

iPRD surge arresters

Type 2 or 3 LV withdrawable surge arresters

iPRD withdrawable surge arresters allow quick replacement of damaged cartridges.
 Type 2 surge arresters are tested with a 8/20 μ s current wave.
 Type 3 surge arresters are tested with a 1.2/50 μ s and 8/20 μ s combined wave.

Each surge arrester in the range has a specific application:

- **incoming protection (type 2):**
 - the iPRD65r is recommended for a very high risk level (strongly exposed site)
 - the iPRD40(r) is recommended for a high risk level
 - the iPRD20(r) is recommended for a medium risk level
- **secondary protection (type 2 or 3):**
 - the iPRD8(r) ensures secondary protection of loads to be protected and is placed in cascade with the incoming surge arresters. This surge arrester is required when the loads to be protected are at a distance of more than 10 m from the incoming surge arrester.

The iPRD surge arresters with “r” indication have remote transfer of the information: “cartridge to be replaced”.

Catalogue number iPRD surge arresters

PB110274-35



2P

PB110280-35



4P

Rated discharge current (Imax)	Nominal discharge current (In)	Type of protection		Network					
		Incoming	Secondary	1P+N	3P+N	1P	2P	3P	4P
iPRD65									
65 kA Very high risk level (strongly exposed site)	20 kA	iPRD65		A9L65501		A9L65101			
							A9L65201		
								A9L65301	
				A9L65601					
									A9L65401
iPRD40									
40 kA High risk level	15 kA	iPRD40				A9L40101			
						A9L40100			
				A9L40501					
				A9L40500					
							A9L40201		
							A9L40200		
								A9L40301	
								A9L40300	
									A9L40401
									A9L40400
iPRD20									
20 kA Medium risk level	5 kA	iPRD20		A9L20501		A9L20100			
				A9L20500					
							A9L20200		
								A9L20300	
				A9L20601					
				A9L20600					
									A9L20400
iPRD8									
8 kA Secondary protection: placed near the loads to be protected when they are at a distance of more than 10 m from the incoming surge arrester	2.5 kA		iPRD8	A9L08501		A9L08100			
				A9L08500					
							A9L08200		
								A9L08300	
				A9L08601					
				A9L08600					
									A9L08400

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Type 2 or 3 LV withdrawable surge arresters (cont.)



Cartridge

Spare cartridges iPRD		
Type	Spare cartridges for	Cat. no
iPRD 65-350	iPRD65r	A9L65102
iPRD 40-350	iPRD40, iPRD40r	A9L40102
iPRD 20-350	iPRD20, iPRD20r	A9L20102
iPRD 8-350	iPRD8, iPRD8r	A9L08102
iPRD Neutral	All products (1P+N, 3P+N)	A9L00002

