
NS2-32H	6.3	4-6.3	★	★	★	★	★	★	★	★	40	50
NS2-32H	10	6-10	★	★	★	★	★	★	50	63	40	50
NS2-32H	14	9-14	★	★	★	★	50	63	50	63	50	63
NS2-32H	18	13-18	★	★	100	125	63	80	50	63	50	63
NS2-32H	23	17-23	★	★	100	125	80	100	50	63	50	63
NS2-32H	25	20-25	★	★	100	125	80	100	50	63	50	63
NS2-32H	32	24-32	★	★	100	125	80	100	50	63	50	63
NS2-80	25	20-25	-	-	250	315	-	-	-	-	160	200
NS2-80	32	23-32	-	-	250	315	-	-	-	-	160	200
NS2-80	40	30-40	-	-	250	315	-	-	-	-	160	200
NS2-80	50	37-50	-	-	315	400	-	-	-	-	200	250
NS2-80	65	48-65	-	-	315	400	-	-	-	-	200	250
NS2-80	80	63-80	-	-	315	400	-	-	-	-	200	250

5.1 Starters accessories

5.1.1 Type, model and specifications of accessories (see Table 10).

Description of accessories	Accessories Model				Accessories Specifications
	NS2-25, NS2-32 applies	NS2-25X, NS2-32X applies	NS2-32H applies	NS2-80 applies	
Undervoltage release	NS2-UV110		NS2-UV110	NS2-UV110	110~115V, 50Hz; 127V,60Hz
	NS2-UV220		NS2-UV220	NS2-UV220	220~240V, 50Hz
	NS2-UV380		NS2-UV380	NS2-UV380	380~400V, 50Hz; 440V,60Hz
Shunt release	NS2-SH110	NS2-SH110	NS2-SH110	NS2-SH110	110~115V, 50Hz; 127V,60Hz
	NS2-SH220	NS2-SH220	NS2-SH220	NS2-SH220	220~240V, 50Hz
	NS2-SH380	NS2-SH380	NS2-SH380	NS2-SH380	380~400V, 50Hz; 440V,60Hz
Instantaneous auxiliary contact (front hanging)	NS2-AE20	NS2-AE20	NS2-AE20	NS2-AE20	2NO
	NS2-AE11	NS2-AE11	NS2-AE11	NS2-AE11	1NO+1NC
Instantaneous auxiliary contact (side hanging)	NS2-AU20	NS2-AU20	NS2-AU20	NS2-AU20(NS2-80)	2NO
	NS2-AU11	NS2-AU11	NS2-AU11	NS2-AU11(NS2-80)	1NO+1NC
Fault signal contact and instantaneous auxiliary contact	NS2-FA0110	NS2-FA0110	NS2-FA0110	-	1NC+1NO
	NS2-FA0101	NS2-FA0101	NS2-FA0101	-	1NC+1NC
	NS2-FA1010	NS2-FA1010	NS2-FA1010	-	1NO+1NO
	NS2-FA1001	NS2-FA1001	NS2-FA1001	-	1NO+1NC
Waterproof mounting box		WPB-1	-	-	-
Mounting box with emergency stop button	NS2-MC01	-	-	-	-

5.1.2 Undervoltage trip device

NS2-UV110, UV220, UV380'S, performance:

a. Rated insulation voltage Ui (V): 690;

b. Rated impulse withstand voltage Uimp (kV):6;

c. Operating characteristics: When the voltage drops to 70% and 35% of the rated voltage range, undervoltage trip device shall act;

Undervoltage trip device in the power supply voltage is less than 35% of the rated voltage of the trip device, the undervoltage trip device should be able to prevent the starter from closing;

when the power supply voltage is equal to or greater than 85% of the rated voltage of the trip device, the undervoltage trip device should guarantee closure of the starter.

NS2-SH

5.1.3 The characteristics of the shunt trip

NS2-SH110, SH220, SH380:

a. Rated insulation voltage Ui (V): 690;

b. Rated impulse withstand voltage Uimp (kV):6;

c. Operating characteristics: the operating voltage range of the shunt trip device is rated working voltage of 70% ~ 110%.

NS2-AE

5.1.4 Characteristics of the instantaneous auxiliary contact NS2-Ae20, AE11 (front hanging)

a. rated insulation voltage Ui (V): 250;

b. conventional thermal current Ith (A): 2.5;

c. Rated impulse withstand voltage Uimp (kV): 2.5;

d.type , rated voltage and rated operating current (see Table 11) of instantaneous auxiliary contacts.

