



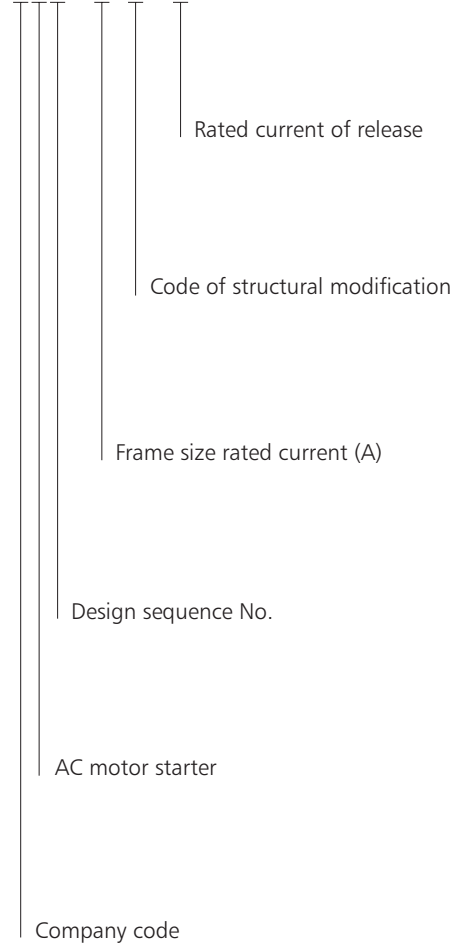
## NS2 Manual Motor Starter

### 1. General

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

### 2. Type designation

NS2 - □ □ / □



### 3. Operating conditions

- 3.1 Temperature:  $-5^{\circ}\text{C} \sim +40^{\circ}\text{C}$ ,  
average temperature in 24 hours not exceed  $+35^{\circ}\text{C}$
- 3.2 Altitude: not exceed 2000m
- 3.3 Air conditions:  
At mounting site, relative humidity not exceed 50% at the max temperature of  $+40^{\circ}\text{C}$ , higher relative humidity is allowable under lower temperature, for example, RH could be 90% at  $+20^{\circ}\text{C}$
- 3.4 Pollution grade: Grade III
- 3.5 Release grade:  
10A(NS2-25, NS2-25X)  
10 (NS2-80B)
- 3.6 Rated operational system:  
Continuous operational system
- 3.7 Mounting conditions:  
The inclination between the mounting plane and the vertical plane shall not exceed  $5^{\circ}$   
The product shall be installed and operated at a place without obvious shake, impact and vibration.

CE



RCC



#### 4. Technical data

##### 4.1 Protection properties

##### Over-load Protection Properties

Series No.	Multiple of setting current	Initial status	Time		Expected results	Ambient temperature
1	1.05	Cold status	$t \geq 2h$		Non-tripping	$+20^{\circ}\text{C} \pm 2^{\circ}\text{C}$
2	1.20	Heat status (right after test.1)	$t < 2h$		Tripping	$+20^{\circ}\text{C} \pm 2^{\circ}\text{C}$
3	1.50	Heat status (right after test.1)	Tripping class	10A $t < 2\text{min}$	Tripping	$+20^{\circ}\text{C} \pm 2^{\circ}\text{C}$
		10 $t < 4\text{min}$				
4	7.20	Cold status	Tripping class	10A $2s < t \leq 10s$	Tripping	$+20^{\circ}\text{C} \pm 2^{\circ}\text{C}$
		10 $4s < t \leq 10s$				

##### Phase failure protection properties


Series No.	Multiple of setting current		Initial status	Time	Expected results	Ambient temperature
	Any 2 phase	The other phase				
1	1.0	0.9	Cold status	$t \geq 2h$	Non-tripping	$+20^{\circ}\text{C} \pm 2^{\circ}\text{C}$
2	1.15	0	Heat status (right after test.1)	$t < 2h$	Tripping	$+20^{\circ}\text{C} \pm 2^{\circ}\text{C}$

##### Temperature compensation properties

Series No.	Multiple of setting current	Initial status	Time	Expected results	Ambient temperature
1	1.0	Cold status	$t \geq 2h$	Non-tripping	$+40^{\circ}\text{C} \pm 2^{\circ}\text{C}$
2	1.2	Heat status (right after test.1)	$t < 2h$	Tripping	$+40^{\circ}\text{C} \pm 2^{\circ}\text{C}$
3	1.05	Cold status	$t \geq 2h$	Non-tripping	$-5^{\circ}\text{C} \pm 2^{\circ}\text{C}$
4	1.3	Heat status (right after test.3)	$t < 2h$	Tripping	$-5^{\circ}\text{C} \pm 2^{\circ}\text{C}$



4.3 Technical parameters

Model			NS2-25, NS2-25X			
Picture						
Rated insulation voltage $U_i$ (V)			690			
Rated operational voltage $U_e$ (V)			230/240, 400/415, 440, 500, 690			
Rated impulse withstand voltage $U_{imp}$ (V)			8000			
Regulating rang of setting current (A)			9~14	13~18	17~23	20~25
Rated current of release			14	18	23	25
Rated ultimate short-circuit breaking capacity $I_{cu}$ (kA)	230/240V		100	100	50	50
	400/415V		15	15	15	15
	440V		8	8	6	6
	480/500V		6	6	4	4
	660/690V		3	3	3	3
Rated service short-circuit breaking capacity $I_{cs}$ (kA)	230/240V		100	100	50	50
	400/415V		7.5	7.5	6	6
	440V		4	4	3	3
	500V		4.5	4.5	3	3
	660/690V		2.25	2.25	2.25	2.25
Arcing distance (mm)			40	40	40	40
Standard rated power of three-phase motor (kW)	230/240V		3	4	5.5	5.5
	400V		5.5	7.5	11	11
	415V		5.5	9	11	11
	440V		7.5	9	11	11
	500V		7.5	9	11	15
Current setting value of instantaneous electromagnetic release $I_r$ (A)			170	223	327	327
Current rating of fuse-link of back-up fuse, which is only needed in case of $I_{cc} > I_{cu}$ ( $I_{cc}$ : prospective short-circuit breaking current)	230/240V	aM A	★	★	80	80
		gI/gG A	★	★	100	100
	400/415V	aM A	63	63	80	80
		gI/gG A	80	80	100	100
	440V	aM A	50	50	63	63
		gI/gG A	63	63	80	80
	500V	aM A	50	50	50	50
		gI/gG A	63	63	63	63
★: fuse is not required	690V	aM A	40	40	40	40
		gI/gG A	50	50	50	50
Degree of Protection			IP2L0	IP2L0	IP2L0	IP2L0