



NU6 Low-voltage Surge Arrester

NU6- I

1. General

- 1.1 Certificates: international certificates are under proceeding;
- 1.2 Electric ratings: 230/400V, AC50/60Hz, 3-phase;
- 1.3 Application: Protect electric system and on-loading electrical apparatus from thunder and instantaneous over-voltage;
- 1.4 Standard: IEC/EN 61643-1

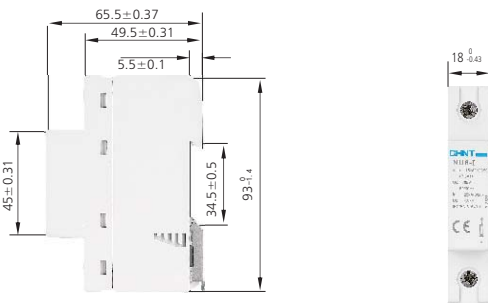
2. Technical data

2.1 Technical parameters

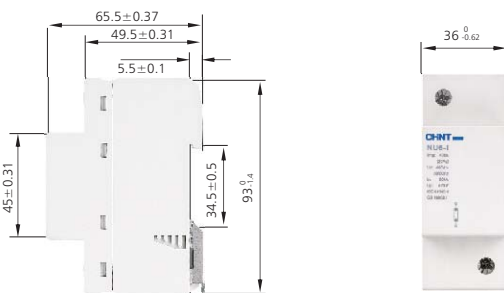
Model	Shock current limp		Max. continuous operational voltage U_c (V~)	Level of protection U_p (kV)	Nominal discharge current I_n (8/20 μ s) (kA)
	I_{peak} (10/350 μ s) (kA)	Load Q As			
NU6- I	15	7.5	275	4.0	25
			320	4.0	
			385	4.0	
			440	4.0	
NU6- I	25	12.5	275	4.0	25
			320	4.0	
			385	4.0	
			440	4.0	
NU6- I	40	20	320	4.0	50
			385	4.0	
			440	4.0	

3. Overall and mounting dimensions (mm)

NU6- I (15kA, 25kA)



NU6- I (40kA)



NU6-II

1. General

- 1.1 Certificates: international certificates are under proceeding;
 1.2 Number of poles: 1, 2,3, 4;
 1.3 Electric ratings: 230/400V, AC50/60Hz;
 1.4 Application: Protect electric system and on-loading electrical apparatus from thunder and instantaneous over-voltage;
 1.5 Standard: IEC/EN 61643-1

2. Technical data

Model	Max. continuous operational voltage U_c (V~)	Level of protection U_p (kV)	Nominal discharge current I_n (8/20 μ s) (kA)	Maximum discharge current I_{max} (8/20 μ s) (kA)	Mounting category of protected apparatus
NU6-II	275	1.2	5	15	I, II, III
	320	1.5			I, II, III
	385	1.8			I, II, III
	460	2.0			II, III
	510	2.5			II, III
	550	3.0			II, III
NU6-II	275	1.2	15	40	I, II, III
	320	1.5			I, II, III
	385	1.8			II, III
	460	2.0			II, III
	510	2.5			II, III
	550	3.0			III
NU6-II	275	1.2	25	60	I, II, III
	320	1.5			II, III
	385	1.8			II, III
	460	2.0			II, III
	510	2.5			III
	550	3.0			III
NU6-II	275	1.2	40	100	II, III
	320	1.5			II, III
	385	1.8			II, III
	460	2.0			III
	510	2.5			III
	550	3.0			III

Auxiliary	Configurations	Rated voltage U_n (V)	Rated current I_n (A)
contact	INO+INC	AC125	3

