

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



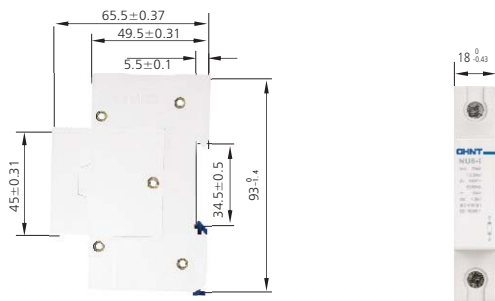
2. Technical data

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	275	4.0	50
			320	4.0	
			440	4.0	

3. Overall and mounting dimensions (mm)

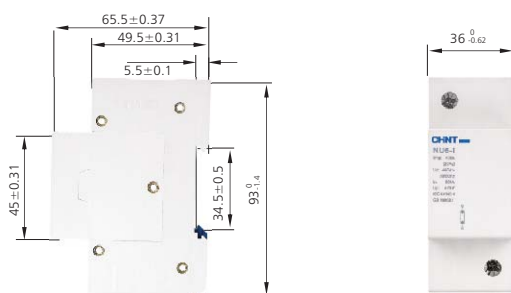
NU6- I (15kA, 25kA)



4. Ordering information

Model	Shock current limp peak (10/350 μ s) (kA)	Max. continuous operational voltage U_c (V~)	CTN	Order code	
				Standard	RoHS
NU6- I	15	275	192	152001	-
NU6- I	15	320	192	152002	-
NU6- I	15	385	192	152003	-
NU6- I	15	440	192	152004	-
NU6- I	25	275	192	152005	-
NU6- I	25	320	192	152006	-
NU6- I	25	385	192	152007	-
NU6- I	25	440	192	152008	-
NU6- I	40	275	96	152009	-
NU6- I	40	320	96	152010	-
NU6- I	40	385	96	152011	-
NU6- I	40	440	96	152012	-

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 Uc (V~)	Level of protection Up (kV)	Nominal discharge current In (8/20 μ s) (kA)	Maximum discharge current Imax (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 Un(V)	Rated current In(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.

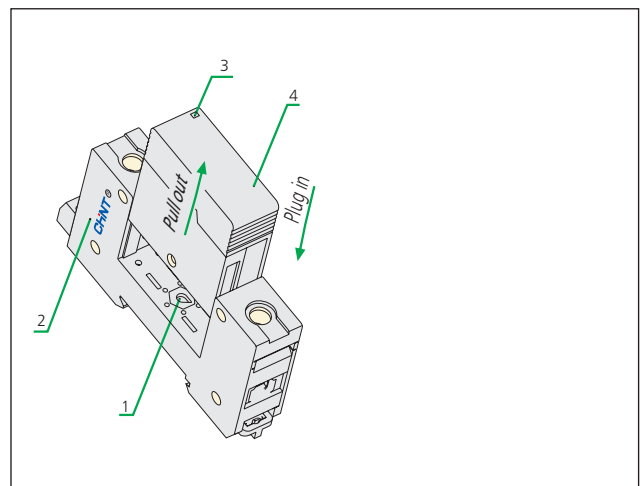
Model	Max. continuous operational voltage U_c (V~)	Applicable grounding system	Protection mode	Circuits	Number of poles	
NU6-II	275	TT	L-N	1 phase, 3 phase 4 wire	1	
		TN-S	L-PE, N-PE, L-N	1 phase, 3 phase 5 wire	1,2,3,4	
		TN-C	L-PE	1 phase, 3 phase 4 wire	1,2,3	
	320	TT	L-N	1 phase, 3 phase 4 wire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

