CATALOGUE 2015-2016

ZOTUP®

INNOVATIVE SURGE PROTECTION

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OUR COMPANY

ZOTUP is our company. Since 30 years leading Italian company manufacturing systems for protecting electric and electonic equipment from lightining strikes and power surges.
And since then we continue to work tirelessly to offer our customers products and services with high quality standards.
In **ZOTUP** our values are easy and essential.

SAFETY We were born to make our products with only one aim: **protect people, their property and their work.**

QUALITY Only through our **products quality** we can realise what we promise.

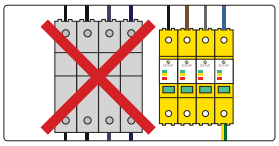
INNOVATION Continued development is the **products lifeblood of ZOTUP**. The development generates innovation, the real answer to the customer needs.

On these values in ZOTUP we all measure ourselves with the market, today and tomorrow.

Main features

New **ZOTUP** products represent a news in the market of surge protections: performance, safety, ease of installation and reliability are now available in a single product.

ZOTUP has made this possible by integrating the following features:



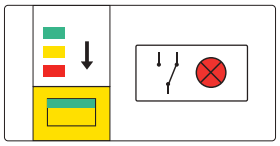
- **Integrated Fuse Function (ff) in case of short circuit failure.**

According to product standard IEC 61643-11 Ed. 1 (2011-03) arresters have to be classified according to the behavior in case of failure. This behavior is of two types:
- OCFM (Open Circuit Failore Mode)
- SCFM (Short Circuit Failore Mode).

The arrester OCFM failure must interrupt the connection to ground. The opening of the circuit can be performed by a disconnector inside/outside or by a combination of two.
The fault condition is achieved through two distinct processes:
a) "slow" process that depends on the temperature drift of the MOV based arrester. In this case the circuit interruption is generally performed by an internal disconnector.
b) "instant" process which depends on the overload of the arrester with the generation of a low impedance short circuit and with the circulation of the short-circuit current. Interrupting the short-circuit current is managed by a disconnector inside/outside like a fuse/circuit breaker. For this purpose the fuse is always preferable.
The absolute news from **ZOTUP** is constituted by the patent internal disconnector, which is able to interrupt the circuit both in "slow" and in "instant" processes. It means that the disconnector of **ZOTUP** has an Integrated Fuse Function (ff). Therefore, within certain values of short circuit current, **ZOTUP** doesn't requires an additional overcurrent protection in series.

Advantages:
- Maintaining the full discharge capacity of the SPD. The fuse and even more the circuit breaker influence this parameter;
- U_{PF} (total voltage drop across the protective circuit) reduction through a shorter length of the wiring and on the coil if the circuit breaker is used;
- Costs and dimensions reduction of the protection system.

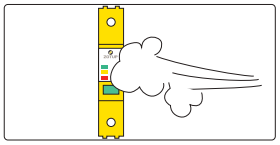
With greater Icc than the breaking **ZOTUP** capacity, the fuse required is intrinsically selective with the internal disconnector, safeguarding the SPD integrity in the event of short-circuit.



- **Progressive performance indicator.**

With the new **ZOTUP** SPD the activity of the internal lightning protection system verification is simplified. The periodic verification is required by IEC Guide 81-2 (2013-02). In the new linea surge arrester performance are displayed by color changes in the Status Indicator window. The transition from the initial green color (full performance) to the totally yellow (minimum benefits) is analogic. In the window is indicated the actual residual performance of the arrester: this is the most complete information than a simple reporting of attention type semaphore.
The following step, from yellow to the red, indicates the reached end of life of the surge arrester.

Advantages:
- Progressive performance reduction indication of the arrester makes it possible to optimize the decision on its replacement;
- In arrester with the changeover contact for remote signal indication, the contact is activated when the performances are minimal. So, the remote alarm is preventive because the arrester is still active and able to protect even with minimum benefits.



- **Chances to use the arrester with high levels of conductive pollution (Pollution Degree 3) and high temperatures (Temperatures Extended Range).**

The increasing use of surge arresters in "heavy" environmental applications (such as electrical panel, for the traffic lights protection, for the telephone switching systems or data transmission, for mobile telepho and regulation for ' public luminaire) has highlighted the need for more stringent requirements on conductive pollution. Also the SPD installation in coastal sites with high rate of salinity or subjected to condensation effects due to temperature excursions such as those of the frameworks of the photovoltaic field (PV) or in Wind Turbines for the production of energy, it has shown that sometimes the normal internal insulation distances in the surge arrester as well as the ability to resist to the tracing of the electric arc by the insulating materials have proved to be inadequate.
ZOTUP deal with the issue of pollution conductive firmly using materials and design features such as to achieve Pollution Degree 3.
In keeping with the emphasis on environmental issues also working temperature is at the highest level of obtaining the classification Temperatures Extended Range.

Advantages:
- Improved reliability when installed in "burdensome" environments;
- Even more application possibilities.

ZOTUP SPD FOR LOW VOLTAGE

SURGE ARRESTER

LOW VOLTAGE

Protection against direct lightning strikes

Protection against direct and indirect lightning strikes

Protection against indirect lightning strikes

LOW VOLTAGE

Typical use: in TN-C, TN-S, TT and IT with direct connection to the ground (A and B) and 1 + 1 or 3 +1 (C) according to IEC 60364-5-534. They are generally installed in in Main Distributions Boards (MDB) or at the origin of low voltage systems, as well as in Sub Paintings SQBT.

Features:

- They are marked by a power interruption that in case of failure of the SPD is able to extinguish independently the follow current network. They not therefore need a fuse back-up/support.
- They have a progressive indicator performance. Therefore they simplify the maintenance, facilitating the choice to replace during planned interventions.
- They are marked by Pollution Degree 3 which makes them suitable for installation in polluted environments (electrically conductive) found in dusty or conductive fumes.

ZOTUP SPD FOR LOW VOLTAGE

SPD		Test Classification	Discarge Current I_{imp}	Nominal discarge current I_n	Number of Poles	Type
		I / T1	25 kA	20 kA	1	IA 25
		I e II / T1 e T2	100 kA	100 kA	1 N-PE	I 100 N-PE
		I / T1	25 kA	20 kA	2	IA 25 2
		I / T1	25 kA	20 kA	4	IA 25 4
		I / T1	25 kA	20 kA	1+1	IA 25 1+1
		I / T1	25 kA	20 kA	3+1	IA 25 3+1
		I e II / T1 e T2	25 kA	40 kA	1	L25/100 230 ff
		I e II / T1 e T2	25 kA	40 kA	2	L25/100 230 ff 2
		I e II / T1 e T2	25 kA	40 kA	3	L25/100 230 ff 3
		I e II / T1 e T2	25 kA	40 kA	4	L25/100 230 ff 4
		I e II / T1 e T2	25 kA	40 kA	1+1	L25/100 230 ff 1+1
		I e II / T1 e T2	25 kA	40 kA	3+1	L25/100 230 ff 3+1
		I e II / T1 e T2	10 kA	40 kA	4	Prot. Box TN 40 ff
					3+1	Prot. Box TT 40 ff
		I e II / T1 e T2	50 kA	50 kA	1 N-PE	I 50 N-PE
		I e II / T1 e T2	13 kA	25 kA	1	L 13/40 230 ff
		I e II / T1 e T2	13 kA	25 kA	2	L 13/40 230 ff 2
		I e II / T1 e T2	13 kA	25 kA	3	L 13/40 230 ff 3
		I e II / T1 e T2	13 kA	25 kA	4	L 13/40 230 ff 4
		I e II / T1 e T2	13 kA	25 kA	1+1	L 13/40 230 ff 1+1
		I e II / T1 e T2	13 kA	25 kA	3+1	L 13/40 230 ff 3+1

ZOTUP SPD FOR LOW VOLTAGE

SPD		Test Classification	Discarge Current I_{imp}	Nominal discarge current I_n	Number of Poles	Type
		I e II / T1 e T2	7 kA	25 kA	1	7/30 ... ff
		I e II / T1 e T2	7 kA	25 kA	2	7/30 230 ff 2
		I e II / T1 e T2	7 kA	25 kA	3	7/30 ... ff 3
		I e II / T1 e T2	7 kA	25 kA	4	7/30 230 ff 4
		I e II / T1 e T2	7 kA	25 kA	1+1	7/30 230 ff 1+1
		I e II / T1 e T2	7 kA	25 kA	3+1	7/30 230 ff 3+1

SPD		Test Classification	Discarge Current I_{imp}	Nominal discarge current I_n	Number of Poles	Type
		I e II / T1 e T2	12,5 kA	40 kA	1 N-PE	I 12 N-PE
		II /T2	3 kA	30 kA	1	L 3/30 230 ff
		II /T2	3 kA	30 kA	2	L 3/30 230 ff 2
		II /T2	3 kA	30 kA	3	L 3/30 230 ff 3
		II /T2	3 kA	30 kA	4	L 3/30 230 ff 4
		II /T2	3 kA	30 kA	1+1	L 3/30 230 ff 1+1
		II /T2	3 kA	30 kA	3+1	L 3/30 230 ff 3+1
		II /T2	2 kA	10 kA	1	L 2/10 230 ff
		II /T2	2 kA	10 kA	2	L 2/10 230 ff 2
		II /T2	2 kA	10 kA	4	L 2/10 230 ff 4
		II /T2	2 kA	10 kA	1+1	L 2/10 230 ff 1+1
		II /T2	2 kA	10 kA	3+1	L 2/10 230 ff 3+1

ZOTUP SPD FOR LOW VOLTAGE

For pubblic luminaire

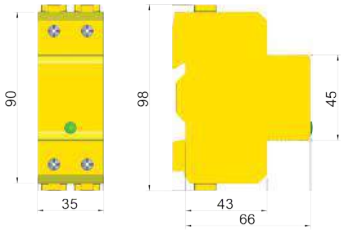
SPD		Test Classification	Discarge Current I_{imp}	Nominal discarge current I_n	Number of Poles	Type
		I e II / T1 e T2	7 kA	25 kA	1+1	LLP 7/30 230 ff 1+1
		II / T2	2 kA	10 kA	1+1	LLP 2/10 230 ff 1+1
		II / T2	-	10 kA	3	IL 1/10 2P LED

For photovoltaic systems

SPD		Test Classification	Discarge Current I_{imp}	Nominal discarge current I_n	Number of Poles	Type
		I e II / T1 e T2	7 kA	20 kA	3	L 10/60 PV Y 600 ff
		I e II / T1 e T2	7 kA	12,5 kA	3	L 10/60 PV Y 1000 ff
		I e II / T1 e T2	5 kA	12,5 kA	3	L 10/60 PV Y 1200 ff
		II / T2	3 kA	20 kA	3	L 3/40 PV Y 600 ff
		II / T2	3 kA	12,5 kA	3	L 3/40 PV Y 1000 ff
		II / T2	3 kA	12,5 kA	3	L 3/40 PV Y 1200 ff

Surge Protection Device:
ZOTUP SPD for low voltage

IA 25



IA 25 is a voltage switching type surge arrester with the following applications, features and benefits.
Typical locations: in Main Distributions Boards (MDB) or at the origin of low voltage systems.

- **Impulse test classification: class I test** (according to IEC 61643-11 Ed. 1.0 2011-03);
- IA 25 is an auto extinguishing follow current spark gap SPD useful to protect low voltage applications against direct and indirect lightning strikes;
- Impulse discharge current of 25 kA 10/350 µs;
- Nominal discharge current of 20 kA 8/20 µs;
- High extinguishing capability of follow current of 25 kA rms;
- **Green LED Status Indicator**;
- The special case allows to match the Pollution Degree 3 (Conductive pollution or dry non conductive pollution that becomes conductive due to condensation occurs. To be found in industrial environment or construction sites (harsh environments).

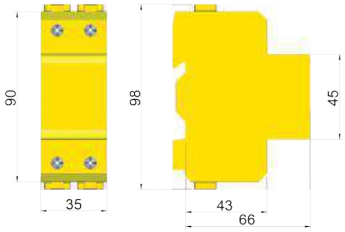
TECHNICAL DATA

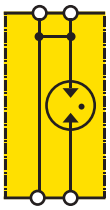
Type IA 25...

CODE		203 100
Nominal ac Voltage	U_N	230/400 V ac
Number of poles		1
Max Continuous Operating Voltage	U_c	255 V ac
Test Class (acc. to IEC 61643-11 Ed. 1.0 2011-03)		I
Type (acc. to CEI EN 61643-11 2012-10)		T1
Impulse discharge current (10/350)	I_{imp}	25 kA (100 kA / 4 poles)
Nominal discharge current (8/20)	I_n	20 kA
Short Circuit Current withstand with max overcurrent protection fuse (L)	I_{sccr}	50 kA rms
Follow current extinguishing capability	I_{fi}	25 kA rms
Voltage protection level	U_p	≤ 1,50 kV
Max. overcurrent protection fuse (L)		315 A gG
Max. overcurrent protection fuse (L-L)		125 A gG *
Voltage TOV	U_T	335 V ac / 5 s
Reaction time	t_a	≤ 100 ns
Insulation resistance	R_{ins}	≥ 1 G Ω
Status Indicator		Green LED
Operating temperature range		-40 … +80 °C
Terminal-Conductor size		4-25 mm² stranded (double clamps)
Clamp per Connecting bus bar		connector busbar 16 mm²
Mounting		indoor, 35 mm top hat DIN rail
Case material / flammability grade		BMC / V-0 in accordance with UL 94
Pollution degree		3
Degree of protection	IP	20
Approximate weight		265 g
Dimensions width		35 mm (2 modules)
Certification		CTI pending

* with fuse 125 A gG Iimp= 10 kA and Imax= 40 kA

Surge Protection Device:
ZOTUP SPD for low voltage





I 100 N-PE

I 100 N-PE is an overvoltage surge arrester with the following applications, features and benefits.
Typical use: for installation N-PE in 3+1 and 1+1 circuits of TT systems according to IEC 60364-5-534 between neutral conductor N and protective earth conductor PE.

- **Impulse test classification: class I and II test** (according to IEC 61643-11 Ed. 1.0 2011-03);
- I 100 N-PE is a current spark gap SPD useful to protect low voltage applications against direct and indirect lightning strikes;
- Impulse discharge current of 100 kA 10/350 µs;
- Nominal discharge current of 100 kA 8/20 µs;
- The special case allows to match the Pollution Degree 3 (Conductive pollution or dry non conductive pollution that becomes conductive due to condensation occurs. To be found in industrial environment or construction sites (harsh environments).

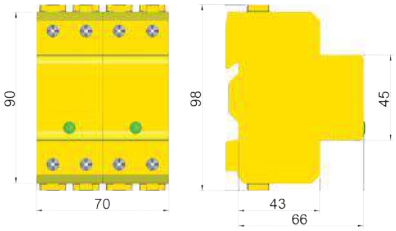
Type I 100 N-PE...

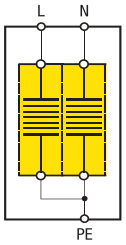
CODE		208 300
Nominal ac Voltage	U_N	230/400 V ac
Number of poles		1
Max Continuous Operating Voltage	U_c	255 V ac
Test Class (acc. to IEC 61643-11 Ed. 1.0 2011-03)		I e II
Type (acc. to CEI EN 61643-11 2012-10)		T1 e T2
Impulse discharge current (10/350)	I_{imp}	100 kA
Nominal discharge current (8/20)	I_n	100 kA
Follow current extinguishing capability	I_{fi}	100 A rms
Voltage protection level	U_p	≤ 1,50 kV
Reaction Time	t_a	≤ 100 ns
Voltage TOV	U_T	1200 V / 200 ms
Operating temperature range		-40 … +80 °C
Terminal-Conductor size		4-25 mm² stranded (double clamps)
Clamp per Connecting bus bar		connector busbar 16 mm²
Mounting		indoor, 35 mm top hat DIN rail
Case material / flammability grade		BMC / V-0 in accordance with UL 94
Pollution degree		3
Degree of protection	IP	20
Approximate weight		240 g
Dimensions width		35 mm (2 modules)
In boundle with		IA 25 e L25/230 ff
Certification		CTI

TECHNICAL DATA

Surge Protection Device:
ZOTUP SPD for low voltage

IA 25 2





IA 25 2 is a two poles assembled and ready to install voltage switching type surge arrester for single-phase 230 V systems with the following applications, features and benefits.
Typical locations: in Main Distributions Boards (MDB) or at the origin of low voltage systems.

- **Impulse test classification: class I test** (according to IEC 61643-11 Ed. 1.0 2011-03);
- IA 25 2 is an auto extinguishing follow current spark gap SPD useful to protect low voltage applications against direct and indirect lightning strikes;
- Impulse discharge current of 25 kA 10/350 µs;
- Nominal discharge current of 20 kA 8/20 µs;
- High extinguishing capability of follow current of 25 kA rms;
- **Green LED Status Indicator**;
- The special case allows to match the Pollution Degree 3 (Conductive pollution or dry non conductive pollution that becomes conductive due to condensation occurs. To be found in industrial environment or construction sites (harsh environments).

TECHNICAL DATA

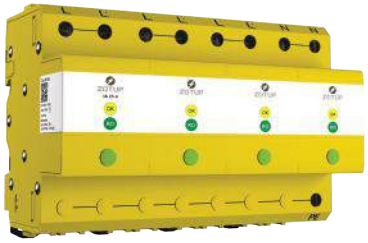
Type IA 25 2...

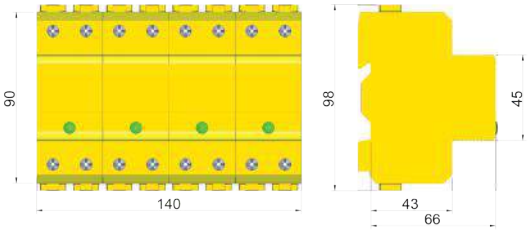
CODE		203 120
Nominal ac Voltage	U_N	230/400 V ac
Number of poles		2
Max Continuous Operating Voltage	U_c	255 V ac
Test Class (acc. to IEC 61643-11 Ed. 1.0 2011-03)		I
Type (acc. to CEI EN 61643-11 2012-10)		T1
Impulse discharge current (10/350)	I_{imp}	25 kA
Nominal discharge current (8/20)	I_n	20 kA
Short Circuit Current withstand with max overcurrent protection fuse (L)	I_{sccr}	50 kA rms
Follow current extinguishing capability	I_{fi}	25 kA rms
Voltage protection level	U_p	≤ 1,50 kV
Max. overcurrent protection fuse (L)		315 A gG
Max. overcurrent protection fuse (L-L)		125 A gG *
Voltage TOV	U_T	335 V ac / 5 s
Reaction time	t_a	≤ 100 ns
Insulation resistance	R_{ins}	≥ 1 G Ω
Status Indicator		Green LED
Operating temperature range		-40 … +80 °C
Terminal-Conductor size		4-25 mm² stranded (double clamps)
Clamp per Connecting bus bar		connector busbar 16 mm²
Mounting		indoor, 35 mm top hat DIN rail
Case material / flammability grade		BMC / V-0 in accordance with UL 94
Pollution degree		3
Degree of protection	IP	20
Approximate weight		530 g
Dimensions width		70 mm (4 modules)
Certification		CTI pending

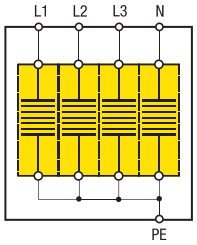
* with fuse 125 A gG Iimp= 10 kA and Imax= 40 kA

Surge Protection Device:
ZOTUP SPD for low voltage

IA 25 4







IA 25 4 is a four poles assembled and ready to install voltage switching type surge arrester for three-phase plus neutral 400 V systems with the following applications, features and benefits.
Typical locations: in Main Distributions Boards (MDB) or at the origin of low voltage systems.

- **Impulse test classification: class I test** (according to IEC 61643-11 Ed. 1.0 2011-03);
- IA 25 4 is an auto extinguishing follow current spark gap SPD useful to protect low voltage applications against direct and indirect lightning strikes;
- Impulse discharge current of 25 kA 10/350 µs;
- Nominal discharge current of 20 kA 8/20 µs;
- High extinguishing capability of follow current of 25 kA rms;
- **Green LED Status Indicator**;
- The special case allows to match the Pollution Degree 3 (Conductive pollution or dry non conductive pollution that become conductive due to condensation occurs. To be found in industrial environment or construction sites (harsh environments).

TECHNICAL DATA

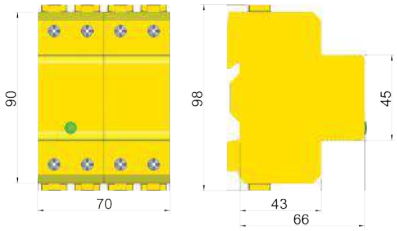
Type IA 25 4...