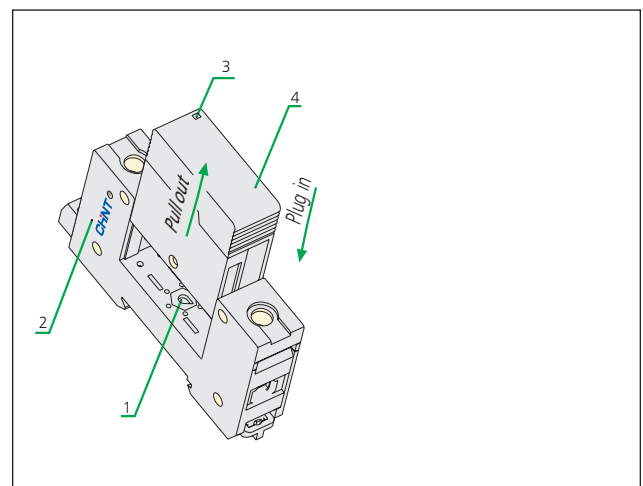
3. How to select surge protectors

- a. The voltage should be $\leq U_c$;
- b. $U_p <$ maximum impulse withstands;
- c. Different protectors should be selected according to various grounding system and protection mode.

Model	Max. continuous operational voltage U_c (V~)	Applicable grounding system	Protection mode	Circuits	Number of poles
NU6-II	275	TT	L-N	1 phase, 3 phase 4 wire	1
		TN-S	L-PE, N-PE, L-N	1 phase, 3 phase 5 wire	1,2,3,4
		TN-C	L-PE	1 phase, 3 phase 4 wire	1,2,3
	320	TT	L-N	1 phase, 3 phase 4 wire	1
		TN-S	L-PE, N-PE, L-N	1 phase, 3 phase 5 wire	1,2,3,4
		TN-C	L-PE	1 phase, 3 phase 4 wire	1,2,3
	385	TT	L-PE, N-PE, L-N	1 phase, 3 phase 4 wire	1,2,3,4
		TN-S	L-PE, N-PE, L-N	1 phase, 3 phase 5 wire	1,2,3,4
		TN-C	L-PE	1 phase, 3 phase 4 wire	1,2,3
	460	TT	L-PE, N-PE, L-N, L-L	1 phase, 3 phase 4 wire	1,2,3,4
		TN-S	L-PE, N-PE, L-N, L-L	1 phase, 3 phase 5 wire	1,2,3,4
		TN-C	L-PE, L-L	1 phase, 3 phase 4 wire	1,2,3
		IT	L-PE, N-PE, L-L	1 phase, 3 phase 3/4 wire	1,2,3,4
		TT	L-PE, N-PE, L-N, L-L	1 phase, 3 phase 4 wire	1,2,3,4
		TN-S	L-PE, N-PE, L-N, L-L	1 phase, 3 phase 5 wire	1,2,3,4
	510	TN-C	L-PE, L-L	1 phase, 3 phase 4 wire	1,2,3
		IT	L-PE, N-PE, L-L	1 phase, 3 phase 3/4 wire	1,2,3,4
		TT	L-PE, N-PE, L-N, L-L	1 phase, 3 phase 4 wire	1,2,3,4
	550	TN-S	L-PE, N-PE, L-N, L-L	1 phase, 3 phase 5 wire	1,2,3,4
		TN-C	L-PE, L-L	1 phase, 3 phase 4 wire	1,2,3
		IT	L-PE, N-PE, L-L	1 phase, 3 phase 3/4 wire	1,2,3,4

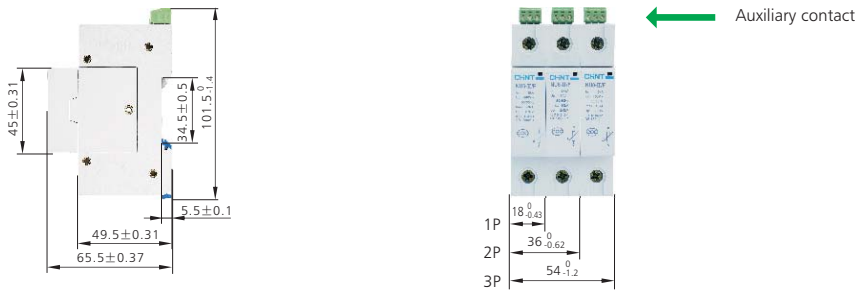
4. Functions

- 4.1 The product is composed of two independent components: removable protective module 4 and base 2;
- 4.2 When the product is damaged, the part 3 will indicate; please replace the removable protective module 4 at once and there is no need to cutoff the circuits;
- 4.3 The part 1 is for maximum continuous operational voltage indication as well as avoiding replacement with wrong module.