4. Functions

4.1 The product is composed of two independent components: removable protective module 4 and base 2;

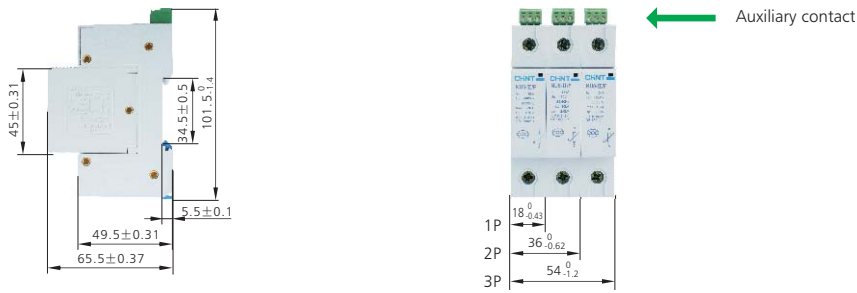
4.2 When the product is damaged, the part 3 will indicate; please replace the removable protective module 4 at once and there is no need to cutoff the circuits;

4.3 The part 1 is for maximum continuous operational voltage indication as well as avoiding replacement with wrong module.

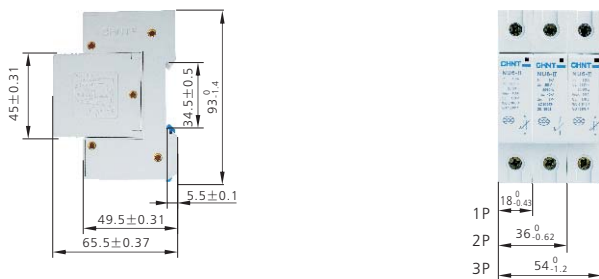


5. Overall and mounting dimensions (mm)

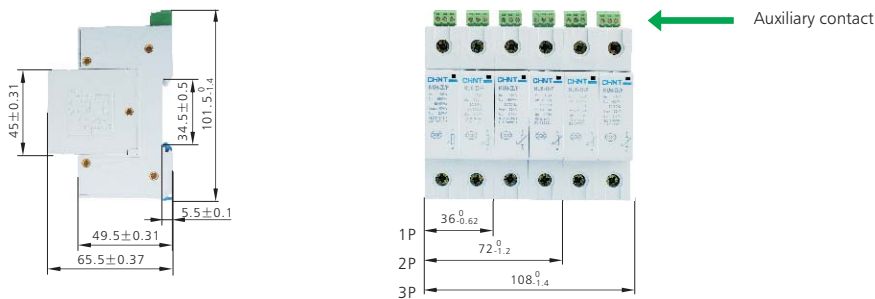
NU6-II/F (5, 15, 25kA) with remote control port



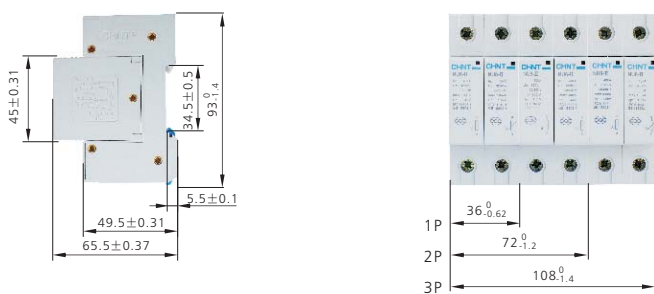
NU6-II (5, 15, 25kA) without remote control port



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



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





6. Ordering information

★ NU6- II 1P

Nominal discharge current (kA)	Max. continuous operational voltage U _c (V~)	With remote control port	CTN	Order code	
				Standard	RoHS
5	275	No	144	152101	-
5	320	No	144	152102	-
5	385	No	144	152103	-
5	460	No	144	152104	-
5	510	No	144	152105	-
5	550	No	144	152106	-
15	275	No	144	152107	-
15	320	No	144	152108	-
15	385	No	144	152109	-
15	460	No	144	152110	-
15	510	No	144	152111	-
15	550	No	144	152112	-
25	275	No	144	152113	-
25	320	No	144	152114	-
25	385	No	144	152115	-
25	460	No	144	152116	-
25	510	No	144	152117	-
25	550	No	144	152118	-
40	275	No	72	152119	-
40	320	No	72	152120	-
40	385	No	72	152121	-
40	460	No	72	152122	-
40	510	No	72	152123	-
40	550	No	72	152124	-