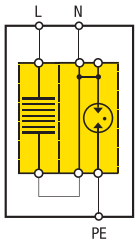
CODE		**203 140**
Nominal ac Voltage	U_N	230/400 V ac
Number of poles		4
Max Continuous Operating Voltage	U_c	255 V ac
Test Class (acc. to IEC 61643-11 Ed. 1.0 2011-03)		I
Type (acc. to CEI EN 61643-11 2012-10)		T1
Impulse discharge current (10/350)	I_{imp}	25 kA
Nominal discharge current (8/20)	I_n	20 kA
Short Circuit Current withstand with max overcurrent protection fuse (L)	I_{sccr}	50 kA rms
Follow current extinguishing capability	I_{fi}	25 kA rms
Voltage protection level	U_p	≤ 1,50 kV
Max. overcurrent protection fuse (L)		315 A gG
Max. overcurrent protection fuse (L-L)		125 A gG *
Voltage TOV	U_T	335 V ac / 5 s
Reaction time	t_a	≤ 100 ns
Insulation resistance	R_{ins}	≥ 1 G Ω
Status Indicator		Green LED
Operating temperature range		-40 … +80 °C
Terminal-Conductor size		4-25 mm² stranded (double clamps)
Clamp per Connecting bus bar		connector busbar 16 mm²
Mounting		indoor, 35 mm top hat DIN rail
Case material / flammability grade		BMC / V-0 in accordance with UL 94
Pollution degree		3
Degree of protection	IP	20
Approximate weight		1060 g
Dimensions width		140 mm (8 modules)
Certification		CTI pending

* with fuse 125 A gG Iimp= 10 kA and Imax= 40 kA

Surge Protection Device:
ZOTUP SPD for low voltage

IA 25 1+1





IA 25 1+1 is single pole assembled and ready to install voltage switching type surge arrester for single-phase 230 V systems
with the following applications, features and benefits.
Typical locations: in TT systems, where connction 1+1 is required (IEC 60364-5-534) and in Main Distributions Boards (MDB) or at the origin of low voltage systems.

- **Impulse test classification: class I test** (according to IEC 61643-11 Ed. 1.0 2011-03);
- IA 25 1+1 is an auto extinguishing follow current spark gap SPD useful to protect low voltage applications against direct and Indirect lightning strikes;
- Impulse discharge current of 25 kA 10/350 µs;
- Nominal discharge current of 20 kA 8/20 µs;
- High extinguishing capability of follow current of 25 kA rms;
- **Green LED Status Indicator**;
- The special case allows to match the Pollution Degree 3 (Conductive pollution or dry non conductive pollution that becomes conductive due to condensation occurs. To be found in industrial environment or construction sites (harsh environments).

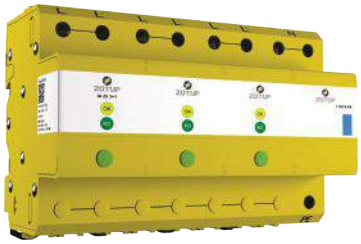
TECHNICAL DATA

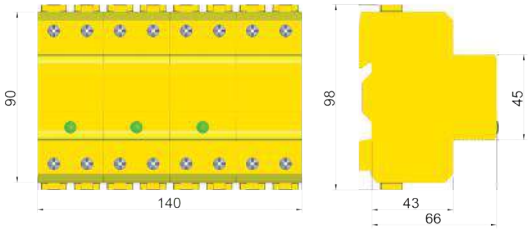
Type IA 25 1+1...

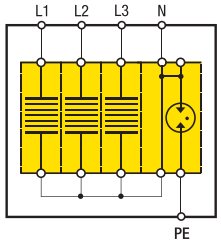
CODE		**203 121**
Nominal ac Voltage	U_N	230/400 V ac
Number of poles		1+1
Max Continuous Operating Voltage	U_c	255 V ac
Test Class (acc. to IEC 61643-11 Ed. 1.0 2011-03)		I
Type (acc. to CEI EN 61643-11 2012-10)		T1
Impulse discharge current (10/350) (L-N)	I_{imp}	25 kA
Impulse discharge current (10/350) (N-PE)	I_{imp}	100 kA
Nominal discharge current (8/20) (L-N)	I_n	20 kA
Nominal discharge current (8/20) (N-PE)	I_n	100 kA
Short Circuit Current withstand with max overcurrent protection fuse (L)	I_{sccr}	50 kA rms
Follow current extinguishing capability (L-N)	I_{fi}	25 kA rms
Follow current extinguishing capability (N-PE)	I_{fi}	100 A rms
Voltage protection level	U_p	≤ 1,50 kV
Max. overcurrent protection fuse (L)		315 A gG
Max. overcurrent protection fuse (L-L)		125 A gG *
Voltage TOV	U_T	335 V ac / 5 s
Reaction time	t_a	≤ 100 ns
Insulation resistance	R_{ins}	≥ 1 G Ω
Status Indicator		Green LED
Operating temperature range		-40 … +80 °C
Terminal-Conductor size		4-25 mm² stranded (double clamps)
Clamp per Connecting bus bar		connector busbar 16 mm²
Mounting		indoor, 35 mm top hat DIN rail
Case material / flammability grade		BMC / V-0 in accordance with UL 94
Pollution degree		3
Degree of protection	IP	20
Approximate weight		530 g
Dimensions width		70 mm (4 modules)
Certification		CTI pending

* with fuse 125 A gG Iimp= 10 kA and Imax=40 kA

Surge Protection Device:
ZOTUP SPD for low voltage







IA 25 3+1

IA 25 3+1 is three poles assembled and ready to install voltage switching type surge arrester for three-phase plus neutral 400 V systems with the following applications, features and benefits.
Typical locations: in TT systems, where connction 3 +1 is required (IEC 60364-5-534) and in Main Distributions Boards (MDB) or at the origin of low voltage systems.

- **Impulse test classification: class I test** (according to IEC 61643-11 Ed. 1.0 2011-03);
- IA 25 3+1 is an auto extinguishing follow current spark gap SPD useful to protect low voltage applications against direct and indirect lightning strikes;
- Impulse discharge current of 25 kA 10/350 µs;
- Nominal discharge current of 20 kA 8/20 µs;
- High extinguishing capability of follow current of 25 kA rms;
- **Green LED Status Indicator**;
- The special case allows to match the Pollution Degree 3 (Conductive pollution or dry non conductive pollution that becomes conductive due to condensation occurs. To be found in industrial environment or construction sites (harsh environments).

Type IA 25 3+1...

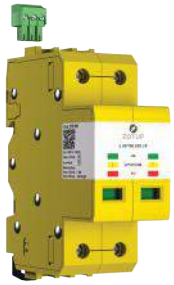
CODE		**203 141**
Nominal ac Voltage	U_N	230/400 V ac
Number of poles		3+1
Max Continuous Operating Voltage	U_c	255 V ac
Test Class (acc. to IEC 61643-11 Ed. 1.0 2011-03)		I
Type (acc. to CEI EN 61643-11 2012-10)		T1
Impulse discharge current (10/350) (L-N)	I_{imp}	25 kA
Impulse discharge current (10/350) (N-PE)	I_{imp}	100 kA
Nominal discharge current (8/20) (L-N)	I_n	20 kA
Nominal discharge current (8/20) (N-PE)	I_n	100 kA
Short Circuit Current withstand with max overcurrent protection fuse (L)	I_{sccr}	50 kA rms
Follow current extinguishing capability (L-N)	I_{fi}	25 kA rms
Follow current extinguishing capability (N-PE)	I_{fi}	100 A rms
Voltage protection level	U_p	≤ 1,50 kV
Max. overcurrent protection fuse (L)		315 A gG
Max. overcurrent protection fuse (L-L)		125 A gG *
Voltage TOV	U_T	335 V ac / 5 s
Reaction time	t_a	≤ 100 ns
Insulation resistance	R_{ins}	≥ 1 G Ω
Status Indicator		Green LED
Operating temperature range		-40 … +80 °C
Terminal-Conductor size		4-25 mm² stranded (double clamps)
Clamp per Connecting bus bar		connector busbar 16 mm²
Mounting		indoor, 35 mm top hat DIN rail
Case material / flammability grade		BMC / V-0 in accordance with UL 94
Pollution degree		3
Degree of protection	IP	20
Approximate weight		1060 g
Dimensions width		140 mm (8 modules)
Certification		CTI pending

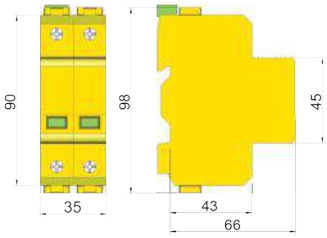
TECHNICAL DATA

* with fuse 125 A gG Iimp= 10 kA and Imax=40 kA

Surge Protection Device:
ZOTUP SPD for low voltage

L 25/100 230 t ff





L 25/100 230 t ff is a limiting type surge arrester with the following applications, features and benefits.
Typical locations: in Main Distribution Boards (MDB) or at the origin of low voltage systems.

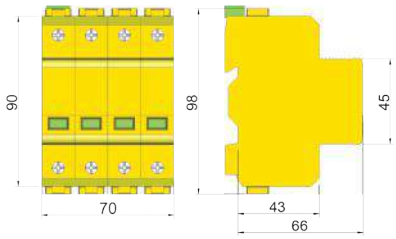
- **Impulse test classification: class I and II tests** (according to IEC 61643-11 Ed. 1.0 2011-03);
- L 25/100 t ff is a voltage limiting SPD useful to protect low voltage applications against direct and indirect lightning strikes;
- Impulse discharge current of 25 kA 10/350 µs;
- **Overcurrent protection is not required for Isccr ≤ 4,5 kA rms**;
- Short circuit current of 50 kA rms with max. back-up fuse;
- It is a **NFC No Follow Current®** SPD because it prevents the circulation of grid follow up currents after operation;
- The impulse current is divided along two independent braches. Each branch has its own disconnector and Status Indicator. In case of failure of one branch, the other provides a good and constant protection level, before replacement. Remote signal contact is altivated when the first branch is fault;
- **Three coloured levels Status Indicator with progressive indication of performance.**
- The special case allows to match the Pollution Degree 3.

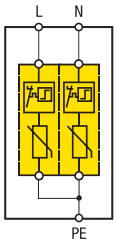
TECHNICAL DATA

Type L25/100 … with remote signal contact		230 t ff
CODE		**215 100**
Nominal ac Voltage	U_N	230/400 V ac
Number of poles		1
Max Continuous Operating Voltage	U_c	335 V ac / 420 V dc
Test Class (acc. to IEC 61643-11 Ed. 1.0 2011-03)		I e II
Type (acc. to CEI EN 61643-11 2012-10)		T1 eT2
Impulse discharge current (10/350)	I_{imp}	25 kA (100 kA / 4 poles)
Nominal discharge current (8/20 µs)	I_n	40 kA
Max. discarge current (8/20 µs)	I_{max}	100 kA
Voltage protection level with I: 1 kA	U_p	≤ 0,80 kV
10 kA	U_p	≤ 1,00 kV
20 kA	U_p	≤ 1,20 kV
30 kA	U_p	≤ 1,35 kV
40 kA	U_p	≤ 1,50 kV
Reaction time	t_a	≤ 25 ns
Short circuit current withstand		OCFM
Short Circuit Current withstand with max overcurrent protection fuse (L)	I_{sccr}	50 kA rms
Max- mains-side (L) overcurrent protection for Isccr ≤ 4,5 kA eff		Not required
≤ 50 kA eff		250 A gG
Max- mains-side (L-L) overcurrent protection		125 A gG*
Prevents follow up current circulation		NFC No Follow Current®
Status indicator		3 coloured levels with performance's indication
Operating temperature range		Green LED
Terminal-Conductor size		-40 … +80 °C
Clamp per Connecting bus bar		4-25 mm² stranded (double clamps)
Mounting		connector busbar 16 mm²
Case material / flammability grade		indoor, 35 mm top hat DIN rail
Pollution degree		BMC / V-0 in accordance with UL 94
Degree of protection	IP	3
Approximate weight		20
Dimensions width		35 mm (2 modules)
Remote signal contact		Volt free changeover contact
Switch conductor size		max. 1,5 mm² stranded
Switching capacity		ac: 250 V / 0,1 A – dc: 125 V / 0,2 A ; 75 V / 0,5 A
Certification		CTI

* with fuse 125 A gG Iimp= 10 kA and Imax=40 kA

Surge Protection Device:
ZOTUP SPD for low voltage





L 25/100 230 t ff 2

L 25/100 230 t ff 2 is a two poles assembled, ready to install voltage limiting type surge arrester for single-phase 230 V systems with the following applications, features and benefits.
Typical locations: in Main Distributions Boards (MDB) or at the origin of low voltage systems.

- **Impulse test classification: class I and II tests** (according to IEC 61643-11 Ed. 1.0 2011-03);
- L 25/100 230 t ff 2 is a voltage limiting SPD useful to protect low voltage applications against direct and indirect lightning strikes;
- **Overcurrent protection is not required for Isccr ≤ 4,5 kA rms**;
- It is a **NFC No Follow Current®** SPD because it prevents the circulation of grid follow up currents after operation;
- The impulse current is divided along two independent braches. Each branch has its own disconnector and Status Indicator. In case of failure of one branch, the other provides a good and constant protection level, before replacement. Remote signal contact is activated when the first branch is fault;
- **Three coloured levels Status Indicator with progressive indication of performance.**
- The special case allows to match the Pollution Degree 3.

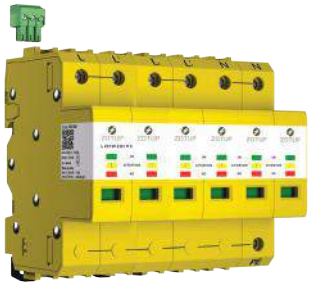
TECHNICAL DATA

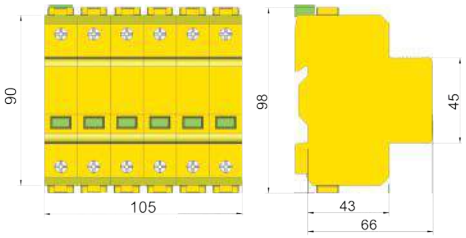
Type L25/100 … with remote signal contact			230 t ff 2
CODE			**215 120**
Nominal ac Voltage		U_N	230/400 V ac
Number of poles			2
Max Continuous Operating Voltage		U_c	335 V ac / 420 V dc
Test Class (acc. to IEC 61643-11 Ed. 1.0 2011-03)			I e II
Type (acc. to CEI EN 61643-11 2012-10)			T1 e T2
Impulse discharge current (10/350)		I_{imp}	25 kA
Nominal discharge current (8/20 µs)		I_n	40 kA
Max. discarge current (8/20 µs)		I_{max}	100 kA
Voltage protection level with I:	1 kA	U_p	≤ 1,10 kV
	10 kA	U_p	≤ 1,30 kV
	20 kA	U_p	≤ 1,50 kV
	30 kA	U_p	≤ 1,65 kV
	40 kA	U_p	≤ 1,80 kV
Reaction time		t_a	≤ 25 ns
Short circuit current withstand			OCFM
Short Circuit Current withstand with max overcurrent protection fuse (L)		I_{sccr}	50 kA rms
Max- mains-side (L) overcurrent protection for Isccr	≤ 4,5 kA eff		Not required
	≤ 50 kA eff		250 A gG
Max- mains-side (L-L) overcurrent protection			125 A gG*
Prevents follow up current circulation			NFC No Follow Current®
Status indicator			3 coloured levels with performance's indication
Operating temperature range			Green LED
Terminal-Conductor size			-40 … +80 °C
Clamp per Connecting bus bar			4-25 mm² stranded (double clamps)
Mounting			connector busbar 16 mm²
Case material / flammability grade			indoor, 35 mm top hat DIN rail
Pollution degree			BMC / V-0 in accordance with UL 94
Degree of protection		IP	3
Approximate weight			20
Dimensions width			70 mm (4 moduli)
Remote signal contact			contatto in scambio privo di potenziale
Switch conductor size			max. 1,5 mm² multifilare
Switching capacity			ac: 250 V / 0,1 A – dc: 125 V / 0,2 A ; 75 V / 0,5 A
Certification			CTI

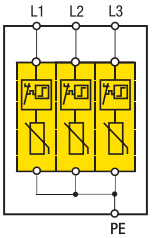
* with fuse 125 A gG Iimp= 10 kA and Imax=40 kA

Surge Protection Device:
ZOTUP SPD for low voltage

L 25/100 230 t ff 3







L 25/100 230 t ff 3 is a three poles assembled and ready to install, voltage limiting type surge arrester for three-phase 400 V systems with the following applications, features and benefits.
Typical locations: in Main Distributions Boards (MDB) or at the origin of low voltage systems.

- **Impulse test classification: class I and II tests** (according to IEC 61643-11 Ed. 1.0 2011-03);
- L 25/100 230 t ff 3 is a voltage limiting SPD useful to protect low voltage applications against direct and indirect lightning strikes;
- **Overcurrent protection is not required for Isccr ≤ 4,5 kA rms**;
- It is a **NFC No Follow Current®** SPD because it prevents the circulation of grid follow up currents after operation;
- The impulse current is divided along two independent braches. Each branch has its own disconnector and Status Indicator. In case of failure of one branch, the other provides a good and constant protection level, before replacement. Remote signal contact is activated when the first branch is fault;
- **Three coloured levels Status Indicator with progressive indication of performance.**
- The special case allows to match the Pollution Degree 3.

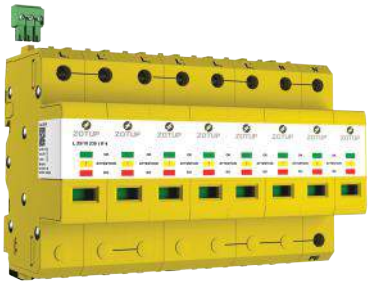
TECHNICAL DATA

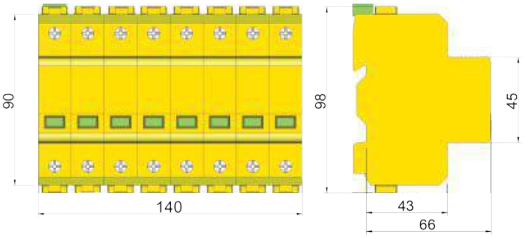
Type L25/100 … with remote signal contact			230 t ff 3
CODE			**215 130**
Nominal ac Voltage		U_N	230/400 V ac
Number of poles			3
Max Continuous Operating Voltage		U_c	335 V ac / 420 V dc
Test Class (acc. to IEC 61643-11 Ed. 1.0 2011-03)			I e II
Type (acc. to CEI EN 61643-11 2012-10)			T1 e T2
Impulse discharge current (10/350)		I_{imp}	25 kA
Nominal discharge current (8/20 µs)		I_n	40 kA
Max. discarge current (8/20 µs)		I_{max}	100 kA
Voltage protection level with I:	1 kA	U_p	≤ 1,10 kV
	10 kA	U_p	≤ 1,30 kV
	20 kA	U_p	≤ 1,50 kV
	30 kA	U_p	≤ 1,65 kV
	40 kA	U_p	≤ 1,80 kV
Reaction time		t_a	≤ 25 ns
Short circuit current withstand			OCFM
Short Circuit Current withstand with max overcurrent protection fuse (L)		I_{sccr}	50 kA rms
Max- mains-side (L) overcurrent protection for Isccr	≤ 4,5 kA eff		Not required
	≤ 50 kA eff		250 A gG
Max- mains-side (L-L) overcurrent protection			125 A gG*
Prevents follow up current circulation			NFC No Follow Current®
Status indicator			3 coloured levels with performance's indication
Operating temperature range			Green LED
Terminal-Conductor size			-40 … +80 °C
Clamp per Connecting bus bar			4-25 mm² stranded (double clamps)
Mounting			connector busbar 16 mm²
Case material / flammability grade			indoor, 35 mm top hat DIN rail
Pollution degree			BMC / V-0 in accordance with UL 94
Degree of protection		IP	3
Approximate weight			20
Dimensions width			140 mm (8 modules)
Remote signal contact			Volt free changeover contact
Switch conductor size			max. 1,5 mm² stranded
Switching capacity			ac: 250 V / 0,1 A – dc: 125 V / 0,2 A ; 75 V / 0,5 A
Certification			CTI

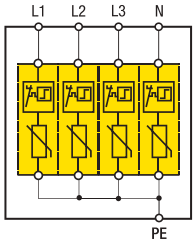
*with fuse 125 A gG Iimp= 10 kA and Imax= 40 kA

Surge Protection Device:
ZOTUP SPD for low voltage

L 25/100 230 t ff 4







L 25/100 230 t ff 4 is a four poles assembled and ready to install, voltage limiting type surge arrester for three-phase 400 V systems with the following applications, features and benefits.
Typical locations: in Main Distributions Boards (MDB) or at the origin of low voltage systems.

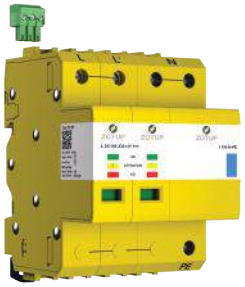
- **Impulse test classification: class I and II tests** (according to IEC 61643-11 Ed. 1.0 2011-03);
- L 25/100 230 t ff 4 is a voltage limiting SPD useful to protect low voltage applications against direct and indirect lightning strikes;
- **Overcurrent protection is not required for Isccr ≤ 4,5 kA rms**;
- It is a **NFC No Follow Current®** SPD because it prevents the circulation of grid follow up currents after operation;
- The impulse current is divided along two independent braches. Each branch has its own disconnector and Status Indicator. In case of failure of one branch, the other provides a good and constant protection level, before replacement. Remote signal contact is activated when the first branch is fault;
- **Three coloured levels Status Indicator with progressive indication of performance.**
- The special case allows to match the Pollution Degree 3.