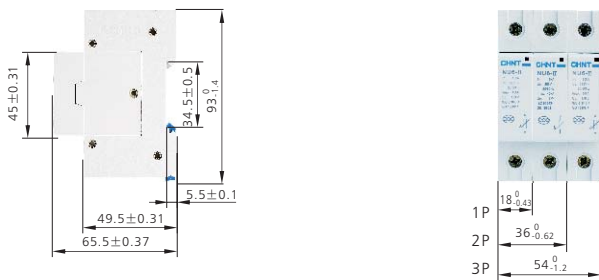


5. Overall and mounting dimensions (mm)

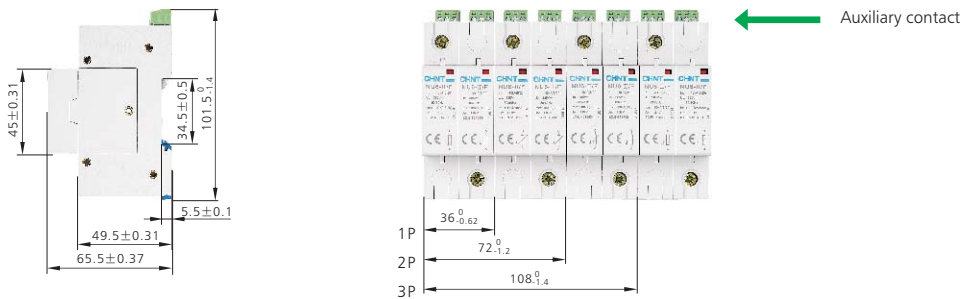
NU6-II/F (5, 15, 25kA) with remote control port



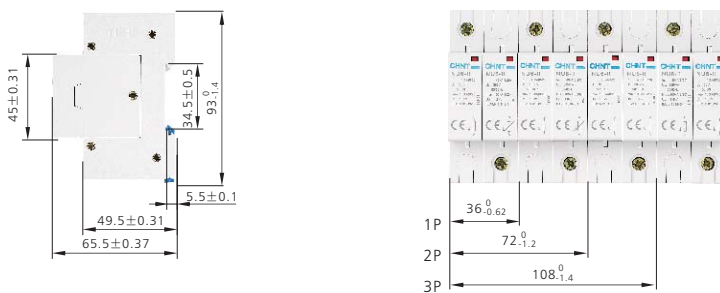
NU6-II (5, 15, 25kA) without remote control port



NU6-II/F (40kA) with remote control port



NU6-II/F (40kA) without remote control port



NU6-III

1. General


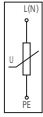
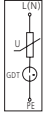

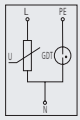

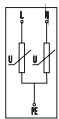
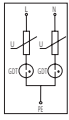
- 1.1 Certificates: international certificates are under proceeding;
- 1.2 Electric ratings: Single phase power distribution and control system of AC50/60Hz, 230V;
- 1.3 Short circuit current: up to 10kA (8/20 μ s);
- 1.4 Application: Protect electric system and on-loading electrical apparatus from lightning and instantaneous over-voltage;
- 1.5 Standard: IEC/EN 61643-1

2. Technical data

Model	Uoc (1.2/50 μ s) (kV)	Short circuit current Isc (8/20 μ s)(KA)	Max. continuous operational voltage Uc (V~)	Level of protection Up (kV)
NU6-III	2	1	275	1.5
			320	1.5
			385	1.5
	3	1.5	275	1.5
			320	1.5
			385	1.5
	4	2	275	1.5
			320	1.5
			385	1.5
	6	3	275	1.5
			320	1.5
			385	1.5
10	5	275	1.5	
		320	1.5	
		385	1.5	
20	10	275	1.5	
		320	1.5	

Auxiliary	Configurations	Rated voltage Un(V)	Rated current In(A)
contact	INO+INC	AC125	3

