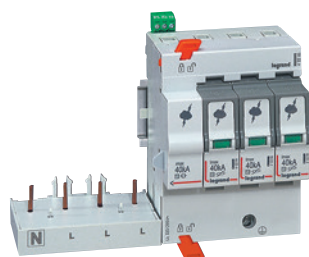
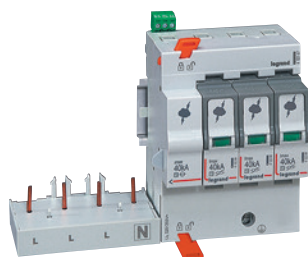


Class II (T2) low voltage SPDs



4 122 65



4 122 67



4 122 45



4 122 99

Technical characteristics p. 71-73

Protection against transient overvoltages for 230/400 V~ power networks (50/60 Hz). SPDs compliant with EN/IEC 61643-11 standards Recommended for distribution boards

T2 add-on SPDs

SPDs with plug-in modules and status indicators:
 - Green: SPD operational
 - Orange: plug-in modules to be replaced
 SPDs providing increased safety during their lifetime and maintenance cycles. Prewired MCB connexions for increased reliability and for quick and easy Installation.
 To be equipped with DX³ MCBs (1 module/pole)
 Earthing systems: TT, TNS

T2 - I_{max} 40 kA/pole

SPDs recommended for power installations
 Up: 1.7 kV - In: 20 kA/pole - Uc: 320 V~
 Recommended MCB: DX³ 25 A - C curve

Pack	Cat.Nos	Number of poles	Neutral position	Remote status monitoring (FS contact)	Number of modules
1	4 122 64 ¹	1P+N	Left	Yes	4
1	4 122 66 ¹	1P+N	Right	Yes	4
1	4 122 65 ¹	3P+N	Left	Yes	8
1	4 122 67 ¹	3P+N	Right	Yes	8

T2 - I_{max} 20 kA/pole

SPDs recommended for small installations
 Up: 1.2 kV - In: 5 kA/pole - Uc: 320 V~
 Recommended MCB: DX³ 20A - C curve

1	4 122 60 ¹	1P+N	Left	Yes	4
1	4 122 62 ¹	1P+N	Right	Yes	4
1	4 122 61 ¹	3P+N	Left	Yes	8
1	4 122 63 ¹	3P+N	Right	Yes	8

T2 SPDs

SPDs with plug-in modules and status indicators:
 - Green: SPD operational
 - Orange: plug-in modules to be replaced

T2 - I_{max} 40 kA/pole

SPDs recommended for power installations
 Up: 1.7 kV - In: 20 kA/pole - Uc: 320 V~
 Earthing systems : TT, TNC, TNS
 Recommended MCB: DX³ 25 A - C curve

Pack	Cat.Nos	Number of poles	Neutral position	Remote status monitoring (FS contact)	Number of modules
1	4 122 40	1P	-	No	1
1	4 122 44 ¹	1P+N	Left	No	2
1	4 122 46 ¹	1P+N	Right	No	2
1	4 122 41	2P	-	No	2
1	4 122 42	3P	-	Yes	3
1	4 122 45 ¹	3P+N	Left	No	4
1	4 122 47 ¹	3P+N	Right	No	4
1	4 122 43	4P	-	No	4

T2 - I_{max} 40 kA/pole - 440V~ (IT)

SPDs recommended for big installations
 Up: 2.1 kV - In: 20 kA/pole - Uc: 440 V~
 Earthing systems : TT, TNC, TNS, IT
 Recommended MCB: DX³ 25 A - C curve

1	4 122 30	1P	-	No	1
1	4 122 32	3P	-	Yes	3
1	4 122 33	4P	-	Yes	4

T2 - I_{max} 20 kA/pole

SPDs recommended for small installations
 Up: 1.2 kV - In: 5 kA/pole - Uc: 320 V~
 Earthing systems : TT, TNC, TNS
 Recommended MCB: DX³ 20 A - C curve

1	4 122 20	1P	-	No	1
1	4 122 24 ¹	1P+N	Left	No	2
1	4 122 26 ¹	1P+N	Right	No	2
1	4 122 21	2P	-	No	2
1	4 122 25 ¹	3P+N	Left	No	4
1	4 122 27 ¹	3P+N	Right	No	4
1	4 122 23	4P	-	No	4