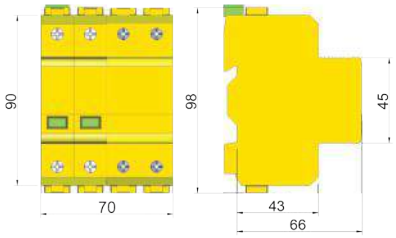
TECHNICAL DATA

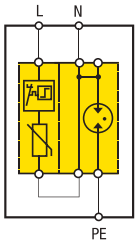
Type L25/100 … with remote signal contact			230 t ff 4
CODE			**215 140**
Nominal ac Voltage		U_N	230/400 V ac
Number of poles			4
Max Continuous Operating Voltage		U_c	335 V ac / 420 V dc
Test Class (acc. to IEC 61643-11 Ed. 1.0 2011-03)			I e II
Type (acc. to CEI EN 61643-11 2012-10)			T1 e T2
Impulse discharge current (10/350)		I_{imp}	25 kA
Nominal discharge current (8/20 µs)		I_n	40 kA
Max. discarge current (8/20 µs)		I_{max}	100 kA
Voltage protection level with I:	1 kA	U_p	≤ 1,10 kV
	10 kA	U_p	≤ 1,30 kV
	20 kA	U_p	≤ 1,50 kV
	30 kA	U_p	≤ 1,65 kV
	40 kA	U_p	≤ 1,80 kV
Reaction time		t_a	≤ 25 ns
Short circuit current withstand			OCFM
Short Circuit Current withstand with max overcurrent protection fuse (L)		I_{sccr}	50 kA rms
Max- mains-side (L) overcurrent protection for Isccr	≤ 4,5 kA eff		Not required
	≤ 50 kA eff		250 A gG
Max- mains-side (L-L) overcurrent protection			125 A gG*
Prevents follow up current circulation			NFC No Follow Current®
Status indicator			3 coloured levels with performance's indication
Operating temperature range			Green LED
Terminal-Conductor size			-40 … +80 °C
Clamp per Connecting bus bar			4-25 mm² stranded (double clamps)
Mounting			connector busbar 16 mm²
Case material / flammability grade			indoor, 35 mm top hat DIN rail
Pollution degree			BMC / V-0 in accordance with UL 94
Degree of protection		IP	3
Approximate weight			20
Dimensions width			140 mm (8 modules)
Remote signal contact			Volt free changeover contact
Switch conductor size			max. 1,5 mm² stranded
Switching capacity			ac: 250 V / 0,1 A – dc: 125 V / 0,2 A ; 75 V / 0,5 A
Certification			CTI

*with fuse 125 A gG Iimp= 10 kA and Imax= 40 kA

Surge Protection Device:
ZOTUP SPD for low voltage







L 25/100 230 t ff 1+1

L 25/100 230 t ff 1+1 is a two poles assembled and ready to install, voltage limiting type surge arrester for single-phase 230 V systems with the following applications, features and benefits.
Typical locations: in TT systems, where connction 1+1 is required (IEC 60364-5-534), in Main Distributions Boards (MDB) or at the origin of low voltage systems.

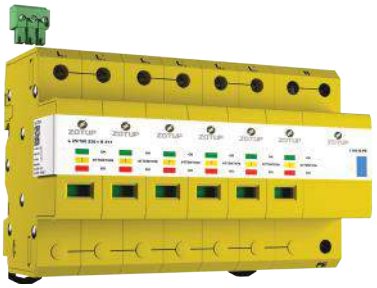
- **Impulse test classification: class I and II tests** (according to IEC 61643-11 Ed. 1.0 2011-03);
- L 25/100 230 t ff 1+1 is a voltage limiting SPD useful to protect low voltage applications against direct and indirect lightning strikes;
- **Overcurrent protection is not required for Isccr ≤ 4,5 kA rms**;
- It is a **NFC No Follow Current®** SPD because it prevents the circulation of grid follow up currents after operation;
- The impulse current is divided along two independent braches. Each branch has its own disconnector and Status Indicator. In case of failure of one branch, the other provides a good and constant protection level, before replacement. Remote signal contact is activated when the first branch is fault;
- **Three coloured levels Status Indicator with progressive indication of performance.**

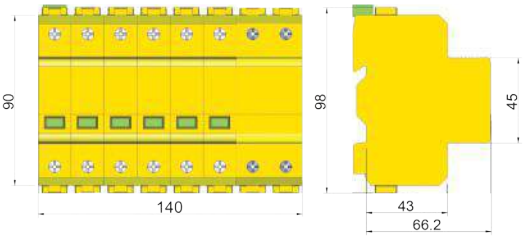
TECHNICAL DATA

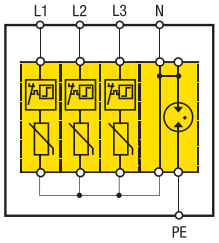
Type L25/100 … with remote signal contact			230 t ff 1+1
CODE			**215 121**
Nominal ac Voltage		U_N	230/400 V ac
Number of poles			1+1
Max Continuous Operating Voltage (L-N) Max Continuous Operating Voltage (N-PE)		U_c U_c	335 V ac / 420 V dc 255 V ac
Test Class (acc. to IEC 61643-11 Ed. 1.0 2011-03)			I e II
Type (acc. to CEI EN 61643-11 2012-10)			T1 e T2
Impulse discharge current (10/350 µs) (L-N) Impulse discharge current (10/350 µs) (N-PE)		I_{imp} I_{imp}	25 kA 100 kA
Nominal discharge current (8/20 µs) (L-N) Nominal discharge current (8/20 µs) (N-PE)		I_n I_n	40 kA 100 kA
Max. discarge current (8/20 µs)		I_{max}	100 kA
Voltage protection level with I (L-N):	1 kA 10 kA 20 kA 30 kA 40 kA	U_p U_p U_p U_p U_p	≤ 1,10 kV ≤ 1,30 kV ≤ 1,50 kV ≤ 1,65 kV ≤ 1,80 kV
Voltage protection level with I (N-PE):	100 kA	U_p	≤ 1,50 kV
Reaction time (L-N / N-PE)		t_a	≤ 25 ns / ≤ 100 ns
Short circuit current withstand			OCFM
Short Circuit Current withstand with max overcurrent protection fuse (L)		I_{sccr}	50 kA rms
Max- mains-side (L) overcurrent protection for Isccr	≤ 4,5 kA eff ≤ 50 kA eff		Not required 250 A gG
Max- mains-side (L-L) overcurrent protection			125 A gG*
Prevents follow up current circulation (L-N) Follow current extinguishing capability (N-PE)		 I_{fi}	NFC No Follow Current® 100 A rms
Status indicator			3 coloured levels with performance's indication
Operating temperature range			Green LED
Terminal-Conductor size			-40 … +80 °C
Clamp per Connecting bus bar			4-25 mm² stranded (double clamps)
Mounting			connector busbar 16 mm²
Case material / flammability grade			indoor, 35 mm top hat DIN rail
Pollution degree			BMC / V-0 in accordance with UL 94
Degree of protection		IP	3
Approximate weight			20
Dimensions width			70 mm (4 modules)
Remote signal contact			Volt free changeover contact
Switch conductor size			max. 1,5 mm² stranded
Switching capacity			ac: 250 V / 0,1 A – dc: 125 V / 0,2 A ; 75 V / 0,5 A
Certification			CTI

*with fuse 125 A gG Iimp= 10 kA and Imax= 40 kA

Surge Protection Device:
ZOTUP SPD for low voltage







L 25/100 230 t ff 3+1

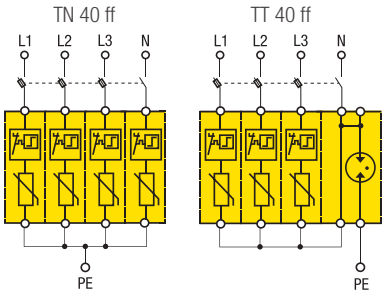
L 25/100 230 t ff 3+1 is a four poles assembled and ready to install, voltage limiting type surge arrester for single-phase 230 V systems with the following applications, features and benefits.
Typical locations: in TT systems, where connction 3+1 is required (IEC 60364-5-534), in Main Distributions Boards (MDB) or at the origin of low voltage systems.

- **Impulse test classification: class I and II tests** (according to IEC 61643-11 Ed. 1.0 2011-03);
- L 25/100 230 t ff 3+1 is a voltage limiting SPD useful to protect low voltage applications against direct and indirect lightning strikes;
- **Overcurrent protection is not required for Isccr ≤ 4,5 kA rms**;
- It is a **NFC No Follow Current®** SPD because it prevents the circulation of grid follow up currents after operation;
- The impulse current is divided along two independent braches. Each branch has its own disconnector and Status Indicator. In case of failure of one branch, the other provides a good and constant protection level, before replacement. Remote signal contact is activated when the first branch is fault;
- **Three coloured levels Status Indicator with progressive indication of performance.**

Type L25/100 … with remote signal contact			230 t ff 3+1
CODE			**215 141**
Nominal ac Voltage		U_N	230/400 V ac
Number of poles			3+1
Max Continuous Operating Voltage (L-N)		U_c	335 V ac / 420 V dc
Max Continuous Operating Voltage (N-PE)		U_c	255 V ac
Test Class (acc. to IEC 61643-11 Ed. 1.0 2011-03)			I e II
Type (acc. to CEI EN 61643-11 2012-10)			T1 e T2
Impulse discharge current (10/350 µs) (L-N)		I_{imp}	25 kA
Impulse discharge current (10/350 µs) (N-PE)		I_{imp}	100 kA
Nominal discharge current (8/20 µs) (L-N)		I_n	40 kA
Nominal discharge current (8/20 µs) (N-PE)		I_n	100 kA
Max. discarge current (8/20 µs)		I_{max}	100 kA
Voltage protection level with I (L-N):	1 kA	U_p	≤ 1,10 kV
	10 kA	U_p	≤ 1,30 kV
	20 kA	U_p	≤ 1,50 kV
	30 kA	U_p	≤ 1,65 kV
	40 kA	U_p	≤ 1,80 kV
Voltage protection level with I (N-PE):	100 kA	U_p	≤ 1,50 kV
Reaction time (L-N / N-PE)		t_a	≤ 25 ns / ≤ 100 ns
Short circuit current withstand			OCFM
Short Circuit Current withstand with max overcurrent protection fuse (L)		I_{sccr}	35 kA rms
Max- mains-side (L) overcurrent protection for Isccr	≤ 4,5 kA eff		Not required
	≤ 50 kA eff		250 A gG
Max- mains-side (L-L) overcurrent protection			125 A gG*
Prevents follow up current circulation (L-N)			NFC No Follow Current®
Follow current extinguishing capability (N-PE)		I_{fi}	100 A rms
Status indicator			3 coloured levels with performance's indication
Operating temperature range			Green LED
Terminal-Conductor size			-40 … +80 °C
Clamp per Connecting bus bar			4-25 mm² stranded (double clamps)
Mounting			connector busbar 16 mm²
Case material / flammability grade			indoor, 35 mm top hat DIN rail
Pollution degree			BMC / V-0 in accordance with UL 94
Degree of protection		IP	3
Approximate weight			20
Dimensions width			140 mm (8 modules)
Remote signal contact			Volt free changeover contact
Switch conductor size			max. 1,5 mm² stranded
Switching capacity			ac: 250 V / 0,1 A – dc: 125 V / 0,2 A ; 75 V / 0,5 A
Certification			CTI

*with fuse 125 A gG Iimp= 10 kA and Imax= 40 kA

Surge Protection Device:
ZOTUP SPD for low voltage



Protection Box ...

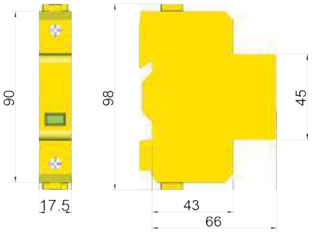
The Protection Box are surge protection devices SPD with the following applications, features and benefits.
Typical locations: the TT 40 ff and TN 40 ff are used linked to Power Center when, without space, SPD are applicated outdoor. Protection Box are also used at the terminal of lines subject to direct lightning strikes.

- These protection boxes offer compact, pre-cabled solutions which can withstand electro-dynamic forces, in case of direct and close lightning strikes.
- They are suitable for installation boundaries up to 0_A – 2, in conformity with the lightning protection zones concept as defined in IEC 60305.
- These protection boxes employ surge arresters of Test Class I and II (according to IEC 61643-1 Ed. 1.0 2011-03) and Type 1 and 2 (according to CEI EN 61643-11 2012-10).

TECHNICAL DATA

Type Protection Box ...		TN 40 ff	TT 40 ff
CODE		**244 100**	**245 100**
Nominal ac Voltage	U_N	230/400 V~	230/400 V~
Max. continuous voltage rating (L-PE)	U_c	335 V~	335 V~
Test Class (acc. to IEC 61643-1)		I e II	I e II
Type (acc. to CEI EN 61643-11/A)		T1 e T2	T1 e T2
Nominal discharge current (8/20 µs) [L1+L2+L3+N-PE]	$I_{total\ 8/20}$	100 kA	100 kA
Nominal discharge current (8/20 µs)	I_n	40 kA	40 kA
Total impulse current (10/350 µs) [L1+L2+L3+N-PE]	$I_{total\ 10/350}$	40 kA	40 kA
Total impulse current (10/350 µs)	I_{imp}	10 kA	10 kA
Max. impulse current (8/20 µs)	I_{fmax}	40 kA	40 kA
Voltage protection level with I_n	U_p	≤ 1,80 kV	≤ 1,80 kV
Reaction time (L-N / N-PE)	t_a	≤ 25 ns / ≤ 25 ns	≤ 25 ns / ≤ 100 ns
Short circuit current withstand			OCFM
Max- mains-side (L)		125 A gG	125 A gG
Short circuit current with max. protection fuse	I_{sccr}	50 kA eff	50 kA eff
Block follow up current circulation (L-N) Capacity to extinguish follow up current (N-PE)	I_{fi}	NFC No Follow Current® NFC No Follow Current®	NFC No Follow Current® 100 A eff
Operating temperature		-40... + 80 °C	-40... + 80 °C
Cross selection area		16 mm² flexible	16 mm² flexible
Terminal-Conductor size		16 mm² flexible	16 mm² flexible
Size		b300 x h400 x p140 mm	b300 x h400 x p140 mm
Degree of protection	IP	65	65
Remote signalling contacts	I_n	changeover contact	changeover contact
Cross-sectional area for remote signalling clamps		max. 1,5 mm² flexible	max. 1,5 mm² flexible
Switching capacity		c.a.: 250 V / 0,5 A c.c.: 125 V / 0,2 A ; 75 V / 0,5 A	c.a.: 250 V / 0,5 A c.c.: 125 V / 0,2 A ; 75 V / 0,5 A

Surge Protection Device:
ZOTUP SPD for low voltage



I 50 N-PE

I 50 N-PE is an overvoltage surge arrester with the following applications, features and benefits.
Typical use: for installation N-PE in 3+1 and 1+1 circuits of TT systems according to IEC 60364-5-534 between neutral conductor N and protective earth conductor PE.

- **Impulse test classification: class I and II tests** (according to IEC 61643-11 Ed. 1.0 2011-03);
- I 50 N-PE is a current spark gap SPD useful to protect low voltage applications against direct and indirect lightning strikes;
- Impulse discharge current of 50 kA 10/350 µs;
- Nominal discharge current of 50 kA 8/20 µs;
- The special case allows to match the Pollution Degree 3: Conductive pollution or dry non conductive pollution that becomes conductive due to condensation occurs. To be found in industrial environment or construction sites (harsh environments);
- It could be associated to L 13/40 and L 7/30;
- **Two coloured levels status (green/red).**

Type I 50 N-PE...

CODE		**206 300**
Nominal ac Voltage	U_N	230/400 V ac
Number of poles		1
Max Continuous Operating Voltage	U_c	255 V ac
Test Class (acc. to IEC 61643-11 Ed. 1.0 2011-03)		I e II
Type (acc. to CEI EN 61643-11 2012-10)		T1 e T2
Impulse discharge current (10/350)	I_{imp}	50 kA
Nominal discharge current (8/20)	I_n	50 kA
Follow current extinguishing capability	I_{fi}	100 A rms
Voltage protection level	U_p	≤ 1,50 kV
Status indicator		2 coloured levels (green/red)
Reaction time	t_a	≤ 100 ns
Voltage TOV	U_T	1200 V / 200 ms
Operating temperature		-40 … +80 °C
Terminal-Conductor size		4-25 mm² stranded
Clamp per Connecting bus bar		connector busbar 16 mm²
Mounting		indoor, 35 mm top hat DIN rail
Case material / flammability grade		BMC / V-0 in accordance with UL 94
Pollution degree		3
Degree of protection	IP	20
Approximate weight		130 g
Dimensions width		17,5 mm (1 module)
In bundle with		L 13/40 230 ff e L 7/30 230 ff
Certification		CTI pending

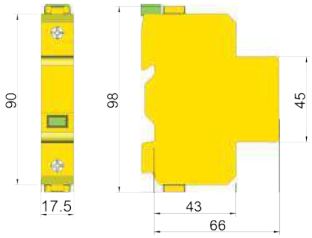
Type I 50 N-PE with remote signal contact

CODE		**216 300**
Remote signal contact		Volt free changeover contact
Switch conductor size		max. 1,5 mm² stranded
Switching capacity		ac: 250 V / 0,1 A – dc: 125 V / 0,2 A ; 75 V / 0,5 A

TECHNICAL DATA

Surge Protection Device:
ZOTUP SPD for low voltage

L 13/40 230 ff



L 13/40 230 ff is a limiting type surge arrester with the following applications, features and benefits.
Typical locations: in Main Distribution Boards (MDB) or at the origin of low voltage systems.

- **Impulse test classification: class I and II tests** (according to IEC 61643-11 Ed. 1.0 2011-03);
- L 13/40 230 ff is a voltage limiting SPD useful to protect low voltage applications against direct and indirect lightning strikes;
- **Overcurrent protection is not required for Isccr ≤ 4,5 kA rms;**
- Short circuit current up to 100 kA rms with max. back-up fuse;
- It is a **NFC No Follow Current®** SPD because it prevents the circulation of grid follow up currents after operation;
- **Three coloured levels Status Indicator with progressive indication of performance**;
- The special case allows to match the Pollution Degree 3 (Conductive pollution or dry non conductive pollution that becomes conductive due to condensation occurs. To be found in industrial environment or construction sites (harsh environments);
- Surge protection device with different discharge capacity and maximum continuous voltage can be supplied under request.

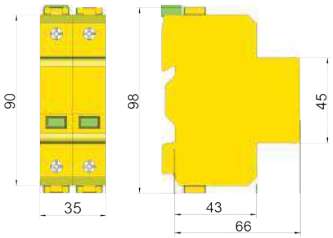
TECHNICAL DATA

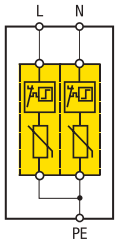
Type L 13/40...			230 ff
CODE			**204 100**
Nominal ac Voltage		U_N	230/400 V ac
Number of poles			1
Max Continuous Operating Voltage		U_c	335 V ac / 420 V dc
Test Class (acc. to IEC 61643-11 Ed. 1.0 2011-03)			I e II
Type (acc. to CEI EN 61643-11 2012-10)			T1 e T2
Impulse discharge current (10/350)		I_{imp}	13 kA
Nominal discharge current (8/20 µs)		I_n	25 kA
Max. discarge current (8/20 µs)		I_{max}	70 kA
Voltage protection level with I:	1 kA	U_p	≤ 0,80 kV
	13 kA	U_p	≤ 1,25 kV
	20 kA	U_p	≤ 1,35 kV
	25 kA	U_p	≤ 1,50 kV
	40 kA	U_{res}	≤ 1,80 kV
Reaction time		t_a	≤ 25 ns
Short circuit current withstand			OCFM
Short Circuit Current withstand with max overcurrent protection fuse (L)		I_{sccr}	100 kA rms
Max- mains-side (L) overcurrent protection for Isccr	≤ 4,5 kA eff		Not required
	≤ 100 kA eff		125/160 A gG*
Prevents follow up current circulation			NFC No Follow Current®
Status indicator			3 coloured levels with performance's indication
Operating temperature range			-40 … +80 °C
Terminal-Conductor size			4-25 mm² stranded
Clamp per Connecting bus bar			connector busbar16 mm²
Mounting			indoor, 35 mm top hat DIN rail
Case material / flammability grade			BMC / V-0 in accordance with UL 94
Pollution degree			3
Degree of protection		IP	20
Approximate weight			140 g
Dimensions width			17,5 mm (1 module)
Certification			CTI

Type L 13/40...with remote signal contact		230 t ff
CODE		**214 100**
Remote signal contact		Volt free changeover contact
Switch conductor size		max. 1,5 mm² stranded
Switching capacity		ac: 250 V / 0,1 A – dc: 125 V / 0,2 A ; 75 V / 0,5 A

*with fuse 125 A gG Iimp= 10 kA and Imax= 40 kA

Surge Protection Device:
ZOTUP SPD for low voltage





L 13/40 230 ff 2

L 13/40 230 ff 2 is a two poles assembled and ready to install, voltage limiting type surge arrester for single-phase 230 V systems with the following applications, features and benefits.
Typical locations: in Main Distribution Boards (MDB) or at the origin of low voltage systems.