Table 11

Utilization category	AC-15				DC-13		
Rated operating voltage Ue(V)	24	48	110/127	230/240	24	48	60
Rated operating current Ie(A)	2	1.25	1	0.5	1	0.3	0.5
Normal operating power P(W)	48	60	127	120	24	15	9

NS2-AU

5.1.5 Instantaneous auxiliary contact NS2-AU20, AU11

performance (side hanging):

a. rated insulation voltage Ui (V): 690;

b. conventional thermal current Ith (A): 6;

c. Rated impulse withstand voltage Uimp (kV):4;

d. type, rated voltage and rated operating current of the instantaneous auxiliary contacts(see Table 12).

Utilization category	AC-15							DC-13				
Rated operating voltage Ue (V)	48	110/127	230/240	380/415	440	500	690	24	48	60	110	220
Rated operating current Ie (A)	6	4.5	3.3	2.2	1.5	1	0.6	6	5	3	1.3	0.5
Normal operating power P (W)	300	500	720	850	650	500	400	140	240	180	140	120

NS2-FA

5.1.6 Characteristics of the fault signal contact and instantaneous auxiliary contact NS2-FA

Fault signal contact and instantaneous auxiliary contact NS2-FA, consist of the fault signal contact and instantaneous auxiliary contact. They have different use types and characteristics.

a. rated insulation voltage Ui (V): 690;

b. conventional thermal currents of instantaneous auxiliary contacts: Ith (A) : 6, conventional thermal current of fault signal contacts Ith (A): 2.5;

c. Rated impulse withstand voltage of fault signal contact Uimp (kV):2.5; Rated impulse withstand voltage of instantaneous auxiliary contact Uimp (kV):4;

d. the use type, rated voltage and rated work current (see Table 12) of the instantaneous auxiliary contact same as the NS2-AU instantaneous auxiliary contact; the use type, rated voltage and rated operating current (see Table 13) of the fault signal contacts.

Utilization category	AC-14				DC-13		
Rated operating voltage Ue (V)	24	48	110/127	230/240	24	48	60
Rated operating current Ie (A)	1.5	1	0.5	0.3	1	0.3	0.15
Normal operating power P (W)	36	48	72	72	24	15	9
Operating performance (time)	1000	1000	1000	1000	1000	1000	1000

5.1.7 Non-normal making and breaking capacity (see Table 14) of fault signal contact and instantaneous auxiliary contact.

Use type	Connection		Disconnection				On-off operation cycles and operating frequency		
	I/Ie	U/Ue	CosΦ or T0.95	I/Ie	U/Ue	CosΦ or T0.95	Operating cycles	Operating cycles per minutes	Energize Time
AC-14	6	1.1	0.7	6	1.1	0.7	10	2	0.05
AC-15	10	1.1	0.3	10	1.1	0.3	10	2	0.05
DC-13	1.1	1.1	6Pe	1.1	1.1	6Pe	10	2	0.05

Note: Pe≥50W, T0.95 upper limit≈6Pe≤300ms.

5.1.8 Other parameters

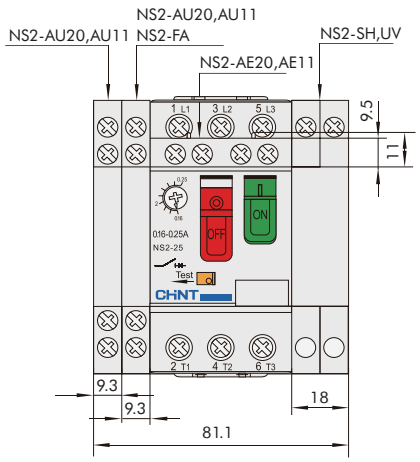
Model	Model of matched fuse	Rated current of supporting fuse A	Rated limiting short circuit current Iq kA	Enclosure protection class
NS2-AE20,AE11	gG、RT36-00	6	1	IP20
NS2-AU20,AU11		10		
NS2-FA				

5.1.9 Mounting box （NS2-MC、NS2-MC01）

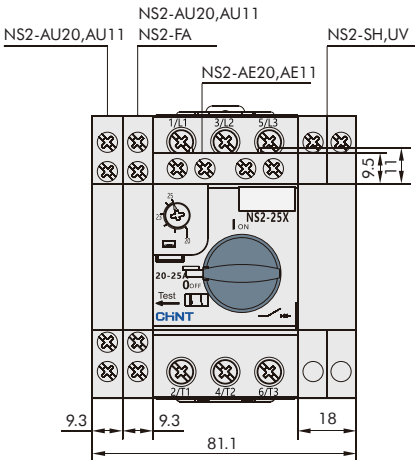
	NS2-MC Waterproof installation box	IP55
	NS2-MC01 Installation box with emergency stop button	IP55
	WPB-1 Waterproof installation box	IP55