Replacement plug-in modules

1	4 122 99	For SPDs T2 - 40 kA Cat.Nos 4 122 40/41/42/43/44/45/ 46/47/64/65/66/67
1	4 123 00	N-PE module for SPDs T2 - 40 kA Cat.Nos 4 122 44/45/46/47
1	4 123 01	For SPDs T2 - 440 V Cat.Nos 4 122 30/32/33
1	4 122 97	For SPDs T2 - 20 kA Cat.Nos 4 122 20/21/23/24/25/26/27/60/61/62/63
1	4 122 98	N-PE module for SPDs T2 - 20 kA Cat.Nos 4 122 24/25/26/27

1: 1P+N and 3P+N: L-N and N-PE protection modes (common and differential modes), the N pole being protected by encapsulated spark gaps. Also called 1+1 and 3+1

See the video



Selecting Surge Protective Devices (SPDs) and their associated protection

SPDs are mandatory¹ for buildings:

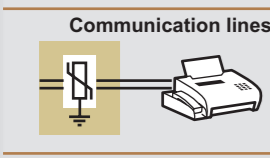
- With risks for the persons: buildings with safety services or medical care facilities, hospitals, ...
- Dedicated to public services, cultural heritage, religious buildings, ...
- With professional activities: commercial buildings, hotels, banks, industries, farms, ...
- Equipped with a LPS (Lightning Protection System: protection of buildings against direct lightning strikes) and/or designed according to IEC/EN 62035 standard
- With large number of persons: large residential, offices, schools, (Mandatory in Europe according to HD 60364)
- Small buildings: small commercial buildings, houses, small multi-family buildings, according to a risk analysis¹

Risk levels:



- **Very high risk:** EN/IEC 62305 standards, installations with a LPS or metal structure (acting as a lightning conductor), installations that are isolated, or on a high mountain, or have a history of lightning strikes, etc.
- **High risk:** installations outside of urban areas, in mountainous areas, isolated, at the end of a line, near a body of water, trees or near installations equipped with lightning conductors, etc.
- **Low risk:** installations in urban areas (or grouped buildings), flat areas, or low and medium height mountains

		Group or individual houses, small commercial buildings <i>In</i> ≤ 125 A			Commercial buildings <i>In</i> ≤ 400 A			Large commercial/Industrial buildings (IT earthing system: see below) <i>In</i> > 400 A					
Low voltage installation	MB	Main distribution board	Power network	Isc	SPD type	SPD (N left/right) + recommended overcurrent protection ⁽²⁾	Isc	SPD type	SPD (N left/right) + recommended overcurrent protection ⁽²⁾	Isc	SPD type	SPD (N left/right) + recommended overcurrent protection ⁽²⁾	
	MB	Very high risk All areas	1P+N	≤ 10 kA		4 122 74/76 + 4 078 06	≤ 25 kA		-	≤ 50 kA		-	
			3P			4 122 72 + 4 078 65			4 122 82 + 4 200 44			4 122 82 + 4 201 24	
			3P+N			4 122 75/77 + 4 079 34			4 122 83 + 4 200 54			4 122 83 + 4 201 34	
		High risk Non-urban areas, mountains, etc.	1P+N			4 122 54/56 + 4 078 04			-			-	
			3P			4 122 52 + 4 078 63			4 122 72 + 4 097 87			4 122 82 + 4 201 24	
			3P+N			4 122 55/57 + 4 079 32			4 122 75/77 + 4 098 00			4 122 83 + 4 201 34	
		Low risk Urban areas, excluding mountains, etc.	1P+N			4 122 44/46 + 4 078 02			-			-	
			3P			4 122 42 + 4 078 61			4 122 72 + 4 097 87			4 122 72 + 4 101 67	
			3P+N			4 122 45/47 + 4 079 30			4 122 75/77 + 4 098 00			4 122 75/77 + 4 101 80	
	DB	DB	Distribution board	1P+N	≤ 6 kA		0 039 51 (integrated protection)	≤ 10 kA		0 039 71 (integrated protection)	≤ 25 kA		-
				3P			-			-			-
				3P+N			0 039 53 (integrated protection)			0 039 73 (integrated protection)			-
All risks			1P+N			4 122 24/26 + 4 078 01			4 122 60/62 + 4 092 03	4 122 64/66 + 4 097 70			
			3P			-						4 122 42 ⁽³⁾ + 4 092 55	4 122 42 ⁽³⁾ + 4 097 83
			3P+N			4 122 25/27 + 4 079 29						4 122 61/63 + 4 093 37	4 122 65/67 + 4 097 96
Proximity protection of sensitive equipment	Multi-outlet extensions		6 946 14/48/51/56/64/66/70/71			Mosaic		0 775 40					
	Mosaic		0 775 40			Mosaic		0 775 40					