★ NU6- II/F 1P

Nominal discharge current (kA)	Max. continuous operational voltage U _c (V~)	With remote control port	CTN	Order code	
				Standard	RoHS
5	275	Yes	144	152125	-
5	320	Yes	144	152126	-
5	385	Yes	144	152127	-
5	460	Yes	144	152128	-
5	510	Yes	144	152129	-
5	550	Yes	144	152130	-
15	275	Yes	144	152131	-
15	320	Yes	144	152132	-
15	385	Yes	144	152133	-
15	460	Yes	144	152134	-
15	510	Yes	144	152135	-
15	550	Yes	144	152136	-
25	275	Yes	144	152137	-
25	320	Yes	144	152138	-
25	385	Yes	144	152139	-
25	460	Yes	144	152140	-
25	510	Yes	144	152141	-
25	550	Yes	144	152142	-
40	275	Yes	72	152143	-
40	320	Yes	72	152144	-
40	385	Yes	72	152145	-
40	460	Yes	72	152146	-
40	510	Yes	72	152147	-
40	550	Yes	72	152148	-

★ NU6-II 2P

Nominal discharge current (kA)	Max. continuous operational voltage U _c (V~)	With remote control port	CTN	Order code	
				Standard	RoHS
5	275	No	72	152149	-
5	320	No	72	152150	-
5	385	No	72	152151	-
5	460	No	72	152152	-
5	510	No	72	152153	-
5	550	No	72	152154	-
15	275	No	72	152155	-
15	320	No	72	152156	-
15	385	No	72	152157	-
15	460	No	72	152158	-
15	510	No	72	152159	-
15	550	No	72	152160	-
25	275	No	72	152161	-
25	320	No	72	152162	-
25	385	No	72	152163	-
25	460	No	72	152164	-
25	510	No	72	152165	-
25	550	No	72	152166	-
40	275	No	36	152167	-
40	320	No	36	152168	-
40	385	No	36	152169	-
40	460	No	36	152170	-
40	510	No	36	152171	-
40	550	No	36	152172	-

★ NU6-II/F 2P

Nominal discharge current (kA)	Max. continuous operational voltage U _c (V~)	With remote control port	CTN	Order code	
				Standard	RoHS
5	275	Yes	72	152173	-
5	320	Yes	72	152174	-
5	385	Yes	72	152175	-
5	460	Yes	72	152176	-
5	510	Yes	72	152177	-
5	550	Yes	72	152178	-
15	275	Yes	72	152179	-
15	320	Yes	72	152180	-
15	385	Yes	72	152181	-
15	460	Yes	72	152182	-
15	510	Yes	72	152183	-
15	550	Yes	72	152184	-
25	275	Yes	72	152185	-
25	320	Yes	72	152186	-
25	385	Yes	72	152187	-
25	460	Yes	72	152188	-
25	510	Yes	72	152189	-
25	550	Yes	72	152190	-
40	275	Yes	36	152191	-
40	320	Yes	36	152192	-
40	385	Yes	36	152193	-
40	460	Yes	36	152194	-
40	510	Yes	36	152195	-
40	550	Yes	36	152196	-

★ NU6- II 3P

Nominal discharge current (kA)	Max. continuous operational voltage U_c (V~)	With remote control port	CTN	Order code	
				Standard	RoHS
5	275	No	48	152197	-
5	320	No	48	152198	-
5	385	No	48	152199	-
5	460	No	48	152200	-
5	510	No	48	152201	-
5	550	No	48	152202	-
15	275	No	48	152203	-
15	320	No	48	152204	-
15	385	No	48	152205	-
15	460	No	48	152206	-
15	510	No	48	152207	-
15	550	No	48	152208	-
25	275	No	48	152209	-
25	320	No	48	152210	-
25	385	No	48	152211	-
25	460	No	48	152212	-
25	510	No	48	152213	-
25	550	No	48	152214	-
40	275	No	24	152215	-
40	320	No	24	152216	-
40	385	No	24	152217	-
40	460	No	24	152218	-
40	510	No	24	152219	-
40	550	No	24	152220	-