6. Overall and mounting dimension (mm)

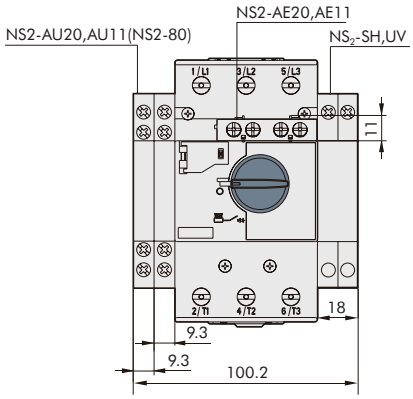
NS2-25,NS2-32



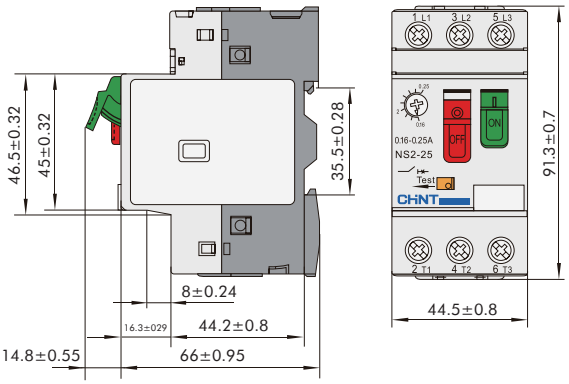
NS2-25X,NS2-32X,NS2-32H



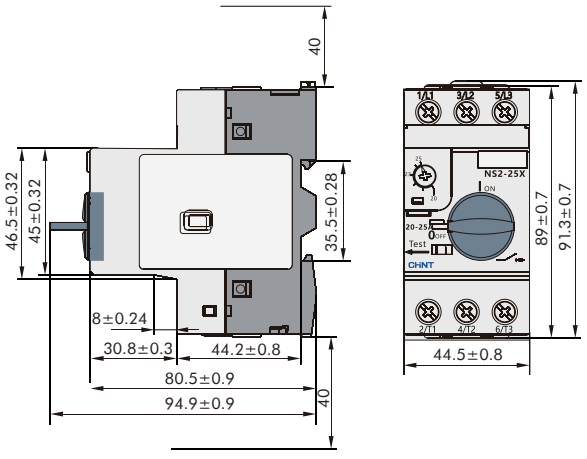
NS2-80



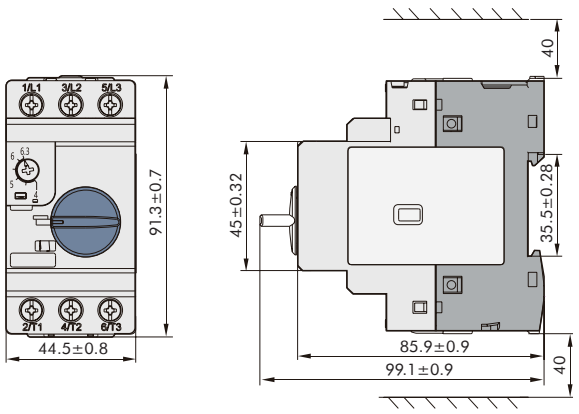
NS2-25,NS2-32



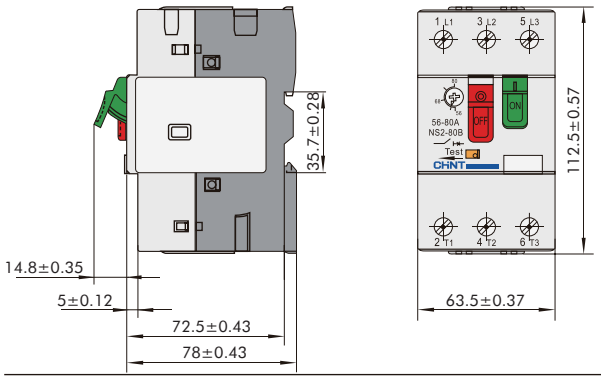
NS2-25X,NS2-32X



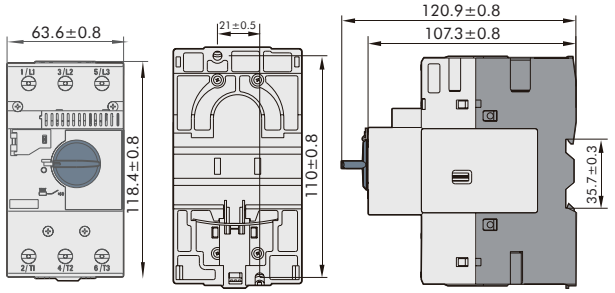
NS2-32H



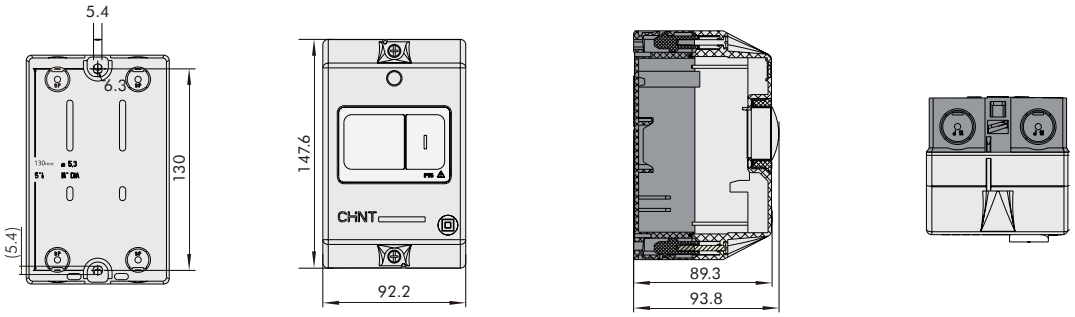
NS2-80B



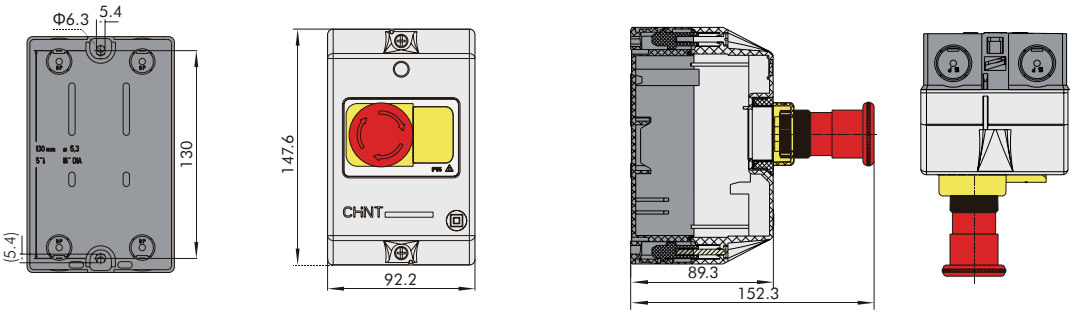
NS2-80



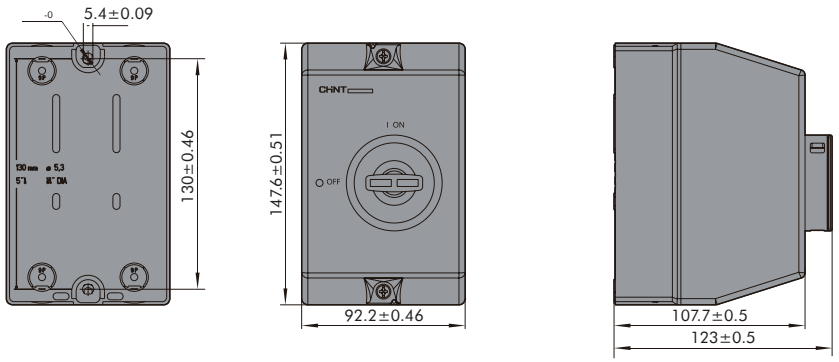
NS2-MC



NS2-MC01



WPB-1

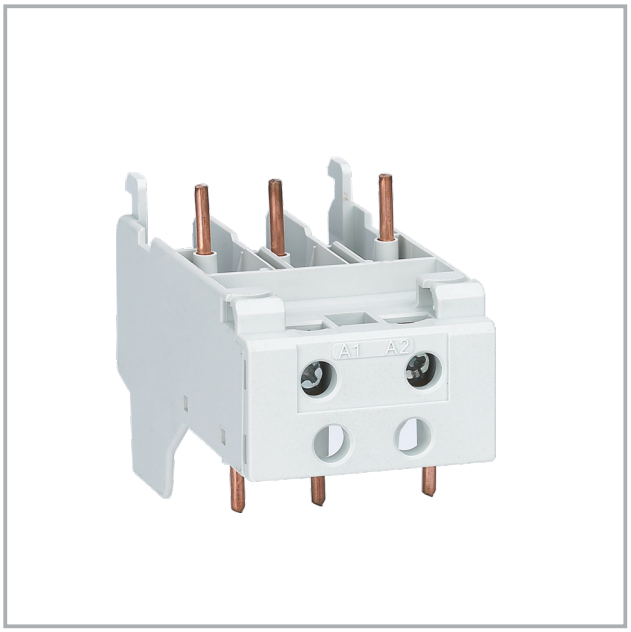


NS2	-	25	X	9~14A
Product Series		**Frame Size**	**Function**	**Setting Current Scope**
		25 32 80	Blank: pushbutton operating (frame size 25 and 32) rotary handle operating (frame size 80) X: rotary handle operating (frame size 25 and 32) B: pushbutton operating (frame size 80) H: high breaking capacity (frame size 32, rotary handle operating) M: electromagnetic protection only, without thermal overload