- **Impulse test classification: class I and II tests** (according to IEC 61643-11 Ed. 1.0 2011-03);
- L 13/40 230 ff 2 is a voltage limiting SPD useful to protect low voltage applications against direct and indirect lightning strikes;
- **Overcurrent protection is not required for Isccr ≤ 4,5 kA rms;**
- Short circuit current up to 100 kA rms with max. back-up fuse;
- It is a **NFC No Follow Current®** SPD because it prevents the circulation of grid follow up currents after operation;
- **Three coloured levels Status Indicator with progressive indication of performance**;
- The special case allows to match the Pollution Degree 3 (Conductive pollution or dry non conductive pollution that becomes conductive due to condensation occurs. To be found in industrial environment or construction sites (harsh environments).

TECHNICAL DATA

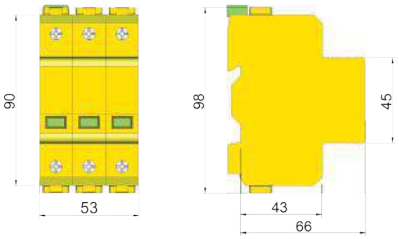
Type L 13/40...			230 ff 2
CODE			**204 120**
Nominal ac Voltage		U_N	230/400 V ac
Number of poles			2
Max Continuous Operating Voltage		U_c	335 V ac / 420 V dc
Test Class (acc. to IEC 61643-11 Ed. 1.0 2011-03)			I e II
Type (acc. to CEI EN 61643-11 2012-10)			T1 e T2
Impulse discharge current (10/350)		I_{imp}	13 kA
Nominal discharge current (8/20 µs)		I_n	25 kA
Max. discarge current (8/20 µs)		I_{max}	70 kA
Voltage protection level with I:	1 kA	U_p	≤ 0,95 kV
	13 kA	U_p	≤ 1,35 kV
	20 kA	U_p	≤ 1,50 kV
	25 kA	U_p	≤ 1,65 kV
	40 kA	U_{res}	≤ 1,95 kV
Reaction time		t_a	≤ 25 ns
Short circuit current withstand			OCFM
Short Circuit Current withstand with max overcurrent protection fuse (L)		I_{sccr}	100 kA rms
Max- mains-side (L) overcurrent protection for Isccr	≤ 4,5 kA eff		Not required
	≤ 100 kA eff		125/160 A gG*
Prevents follow up current circulation			NFC No Follow Current®
Status indicator			3 coloured levels with performance's indication
Operating temperature range			-40 … +80 °C
Terminal-Conductor size			4-25 mm² stranded
Clamp per Connecting bus bar			connector busbar16 mm²
Mounting			indoor, 35 mm top hat DIN rail
Case material / flammability grade			BMC / V-0 in accordance with UL 94
Pollution degree			3
Degree of protection		IP	20
Approximate weight			280 g
Dimensions width			35 mm (2 modules)
Certification			CTI

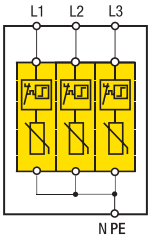
Type L 13/40...with remote signal contact		230 t ff 2
CODE		**214 120**
Remote signal contact		Volt free changeover contact
Switch conductor size		max. 1,5 mm² multifilare
Switching capacity		ac: 250 V / 0,1 A – dc: 125 V / 0,2 A ; 75 V / 0,5 A

*with fuse 125 A gG Iimp= 10 kA and Imax= 40 kA

Surge Protection Device:
ZOTUP SPD for low voltage

L 13/40 230 ff 3





L 13/40 230 ff 3 is a three poles assembled and ready to install, voltage limiting type surge arrester for three-phase 400 V systems with the following applications, features and benefits.
Typical locations: in Main Distribution Boards (MDB) or at the origin of low voltage systems.

- **Impulse test classification: class I and II tests** (according to IEC 61643-11 Ed. 1.0 2011-03);
- L 13/40 230 ff 3 is a voltage limiting SPD useful to protect low voltage applications against direct and indirect lightning strikes;
- **Overcurrent protection is not required for Isccr ≤ 4,5 kA rms;**
- Short circuit current up to 100 kA rms with max. back-up fuse;
- It is a **NFC No Follow Current®** SPD because it prevents the circulation of grid follow up currents after operation;
- **Three coloured levels Status Indicator with progressive indication of performance**;
- The special case allows to match the Pollution Degree 3 (Conductive pollution or dry non conductive pollution that becomes conductive due to condensation occurs. To be found in industrial environment or construction sites (harsh environments).

TECHNICAL DATA

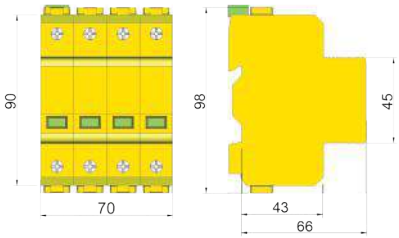
Type L 13/40...			230 ff 3
CODE			**204 130**
Nominal ac Voltage		U_N	230/400 V ac
Number of poles			3
Max Continuous Operating Voltage		U_c	335 V ac / 420 V dc
Test Class (acc. to IEC 61643-11 Ed. 1.0 2011-03)			I e II
Type (acc. to CEI EN 61643-11 2012-10)			T1 e T2
Impulse discharge current (10/350)		I_{imp}	13 kA
Nominal discharge current (8/20 µs)		I_n	25 kA
Max. discarge current (8/20 µs)		I_{max}	70 kA
Voltage protection level with I:	1 kA	U_p	≤ 0,95 kV
	13 kA	U_p	≤ 1,35 kV
	20 kA	U_p	≤ 1,50 kV
	25 kA	U_p	≤ 1,65 kV
	40 kA	U_{res}	≤ 1,95 kV
Reaction time		t_a	≤ 25 ns
Short circuit current withstand			OCFM
Short Circuit Current withstand with max overcurrent protection fuse (L)		I_{sccr}	100 kA rms
Max- mains-side (L) overcurrent protection for Isccr	≤ 4,5 kA eff		Not required
	≤ 100 kA eff		125/160 A gG*
Prevents follow up current circulation			NFC No Follow Current®
Status indicator			3 coloured levels with performance's indication
Operating temperature range			-40 … +80 °C
Terminal-Conductor size			4-25 mm² stranded
Clamp per Connecting bus bar			connector busbar16 mm²
Mounting			indoor, 35 mm top hat DIN rail
Case material / flammability grade			BMC / V-0 in accordance with UL 94
Pollution degree			3
Degree of protection		IP	20
Approximate weight			420 g
Dimensions width			53 mm (3 modules)
Certification			CTI

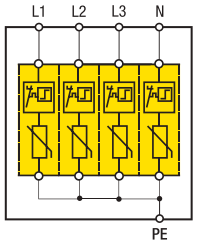
Type L 13/40...with remote signal contact		230 t ff 3
CODE		**214 130**
Remote signal contact		Volt free changeover contact
Switch conductor size		max. 1,5 mm² stranded
Switching capacity		ac: 250 V / 0,1 A – dc: 125 V / 0,2 A ; 75 V / 0,5 A

*with fuse 125 A gG Iimp= 10 kA and Imax= 40 kA

Surge Protection Device:
ZOTUP SPD for low voltage

L 13/40 230 ff 4





L 13/40 230 ff 4 is a four poles assembled and ready to install, voltage limiting type surge arrester for three-phase plus neutral 400 V systems with the following applications, features and benefits.
Typical locations: in Main Distribution Boards (MDB) or at the origin of low voltage systems.

- **Impulse test classification: class I and II tests** (according to IEC 61643-11 Ed. 1.0 2011-03);
- L 13/40 230 ff 4 is a voltage limiting SPD useful to protect low voltage applications against direct and indirect lightning strikes;
- **Overcurrent protection is not required for Isccr ≤ 4,5 kA rms;**
- Short circuit current up to 100 kA rms with max. back-up fuse;
- It is a **NFC No Follow Current®** SPD because it prevents the circulation of grid follow up currents after operation;
- **Three coloured levels Status Indicator with progressive indication of performance**;
- The special case allows to match the Pollution Degree 3 (Conductive pollution or dry non conductive pollution that becomes conductive due to condensation occurs. To be found in industrial environment or construction sites (harsh environments).

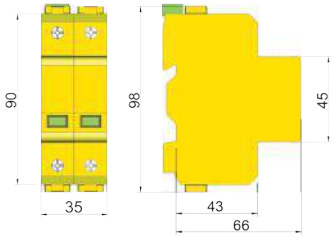
TECHNICAL DATA

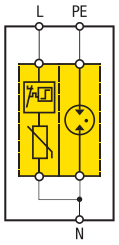
Type L 13/40...			230 ff 4
CODE			**204 140**
Nominal ac Voltage		U_N	230/400 V ac
Number of poles			4
Max Continuous Operating Voltage		U_c	335 V ac / 420 V dc
Test Class (acc. to IEC 61643-11 Ed. 1.0 2011-03)			I e II
Type (acc. to CEI EN 61643-11 2012-10)			T1 e T2
Impulse discharge current (10/350)		I_{imp}	13 kA
Nominal discharge current (8/20 µs)		I_n	25 kA
Max. discarge current (8/20 µs)		I_{max}	70 kA
Voltage protection level with I:	1 kA	U_p	≤ 0,95 kV
	13 kA	U_p	≤ 1,35 kV
	20 kA	U_p	≤ 1,50 kV
	25 kA	U_p	≤ 1,65 kV
	40 kA	U_{res}	≤ 1,95 kV
Reaction time		t_a	≤ 25 ns
Short circuit current withstand			OCFM
Short Circuit Current withstand with max overcurrent protection fuse (L)		I_{sccr}	100 kA rms
Max- mains-side (L) overcurrent protection for Isccr	≤ 4,5 kA eff		Not required
	≤ 100 kA eff		125/160 A gG*
Prevents follow up current circulation			NFC No Follow Current®
Status indicator			3 coloured levels with performance's indication
Operating temperature range			-40 … +80 °C
Terminal-Conductor size			4-25 mm² stranded
Clamp per Connecting bus bar			connector busbar16 mm²
Mounting			indoor, 35 mm top hat DIN rail
Case material / flammability grade			BMC / V-0 in accordance with UL 94
Pollution degree			3
Degree of protection		IP	20
Approximate weight			560 g
Dimensions width			70 mm (4 modules)
Certification			CTI

Type L 13/40...with remote signal contact		230 t ff 4
CODE		**214 140**
Remote signal contact		Volt free changeover contact
Switch conductor size		max. 1,5 mm² stranded
Switching capacity		ac: 250 V / 0,1 A – dc: 125 V / 0,2 A ; 75 V / 0,5 A

*with fuse 125 A gG Iimp= 10 kA and Imax= 40 kA

Surge Protection Device:
ZOTUP SPD for low voltage





L 13/40 230 ff 1+1

L 13/40 230 ff 1+1 s a two poles assembled and ready to install, voltage limiting type surge arrester for single-phase 230 V systems with the following applications, features and benefits.
Typical locations: in TT systems, where connction 1+1 is required (IEC 60364-5-534) and in Main Distributions Boards (MDB) or at the origin of low voltage systems.

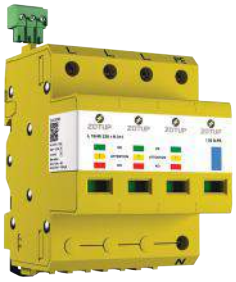
- **Impulse test classification: class I and II tests** (according to IEC 61643-11 Ed. 1.0 2011-03);
- L 13/40 230 ff 1+1 is a voltage limiting SPD useful to protect low voltage applications against direct and indirect lightning strikes;
- **Overcurrent protection is not required for Isccr ≤ 4,5 kA rms;**
- **Three coloured levels Status Indicator with progressive indication of performance**.

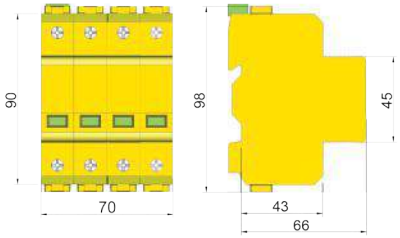
TECHNICAL DATA

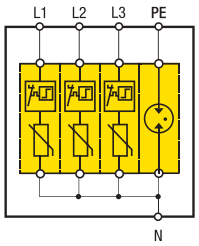
Type L 13/40...			230 ff 1+1
CODE			**204 121**
Nominal ac Voltage		U_N	230/400 V ac
Number of poles			1+1
Max Continuous Operating Voltage (L-N) Max Continuous Operating Voltage (N-PE)		U_c U_c	335 V ac / 420 V dc 255 V ac
Test Class (acc. to IEC 61643-11 Ed. 1.0 2011-03)			I e II
Type (acc. to CEI EN 61643-11 2012-10)			T1 e T2
Impulse discharge current (10/350 µs) (L-N) Impulse discharge current (10/350 µs) (N-PE)		I_{imp} I_{imp}	13 kA 50 kA
Nominal discharge current (8/20 µs) (L-N) Nominal discharge current (8/20 µs) (N-PE)		I_n I_n	25 kA 50 kA
Max. discarge current (8/20 µs)		I_{max}	70 kA
Voltage protection level with I (L-N):	1 kA 13 kA 20 kA 25 kA 40 kA	U_p U_p U_p U_p U_{res}	≤ 0,95 kV ≤ 1,35 kV ≤ 1,50 kV ≤ 1,65 kV ≤ 1,95 kV
Voltage protection level with I (N-PE):	50 kA	U_p	≤ 1,50 kV
Reaction time (L-N / N-PE)		t_a	≤ 25 ns / ≤ 100 ns
Short circuit current withstand			OCFM
Short Circuit Current withstand with max overcurrent protection fuse (L)		I_{sccr}	100 kA rms
Max- mains-side (L) overcurrent protection for Isccr	≤ 4,5 kA eff ≤ 100 kA eff		Not required 125/160 A gG*
Prevents follow up current circulation (L-N) Follow current extinguishing capability (N-PE)		 I_{fi}	NFC No Follow Current® 100 A rms
Status indicator			3 coloured levels with performance's indication
Operating temperature range			-40 … +80 °C
Terminal-Conductor size			4-25 mm² stranded
Clamp per Connecting bus bar			connector busbar16 mm²
Mounting			indoor, 35 mm top hat DIN rail
Case material / flammability grade			BMC / V-0 in accordance with UL 94
Pollution degree			3
Degree of protection		IP	20
Approximate weight			280 g
Dimensions width			35 mm (2 modules)
Certification			CTI

Type L 13/40...with remote signal contact		230 t ff 1+1
CODE		**214 121**
Remote signal contact		Volt free changeover contact
Switch conductor size		max. 1,5 mm² stranded
Switching capacity		ac: 250 V / 0,1 A – dc: 125 V / 0,2 A ; 75 V / 0,5 A

*with fuse 125 A gG Iimp= 10 kA and Imax= 40 kA







L 13/40 230 ff 3+1

L 13/40 230 ff 3+1 s a four poles assembled and ready to install, voltage limiting type surge arrester for three-phase plus neutral 400 V systems with the following applications, features and benefits.
Typical locations:in TT systems, where connction 3+1 is required (IEC 60364-5-534) and in Main Distributions Boards (MDB) or at the origin of low voltage systems.

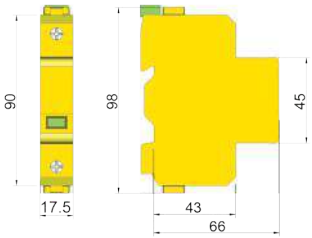
- **Impulse test classification: class I and II tests** (according to IEC 61643-11 Ed. 1.0 2011-03);
- L 13/40 230 ff 3+1 is a voltage limiting SPD useful to protect low voltage applications against direct and indirect lightning strikes;
- **Overcurrent protection is not required for Isccr ≤ 4,5 kA rms;**
- **Three coloured levels Status Indicator with progressive indication of performance**.

Type L 13/40...			230 ff 3+1
CODE			**204 141**
Nominal ac Voltage		U_N	230/400 V ac
Number of poles			3+1
Max Continuous Operating Voltage (L-N)		U_c	335 V ac / 420 V dc
Max Continuous Operating Voltage (N-PE)		U_c	255 V ac
Test Class (acc. to IEC 61643-11 Ed. 1.0 2011-03)			I e II
Type (acc. to CEI EN 61643-11 2012-10)			T1 e T2
Impulse discharge current (10/350 µs) (L-N)		I_{imp}	13 kA
Impulse discharge current (10/350 µs) (N-PE)		I_{imp}	50 kA
Nominal discharge current (8/20 µs) (L-N)		I_n	25 kA
Nominal discharge current (8/20 µs) (N-PE)		I_n	50 kA
Max. discarge current (8/20 µs)		I_{max}	70 kA
Voltage protection level with I (L-N):	1 kA	U_p	≤ 0,95 kV
	13 kA	U_p	≤ 1,35 kV
	20 kA	U_p	≤ 1,50 kV
	25 kA	U_p	≤ 1,65 kV
	40 kA	U_{res}	≤ 1,95 kV
Voltage protection level with I (N-PE):	50 kA	U_p	≤ 1,50 kV
Reaction time (L-N / N-PE)		t_a	≤ 25 ns / ≤ 100 ns
Short circuit current withstand			OCFM
Short Circuit Current withstand with max overcurrent protection fuse (L)		I_{sccr}	100 kA rms
Max- mains-side (L) overcurrent protection for Isccr	≤ 4,5 kA eff		Not required
	≤ 100 kA eff		125/160 A gG*
Prevents follow up current circulation (L-N)			NFC No Follow Current®
Follow current extinguishing capability (N-PE)		I_{fi}	100 A rms
Status indicator			3 coloured levels with performance's indication
Operating temperature range			-40 … +80 °C
Terminal-Conductor size			4-25 mm² stranded
Clamp per Connecting bus bar			connector busbar16 mm²
Mounting			indoor, 35 mm top hat DIN rail
Case material / flammability grade			BMC / V-0 in accordance with UL 94
Pollution degree			3
Degree of protection		IP	20
Approximate weight			560 g
Dimensions width			70 mm (4 modules)
Certification			CTI

Type L 13/40...with remote signal contact		230 t ff 3+1
CODE		**214 141**
Remote signal contact		Volt free changeover contact
Switch conductor size		max. 1,5 mm² stranded
Switching capacity		ac: 250 V / 0,1 A – dc: 125 V / 0,2 A ; 75 V / 0,5 A

*with fuse 125 A gG Iimp= 10 kA and Imax= 40 kA

Surge Protection Device:
ZOTUP SPD for low voltage



L 7/30 ... ff

L 7/30 ... ff s a limiting type surge arrester with the following applications, features and benefits.
Typical locations: in Main Distribution Boards (MDB) or at the origin of low voltage systems.

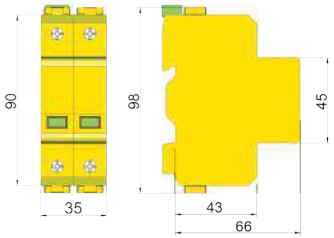
- **Impulse test classification: class I and II tests** (according to IEC 61643-11 Ed. 1.0 2011-03);
- L 7/30 ... ff is a voltage limiting SPD useful to protect low voltage applications against direct and indirect lightning strikes;
- **Overcurrent protection is not required for Isccr ≤ 4,5 kA rms**;
- Short circuit current of 100 kA rms with max. back-up fuse;
- **Three coloured levels Status Indicator with progressive indication of performance**
- The special case allows to match the Pollution Degree 3 (Conductive pollution or dry non conductive pollution that becomes conductive due to condensation occurs. To be found in industrial environment or construction sites (harsh environments).