★ NU6- II/F 3P

Nominal discharge current (kA)	Max. continuous operational voltage U_c (V~)	With remote control port	CTN	Order code	
				Standard	RoHS
5	275	Yes	48	152221	-
5	320	Yes	48	152222	-
5	385	Yes	48	152223	-
5	460	Yes	48	152224	-
5	510	Yes	48	152225	-
5	550	Yes	48	152226	-
15	275	Yes	48	152227	-
15	320	Yes	48	152228	-
15	385	Yes	48	152229	-
15	460	Yes	48	152230	-
15	510	Yes	48	152231	-
15	550	Yes	48	152232	-
25	275	Yes	48	152233	-
25	320	Yes	48	152234	-
25	385	Yes	48	152235	-
25	460	Yes	48	152236	-
25	510	Yes	48	152237	-
25	550	Yes	48	152238	-
40	275	Yes	24	152239	-
40	320	Yes	24	152240	-
40	385	Yes	24	152241	-
40	460	Yes	24	152242	-
40	510	Yes	24	152243	-
40	550	Yes	24	152244	-

★ NU6- II 4P

Nominal discharge current (kA)	Max. continuous operational voltage U_c (V~)	With remote control port	CTN	Order code	
				Standard	RoHS
5	275	No	36	152245	-
5	320	No	36	152246	-
5	385	No	36	152247	-
5	460	No	36	152248	-
5	510	No	36	152249	-
5	550	No	36	152250	-
15	275	No	36	152251	-
15	320	No	36	152252	-
15	385	No	36	152253	-
15	460	No	36	152254	-
15	510	No	36	152255	-
15	550	No	36	152256	-
25	275	No	36	152257	-
25	320	No	36	152258	-
25	385	No	36	152259	-
25	460	No	36	152260	-
25	510	No	36	152261	-
25	550	No	36	152262	-
40	275	No	12	152263	-
40	320	No	12	152264	-
40	385	No	12	152265	-
40	460	No	12	152266	-
40	510	No	12	152267	-
40	550	No	12	152268	-

★ NU6- II/F 4P

Nominal discharge current (kA)	Max. continuous operational voltage U_c (V~)	With remote control port	CTN	Order code	
				Standard	RoHS
5	275	Yes	36	152269	-
5	320	Yes	36	152270	-
5	385	Yes	36	152271	-
5	460	Yes	36	152272	-
5	510	Yes	36	152273	-
5	550	Yes	36	152274	-
15	275	Yes	36	152275	-
15	320	Yes	36	152276	-
15	385	Yes	36	152277	-
15	460	Yes	36	152278	-
15	510	Yes	36	152279	-
15	550	Yes	36	152280	-
25	275	Yes	36	152281	-
25	320	Yes	36	152282	-
25	385	Yes	36	152283	-
25	460	Yes	36	152284	-
25	510	Yes	36	152285	-
25	550	Yes	36	152286	-
40	275	Yes	12	152287	-
40	320	Yes	12	152288	-
40	385	Yes	12	152289	-
40	460	Yes	12	152290	-
40	510	Yes	12	152291	-
40	550	Yes	12	152292	-

NU6-III

1. General


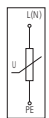
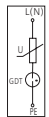

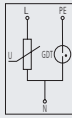

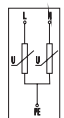
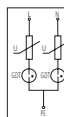
- 1.1 Certificates: international certificates are under proceeding;
- 1.2 Electric ratings: Single phase power distribution and control system of AC50/60Hz, 230V;
- 1.3 Short circuit current: up to 10kA (8/20 μ s);
- 1.4 Application: Protect electric system and on-loading electrical apparatus from lightning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