protection	Frame Size 25(X): 0.1~0.16A 0.16~0.25A 0.25~0.4A 0.4~0.63A 0.63~1A 1~1.6A 1.6~2.5A 2.5~4A 4~6.3A 6~10A 9~14A 13~18A 17~23A 20~25A Frame Size 25M: 0.16A 0.25A 0.4A 0.63A 1A 1.6A 2.5A 4A 6.3A 10A 14A 18A 23A 25A Frame Size 32(X): 24~32A
				Frame Size 32H: 0.1~0.16A 0.16~0.25A 0.25~0.4A 0.4~0.63A 0.63~1A 1~1.6A 1.6~2.5A 2.5~4A 4~6.3A 6~10A 9~14A 13~18A 17~23A 20~25A 24~32A Frame Size 80: 20~25A 23~32A 30~40A 37~50A 48~65A 63~80A Frame Size 80B: 16~25A 25~40A 40~63A 56~80A

NS2 AC Motor Starter 25~80A

Frame Size	Auxiliary Contacts	Setting Current	Model Description	Code
25A	-	0.1-0.16A	NS2-25 0.1-0.16A	495072
25A	-	0.16-0.25A	NS2-25 0.16-0.25A	495073
25A	-	0.25-0.4A	NS2-25 0.25-0.4A	495074
25A	-	0.4-0.63A	NS2-25 0.4-0.63A	495075
25A	-	0.63-1A	NS2-25 0.63-1A	495076
25A	-	1-1.6A	NS2-25 1-1.6A	495077
25A	-	1.6-2.5A	NS2-25 1.6-2.5A	495078
25A	-	2.5-4A	NS2-25 2.5-4A	495079
25A	-	4-6.3A	NS2-25 4-6.3A	495080
25A	-	6-10A	NS2-25 6-10A	495081
25A	-	9-14A	NS2-25 9-14A	495082
25A	-	13-18A	NS2-25 13-18A	495083