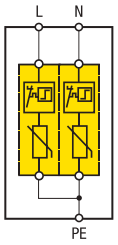
Type L 7/30 ...			230 ff	400 ff	Mini Wind Turbines 600 ff	Wind Turbines 750 ff
CODE			**207 100**	**207 104**	**207 106**	**207 107**
Nominal ac Voltage		U_N	230/400 V ac	400/690 V ac	600 V ac	400/690 V ac
Number of poles			1			
Max Continuous Operating Voltage		U_c	335 V ac / 420 V dc	460 V ac / 615 V dc	690 V ac / 895 V dc	750 V ac / 1000 V dc
Test Class (acc. to IEC 61643-11 Ed. 1.0 2011-03)			I e II			
Type (acc. to CEI EN 61643-11 2012-10)			T1 e T2			
Impulse discharge current (10/350)		I_{imp}	7 kA		5 kA	
Nominal discharge current (8/20 µs)		I_n	25 kA			
Max. discarge current (8/20 µs)		I_{max}	40 kA			
Voltage protection level with I:	1 kA	U_p	≤ 0,85 kV	≤ 1,25 kV	≤ 1,90 kV	≤ 2,30 kV
	5 kA	U_p	≤ 1,00 kV	≤ 1,45 kV	≤ 2,30 kV	≤ 2,60 kV
	15 kA	U_p	≤ 1,30 kV	≤ 1,80 kV	≤ 2,70 kV	≤ 3,00 kV
	25 kA	U_p	≤ 1,50 kV	≤ 2,10 kV	≤ 3,10 kV	≤ 3,40 kV
	30 kA	U_{res}	≤ 1,70 kV	≤ 2,20 kV	≤ 3,25 kV	≤ 3,55 kV
Reaction time		t_a	≤ 25 ns			
Short circuit current withstand			OCFM			
Short Circuit Current withstand with max overcurrent protection fuse (L)		I_{sccr}	100 kA rms			
Max- mains-side (L) overcurrent protection for Isccr						
≤ 4,5 kA eff			Not required		Not required	
≤ 100 kA eff			125 A gG		125 A gG	
Prevents follow up current circulation			NFC No Follow Current®			
Status indicator			3 coloured levels with performance's indication			
Operating temperature range			-40 … +80 °C			
Terminal-Conductor size			4-25 mm² stranded			
Clamp per Connecting bus bar			connector busbar16 mm²			
Mounting			indoor, 35 mm top hat DIN rail			
Case material / flammability grade			BMC / V-0 in accordance with UL 94			
Pollution degree			3			
Degree of protection		IP	20			
Approximate weight			130 g	150 g	170 g	190 g
Dimensions width			17,5 mm (1 module)			
Certification			CTI			

Type L 7/30...with remote signal contact		230 t ff	400 t ff	600 t ff	750 t ff
CODE		**217 100**	**217 104**	**217 106**	**217 107**
Remote signal contact		Volt free changeover contact			
Switch conductor size		max. 1,5 mm² stranded			
Switching capacity		ac: 250 V / 0,1 A – dc: 125 V / 0,2 A ; 75 V / 0,5 A			

TECHNICAL DATA

L 7/30 230 ff 2





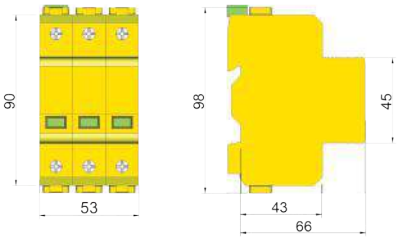
L 7/30 230 ff 2 is a two poles assembled and ready to install, voltage limiting type surge arrester for single-phase 230 V systems with the following applications, features and benefits.
Typical locations: in Main Distribution Boards (MDB) or at the origin of low voltage systems.

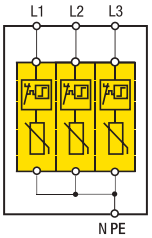
- **Impulse test classification: class I and II tests** (according to IEC 61643-11 Ed. 1.0 2011-03);
- L 7/30 230 ff 2 is a voltage limiting SPD useful to protect low voltage applications against direct and indirect lightning strikes;
- **Overcurrent protection is not required for Isccr ≤ 4,5 kA rms;**
- Short circuit current of 100 kA rms with max. back-up fuse;
- **Three coloured levels Status Indicator with progressive indication of performance**;
- The special case allows to match the Pollution Degree 3 (Conductive pollution or dry non conductive pollution that becomes conductive due to condensation occurs. To be found in industrial environment or construction sites (harsh environments).conductive due to condensation occurs. To be found in industrial environment or construction sites (harsh environments).

Type L 7/30 ...		230 ff 2
CODE		**207 120**
Nominal ac Voltage	U_N	230/400 V ac
Number of poles		2
Max Continuous Operating Voltage	U_c	335 V ac / 420 V dc
Test Class (acc. to IEC 61643-11 Ed. 1.0 2011-03)		I e II
Type (acc. to CEI EN 61643-11 2012-10)		T1 e T2
Impulse discharge current (10/350)	I_{imp}	7 kA
Nominal discharge current (8/20 µs)	I_n	25 kA
Max. discarge current (8/20 µs)	I_{max}	40 kA
Voltage protection level with I: 1 kA	U_p	≤ 1,00 kV
5 kA	U_p	≤ 1,15 kV
15 kA	U_p	≤ 1,45 kV
25 kA	U_p	≤ 1,65 kV
30 kA	U_{res}	≤ 1,85 kV
Reaction time	t_a	≤ 25 ns
Short circuit current withstand		OCFM
Short Circuit Current withstand with max overcurrent protection fuse (L)	I_{sccr}	100 kA rms
Max- mains-side (L) overcurrent protection for Isccr		
≤ 4,5 kA eff		Not required
≤ 100 kA eff		125 A gG
Prevents follow up current circulation		NFC No Follow Current®
Status indicator		3 coloured levels with performance's indication
Operating temperature range		-40 … +80 °C
Terminal-Conductor size		4-25 mm² stranded
Clamp per Connecting bus bar		connector busbar16 mm²
Mounting		indoor, 35 mm top hat DIN rail
Case material / flammability grade		BMC / V-0 in accordance with UL 94
Pollution degree		3
Degree of protection	IP	20
Approximate weight		260 g
Dimensions width		35 mm (2 modules)
Certification		CTI

Type L 7/30...with remote signal contact		230 t ff 2
CODE		**217 120**
Remote signal contact		Volt free changeover contact
Switch conductor size		max. 1,5 mm² stranded
Switching capacity		ac: 250 V / 0,1 A – dc: 125 V / 0,2 A ; 75 V / 0,5 A

Surge Protection Device:
ZOTUP SPD for low voltage





L 7/30 ... ff 3

L 7/30...ff 4 is a three poles assembled and ready to install, voltage limiting type surge arrester for three-phase 400 V and 690 V systems with the following applications, features and benefits.
Typical locations: in Main Distribution Boards (MDB) or at the origin of low voltage systems and to protect the inverters in wind turbines.

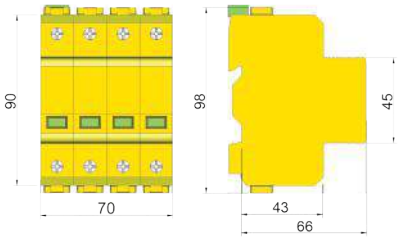
- **Impulse test classification: class I and II tests** (according to IEC 61643-11 Ed. 1.0 2011-03);
- L 7/30... ff 3 is a voltage limiting SPD useful to protect low voltage applications against direct and indirect lightning strikes;
- **Overcurrent protection is not required for Isccr ≤ 4,5 kA rms (or three-phase 400 V systems);**
- Short circuit current of 100 kA rms with max. back-up fuse;
- **Three coloured levels Status Indicator with progressive indication of performance**;
- The special case allows to match the Pollution Degree 3 (Conductive pollution or dry non conductive pollution that becomes conductive due to condensation occurs. To be found in industrial environment or construction sites (harsh environments).

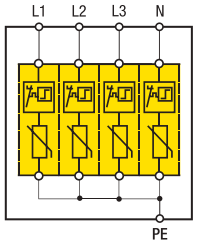
Type L 7/30 ...		230 ff 3	Wind Turbines 750 ff 3
CODE		**207 130**	**207 137**
Nominal ac Voltage	U_N	230/400 V ac	400/690 V ac
Number of poles		3	3
Max Continuous Operating Voltage	U_c	335 V ac / 420 V dc	750 V ac / 1000 V dc
Test Class (acc. to IEC 61643-11 Ed. 1.0 2011-03)		I e II	I e II
Type (acc. to CEI EN 61643-11 2012-10)		I e II	I e II
Impulse discharge current (10/350)	I_{imp}	7 kA	5 kA
Nominal discharge current (8/20 µs)	I_n	25 kA	25 kA
Max. discarge current (8/20 µs)	I_{max}	25 kA	25 kA
Voltage protection level with I: 1 kA	U_p	≤ 1,00 kV	≤ 2,45 kV
5 kA	U_p	≤ 1,15 kV	≤ 2,75 kV
15 kA	U_p	≤ 1,45 kV	≤ 3,15 kV
25 kA	U_p	≤ 1,65 kV	≤ 3,55 kV
30 kA	U_{res}	≤ 1,85 kV	≤ 3,70 kV
Reaction time	t_a	≤ 25 ns	
Short circuit current withstand		OCFM	
Short Circuit Current withstand with max overcurrent protection fuse (L)	I_{sccr}	100 kA rms	
Max- mains-side (L) overcurrent protection for Isccr			
≤ 4,5 kA eff		Not required	Not required
≤ 100 kA eff		125 A gG	125 A gG
Prevents follow up current circulation		NFC No Follow Current®	
Status indicator		3 coloured levels with performance's indication	
Operating temperature range		-40 … +80 °C	
Terminal-Conductor size		4-25 mm² stranded	
Clamp per Connecting bus bar		connector busbar16 mm²	
Mounting		indoor, 35 mm top hat DIN rail	
Case material / flammability grade		BMC / V-0 in accordance with UL 94	
Pollution degree		3	
Degree of protection	IP	20	
Approximate weight		380 g	
Dimensions width		53 mm (3 modules)	
Certification		CTI	

Type L 7/30...with remote signal contact		230 t ff 3	750 t ff 3
CODE		**217 130**	**217 137**
Remote signal contact		Volt free changeover contact	
Switch conductor size		max. 1,5 mm² stranded	
Switching capacity		ac: 250 V / 0,1 A – dc: 125 V / 0,2 A ; 75 V / 0,5 A	

TECHNICAL DATA

Surge Protection Device:
ZOTUP SPD for low voltage





L 7/30 230 ff 4

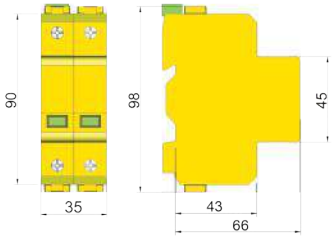
L 7/30 230 ff 4 is a four poles assembled, ready to install voltage limiting type surge arrester for three-phase 400 V systems with the following applications, features and benefits.
Typical locations: in Main Distribution Boards (MDB) or at the origin of low voltage systems.

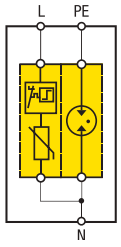
- **Impulse test classification: class I and II tests** (according to IEC 61643-11 Ed. 1.0 2011-03);
- L 7/30 230 ff 4 is a voltage limiting SPD useful to protect low voltage applications against direct and indirect lightning strikes;
- **Overcurrent protection is not required for Isccr ≤ 4,5 kA rms;**
- Short circuit current of 100 kA rms with max. back-up fuse;
- **Three coloured levels Status Indicator with progressive indication of performance**;
- The special case allows to match the Pollution Degree 3 (Conductive pollution or dry non conductive pollution that becomes onductive due to condensation occurs. To be found in industrial environment or construction sites (harsh environments).

Type L 7/30 ...		230 ff 4
CODE		**207 140**
Nominal ac Voltage	U_N	230/400 V ac
Number of poles		4
Max Continuous Operating Voltage	U_c	335 V ac / 420 V dc
Test Class (acc. to IEC 61643-11 Ed. 1.0 2011-03)		I e II
Type (acc. to CEI EN 61643-11 2012-10)		T1 e T2
Impulse discharge current (10/350)	I_{imp}	7 kA
Nominal discharge current (8/20 µs)	I_n	25 kA
Max. discarge current (8/20 µs)	I_{max}	40 kA
Voltage protection level with I: 1 kA	U_p	≤ 1,00 kV
5 kA	U_p	≤ 1,15 kV
15 kA	U_p	≤ 1,45 kV
25 kA	U_p	≤ 1,65 kV
30 kA	U_{res}	≤ 1,85 kV
Reaction time	t_a	≤ 25 ns
Short circuit current withstand		OCFM
Short Circuit Current withstand with max overcurrent protection fuse (L)	I_{sccr}	100 kA rms
Max- mains-side (L) overcurrent protection for Isccr		
≤ 4,5 kA eff		Not required
≤ 100 kA eff		125 A gG
Prevents follow up current circulation		NFC No Follow Current®
Status indicator		3 coloured levels with performance's indication
Operating temperature range		-40 … +80 °C
Terminal-Conductor size		4-25 mm² stranded
Clamp per Connecting bus bar		connector busbar16 mm²
Mounting		indoor, 35 mm top hat DIN rail
Case material / flammability grade		BMC / V-0 in accordance with UL 94
Pollution degree		3
Degree of protection	IP	20
Approximate weight		520 g
Dimensions width		70 mm (4 modules)
Certification		CTI

Type L 7/30...with remote signal contact		230 t ff 4
CODE		**217 140**
Remote signal contact		Volt free changeover contact
Switch conductor size		max. 1,5 mm² stranded
Switching capacity		ac: 250 V / 0,1 A – dc: 125 V / 0,2 A ; 75 V / 0,5 A

Surge Protection Device:
ZOTUP SPD for low voltage





L 7/30 230 ff 1+1

L 7/30 230 ff 1+1 is a two poles assembled and ready to install, voltage limiting type surge arrester for single-phase 230 V systems with the following applications, features and benefits.
Typical locations: in TT systems, where connction 1+1 is required (IEC 60364-5-534) and in Main Distributions Boards (MDB) or at the origin of low voltage systems.

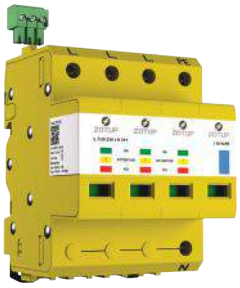
- **Impulse test classification: class I and II tests** (according to IEC 61643-11 Ed. 1.0 2011-03);
- L 7/30 230 ff 1+1 is a voltage limiting SPD useful to protect low voltage applications against direct and indirect lightning strikes;
- **Overcurrent protection is not required for Isccr ≤ 4,5 kA rms**;
- **Three coloured levels Status Indicator with progressive indication of performance.**

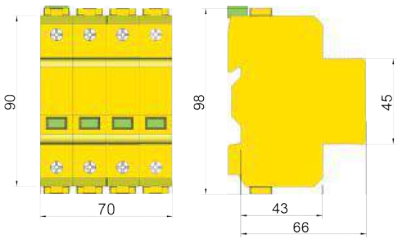
TECHNICAL DATA

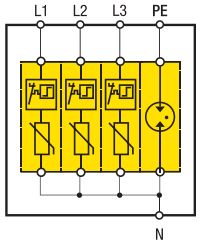
Type L 7/30 ...			230 ff 1+1
CODE			**207 121**
Nominal ac Voltage		U_N	230/400 V ac
Number of poles			1+1
Max Continuous Operating Voltage		U_c	335 V ac / 420 V dc
Test Class (acc. to IEC 61643-11 Ed. 1.0 2011-03)			I e II
Type (acc. to CEI EN 61643-11 2012-10)			T1 e T2
Impulse discharge current (10/350 µs) (L-N) Impulse discharge current (10/350 µs) (N-PE)		I_{imp} I_{imp}	7 kA 50 kA
Nominal discharge current (8/20 µs) (L-N) Nominal discharge current (8/20 µs) (N-PE)		I_n I_n	25 kA 50 kA
Max. discarge current (8/20 µs)		I_{max}	20 kA
Voltage protection level with I:	1 kA 5 kA 15 kA 25 kA 30 kA	U_p U_p U_p U_p U_{res}	≤ 1,00 kV ≤ 1,15 kV ≤ 1,45 kV ≤ 1,65 kV ≤ 1,85 kV
Voltage protection level (L-N) (N-PE)		t_a	≤ 25 ns / ≤ 100 ns
Short circuit current withstand			OCFM
Short Circuit Current withstand with max overcurrent protection fuse (L)		I_{sccr}	100 kA rms
Max- mains-side (L) overcurrent protection for Isccr	≤ 4,5 kA eff ≤ 100 kA eff		Not required 125 A gG
Block follow up current circulation (L-N) Follow current extinguishing capability (N-PE)			NFC No Follow Current® 100 A rms
Status indicator			3 coloured levels with performance's indication
Operating temperature range			-40 … +80 °C
Terminal-Conductor size			4-25 mm² stranded
Clamp per Connecting bus bar			connector busbar16 mm²
Mounting			indoor, 35 mm top hat DIN rail
Case material / flammability grade			BMC / V-0 in accordance with UL 94
Pollution degree			3
Degree of protection		IP	20
Approximate weight			260 g
Dimensions width			35 mm (2 modules)
Certification			CTI

Type L 7/30...with remote signal contact			230 t ff 1+1
CODE			**217 121**
Remote signal contact			Volt free changeover contact
Switch conductor size			max. 1,5 mm² stranded
Switching capacity			ac: 250 V / 0,1 A – dc: 125 V / 0,2 A ; 75 V / 0,5 A

L 7/30 230 ff 3+1







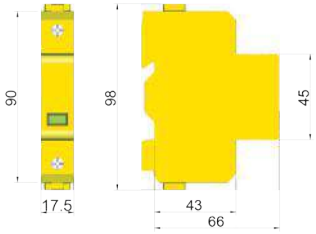
L 7/30 230 ff 3+1 is a four poles assembled and ready to install, voltage limiting type surge arrester for three-phase plus neutral 400 V systems with the following applications, features and benefits.
Typical locations: in TT systems, where connction 3+1 is required (IEC 60364-5-534) and in Main Distributions Boards (MDB) or at the origin of low voltage systems.

- **Impulse test classification: class I and II tests** (according to IEC 61643-11 Ed. 1.0 2011-03);
- L 7/30 230 ff 3+1 is a voltage limiting SPD useful to protect low voltage applications against direct and indirect lightning strikes;
- **Overcurrent protection is not required for Isccr ≤ 4,5 kA rms**;
- **Three coloured levels Status Indicator with progressive indication of performance.**

Type L 7/30 ...			230 ff 3+1
CODE			**207 141**
Nominal ac Voltage		U_N	230/400 V ac
Number of poles			3+1
Max Continuous Operating Voltage (L-N) Max Continuous Operating Voltage (N-PE)		U_C U_C	335 V ac / 420 V dc 255 V ac
Test Class (acc. to IEC 61643-11 Ed. 1.0 2011-03)			I e II
Type (acc. to CEI EN 61643-11 2012-10)			T1 e T2
Impulse discharge current (10/350 µs) (L-N) Impulse discharge current (10/350 µs) (N-PE)		I_{imp} I_{imp}	7 kA 50 kA
Nominal discharge current (8/20 µs) (L-N) Nominal discharge current (8/20 µs) (N-PE)		I_n I_n	25 kA 50 kA
Max. discarge current (8/20 µs)		I_{max}	50 kA
Voltage protection level with I (L-N):	1 kA 5 kA 15 kA 25 kA 30 kA	U_p U_p U_p U_p U_{res}	≤ 1,00 kV ≤ 1,15 kV ≤ 1,45 kV ≤ 1,65 kV ≤ 1,85 kV
Voltage protection level with I (N-PE):	50 kA	U_p	≤ 1,50 kV
Reaction time (L-N / N-PE)		t_a	≤ 25 ns / ≤ 100 ns
Short circuit current withstand			OCFM
Short Circuit Current withstand with max overcurrent protection fuse (L)		I_{sccr}	100 kA rms
Max- mains-side (L) overcurrent protection for Isccr	≤ 4,5 kA eff ≤ 100 kA eff		Not required 125 A gG
Block follow up current circulation (L-N) Follow current extinguishing capability (N-PE)		 I_{fi}	NFC No Follow Current® 100 A rms
Status indicator			3 coloured levels with performance's indication
Operating temperature range			-40 … +80 °C
Terminal-Conductor size			4-25 mm² stranded
Clamp per Connecting bus bar			connector busbar16 mm²
Mounting			indoor, 35 mm top hat DIN rail
Case material / flammability grade			BMC / V-0 in accordance with UL 94
Pollution degree			3
Degree of protection		IP	20
Approximate weight			520 g
Dimensions width			70 mm (4 modules)
Certification			CTI

Type L 7/30...with remote signal contact			230 t ff 3+1
CODE			**217 141**
Remote signal contact			Volt free changeover contact
Switch conductor size			max. 1,5 mm² stranded
Switching capacity			ac: 250 V / 0,1 A – dc: 125 V / 0,2 A ; 75 V / 0,5 A

Surge Protection Device:
ZOTUP SPD for low voltage



I 12 N-PE

I 12 N-PE is an overvoltage surge arrester with the following applications, features and benefits.
Typical use: for installation in 3+1 and 1+1 circuits of TT systems according to IEC 60364-5-534 between neutral conductor N and protective earth conductor PE.

- **Impulse test classification: class I and II tests** (according to IEC 61643-11 Ed. 1.0 2011-03);
- I 12 N-PE is a total current spark gap SPD useful to protect low voltage applications against direct and indirect lightning strikes;
- Impulse discharge current of 12,5 kA 10/350 µs;
- Nominal discharge current of 40 kA 8/20 µs;
- The special case allows to match the Pollution Degree 3 (Conductive pollution or dry non conductive pollution that becomes conductive due to condensation occurs. To be found in industrial environment or construction sites (harsh environments).
- It could be associated to L 3/30 and L 2/10;
- **Two coloured levels status (green/red).**

Type I 12 N-PE...