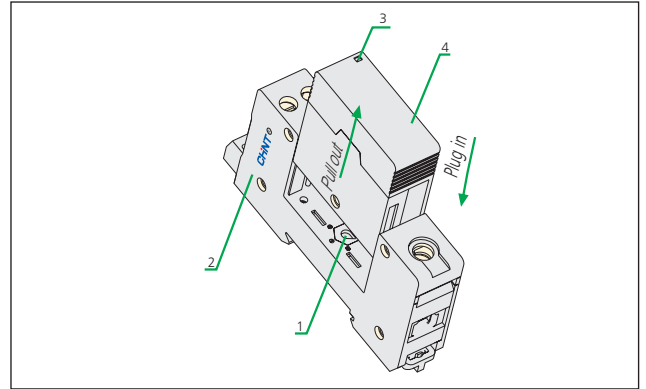
Model	Type	Circuit diagram
NU6-III	L/N-PE 	Voltage Limit Type 
		Compound Type 
	L-N/N-PE 	*
		Compound Type 
	L-PE/N-PE 	Voltage Limit Type 
		Compound Type 

4. Design type and protective mode of different surge protectors

Model	Uoc (1.2/50 μ s) (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	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						
10	275						
	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.

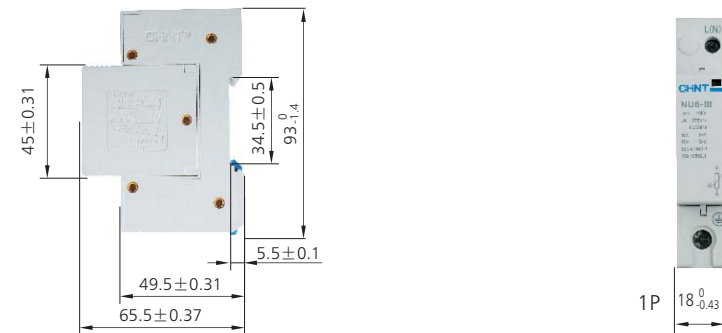


6. Overall and mounting dimensions (mm)

NU6-III/F with remote control port



NU6-III without remote control port



7. Ordering information

★NU6-III Compound type (L/N-PE)

Uoc (kV)	Max. continuous operational voltage U _c (V~)	With remote control port	CTN	Order code	
				Standard	RoHS
2	275	No	144	152301	-
2	320	No	144	152302	-
2	385	No	144	152303	-
3	275	No	144	152304	-
3	320	No	144	152305	-
3	385	No	144	152306	-
4	275	No	144	152307	-
4	320	No	144	152308	-
4	385	No	144	152309	-
6	275	No	144	152310	-
6	320	No	144	152311	-

★NU6-III/F Compound type (L/N-PE)

Uoc (kV)	Max. continuous operational voltage U _c (V~)	With remote control port	CTN	Order code	
				Standard	RoHS
2	275	Yes	144	152313	-
2	320	Yes	144	152314	-
2	385	Yes	144	152315	-
3	275	Yes	144	152316	-
3	320	Yes	144	152317	-
3	385	Yes	144	152318	-
4	275	Yes	144	152319	-
4	320	Yes	144	152320	-
4	385	Yes	144	152321	-
6	275	Yes	144	152322	-
6	320	Yes	144	152323	-

★NU6-III Compound type (L-N/N-PE)

Uoc (kV)	Max. continuous operational voltage U _c (V~)	With remote control port	CTN	Order code	
				Standard	RoHS
6	385	No	144	152325	-
10	275	No	144	152326	-
10	320	No	144	152327	-
10	385	No	144	152328	-
20	275	No	144	152329	-
20	320	No	144	152330	-

★NU6-III/F Compound type (L-N/N-PE)

Uoc (kV)	Max. continuous operational voltage U _c (V~)	With remote control port	CTN	Order code	
				Standard	RoHS
6	385	Yes	144	152331	-
10	275	Yes	144	152332	-
10	320	Yes	144	152333	-
10	385	Yes	144	152334	-
20	275	Yes	144	152335	-
20	320	Yes	144	152336	-

★ NU6-III Compound type (L-PE/N-PE)

Uoc (kV)	Max. continuous operational voltage U _c (V~)	With remote control port	CTN	Order code	
				Standard	RoHS
2	275	No	144	152337	-
2	320	No	144	152338	-
2	385	No	144	152339	-
3	275	No	144	152340	-
3	320	No	144	152341	-
3	385	No	144	152342	-
4	275	No	144	152343	-
4	320	No	144	152344	-
4	385	No	144	152345	-
6	275	No	144	152346	-
6	320	No	144	152347	-