25A	-	17-23A	NS2-25 17-23A	495084
25A	-	20-25A	NS2-25 20-25A	495085
25A	-	0.1-0.16A	NS2-25X 0.1-0.16A	495176
25A	-	0.16-0.25A	NS2-25X 0.16-0.25A	495177
25A	-	0.25-0.4A	NS2-25X 0.25-0.4A	495178
25A	-	0.4-0.63A	NS2-25X 0.4-0.63A	495179
25A	-	0.63-1A	NS2-25X 0.63-1A	495180
25A	-	1-1.6A	NS2-25X 1-1.6A	495181
25A	-	1.6-2.5A	NS2-25X 1.6-2.5A	495182
25A	-	2.5-4A	NS2-25X 2.5-4A	495183
25A	-	4-6.3A	NS2-25X 4-6.3A	495184
25A	-	6-10A	NS2-25X 6-10A	495185
25A	-	9-14A	NS2-25X 9-14A	495186
25A	-	13-18A	NS2-25X 13-18A	495187
25A	-	17-23A	NS2-25X 17-23A	495188
25A	-	20-25A	NS2-25X 20-25A	495189
25A	-	0.16A	NS2-25M 0.16A	495190
25A	-	0.25A	NS2-25M 0.25A	495191
25A	-	0.4A	NS2-25M 0.4A	495192
25A	-	0.63A	NS2-25M 0.63A	495193
25A	-	1A	NS2-25M 1A	495194
25A	-	1.6A	NS2-25M 1.6A	495195
25A	-	2.5A	NS2-25M 2.5A	495196
25A	-	4A	NS2-25M 4A	495197
25A	-	6.3A	NS2-25M 6.3A	495198
25A	-	10A	NS2-25M 10A	495199
25A	-	14A	NS2-25M 14A	495200
25A	-	18A	NS2-25M 18A	495201
25A	-	23A	NS2-25M 23A	495202
25A	-	25A	NS2-25M 25A	495203