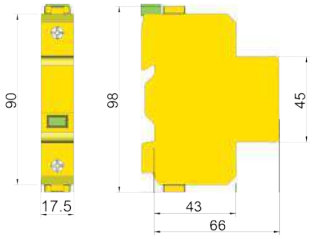
CODE		**207 300**
Nominal ac Voltage	U_N	230/400 V ac
Number of poles		1
Max Continuous Operating Voltage	U_c	255 V ac
Test Class (acc. to IEC 61643-11 Ed. 1.0 2011-03)		I e II
Type (acc. to CEI EN 61643-11 2012-10)		T1 e T2
Impulse discharge current (10/350)	I_{imp}	12,5 kA
Nominal discharge current (8/20)	I_n	40 kA
Follow current extinguishing capability	I_{fi}	100 A rms
Voltage protection level	U_p	≤ 1,50 kV
Status indicator		2 coloured levels green/red
Reaction time	t_a	≤ 100 ns
Voltage TOV	U_T	1200 V / 200 ms
Operating temperature		-40 … +80 °C
Terminal-Conductor size		4-25 mm² stranded
Clamp per Connecting bus bar		connector busbar16 mm²
Mounting		indoor, 35 mm top hat DIN rail
Case material / flammability grade		BMC / V-0 in accordance with UL 94
Pollution degree		3
Degree of protection	IP	20
Approximate weight		120 g
Dimensions width		17,5 mm (1 module)
In bundle with		L 3/30 230 ff e L 2/10 230 ff
Certification		CTI

Type I 12 N-PE t...with remote signal contact

CODE		**217 300**
Remote signal contact		Volt free changeover contact
Switch conductor size		max. 1,5 mm² stranded
Switching capacity		ac: 250 V / 0,1 A – dc: 125 V / 0,2 A ; 75 V / 0,5 A

TECHNICAL DATA

Surge Protection Device:
ZOTUP SPD for low voltage



L 3/30 ... ff

L 3/30 ... ff is an overvoltage surge arrester with the following applications, features and benefits.
Typical locations: in Sub Distribution Boards (SDB) of low voltage systems.

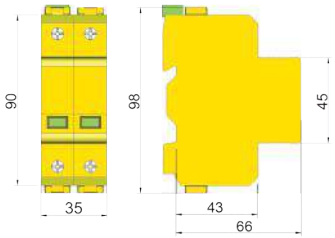
- **Impulse test classification: class II test** (according to IEC 61643-11 Ed. 1.0 2011-03);
- L 3/30 ... ff is a voltage limiting SPD useful to protect low voltage applications against indirect lightning strikes;
- **Overcurrent protection is not required for Isccr ≤ 4,5 kA rms**;
- Short circuit current of 50 kA rms with max. back-up fuse;
- **Three coloured levels Status Indicator with progressive indication of performance;**
- The special case allows to match the Pollution Degree 3 (Conductive pollution or dry non conductive pollution that becomes conductive due to condensation occurs. To be found in industrial environment or construction sites (harsh environments).

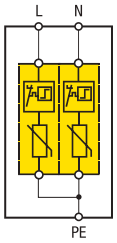
Type L 3/30 ...		60 ff	120 ff	230 ff	400 ff
CODE		**200 102**	**200 103**	**200 100**	**200 104**
Nominal ac Voltage	U_N	60 V ac	120/208 V ac	230/400 V ac	400/690 V ac
Number of poles		1			
Max Continuous Operating Voltage	U_c	75 V ac / 100 V dc	150 V ac / 200 V dc	335 V ac / 420 V dc	460 V ac / 615 V dc
Test Class (acc. to IEC 61643-11 Ed. 1.0 2011-03)		II			
Type (acc. to CEI EN 61643-11 2012-10)		T2			
Impulse discharge current (10/350)	I_{imp}	3 kA			
Nominal discharge current (8/20 µs)	I_n	20 kA	25 kA	30 kA	30 kA
Max. discarge current (8/20 µs)	I_{max}	30 kA	30 kA	40 kA	40 kA
Voltage protection level with I: 1 kA	U_p	≤ 0,23 kV	≤ 0,45 kV	≤ 0,90 kV	≤ 1,30 kV
5 kA	U_p	≤ 0,33 kV	≤ 0,60 kV	≤ 1,00 kV	≤ 1,45 kV
20 kA	U_p	≤ 0,65 kV	≤ 0,95 kV	≤ 1,35 kV	≤ 1,90 kV
25 kA	U_p	-	≤ 1,10 kV	≤ 1,40 kV	≤ 1,95 kV
30 kA	U_p	-	-	≤ 1,50 kV	≤ 2,05 kV
Reaction time	t_a	≤ 25 ns			
Short circuit current withstand		OCFM			
Short Circuit Current withstand with max overcurrent protection fuse (L)	I_{sccr}	50 kA rms			
Max- mains-side (L) overcurrent protection for Isccr ≤ 4,5 kA eff		Not required			
≤ 50 kA eff		125 A gG			
Prevents follow up current circulation		NFC No Follow Current®			
Status indicator		3 coloured levels with performance's indication			
Operating temperature range		-40 … +80 °C			
Terminal-Conductor size		4-25 mm² stranded			
Clamp per Connecting bus bar		connector busbar16 mm²			
Mounting		indoor, 35 mm top hat DIN rail			
Case material / flammability grade		BMC / V-0 in accordance with UL 94			
Pollution degree		3			
Degree of protection	IP	20			
Approximate weight		120 g	150 g	170 g	190 g
Dimensions width		17,5 mm (1 module)			
Certification		CTI			

Type L 3/30...with remote signal contact		60 t ff	120 t ff	230 t ff	400 t ff
CODE		**210 102**	**210 103**	**210 100**	**210 104**
Remote signal contact		Volt free changeover contact			
Switch conductor size		max. 1,5 mm² stranded			
Switching capacity		ac: 250 V / 0,1 A – dc: 125 V / 0,2 A ; 75 V / 0,5 A			

TECHNICAL DATA

Surge Protection Device:
ZOTUP SPD for low voltage





L 3/30 230 ff 2

L 3/30 230 ff 2 is a two poles assembled and ready to install, voltage limiting type surge arrester for single-phase 230 V systems with the following applications, features and benefits.
Typical locations: in Sub Distribution Boards (SDB) of low voltage systems.

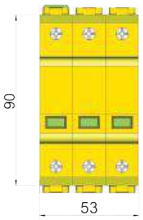
- **Impulse test classification: class II test** (according to IEC 61643-11 Ed. 1.0 2011-03);
- L 3/30 230 ff 2 is a voltage limiting SPD useful to protect low voltage applications against indirect lightning strikes;
- Nominal discharge current of 30 kA 8/20 µs;
- **Overcurrent protection is not required for Isccr ≤ 4,5 kA rms**;
- Short circuit current of 50 kA rms with max. back-up fuse;
- **Three coloured levels Status Indicator with progressive indication of performance;**
- The special case allows to match the Pollution Degree 3 (Conductive pollution or dry non conductive pollution that becomes conductive due to condensation occurs. To be found in industrial environment or construction sites (harsh environments).

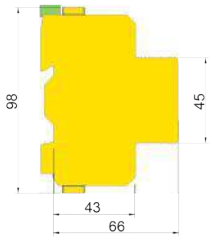
Type L 3/30...			230 ff 2
CODE			**200 120**
Nominal ac Voltage		U_N	230/400 V ac
Number of poles			2
Max Continuous Operating Voltage		U_c	335 V ac / 420 V dc
Test Class (acc. to IEC 61643-11 Ed. 1.0 2011-03)			II
Type (acc. to CEI EN 61643-11 2012-10)			T2
Impulse discharge current (10/350)		I_{imp}	3 kA
Nominal discharge current (8/20 µs)		I_n	30 kA
Max. discarge current (8/20 µs)		I_{max}	40 kA
Voltage protection level with I:	1 kA	U_p	≤ 1,05 kV
	5 kA	U_p	≤ 1,15 kV
	20 kA	U_p	≤ 1,50 kV
	25 kA	U_p	≤ 1,55 kV
	30 kA	U_{res}	≤ 1,65 kV
Reaction time		t_a	≤ 25 ns
Short circuit current withstand			OCFM
Short Circuit Current withstand with max overcurrent protection fuse (L)		I_{sccr}	50 kA rms
Max- mains-side (L) overcurrent protection for Isccr			
	≤ 4,5 kA eff		Not required
	≤ 50 kA eff		125 A gG
Prevents follow up current circulation			NFC No Follow Current®
Status indicator			3 coloured levels with performance's indication
Operating temperature range			-40 … +80 °C
Terminal-Conductor size			4-25 mm² stranded
Clamp per Connecting bus bar			connector busbar16 mm²
Mounting			indoor, 35 mm top hat DIN rail
Case material / flammability grade			BMC / V-0 in accordance with UL 94
Pollution degree			3
Degree of protection		IP	20
Approximate weight			240 g
Dimensions width			35 mm (2 modules)
Certification			CTI

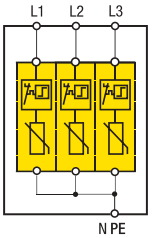
Type L 3/30...with remote signal contact			230 t ff 2
CODE			**210 120**
Remote signal contact			Volt free changeover contact
Switch conductor size			max. 1,5 mm² stranded
Switching capacity			ac: 250 V / 0,1 A – dc: 125 V / 0,2 A ; 75 V / 0,5 A

Surge Protection Device:
ZOTUP SPD for low voltage

L 3/30 230 ff 3







L 3/30 230 ff 3 is a three poles assembled and ready to install, voltage limiting type surge arrester for three-phase 400 V systems with the following applications, features and benefits.
Typical locations: in Sub Distribution Boards (SDB) of low voltage systems.

- **Impulse test classification: class II test** (according to IEC 61643-11 Ed. 1.0 2011-03);
- L 3/30 230 ff 3 is a voltage limiting SPD useful to protect low voltage applications against indirect lightning strikes;
- Nominal discharge current of 30 kA 8/20 µs;
- **Overcurrent protection is not required for Isccr ≤ 4,5 kA rms**;
- Short circuit current of 50 kA rms with max. back-up fuse;
- **Three coloured levels Status Indicator with progressive indication of performance;**
- The special case allows to match the Pollution Degree 3 (Conductive pollution or dry non conductive pollution that becomes conductive due to condensation occurs. To be found in industrial environment or construction sites (harsh environments).

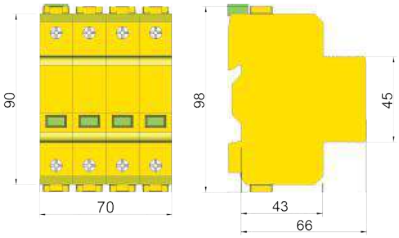
TECHNICAL DATA

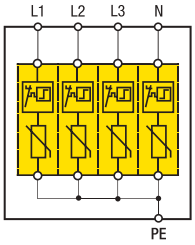
Type L 3/30 ...			230 ff 3
CODE			**200 130**
Nominal ac Voltage		U_N	230/400 V ac
Number of poles			3
Max Continuous Operating Voltage		U_c	335 V ac / 420 V dc
Test Class (acc. to IEC 61643-11 Ed. 1.0 2011-03)			II
Type (acc. to CEI EN 61643-11 2012-10)			T2
Impulse discharge current (10/350)		I_{imp}	3 kA
Nominal discharge current (8/20 µs)		I_n	30 kA
Max. discarge current (8/20 µs)		I_{max}	40 kA
Voltage protection level with I:	1 kA	U_p	≤ 1,05 kV
	5 kA	U_p	≤ 1,15 kV
	20 kA	U_p	≤ 1,50 kV
	25 kA	U_p	≤ 1,55 kV
	30 kA	U_{res}	≤ 1,65 kV
Reaction time		t_a	≤ 25 ns
Short circuit current withstand			OCFM
Short Circuit Current withstand with max overcurrent protection fuse (L)		I_{sccr}	50 kA rms
Max- mains-side (L) overcurrent protection for Isccr			
	≤ 4,5 kA eff		Not required
	≤ 50 kA eff		125 A gG
Prevents follow up current circulation			NFC No Follow Current®
Status indicator			3 coloured levels with performance's indication
Operating temperature range			-40 … +80 °C
Terminal-Conductor size			4-25 mm² stranded
Clamp per Connecting bus bar			connector busbar16 mm²
Mounting			indoor, 35 mm top hat DIN rail
Case material / flammability grade			BMC / V-0 in accordance with UL 94
Pollution degree			3
Degree of protection		IP	20
Approximate weight			350 g
Dimensions width			53 mm (3 modules)
Certification			CTI

Type L 3/30...with remote signal contact			230 t ff 3
CODE			**210 130**
Remote signal contact			Volt free changeover contact
Switch conductor size			max. 1,5 mm² stranded
Switching capacity			ac: 250 V / 0,1 A – dc: 125 V / 0,2 A ; 75 V / 0,5 A

Surge Protection Device:
ZOTUP SPD for low voltage

L 3/30 230 ff 4





L 3/30 230 ff 4 is a four poles assembled and ready to install, voltage limiting type surge arrester for three-phase 400 V systems with the following applications, features and benefits.
Typical locations: in Sub Distribution Boards (SDB) of low voltage systems.

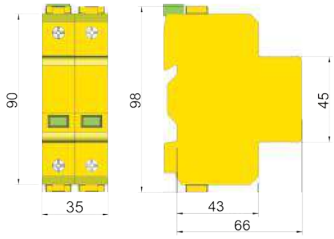
- **Impulse test classification: class II test** (according to IEC 61643-11 Ed. 1.0 2011-03);
- L 3/30 230 ff 4 is a voltage limiting SPD useful to protect low voltage applications against indirect lightning strikes;
- Nominal discharge current of 30 kA 8/20 µs;
- **Overcurrent protection is not required for Isccr ≤ 4,5 kA rms**;
- Short circuit current of 50 kA rms with max. back-up fuse;
- **Three coloured levels Status Indicator with progressive indication of performance;**
- The special case allows to match the Pollution Degree 3 (Conductive pollution or dry non conductive pollution that becomes conductive due to condensation occurs. To be found in industrial environment or construction sites (harsh environments).

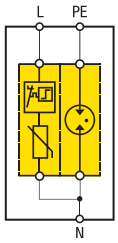
TECHNICAL DATA

Type L 3/30 ...			230 ff 4
CODE			**200 140**
Nominal ac Voltage		U_N	230/400 V ac
Number of poles			4
Max Continuous Operating Voltage		U_c	335 V ac / 420 V dc
Test Class (acc. to IEC 61643-11 Ed. 1.0 2011-03)			II
Type (acc. to CEI EN 61643-11 2012-10)			T2
Impulse discharge current (10/350)		I_{imp}	3 kA
Nominal discharge current (8/20 µs)		I_n	30 kA
Max. discarge current (8/20 µs)		I_{max}	40 kA
Voltage protection level with I:	1 kA	U_p	≤ 1,05 kV
	5 kA	U_p	≤ 1,15 kV
	20 kA	U_p	≤ 1,50 kV
	25 kA	U_p	≤ 1,55 kV
	30 kA	U_{res}	≤ 1,65 kV
Reaction time		t_a	≤ 25 ns
Short circuit current withstand			OCFM
Short Circuit Current withstand with max overcurrent protection fuse (L)		I_{sccr}	50 kA rms
Max- mains-side (L) overcurrent protection for Isccr			
	≤ 4,5 kA eff		Not required
	≤ 50 kA eff		125 A gG
Prevents follow up current circulation			NFC No Follow Current®
Status indicator			3 coloured levels with performance's indication
Operating temperature range			-40 … +80 °C
Terminal-Conductor size			4-25 mm² stranded
Clamp per Connecting bus bar			connector busbar16 mm²
Mounting			indoor, 35 mm top hat DIN rail
Case material / flammability grade			BMC / V-0 in accordance with UL 94
Pollution degree			3
Degree of protection		IP	20
Approximate weight			480 g
Dimensions width			70 mm (4 modules)
Certification			CTI

Type L 3/30...with remote signal contact			230 t ff 4
CODE			**210 140**
Remote signal contact			Volt free changeover contact
Switch conductor size			max. 1,5 mm² stranded
Switching capacity			ac: 250 V / 0,1 A – dc: 125 V / 0,2 A ; 75 V / 0,5 A

Surge Protection Device:
ZOTUP SPD for low voltage





L 3/30 230 ff 1+1

L 3/30 230 ff 1+1 is a two poles assembled and ready to install, voltage limiting type surge arrester for single-phase 230 V systems with the following applications, features and benefits.
Typical locations: for installation in 1+1 circuits of TT systems according to IEC 60364-5-534 and in Sub Distribution Boards (SDB) of low voltage systems.

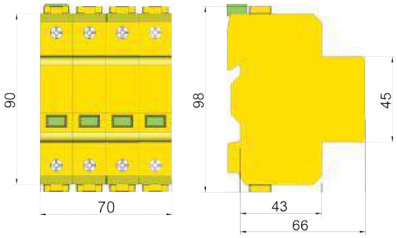
- **Impulse test classification: class II test** (according to IEC 61643-11 Ed. 1.0 2011-03);
- **Overcurrent protection is not required for Isccr ≤ 4,5 kA rms**;
- **Three coloured levels Status Indicator with progressive indication of performance.**

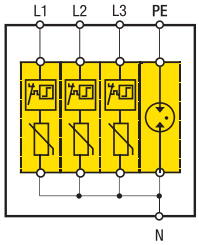
TECHNICAL DATA

Type L 3/30 ...			230 ff 1+1
CODE			**200 121**
Nominal ac Voltage		U_N	230/400 V ac
Number of poles			2
Max Continuous Operating Voltage (L-N)		U_C	335 V ac / 420 V dc
Max Continuous Operating Voltage (N-PE)		U_C	255 V ac
Test Class (acc. to IEC 61643-11 Ed. 1.0 2011-03)			II
Type (acc. to CEI EN 61643-11 2012-10)			T2
Impulse discharge current (10/350 µs) (L-N)		I_{imp}	3 kA
Impulse discharge current (10/350 µs) (N-PE)		I_{imp}	12,5 kA
Nominal discharge current (8/20 µs) (L-N)		I_n	30 kA
Nominal discharge current (8/20 µs) (N-PE)		I_n	40 kA
Max. discarge current (8/20 µs)		I_{max}	40 kA
Voltage protection level with I (L-N):	1 kA	U_p	≤ 1,05 kV
	5 kA	U_p	≤ 1,15 kV
	20 kA	U_p	≤ 1,50 kV
	25 kA	U_p	≤ 1,55 kV
	30 kA	U_p	≤ 1,65 kV
Voltage protection level with I (N-PE)		U_p	≤ 1,50 kV
Reaction time (L-N / N-PE)		t_a	≤ 25 ns / ≤ 100 ns
Short circuit current withstand			OCFM
Short Circuit Current withstand with max overcurrent protection fuse (L)		I_{sccr}	50 kA rms
Max- mains-side (L) overcurrent protection for Isccr	≤ 4,5 kA eff		Not required
	≤ 50 kA eff		125 A gG
Block follow up current circulation (L-N)			NFC No Follow Current®
Follow current extinguishing capability (N-PE)		I_{fi}	100 A rms
Status indicator			3 coloured levels with performance's indication
Operating temperature range			-40 … +80 °C
Terminal-Conductor size			4-25 mm² stranded
Clamp per Connecting bus bar			connector busbar16 mm²
Mounting			indoor, 35 mm top hat DIN rail
Case material / flammability grade			BMC / V-0 in accordance with UL 94
Pollution degree			3
Degree of protection		IP	20
Approximate weight			240 g
Dimensions width			35 mm (2 modules)
Certification			CTI

Type L 3/30...with remote signal contact			230 t ff 1+1
CODE			**210 121**
Remote signal contact			Volt free changeover contact
Switch conductor size			max. 1,5 mm² stranded
Switching capacity			ac: 250 V / 0,1 A – dc: 125 V / 0,2 A ; 75 V / 0,5 A

Surge Protection Device:
ZOTUP SPD for low voltage





L 3/30 230 ff 3+1

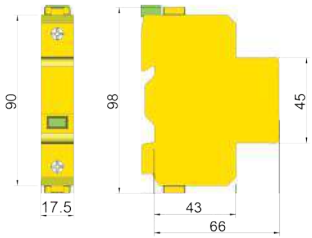
L 3/30 230 ff 3+1 is a four poles assembled and ready to install, voltage limiting type surge arrester for three-phase plus neutral 400 V systems with the following applications, features and benefits.
Typical locations: for installation in 3+1 circuits of TT systems according to IEC 60364-5-534 and in Sub Distribution Boards (SDB) of low voltage systems.