When low voltage SPDs are present, protection of all lines entering the building is recommended

(See p. 70)

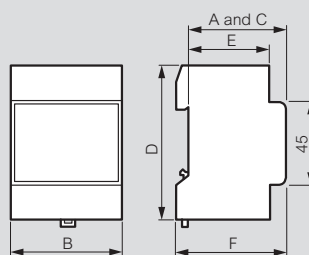
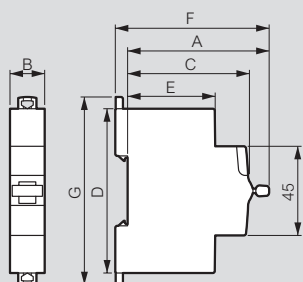
1: According to installation standards IEC/HD 60364 parts 443 and 534
 2: Recommended protective device to be used according to the type of SPD and requirements of the installation (see opposite table and technical pages)
 3: Standard modular SPD

SPDs Cat.Nos	T1+T2 / 25 kA and 35 kA 4 122 80/81/82/83		T1+T2 / 12.5 kA 4 122 70/71/72/73/74/75/76/77				T1+T2 / 8 kA 4 122 50/51/52/53/54/55/56/57				T2 / 40 kA 4 122 30/32/33/40/41/42/43/44/45/46/47/64/65/66/67				T2 / 20 kA 4 122 20/21/23/24/25/26/27/60/61/62/63			
Network	3P	3P+N	1P+N	3P	3P+N	1P+N	3P	3P+N	1P+N	3P	3P+N	1P+N	3P	3P+N	1P+N	3P	3P+N	
Circuit breaker	DPX ³ 160 - 80 A		DX ³ 63 A C curve				DX ³ 40 A C curve				DX ³ 25 A C curve				DX ³ 20 A C curve			
	3P	4P	2P	3P	4P	2P	3P	4P	2P	3P	4P	2P	3P	4P	2P	3P	4P	
Isc ≤ 10 kA	-	-	4 078 06	4 078 65	4 079 34	4 078 04	4 078 63	4 079 32	4 078 02	4 078 61	4 079 30	4 078 01	4 078 60	4 079 29	-	-	-	
Isc ≤ 16 kA	4 200 04	4 200 14	4 092 08	4 092 60	4 093 42	4 092 06	4 092 58	4 093 40	4 092 04	4 092 56	4 093 38	4 092 03	4 092 55	4 093 37	-	-	-	
Isc ≤ 25 kA	4 200 44	4 200 54	4 097 74	4 097 87	4 098 00	4 097 72	4 097 85	4 097 98	4 097 70	4 097 83	4 097 96	4 097 69	4 097 82	4 097 95	-	-	-	
Isc ≤ 50 kA	4 201 24	4 201 34	4 101 54	4 101 67	4 101 80	4 101 52	4 101 65	4 101 78	4 101 50	4 101 63	4 101 76	-	-	-	-	-	-	

IT earthing system (all risks)

SPD type	Network	Icc	SPD + protective device ⁽²⁾
MB T1+T2 35 kA/440 V	3P	50 kA	4 122 80 (x 3) + 4 201 24
	3P+N		4 122 80 (x 4) + 4 201 34
DB T2 40 kA/440 V	1P+N	25 kA	4 122 30 (x 2) + 4 097 70
	3P		4 122 32 + 4 097 83
	3P+N		4 122 33 + 4 097 96