Frame Size	Auxiliary Contacts	Setting Current	Model Description	Code
32A	-	24-32A	NS2-32 24-32A	146475
32A	-	0.1-0.16A	NS2-32H 0.1-0.16A	253592
32A	-	0.16-0.25A	NS2-32H 0.16-0.25A	253593
32A	-	0.25-0.4A	NS2-32H 0.25-0.4A	253594
32A	-	0.4-0.63A	NS2-32H 0.4-0.63A	253595
32A	-	0.63-1A	NS2-32H 0.63-1A	253596
32A	-	1-1.6A	NS2-32H 1-1.6A	253597
32A	-	1.6-2.5A	NS2-32H 1.6-2.5A	253598
32A	-	2.5-4A	NS2-32H 2.5-4A	253599
32A	-	4-6.3A	NS2-32H 4-6.3A	253600
32A	-	6-10A	NS2-32H 6-10A	253601
32A	-	9-14A	NS2-32H 9-14A	253602
32A	-	13-18A	NS2-32H 13-18A	253603
32A	-	17-23A	NS2-32H 17-23A	253604
32A	-	20-25A	NS2-32H 20-25A	253605
32A	-	24-32A	NS2-32H 24-32A	253606
32A	-	24-32A	NS2-32X 24-32A	139373
80A	-	20-25A	NS2-80 20-25A	279720
80A	-	23-32A	NS2-80 23-32A	279721
80A	-	30-40A	NS2-80 30-40A	279722
80A	-	37-50A	NS2-80 37-50A	279723
80A	-	48-65A	NS2-80 48-65A	279724
80A	-	63-80A	NS2-80 63-80A	279725
80A	1NO+1NC	20-25A	NS2-80/AU11 20-25A	279708
80A	1NO+1NC	23-32A	NS2-80/AU11 23-32A	279709
80A	1NO+1NC	30-40A	NS2-80/AU11 30-40A	279710
80A	1NO+1NC	37-50A	NS2-80/AU11 37-50A	279711
80A	1NO+1NC	48-65A	NS2-80/AU11 48-65A	279712
80A	1NO+1NC	63-80A	NS2-80/AU11 63-80A	279713
80A	2NO	20-25A	NS2-80/AU20 20-25A	279714
80A	2NO	23-32A	NS2-80/AU20 23-32A	279715
80A	2NO	30-40A	NS2-80/AU20 30-40A	279716
80A	2NO	37-50A	NS2-80/AU20 37-50A	279717
80A	2NO	48-65A	NS2-80/AU20 48-65A	279718
80A	2NO	63-80A	NS2-80/AU20 63-80A	279719
80A	-	16A-25A	NS2-80B 16A-25A	495086
80A	-	25A-40A	NS2-80B 25A-40A	495087
80A	-	40A-63A	NS2-80B 40A-63A	495088
80A	-	56A-80A	NS2-80B 56A-80A	495089



CC Series Conversion Connectors

1.General

CC conversion connectors are used to connect AC contactor and starter to be a composite apparatus, for the circuits with AC current frequency 50HZ and rated operating voltage up to 690V. CC-2 (NS2) conversion connector is used for NC8-38 AC contactor and NS2-32H starter, and CC-3 (NS2) conversion connector is used for NC8-65 AC contactor and NS2-80 starter. After connecting the AC contactor and starter as a composite apparatus, CC connectors are applicable for various power distribution systems or motor protection and control systems. Conformed standards: IEC60947-1 Low-voltage Switchgear and Controlgear - Part 1: General rules.

2. Product Features

CC connectors combine AC contactor and starter as a composite apparatus, can reduce the wiring and improve the system operation reliability.

CC connectors are composed of shell, main circuit connection and auxiliary circuit connection , can connect the circuits well.

The connector leads the coil terminals of AC contactor to the above of the product, and reliable cable trough is designed to facilitate the customers'wiring.

3.Type designation

CC - □ (NS2)

- (NS2): Suitable for NS2 starter
- □: Design sequence No.
- CC: Company code

4.Operating Conditions

4.1 Ambient air temperature: -5℃ ~+40℃, daily average not more than +35℃ .

4.2 Altitude: Not exceed 2000m. If it exceeds 2000m, the product should be used with reduced capacity. It is proposed that the altitude increased by each 1000m, the capacity should be reduced by 10%.