- **Impulse test classification: class II test** (according to IEC 61643-11 Ed. 1.0 2011-03);
- **Overcurrent protection is not required for Isccr ≤ 4,5 kA rms**;
- **Three coloured levels Status Indicator with progressive indication of performance.**

Type L3/30...			230 ff 3+1
CODE			**200 141**
Nominal ac Voltage		U_N	230/400 V ac
Number of poles			3+1
Max Continuous Operating Voltage (L-N)		U_C	335 V ac / 420 V dc
Max Continuous Operating Voltage (N-PE)		U_C	255 V ac
Test Class (acc. to IEC 61643-11 Ed. 1.0 2011-03)			II
Type (acc. to CEI EN 61643-11 2012-10)			T2
Impulse discharge current (10/350 µs) (L-N)		I_{imp}	3 kA
Impulse discharge current (10/350 µs) (N-PE)		I_{imp}	12,5 kA
Nominal discharge current (8/20 µs) (L-N)		I_n	30 kA
Nominal discharge current (8/20 µs) (N-PE)		I_n	40 kA
Max. discarge current (8/20 µs)		I_{max}	40 kA
Voltage protection level with I (L-N):	1 kA	U_p	≤ 1,05 kV
	5 kA	U_p	≤ 1,15 kV
	20 kA	U_p	≤ 1,50 kV
	25 kA	U_p	≤ 1,55 kV
	30 kA	U_{res}	≤ 1,65 kV
Voltage protection level with I (N-PE)		U_p	≤ 1,50 kV
Reaction time (L-N / N-PE)		t_a	≤ 25 ns / ≤ 100 ns
Short circuit current withstand			OCFM
Short Circuit Current withstand with max overcurrent protection fuse (L)		I_{sccr}	50 kA rms
Max- mains-side (L) overcurrent protection for Isccr	≤ 4,5 kA eff		Not required
	≤ 50 kA eff		125 A gG
Block follow up current circulation (L-N)			NFC No Follow Current®
Follow current extinguishing capability (N-PE)		I_{fi}	100 A rms
Status indicator			3 coloured levels with performance's indication
Operating temperature range			-40 … +80 °C
Terminal-Conductor size			4-25 mm² stranded
Clamp per Connecting bus bar			connector busbar16 mm²
Mounting			indoor, 35 mm top hat DIN rail
Case material / flammability grade			BMC / V-0 in accordance with UL 94
Pollution degree			3
Degree of protection		IP	20
Approximate weight			480 g
Dimensions width			70 mm (4 modules)
Certification			CTI

Type L 3/30...with remote signal contact		230 t ff 3+1
CODE		**210 141**
Remote signal contact		Volt free changeover contact
Switch conductor size		max. 1,5 mm² stranded
Switching capacity		ac: 250 V / 0,1 A – dc: 125 V / 0,2 A ; 75 V / 0,5 A

Surge Protection Device:
ZOTUP SPD for low voltage



L 2/10 230 ff

L 2/10 230 ff is an overvoltage surge arrester with the following applications, features and benefits.
Typical locations: in Sub Distribution Boards (SDB) of low voltage systems.

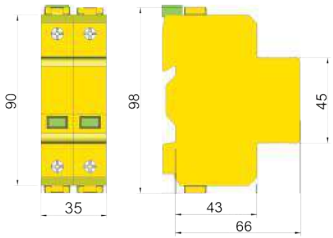
- **Impulse test classification: class II test** (according to IEC 61643-11 Ed. 1.0 2011-03);
- L 2/10 230 ff is a voltage limiting SPD useful to protect low voltage applications against indirect lightning strikes;
- Nominal discharge current of 10 kA 8/20 µs;
- **Overcurrent protection is not required for Isccr ≤ 4,5 kA rms**;
- Short circuit current up to 50 kA rms with max. back-up fuse;
- It is a **NFC No Follow Current® SPD** because it prevents the circulation of grid follow up currents after operation;
- **Three coloured levels Status Indicator with progressive indication of performance;**
- The special case allows to match the Pollution Degree 3 (Conductive pollution or dry non conductive pollution that becomes conductive due to condensation occurs. To be found in industrial environment or construction sites (harsh environments).

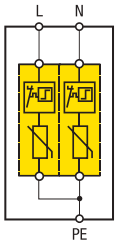
TECHNICAL DATA

Type L 2/10...			230 ff
CODE			**202 100**
Nominal ac Voltage		U_N	230/400 V ac
Number of poles			1
Max Continuous Operating Voltage		U_C	335 V ac / 420 V dc
Test Class (acc. to IEC 61643-11 Ed. 1.0 2011-03)			II
Type (acc. to CEI EN 61643-11 2012-10)			T2
Impulse discharge current (10/350)		I_{imp}	2 kA
Nominal discharge current (8/20 µs)		I_n	10 kA
Max. discarge current (8/20 µs)		I_{max}	20 kA
Voltage protection level with I:	1 kA 5 kA 10 kA	U_p U_p U_p	≤ 1,10 kV ≤ 1,20 kV ≤ 1,30 kV
Reaction time		t_a	≤ 25 ns
Short circuit current withstand			OCFM
Short Circuit Current withstand with max overcurrent protection fuse (L)		I_{sccr}	50 kA rms
Max- mains-side (L) overcurrent protection for Isccr	≤ 4,5 kA eff ≤ 50 kA eff		Not required 63 A gG
Block follow up current circulation			NFC No Follow Current®
Status indicator			3 coloured levels with performance's indication
Operating temperature range			-40 … +80 °C
Terminal-Conductor size			4-25 mm² stranded
Clamp per Connecting bus bar			connector busbar16 mm²
Mounting			indoor, 35 mm top hat DIN rail
Case material / flammability grade			BMC / V-0 in accordance with UL 94
Pollution degree			3
Degree of protection		IP	20
Approximate weight			110 g
Dimensions width			17,5 mm (1 module)
Certification			CTI

Type L 2/10...with remote signal contact			230 t ff
CODE			**212 100**
Remote signal contact			Volt free changeover contact
Switch conductor size			max. 1,5 mm² stranded
Switching capacity			ac: 250 V / 0,1 A – dc: 125 V / 0,2 A; 75 V / 0,5 A

Surge Protection Device:
ZOTUP SPD for low voltage





L 2/10 230 ff 2

L 2/10 230 ff 2 is a two poles assembled and ready to install, voltage limiting type surge arrester for single-phase 230 V systems with the following applications, features and benefits.
Typical locations: in Sub Distribution Boards (SDB) of low voltage systems.

- **Impulse test classification: class II test** (according to IEC 61643-11 Ed. 1.0 2011-03);
- L 2/10 230 ff 2 is a voltage limiting SPD useful to protect low voltage applications against indirect lightning strikes;
- **Overcurrent protection is not required for Isccr ≤ 4,5 kA rms**;
- Short circuit current of 50 kA rms with max. back-up fuse;
- It is a **NFC No Follow Current® SPD** because it prevents the circulation of grid follow up currents after operation;
- **Three coloured levels Status Indicator with progressive indication of performance;**
- The special case allows to match the Pollution Degree 3 (Conductive pollution or dry non conductive pollution that becomes conductive due to condensation occurs. To be found in industrial environment or construction sites (harsh environments).

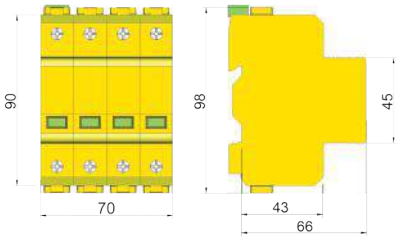
TECHNICAL DATA

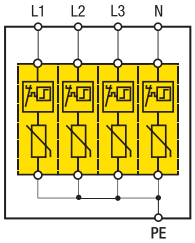
Type L 2/10...			230 ff 2
CODE			**202 120**
Nominal ac Voltage		U_N	230/400 V ac
Number of poles			2
Max Continuous Operating Voltage		U_C	335 V ac / 420 V dc
Test Class (acc. to IEC 61643-11 Ed. 1.0 2011-03)			II
Type (acc. to CEI EN 61643-11 2012-10)			T2
Impulse discharge current (10/350)		I_{imp}	2 kA
Nominal discharge current (8/20 µs)		I_n	10 kA
Max. discarge current (8/20 µs)		I_{max}	20 kA
Voltage protection level with I:	1 kA 5 kA 10 kA	U_p U_p U_p	≤ 1,25 kV ≤ 1,35 kV ≤ 1,45 kV
Reaction time		t_a	≤ 25 ns
Short circuit current withstand			OCFM
Short Circuit Current withstand with max overcurrent protection fuse (L)		I_{sccr}	50 kA rms
Max- mains-side (L) overcurrent protection for Isccr	≤ 4,5 kA eff ≤ 50 kA eff		Not required 63 A gG
Block follow up current circulation			NFC No Follow Current®
Status indicator			3 coloured levels with performance's indication
Operating temperature range			-40 … +80 °C
Terminal-Conductor size			4-25 mm² stranded
Clamp per Connecting bus bar			connector busbar16 mm²
Mounting			indoor, 35 mm top hat DIN rail
Case material / flammability grade			BMC / V-0 in accordance with UL 94
Pollution degree			3
Degree of protection		IP	20
Approximate weight			220 g
Dimensions width			35 mm (2 modules)
Certification			CTI

Type L 2/10...with remote signal contact			230 t ff 2
CODE			**212 120**
Remote signal contact			Volt free changeover contact
Switch conductor size			max. 1,5 mm² stranded
Switching capacity			ac: 250 V / 0,1 A – dc: 125 V / 0,2 A ; 75 V / 0,5 A

Surge Protection Device:
ZOTUP SPD for low voltage

L 2/10 230 ff 4





L 2/10 230 ff 4 is a four poles assembled and ready to install, voltage limiting type surge arrester for three-phase plus neutral 400 V systems with the following applications, features and benefits.
Typical locations: in Sub Distribution Boards (SDB) of low voltage systems.

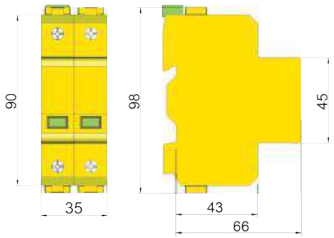
- **Impulse test classification: class II test** (according to IEC 61643-11 Ed. 1.0 2011-03);
- L 2/10 230 ff 4 is a voltage limiting SPD useful to protect low voltage applications against indirect lightning strikes;
- **Overcurrent protection is not required for Isccr ≤ 4,5 kA rms**;
- Short circuit current of 50 kA rms with max. back-up fuse;
- It is a **NFC No Follow Current® SPD** because it prevents the circulation of grid follow up currents after operation;
- **Three coloured levels Status Indicator with progressive indication of performance;**
- The special case allows to match the Pollution Degree 3 (Conductive pollution or dry non conductive pollution that becomes conductive due to condensation occurs. To be found in industrial environment or construction sites (harsh environments).

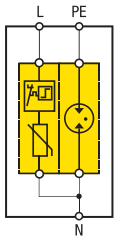
TECHNICAL DATA

Type L 2/10...			230 ff 4
CODE			**202 140**
Nominal ac Voltage		U_N	230/400 V ac
Number of poles			4
Max Continuous Operating Voltage		U_C	335 V ac / 420 V dc
Test Class (acc. to IEC 61643-11 Ed. 1.0 2011-03)			II
Type (acc. to CEI EN 61643-11 2012-10)			T2
Impulse discharge current (10/350)		I_{imp}	2 kA
Nominal discharge current (8/20 µs)		I_n	10 kA
Max. discarge current (8/20 µs)		I_{max}	20 kA
Voltage protection level with I:	1 kA 5 kA 10 kA	U_p U_p U_p	≤ 1,25 kV ≤ 1,35 kV ≤ 1,45 kV
Reaction time		t_a	≤ 25 ns
Short circuit current withstand			OCFM
Short Circuit Current withstand with max overcurrent protection fuse (L)		I_{sccr}	50 kA rms
Max- mains-side (L) overcurrent protection for Isccr	≤ 4,5 kA eff ≤ 50 kA eff		Not required 63 A gG
Block follow up current circulation			NFC No Follow Current®
Status indicator			3 coloured levels with performance's indication
Operating temperature range			-40 … +80 °C
Terminal-Conductor size			4-25 mm² stranded
Clamp per Connecting bus bar			connector busbar16 mm²
Mounting			indoor, 35 mm top hat DIN rail
Case material / flammability grade			BMC / V-0 in accordance with UL 94
Pollution degree			3
Degree of protection		IP	20
Approximate weight			440 g
Dimensions width			70 mm (4 modules)
Certification			CTI

Type L 2/10...with remote signal contact			230 t ff 4
CODE			**212 140**
Remote signal contact			Volt free changeover contact
Switch conductor size			max. 1,5 mm² stranded
Switching capacity			ac: 250 V / 0,1 A – dc: 125 V / 0,2 A ; 75 V / 0,5 A

Surge Protection Device:
ZOTUP SPD for low voltage





L 2/10 230 ff 1+1

L 2/10 230 ff 1+1 is a two poles assembled and ready to install, voltage limiting type surge arrester for single-phase 230 V systems with the following applications, features and benefits.
Typical locations: for installation in 1+1 circuits of TT systems according to IEC 60364-5-534 and in Sub Distribution Boards (SDB) of low voltage systems.

- **Impulse test classification: class II test** (according to IEC 61643-11 Ed. 1.0 2011-03);
- **Overcurrent protection is not required for Isccr ≤ 4,5 kA rms**;
- It is a **NFC No Follow Current® SPD** because it prevents the circulation of grid follow up currents after operation;
- **Three coloured levels Status Indicator with progressive indication of performance;**
- The special case allows to match the Pollution Degree 3 (Conductive pollution or dry non conductive pollution that becomes conductive due to condensation occurs. To be found in industrial environment or construction sites (harsh environments).

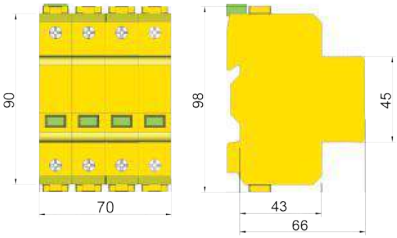
Type L 2/10 ...			230 ff 1+1
CODE			**202 121**
Nominal ac Voltage		U_N	230/400 V ac
Number of poles			1+1
Max Continuous Operating Voltage (L-N) Max Continuous Operating Voltage (N-PE)		U_C U_C	335 V ac / 420 V dc 255 V ac
Test Class (acc. to IEC 61643-11 Ed. 1.0 2011-03)			II
Type (acc. to CEI EN 61643-11 2012-10)			T2
Impulse discharge current (10/350)		I_{imp}	2 kA
Nominal discharge current (8/20 µs)		I_n	10 kA
Max. discarge current (8/20 µs)		I_{max}	20 kA
Voltage protection level with I (L-N):	1 kA 5 kA 10 kA	U_p U_p U_p	≤ 1,25 kV ≤ 1,35 kV ≤ 1,45 kV
Voltage protection level with I (N-PE)		U_p	≤ 1,50 kV
Reaction time (L-N /N-PE)		t_a	≤ 25 ns / ≤ 100 ns
Short circuit current withstand			OCFM
Short Circuit Current withstand with max overcurrent protection fuse (L)		I_{sccr}	50 kA rms
Max- mains-side (L) overcurrent protection for Isccr	≤ 4,5 kA eff ≤ 50 kA eff		Not required 63 A gG
Block follow up current circulation (L-N) Follow current extinguishing capability (N-PE)		 I_{fi}	NFC No Follow Current® 100 A rms
Status indicator			3 coloured levels with performance's indication
Operating temperature range			-40 … +80 °C
Terminal-Conductor size			4-25 mm² stranded
Clamp per Connecting bus bar			connector busbar16 mm²
Mounting			indoor, 35 mm top hat DIN rail
Case material / flammability grade			BMC / V-0 in accordance with UL 94
Pollution degree			3
Degree of protection		IP	20
Approximate weight			220 g
Dimensions width			35 mm (2 modules)
Certification			CTI

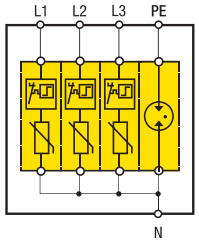
Type L 2/10...with remote signal contact			230 t ff 1+1
CODE			**212 121**
Remote signal contact			Volt free changeover contact
Switch conductor size			max. 1,5 mm² stranded
Switching capacity			ac: 250 V / 0,1 A – dc: 125 V / 0,2 A ; 75 V / 0,5 A

TECHNICAL DATA

Surge Protection Device:
ZOTUP SPD for low voltage

L 2/10 230 ff 3+1





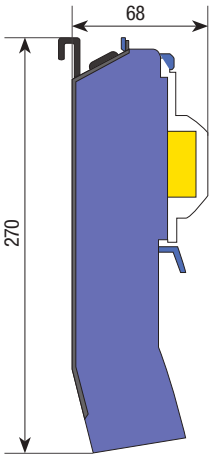
L 2/10 230 ff 3+1 is a four poles assembled and ready to install, voltage limiting type surge arrester for three-phase 400 V systems with the following applications, features and benefits.
Typical locations: for installation in 3+1 circuits of TT systems according to IEC 60364-5-534 and in Sub Distribution Boards (SDB) of low voltage systems.

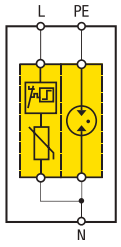
- **Impulse test classification: class II test** (according to IEC 61643-11 Ed. 1.0 2011-03);
- **Overcurrent protection is not required for Isccr ≤ 4,5 kA rms**;
- It is a **NFC No Follow Current® SPD** because it prevents the circulation of grid follow up currents after operation;
- **Three coloured levels Status Indicator with progressive indication of performance;**
- The special case allows to match the Pollution Degree 3 (Conductive pollution or dry non conductive pollution that becomes conductive due to condensation occurs. To be found in industrial environment or construction sites (harsh environments).

Type L 2/10...			230 ff 3+1
CODE			**202 141**
Nominal ac Voltage		U_N	230/400 V ac
Number of poles			3+1
Max Continuous Operating Voltage (L-N)		U_C	335 V ac / 420 V dc
Max Continuous Operating Voltage (N-PE)		U_C	255 V ac
Test Class (acc. to IEC 61643-11 Ed. 1.0 2011-03)			II
Type (acc. to CEI EN 61643-11 2012-10)			T2
Impulse discharge current (10/350)		I_{imp}	2 kA
Nominal discharge current (8/20 µs)		I_n	10 kA
Max. discarge current (8/20 µs)		I_{max}	20 kA
Voltage protection level with I (L-N):	1 kA	U_p	≤ 1,25 kV
	5 kA	U_p	≤ 1,35 kV
	10 kA	U_p	≤ 1,45 kV
Voltage protection level with I (N-PE)		U_p	≤ 1,50 kV
Reaction time (L-N /N-PE)		t_a	≤ 25 ns / ≤ 100 ns
Short circuit current withstand			OCFM
Short Circuit Current withstand with max overcurrent protection fuse (L)		I_{sccr}	50 kA rms
Max- mains-side (L) overcurrent protection for Isccr	≤ 4,5 kA eff		Not required
	≤ 50 kA eff		63 A gG
Block follow up current circulation (L-N)			NFC No Follow Current®
Follow current extinguishing capability (N-PE)		I_{fi}	100 A rms
Status indicator			3 coloured levels with performance's indication
Operating temperature range			-40 … +80 °C
Terminal-Conductor size			4-25 mm² stranded
Clamp per Connecting bus bar			connector busbar16 mm²
Mounting			indoor, 35 mm top hat DIN rail
Case material / flammability grade			BMC / V-0 in accordance with UL 94
Pollution degree			3
Degree of protection		IP	20
Approximate weight			440 g
Dimensions width			70 mm (4 modules)
Certification			CTI

Type L 2/10...with remote signal contact		230 t ff 3+1
CODE		**212 141**
Remote signal contact		Volt free changeover contact
Switch conductor size		max. 1,5 mm² stranded
Switching capacity		ac: 250 V / 0,1 A – dc: 125 V / 0,2 A ; 75 V / 0,5 A

Surge Protection Device:
ZOTUP SPD for public LED luminaire





LLP 7/30 230 ff 1+1

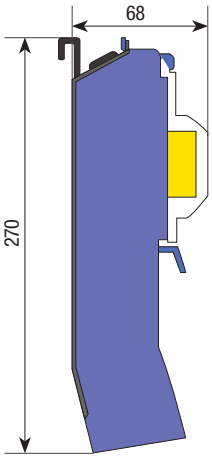
LLP (Led Lighting Protection) protection systems are surge protection devices SPD with the following applications, features and benefits.
Typical locations: for pubblic illumination Led systems protection. It's used in extra-urban areas to protect against indirect lightning strikes.

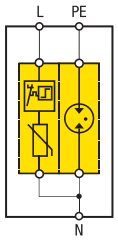
- **Impulse test classification: class I and II test** (according to IEC 61643-11 Ed. 1.0 2011-03);
- **Easy wiring inside of the slots at the poles base with size 186x45 mm (minimum diameter of the pole 101 mm);**
- The SPD is housed inside a terminal with protection degree of IP 54. The terminal is equipped with a transparent viewing window that allows viewing the status indicator 3 coloured levels with performance's indication;
- The special case allows to match the Pollution Degree 3.