3. Type and circuit diagram

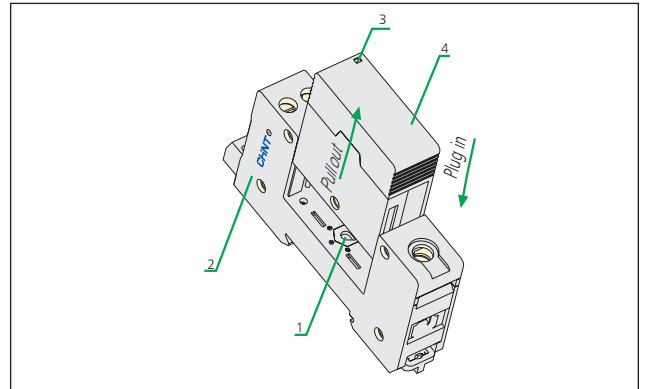
Model	Type	Circuit diagram
NU6-III	L/N-PE 	Voltage Limit Type 
		Compound Type 
	L-N/N-PE 	*
		Compound Type 
	L-PE/N-PE 	Voltage Limit Type 
		Compound Type 

4. Design type and protective mode of different surge protectors

Model	Uoc (1.2/50 μs) (kV)	Uc (V~)	Corresponding design type and protection mode				
NU6-III	2	275	Compound type (with gas discharge tube + voltage sensitive resistance) L-PE/N-PE	Voltage limit type (with voltage sensitive resistance) L-PE/N-PE	Compound type (with gas discharge tube + voltage sensitive resistance) L/N-PE	Voltage limit type (with voltage sensitive resistance) L/N-PE	
		320					
	385						
	3	275					
		320					
		385					
	4	275					
		320					
		385					
	6	275					
		320					
		385					
10	275	Voltage limit type (with voltage sensitive resistance) L-PE/N-PE	Compound type (with gas discharge tube + voltage sensitive resistance) L-N/N-PE	Voltage limit type (with voltage sensitive resistance) L/N-PE			
	320						
	385						
20	275						
	320						

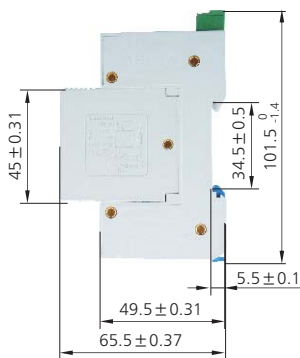
5. Functions

5.1 The product is composed of two independent components: removable protective module 4 and base 2;
 5.2 When the product is damaged, the part 3 will indicate; please replace the removable protective module 4 at once and there is no need to cutoff the circuits;
 5.3 The part 1 is for maximum continuous operational voltage indication as well as avoiding replacement with wrong module.

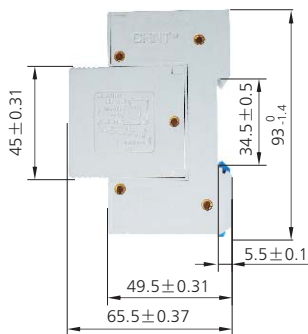


6. Overall and mounting dimensions (mm)

NU6-III/F with remote control port



NU6-III without remote control port



NU6- I series surge arrester	NU6- II series surge arrester	NU6-III series surge arrester
The boundary between lightning protection areas of LPZ0 & LPZ1	The boundary between lightning protection areas of LPZ1 & LPZ2	The boundary between lightning protection areas of LPZ2 & LPZ3
Protection category: B	Protection category: C	Protection category: D
Over-voltage mounting category: III	Over-voltage mounting category: II	Over-voltage mounting category: I
Rated impulse withstand voltage: 4000V	Rated impulse withstand voltage: 2500V	Rated impulse withstand voltage: 1500V
Parameters of discharge: Iimp and In	Parameters of discharge: I _{max} and In	Parameters of discharge: Uoc and I _{sc}
Applicable to master power distribution switchgear	Applicable to branch power distribution switchgear	Applicable to terminal of power distribution



*Note: Fuse/Circuit breaker are strongly recommended to be installed upstream the surge protector.

7. Recommended circuit breaker selection

Surge protector	Nominal discharge current (kA)	Circuit breaker (upstream)
NU6- I	ALL	NM8 100A
	5	NB1 C10
NU6- II	15	NB1 C20
	25	NB1 C40
	40	DZ158 C63
NU6-III	ALL	NB1 C10