4.3 Humidity: When the ambient air temperature is +40℃ , the air relative humidity doesn't exceed 50%; at a lower temperature, the humidity could be higher. When the average minimum temperature is +25℃ ,the average maximum relativehumidity is 90%, considering the product surface condensation resulting from the temperature variation.

4.4 Pollution grade: 3.

4.5 Installation category: Ⅲ .

4.6 The external magnetic field of mounting place should not exceed 5 times earth magnetism at any direction; it should have no explosive or corrosive gas; no rain or snow attack; and should be dry and ventilated.

5. Main Technical Parameters

Table 1 Main Circuit Parameters

Model	CC-2(NS 2)	CC-3(NS 2)
Rated operating voltage Ue(V)	690	690
Rated insulation voltage Ui(V)	690 and below	690 and below
Rated impulse withstand voltage Uimp(kV)	6	6
Rated operating current Ie max(A)	32	65
Number of poles	3P	3P

6. Installation

Fig.1 Outline and Installing Dimensions of CC-2(NS2)

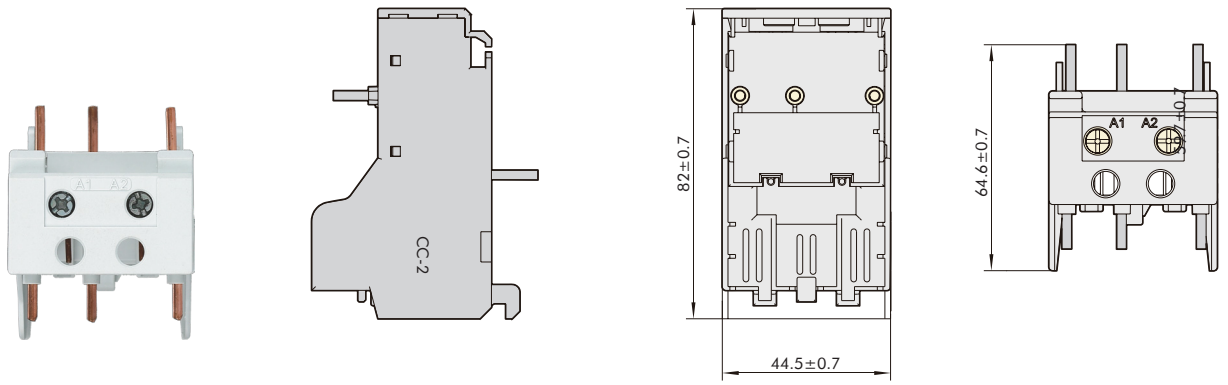


Fig.2 Outline and Installing Dimensions of CC-3(NS2)

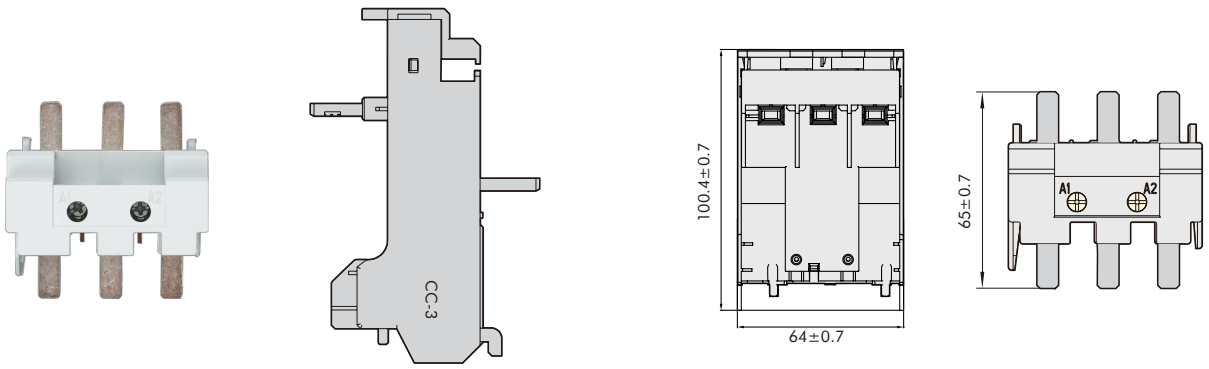


Fig.3 Outline and Instaling Dimensions of CC-2(NS2) after assembly with the starter and contactor