TECHNICAL DATA

Type LLP 7/30...		230 ff 1+1
CODE		**242 191**
Nominal ac Voltage	U_N	230/400 V ac
Number of poles		1+1
Max Continuous Operating Voltage	U_c	335 V ac / 420 V dc
Test Class (acc. to IEC 61643-11 Ed. 1.0 2011-03)		I e II
Type (acc. to CEI EN 61643-11 2012-10)		T1 e T2
Impulse discharge current (10/350 µs) (L-N) Impulse discharge current (10/350 µs) (N-PE)	I_{imp} I_{imp}	7 kA 50 kA
Nominal discharge current (8/20 µs) (L-N) Nominal discharge current (8/20 µs) (N-PE)	I_n I_n	25 kA 50 kA
Max. discarge current (8/20 µs)	I_{max}	20 kA
Voltage protection level with I: 1 kA 5 kA 15 kA 25 kA 30 kA	 U_p U_p U_p U_p U_{res}	 ≤ 1,00 kV ≤ 1,15 kV ≤ 1,45 kV ≤ 1,65 kV ≤ 1,85 kV
Voltage protection level (L-N) (N-PE)	t_a	≤ 25 ns / ≤ 100 ns
Short circuit current withstand		OCFM
Short Circuit Current withstand with max overcurrent protection fuse (L)	I_{sccr}	100 kA rms
Max- mains-side (L) overcurrent protection for Isccr ≤ 4,5 kA eff ≤ 100 kA eff		 Not required 125 A gG
Block follow up current circulation		NFC No Follow Current®
Status indicator		3 coloured levels with performance's indication
Operating temperature range		-40 … +80 °C
Terminal-Conductor size		4-25 mm² stranded
Clamp per Connecting bus bar		connector busbar16 mm²
Mounting		indoor, 35 mm top hat DIN rail
Case material / flammability grade		BMC / V-0 in accordance with UL 94
Pollution degree		3
Degree of protection	IP	54
Approximate weight		300 g
Dimensions width		68x270x44 mm
Certification		CTI

Surge Protection Device:
ZOTUP SPD for public LED luminaire





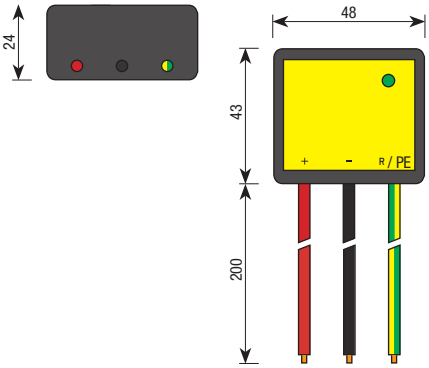
LLP 2/10 230 ff 1+1

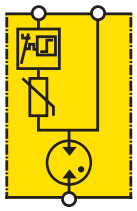
LLP (Led Lighting Protection) protection systems are surge protection devices SPD with the following applications, features and benefits.
Typical locations: for pubblic illumination Led systems protection. It's used in extra-urban areas to protect against indirect lightning strikes.

- **Impulse test classification: class II test** (according to IEC 61643-11 Ed. 1.0 2011-03);
- **Easy wiring inside of the slots at the poles base with size 186x45 mm (minimum diameter of the pole 101 mm);**
- The SPD is housed inside a terminal with protection degree of IP 54. The terminal is equipped with a transparent viewing window that allows viewing the status indicator 3 coloured levels with performance's indication;
- The special case allows to match the Pollution Degree 3.

Type LLP 2/10...		230 ff 1+1
CODE		**242 190**
Nominal ac Voltage	U_N	230/400 V ac
Number of poles		1+1
Max Continuous Operating Voltage (L-N) Max Continuous Operating Voltage (N-PE)	U_C U_C	335 V ac / 420 V dc 255 V ac
Test Class (acc. to IEC 61643-11 Ed. 1.0 2011-03)		II
Type (acc. to CEI EN 61643-11 2012-10)		T2
Impulse discharge current (10/350)	I_{imp}	2 kA
Nominal discharge current (8/20 µs)	I_n	10 kA
Max. discarge current (8/20 µs)	I_{max}	20 kA
Voltage protection level with I (L-N): 1 kA 5 kA 10 kA	U_p U_p U_p	≤ 1,25 kV ≤ 1,35 kV ≤ 1,45 kV
Voltage protection level with I (N-PE)	U_p	≤ 1,50 kV
Reaction time (L-N /N-PE)	t_a	≤ 25 ns / ≤ 100 ns
Short circuit current withstand		OCFM
Short Circuit Current withstand with max overcurrent protection fuse (L)	I_{sccr}	50 kA rms
Max- mains-side (L) overcurrent protection for Isccr ≤ 4,5 kA eff ≤ 50 kA eff		Not required 63 A gG
Block follow up current circulation (L-N) Follow current extinguishing capability (N-PE)	 I_{fi}	NFC No Follow Current® 100 A rms
Status indicator		3 coloured levels with performance's indication
Operating temperature range		-40 … +80 °C
Terminal-Conductor size		4-25 mm² stranded
Clamp per Connecting bus bar		connector busbar16 mm²
Mounting		indoor, 35 mm top hat DIN rail
Case material / flammability grade		BMC / V-0 in accordance with UL 94
Pollution degree		3
Degree of protection	IP	54
Approximate weight		260 g
Dimensions width		68x270x44 mm
Certification		CTI

Surge Protection Device:
ZOTUP SPD for public LED luminaire





IL 1/10 2P LED

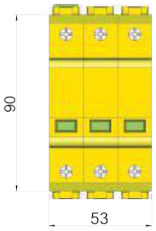
IL 1/10 2P LED is a multi-poles surge protection devices SPD with the following applications, features and benefits.
Typical locations: LED driver output current and lighting towers also close to the LED panel.

- Allows the use of LED lighting systems in outdoor applications with a high level of exposure to surges;
- It reduces maintenance costs and extends the lifetime of the lighting system;
- Applicable to lighting systems in isolation class I and II;
- The connection wires allow quick installation in both new and existing installations;
- Optical local operating status;
- It is suitable for installation in interfaces 0_B - 1 and higher, according to the principle of the protection areas;
- it is a surge protector Class II test (acc. To IEC 61643-1 + A1) and Type 2 (sec. EN 61643-11 / A11).

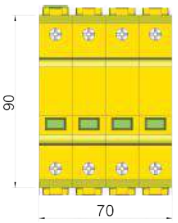
TECHNICAL DATA

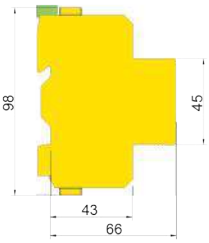
Type IL 1/10 2P LED ...		230	320	440
CODE		**242 101**	**242 102**	**242 103**
Max. voltage in c.c.	U_c	300 V	385 V	565 V
Test Class (acc. to IEC 61643-1 + A1 (2001)		II		
Type (acc. to CEI EN 61643-11/A11)		T2		
Total impulse discharge current 8/20 µs	I_{Total}	20 kA		
Impulse nominal discharge current 8/20 µs (+/-) PE	I_n	10 kA		
Max. impulse discharge current 8/20 µs (+/-) PE	I_{max}	25 kA		
Protection level (+/-) con In 10 kA	U_p	≤ 1500 V	≤ 1700 V	≤ 2100 V
Protection level (+/-) PE con In 10 kA	U_p	≤ 1500 V	≤ 1700 V	≤ 2100 V
Reaction time (+/-)	t_a	≤ 25 ns		
Reaction time (+/-) PE	t_a	≤ 100 ns		
Doord number		1		
Calvic isolation PE (isolation class II)		yes		
Status indicator		green LED		
Surge protection device if it doesn't be installed		16 A gG / C 16 A		
Operating temperature range		- 40 ... + 60 °C		
Connection wires		1,5 mm² ; l = 200 mm		
Casing		thermoplastic		
Degree of protection	IP	20		
Approximate weight		60 g		
Dimensions width		b48 x h43 x p24		

Surge Protection Device:
ZOTUP SPD for photovoltaic systems

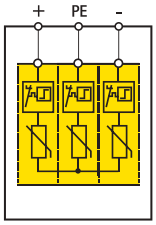


Cod. 216 106





Cod. 216 110
Cod. 216 112



L 13/60 PV Y ff

L 13/60 PV Y... ff is a voltage limiting type surge arrester for photovoltaic systems with the following applications, features and benefits.
Typical locations: on the DC side close to the PV inverter, the PV generator and in the junction box.

- **Impulse test classification: class T1+T2 test** (according to CEI EN 50539-11; 2013-03);
- **High value of Self Extinguishing Current with very low impidence short circuit (Sample for testing prepared in accordance with IEC 61643-11 Ed. 1.0 2011-03): this test represents the most severe fault condition;**
- **Short circuit current withstand Iscpv: 1000 A (tested in accordance with CEI EN 50539-11)**;
- **L 10/60 PV Y ... ff is a voltage limiting SPD useful to protect PV system against direct and indirect lightning strikes;**
- **Three coloured levels Status Indicator with progressive indication of performance;**
- The special case material allows to match the Pollution Degree 2 (Normally only nonconductive pollution occurs. Temporary conductivity caused by condensation is to be expected);
- **No further insulation distance between live conductors and ground is required for Ucpv 600 V and 1000 V;**
- **Surge Arresters with different discharge current and Max. Continous Operating Voltage on request.**

TECHNICAL DATA

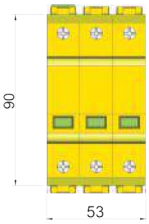
Type L 13/60 PV Y ...			600 ff	1000 ff	1200 ff
CODE			**216 106**	**216 110**	**216 112**
Maximum Continous Operating Voltage DC+/DC-/PE		U_{CPV}	600 V	1000 V	1200 V
Protection mode			3		
Test Class (acc. to CEI EN 50539-11 2013-03)			T1+T2		
Impulse discharge current (10/350 µs) DC+ ↔ DC-; DC+/DC- ⟶ PE		I_{imp}	7 kA	7 kA	5 kA
Nominal discharge current (8/20 µs) DC+ ↔ DC-; DC+/DC-⟶ PE (8/20 µs)		I_n	20,0 kA	15 kA	12,5 kA
Total impulse discharge current (10/350 µs) DC+/DC- ⟶ PE		$I_{imp\ TOTAL}$	11 kA	11 kA	10 kA
Total discharge current (8/20 µs) DC+/DC- ⟶ PE (8/20 µs)		$I_{n\ TOTAL}$	40,0 kA	30,0 kA	25,0 kA
Max. discharge current (8/20 µs)		I_{max}	40,0 kA	25,0 kA	25,0 kA
Voltage protection level DC+ ↔ DC-; DC+/DC-⟶ PE	5 kA	U_p	≤ 2,20 kV ; ≤ 2,00 kV	≤ 3,00 kV ; ≤ 2,80 kV	≤ 4,50 kV ; ≤ 4,30 kV
	10 kA	U_p	≤ 2,30 kV ; ≤ 2,10 kV	≤ 3,30 kV ; ≤ 3,10 kV	≤ 4,80 kV ; ≤ 4,60 kV
	12,5 kA	U_p	≤ 2,40 kV ; ≤ 2,20 kV	≤ 3,50 kV ; ≤ 3,30 kV	≤ 5,20 kV ; ≤ 5,00 kV
	15 kA	U_p	≤ 2,50 kV ; ≤ 2,30 kV	≤ 3,80 kV ; ≤ 3,50 kV	-
	20 kA	U_p	≤ 2,70 kV ; ≤ 2,50 kV	-	-
Reaction time		t_a	≤ 25 ns		
Short circuit current withstand			OCFM		
Short-circuit current rating (acc. to CEI EN 50539-11; 2013-03)		I_{SCPV}	1000 A		
Short-circuit current rating (sample testing acc. to CEI EN 61643-11)		I_{fi}	250 A	100 A	50 A
Prevents follow up current circulation			NFC No Follow Current®		
Status indicator			3 coloured levels with performance's indication		
Operating temperature range			-40 … +80 °C		
Terminal-Conductor size			4-25 mm² stranded		
Mounting			indoor, 35 mm top hat DIN rail		
Case material / flammability grade			BMC / V-0 according to UL 94		
Pollution degree			2		
Degree of protection		IP	20		
Approximate weight			450 g	640 g	690 g
Dimensions width			53 mm (3 modules)	70 mm (4 modules)	
Certification			CTI		

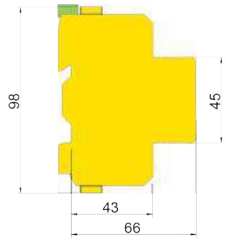
Type L 13/60 PV Y... with remote signal contact		600 t ff	1000 t ff	1200 t ff
CODE		**216 116**	**216 126**	**216 136**
Remote signal contact		Volt free changeover contact		
Switch conductor size		max. 1,5 mm² stranded		
Switching capacity		ac: 250 V / 0,1 A – dc: 125 V / 0,2 A ; 75 V / 0,5 A		

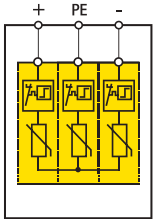
Note: insulation distance between live conductors and ground of 10 mm is required for U_{cpv}=1200

Surge Protection Device:
ZOTUP SPD for photovoltaic systems

L 10/60 PV Y ff







L 10/60 PV Y... ff is a voltage limiting type surge arrester for photovoltaic systems with the following applications, features and benefits.
Typical locations: on the DC side close to the PV inverter, the PV generator and in the junction box.

- **Impulse test classification: class T1+T2 test** (according to CEI EN 50539-11; 2013-03);
- **High value of Self Extinguishing Current with very low impidence short circuit (Sample for testing prepared in accordance with IEC 61643-11 Ed. 1.0 2011-03): this test represents the most severe fault condition;**
- **Short circuit current withstand Iscpv: 1000 A (tested in accordance with CEI EN 50539-11)**;
- **L 10/60 PV Y ... ff is a voltage limiting SPD useful to protect PV system against direct and indirect lightning strikes;**
- **Three coloured levels Status Indicator with progressive indication of performance;**
- The special case material allows to match the Pollution Degree 2 (Normally only nonconductive pollution occurs. Temporary conductivity caused by condensation is to be expected);
- **No further insulation distance between live conductors and ground is required for Ucpv 600 V and 1000 V;**
- **Surge Arresters with different discharge current and Max. Continous Operating Voltage on request.**

TECHNICAL DATA

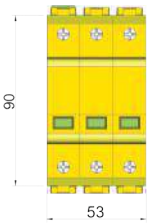
Type L 10/60 PV Y ...			600 ff	1000 ff	1200 ff
CODE			**214 106**	**214 110**	**214 112**
Maximum Continous Operating Voltage DC+/DC-/PE		U_{CPV}	600 V	1000 V	1200 V
Protection mode			3		
Test Class (acc. to CEI EN 50539-11 2013-03)			T1+T2		
Impulse discharge current (10/350 µs) DC+ ↔ DC-; DC+/DC- ⟶ PE		I_{imp}	7 kA	7 kA	5 kA
Nominal discharge current (8/20 µs) DC+ ↔ DC-; DC+/DC-⟶ PE (8/20 µs)		I_n	20,0 kA	12,5 kA	12,5 kA
Total impulse discharge current (10/350 µs) DC+/DC- ⟶ PE		$I_{imp\ TOTAL}$	7 kA	7 kA	5 kA
Total discharge current (8/20 µs) DC+/DC- ⟶ PE (8/20 µs)		$I_{n\ TOTAL}$	40,0 kA	25,0 kA	25,0 kA
Max. discharge current (8/20 µs)		I_{max}	40,0 kA	25,0 kA	25,0 kA
Voltage protection level DC+ ↔ DC-; DC+/DC-⟶ PE	5 kA	U_p	≤ 2,20 kV	≤ 3,00 kV	≤ 4,50 kV
	10 kA	U_p	≤ 2,30 kV	≤ 3,30 kV	≤ 4,80 kV
	12,5 kA	U_p	≤ 2,40 kV	≤ 3,50 kV	≤ 5,20 kV
	15 kA	U_p	≤ 2,50 kV	-	-
	20 kA	U_p	≤ 2,70 kV	-	-
Reaction time		t_a	≤ 25 ns		
Short circuit current withstand			OCFM		
Short-circuit current rating (acc. to CEI EN 50539-11; 2013-03)		I_{SCPV}	1000 A		
Short-circuit current rating (sample testing acc. to CEI EN 61643-11)		I_{fi}	250 A	100 A	50 A
Prevents follow up current circulation			NFC No Follow Current®		
Status indicator			3 coloured levels with performance's indication		
Operating temperature range			-40 … +80 °C		
Terminal-Conductor size			4-25 mm² stranded		
Mounting			indoor, 35 mm top hat DIN rail		
Case material / flammability grade			BMC / V-0 according to UL 94		
Pollution degree			2		
Degree of protection		IP	20		
Approximate weight			420 g	480 g	520 g
Dimensions width			53 mm (3 modules)		
Certification			CTI		

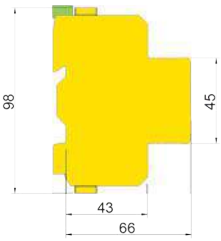
Type L 10/60 PV Y... with remote signal contact		600 t ff	1000 t ff	1200 t ff
CODE		**214 116**	**214 126**	**214 136**
Remote signal contact		Volt free changeover contact		
Switch conductor size		max. 1,5 mm² stranded		
Switching capacity		ac: 250 V / 0,1 A – dc: 125 V / 0,2 A ; 75 V / 0,5 A		

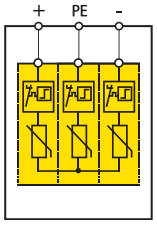
Note: insulation distance between live conductors and ground of 10 mm is required for U_{cpv}=1200 V.

Surge Protection Device:
ZOTUP SPD for photovoltaic systems

L 3/40 PV Y ff







L 3/40 PV Y... ff is a voltage limiting type surge arrester for photovoltaic systems with the following applications, features and benefits.
Typical locations: on the DC side close to the PV inverter, the PV generator and in the junction box.

- **Impulse test classification: class T2 test** (according to CEI EN 50539-11; 2013-03);
- **High value of Self Extinguishing Current with very low impidence short circuit (Sample for testing prepared in accordance with IEC 61643-11 Ed. 1.0 2011-03): this test represents the most severe fault condition;**
- **Short circuit current withstand Iscpv: 1000 A (tested in accordance with CEI EN 50539-11)**;
- **L 3/40 PV Y ... ff is a voltage limiting SPD useful to protect PV system against direct and indirect lightning strikes;**
- **Three coloured levels Status Indicator with progressive indication of performance;**
- The special case material allows to match the Pollution Degree 2 (Normally only nonconductive pollution occurs. Temporary conductivity caused by condensation is to be expected);
- **No further insulation distance between live conductors and ground is required for Ucpv 600 V and 1000 V;**
- **Surge Arresters with different discharge current and Max. Continous Operating Voltage on request.**

TECHNICAL DATA

Type L 3/40 PV Y ...			600 ff	1000 ff	1200 ff
CODE			**210 106**	**210 110**	**210 112**
Maximum Continous Operating Voltage DC+/DC-/PE		U_{CPV}	600 V	1000 V	1200 V
Protection mode			3		
Test Class (acc. to CEI EN 50539-11 2013-03)			T2		
Nominal discharge current (8/20 µs) DC+ ↔ DC-; DC+/DC-⟶ PE (8/20 µs)		I_n	20,0 kA	12,5 kA	12,5 kA
Total discharge current (8/20 µs) DC+/DC- ⟶ PE (8/20 µs)		$I_{n\ TOTAL}$	40,0 kA	25,0 kA	25,0 kA
Max. discharge current (8/20 µs)		I_{max}	40,0 kA	25,0 kA	25,0 kA
Voltage protection level DC+ ↔ DC-; DC+/DC-⟶ PE	5 kA	U_p	≤ 2,20 kV	≤ 3,00 kV	≤ 4,50 kV
	10 kA	U_p	≤ 2,30 kV	≤ 3,30 kV	≤ 4,80 kV
	12,5 kA	U_p	≤ 2,40 kV	≤ 3,50 kV	≤ 5,20 kV
	15 kA	U_p	≤ 2,50 kV	-	-
	20 kA	U_p	≤ 2,70 kV	-	-
Reaction time		t_a	≤ 25 ns		
Short circuit current withstand			OCFM		
Short-circuit current rating (acc. to CEI EN 50539-11; 2013-03)		I_{SCPV}	1000 A		
Short-circuit current rating (sample testing acc. to CEI EN 61643-11)		I_{fi}	250 A	100 A	50 A
Prevents follow up current circulation			NFC No Follow Current®		
Status indicator			3 coloured levels with performance's indication		
Operating temperature range			-40 … +80 °C		
Terminal-Conductor size			4-25 mm² stranded		
Mounting			indoor, 35 mm top hat DIN rail		
Case material / flammability grade			BMC / V-0 according to UL 94		
Pollution degree			2		
Degree of protection		IP	20		
Approximate weight			330 g	450 g	510 g
Dimensions width			53 mm (3 modules)		
Certification			CTI		

Type L 3/40 PV Y ...with remote signal contact		600 t ff	1000 t ff	1200 t ff
CODE		**210 116**	**210 126**	**210 136**
Remote signal contact		Volt free changeover contact		
Switch conductor size		max. 1,5 mm² stranded		
Switching capacity		ac: 250 V / 0,1 A – dc: 125 V / 0,2 A ; 75 V / 0,5 A		

Note: insulation distance between live conductors and ground of 10 mm is required for U_{cpv}=1200 V.

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Technical Sheets