Dimensions of din-rail equipment



Product	A		B				C	D	E	F	G
	1P	1P+ N	2P	3P	4P						
RX³ MCBs	71.7	17.7	35.4	35.4	53.1	70.8	61	83	44	77.8	88.9
RX³ RCCBs	71.7			35.6		71.2	61	83	44	77.8	88.9
TX³ MCBs	71.7	17.7	35.4	35.4	53.1	70.8	61	83	44	77.8	88.9
TX³ RCCBs	71.7			35.6		71.2	61	83	44	77.8	88.9
Isolating switches DX³	71.7	17.8		17.8/ 35.4	35.6/ 53.1	70.8	61	83	44	77.8	94.8
Remote trip head isolating switches DX³ up to 63A - 1 mod/pole	71.7			35.4	53.1	70.8	61	83	44	77.9	94.8
Remote trip head isolating switches DX³ 100/125A - 1.5 mod/pole	73				80.1	106.8	61	96	47	79	104.3
DX³ RCCBs	71.7			35.6		71.2	61	83	44	77.8	94.8
1P DX³ RCBOs (up to 45A)	68	17.7					60	115	48	74	126.8
1P+N DX³ RCBOs (up to 40A) & 4P (up to 32A)	71.7		35.6			71.2	61	83	44	77.8	94.8
2P & 4P DX³ RCBOs (40A to 63A)	72			71.2		124.6	61	96	44	78.2	107.8
1P+N DX³ MCBs 1 mod	71.7		17.8				61	83	44	77.8	94.8
DX³ MCBs - 1 mod/pole	71.7	17.7	35.4	35.4	53.1	70.8	61	83	44	77.8	94.8
DX³ MCBs - 1,5 mod/pole	73.1	26.7		53.4	80.1	106.8	61	100	47	79	104.3
DX³ add-on modules up to 63A - 1 mod/pole	72			35.6	53.4	53.4	61	96	44	78.2	107.8
DX³ add-on modules up to 63A - 1.5 mod/pole	72			35.6	53.4	53.4	61	96	47	78.2	116.7
DX³ add-on modules 80 to 125A - 1.5 mod/pole	72			71.2	106.8	106.8	61	114	47	78.2	129
DX³ auxiliaries	71.5			8.8 / 17.7			61	83	44	77.7	84.5
DX³ remote control	74.3			17.7 / 35.4			61	83	44	80.5	98.8
DX³ Stop&Go automatic resetting	74.3			35.4			61	83	44	80.5	113.7
Change-over switches	68	17.7		35.6			60	83	44	74	94
CX³ latching relays	64	17.8		17.8	35.6	35.6	61	84.5	44	70.2	94.8
CX³ contactors up to 25A	66.3/ 61	17.8		17.8	35.6	35.6	61	84.5	44	72.6/ 67.3	94.8
CX³ contactors 40A & 63A	62			35.6	53.4	53.4	60	83	44	68	94
Auxiliaries for CX³ contactors and latching relays	61			9/17.8			61	84.5	44	67	84.5
Push-buttons / control switches	68			17.7			60	83	44	74	94
Indicators	68			17.7			60	83	44	69	94
Bells and buzzers	60			17.7			60	76	44	66	85
Light sensitive switches											
Cat.Nos 0 037 21, 4 126 23	60			35.6			60	85	37.5	66	70
Socket outlets	60			44.5			60	83	44	66	92
Time delay relays	60			17.7			60	83	44	66	94
Remote control dimmers											
Cat.No 0 036 58	60			36			60	83	44	66	94
Cat.No 0 036 60	60			72			60	83	44	66	94
Cat.No 0 036 71	60			108			60	83	44	66	94

Description	A	B	C	D	E	F
Programmable time switches						
0 037 05	60	17.8	60	83	44	66
4 127 80/90/94	60	17.8	60	83	44	66
4 127 95, 4 128 12/13	60	53	60	83	44	66
4 126 31/33/41	60	35.6	60	83	44	66
4 126 54/57	60	35.6	60	83	44	66
0 047 70	60	90	60	83	44	66
Transformers and power supplies						
0 042 10/30/31	60	72	60	83	44	66
4 130 91	60	35.8	60	83.5	44	66
4 130 92/93/96	60	71.5	60	83.5	44	66
4 130 98	60	89	60	94	44	66
0 047 91/92	60	105	60	95	44	66
4 131 05/06/07/08	60	89	60	95	44	66
0 047 93	60	70	60	95	44	66
Residual current relay						
0 260 88	60	35.5	60	89	44	66