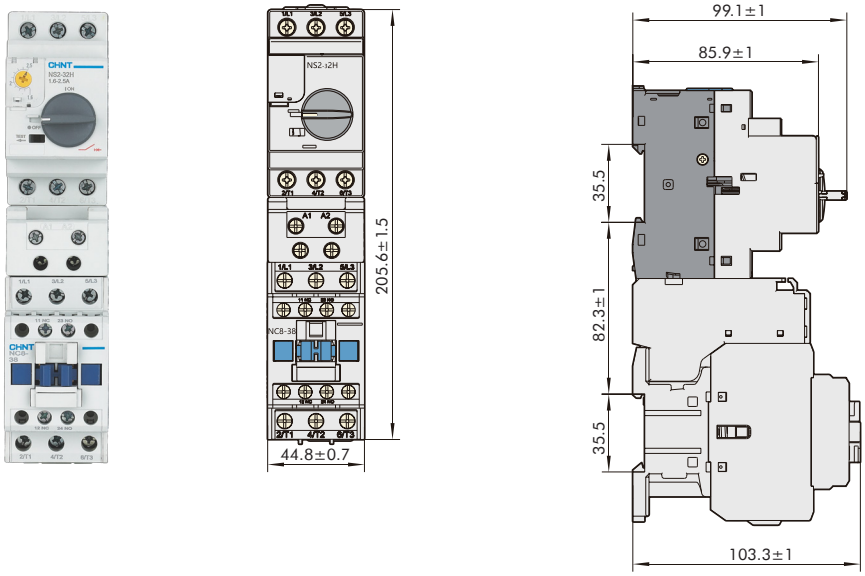
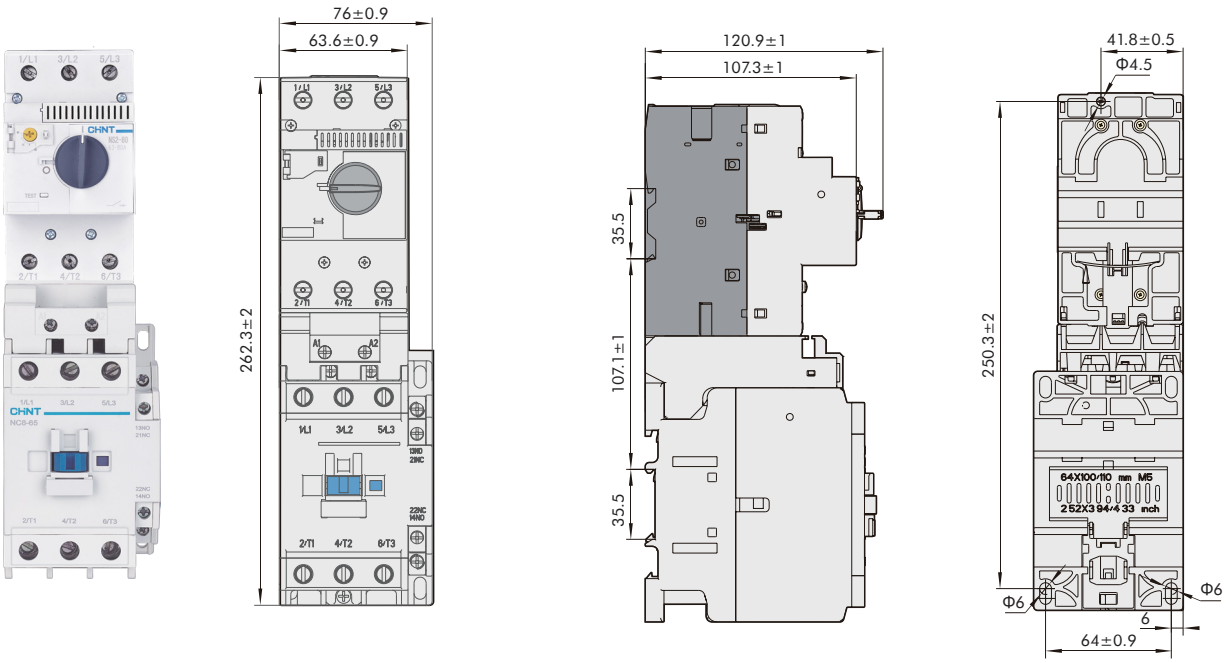


Fig.3 Outline and Instaling Dimensions of CC-3(NS2) after assembly with the starter and contactor



CC Conversion connector

Function	Model Description	Code
Used to connect NC8-38 and NS2-32H	CC-2(NS2) Conversion connector	203547
Used to connect NC8-65 and NS2-80	CC-3(NS2) Conversion connector	203546