★ NU6-III/F Compound type (L-PE/N-PE)

Uoc (kV)	Max. continuous operational voltage Uc (V~)	With remote control port	CTN	Order code	
				Standard	RoHS
2	275	Yes	144	152349	-
2	320	Yes	144	152350	-
2	385	Yes	144	152351	-
3	275	Yes	144	152352	-
3	320	Yes	144	152353	-
3	385	Yes	144	152354	-
4	275	Yes	144	152355	-
4	320	Yes	144	152356	-
4	385	Yes	144	152357	-
6	275	Yes	144	152358	-
6	320	Yes	144	152359	-

★ NU6-III Voltage limit type (L/N-PE)

Uoc (kV)	Max. continuous operational voltage Uc (V~)	With remote control port	CTN	Order code	
				Standard	RoHS
2	275	No	144	152361	-
2	320	No	144	152362	-
2	385	No	144	152363	-
3	275	No	144	152364	-
3	320	No	144	152365	-
3	385	No	144	152366	-
4	275	No	144	152367	-
4	320	No	144	152368	-
4	385	No	144	152369	-
6	275	No	144	152370	-
6	320	No	144	152371	-
6	385	No	144	152372	-
10	275	No	144	152373	-
10	320	No	144	152374	-
10	385	No	144	152375	-
20	275	No	144	152376	-
20	320	No	144	152377	-

★ NU6-III/F Voltage limit type (L/N-PE)

Uoc (kV)	Max. continuous operational voltage Uc (V~)	With remote control port	CTN	Order code	
				Standard	RoHS
2	275	Yes	144	152378	-
2	320	Yes	144	152379	-
2	385	Yes	144	152380	-
3	275	Yes	144	152381	-
3	320	Yes	144	152382	-
3	385	Yes	144	152383	-
4	275	Yes	144	152384	-
4	320	Yes	144	152385	-
4	385	Yes	144	152386	-
6	275	Yes	144	152387	-
6	320	Yes	144	152388	-
6	385	Yes	144	152389	-
10	275	Yes	144	152390	-
10	320	Yes	144	152391	-
10	385	Yes	144	152392	-
20	275	Yes	144	152393	-
20	320	Yes	144	152394	-

★NU6-III Voltage limit type (L-PE/N-PE)

Uoc (kV)	Max. continuous operational voltage U _c (V~)	With remote control port	CTN	Order code	
				Standard	RoHS
2	275	No	144	152395	-
2	320	No	144	152396	-
2	385	No	144	152397	-
3	275	No	144	152398	-
3	320	No	144	152399	-
3	385	No	144	152400	-
4	275	No	144	152401	-
4	320	No	144	152402	-
4	385	No	144	152403	-
6	275	No	144	152404	-
6	320	No	144	152405	-
6	385	No	144	152406	-
10	275	No	144	152407	-
10	320	No	144	152408	-
10	385	No	144	152409	-
20	275	No	144	152410	-
20	320	No	144	152411	-

★NU6-III/F Voltage limit type (L-PE/N-PE)

Uoc (kV)	Max. continuous operational voltage U _c (V~)	With remote control port	CTN	Order code	
				Standard	RoHS
2	275	Yes	144	152412	-
2	320	Yes	144	152413	-
2	385	Yes	144	152414	-
3	275	Yes	144	152415	-
3	320	Yes	144	152416	-
3	385	Yes	144	152417	-
4	275	Yes	144	152418	-
4	320	Yes	144	152419	-
4	385	Yes	144	152420	-
6	275	Yes	144	152421	-
6	320	Yes	144	152422	-
6	385	Yes	144	152423	-
10	275	Yes	144	152424	-
10	320	Yes	144	152425	-
10	385	Yes	144	152426	-
20	275	Yes	144	152427	-
20	320	Yes	144	152428	-

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 I _n	Parameters of discharge: U _{oc} 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.

8. 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