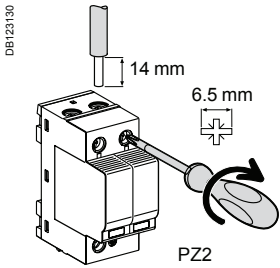
	Earthing system	Transfer	Surge arrester name	Width in mod. of 9 mm	Up - (kV) Voltage protection level			Un - (V) Rated voltage network	Uc - (V) Maximum continuous operating voltage		
					CM*		DM*		CM*		DM*
					L/±	N/±	L/N		L/±	N/±	L/N
iPRD65											
A9L65101	TT & TN	■	iPRD65r 1P	2	≤ 1.5	-	-	230	350	-	-
A9L65501	TT & TN-S	■	iPRD65r 1P+N	4	-	≤ 1.4	≤ 1.5	-	-	260	350
A9L65201	TN-C-S	■	iPRD65r 2P		≤ 1.5	≤ 1.5	-		350	350	-
A9L65301	TN-C	■	iPRD65r 3P	6	≤ 1.5	-	-	230/400	350	-	-
A9L65601	TT & TN-S	■	iPRD65r 3P+N	8	-	≤ 1.4	≤ 1.5	-	-	260	350
A9L65401	TN-C-S	■	iPRD65r 4P		≤ 1.5	≤ 1.5	-		350	350	-
iPRD40											
A9L40101	TT & TN	■	iPRD40r 1P	2	≤ 1.6	-	-	230	350	-	-
A9L40100	TT & TN		iPRD40 1P		≤ 1.6	-	-		350	-	-
A9L40501	TT & TN-S	■	iPRD40r 1P+N	4	-	≤ 1.4	≤ 1.6	-	-	260	350
A9L40500	TT & TN-S		iPRD40 1P+N		-	≤ 1.4	≤ 1.6		-	260	350
A9L40201	TN-C-S	■	iPRD40r 2P		≤ 1.6	≤ 1.6	-		350	350	-
A9L40200	TN-C-S		iPRD40 2P		≤ 1.6	≤ 1.6	-		350	350	-
A9L40301	TN-C	■	iPRD40r 3P	6	≤ 1.6	-	-	230/400	350	-	-
A9L40300	TN-C		iPRD40 3P		≤ 1.6	-	-		350	-	-
A9L40601	TT & TN-S	■	iPRD40r 3P+N	8	-	≤ 1.4	≤ 1.6	-	-	260	350
A9L40600	TT & TN-S		iPRD40 3P+N		-	≤ 1.4	≤ 1.6		-	260	350
A9L40401	TN-C-S	■	iPRD40r 4P		≤ 1.6	≤ 1.6	-		350	350	-
A9L40400	TN-C-S		iPRD40 4P		≤ 1.6	≤ 1.6	-		350	350	-
iPRD20											
A9L20100	TT & TN		iPRD20 1P	2	≤ 1.2	-	-	230	350	-	-
A9L20501	TT & TN-S	■	iPRD20r 1P+N	4	-	≤ 1.4	≤ 1.2	-	-	260	350
A9L20500	TT & TN-S		iPRD20 1P+N		-	≤ 1.4	≤ 1.2		-	260	350
A9L20200	TN-C-S		iPRD20 2P		≤ 1.2	≤ 1.2	-		350	350	-
A9L20300	TN-C		iPRD20 3P	6	≤ 1.2	-	-	230/400	350	-	-
A9L20601	TT & TN-S	■	iPRD20r 3P+N	8	-	≤ 1.4	≤ 1.2	-	-	260	350
A9L20600	TT & TN-S		iPRD20 3P+N		-	≤ 1.4	≤ 1.2		-	260	350
A9L20400	TN-C-S		iPRD20 4P		≤ 1.2	≤ 1.2	-		350	350	-
iPRD8 (1) Type 2 / Type 3 (1)											
A9L08100	TT & TN		iPRD8 1P	2	≤ 1.2	-	-	230	350	-	-
A9L08501	TT & TN-S	■	iPRD8r 1P+N	4	-	≤ 1.4	≤ 1.2	-	-	260	350
A9L08500	TT & TN-S		iPRD8 1P+N		-	≤ 1.4	≤ 1.2		-	260	350
A9L08200	TN-C-S		iPRD8 2P		≤ 1.2	≤ 1.2	-		350	350	-
A9L08300	TN-C		iPRD8 3P	6	≤ 1.2	-	-	230/400	350	-	-
A9L08601	TT & TN-S	■	iPRD8r 3P+N	8	-	≤ 1.4	≤ 1.2	-	-	260	350
A9L08600	TT & TN-S		iPRD8 3P+N		-	≤ 1.4	≤ 1.2		-	260	350
A9L08400	TN-C-S		iPRD8 4P		≤ 1.2	≤ 1.2	-		350	350	-

* CM: common mode (phase to earth and neutral to earth). * DM: differential mode (phase to neutral). (1) Uoc: combined waveform voltage: 10 kV.

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Connection iPRD surge arresters



Type	Tightening torque	Copper cables	
		Rigid	Flexible or with ferrule
iPRD	3.5 N.m	2.5 to 25 mm ²	4 to 16 mm ²

Technical data iPRD surge arresters

Main characteristics

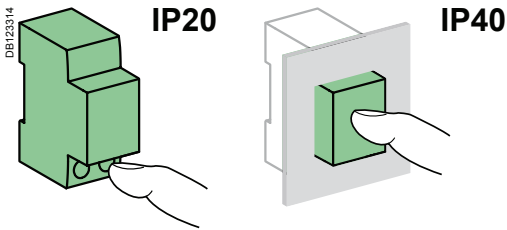
Operating frequency		50/60 Hz
Operating voltage (U _e)		230/400 V AC ±10 %
Permanent operating current (I _c)		< 1 mA
Response time		< 25 ns
Short circuit withstand (I _{sc})		50 kA (50 Hz)
Temporary overvoltage withstand (U _T)	U _T (L-N)	337 V AC / 5 s
	U _T (L-PE)	442 V AC / 5 s
Temporary overvoltage Safe failure mode (U _T)	U _T (N-PE)	1200 V AC / 200 ms
	U _T (L-PE)	1453 V AC / 200 ms
Ground residual current (I _{PE})	I _{PE} (L-PE)	600 µA for 1P, 2P, 3P, 4P
	I _{PE} (N-PE)	3 µA for 1P+N, 3P+N
Satisfactory operation indication: by mechanical indicator	White	In operation
	Red	Cartridge must be replaced
Remote indication of satisfactory operation		By contact NO, NC 250 V / 0.25 A

Additional characteristics

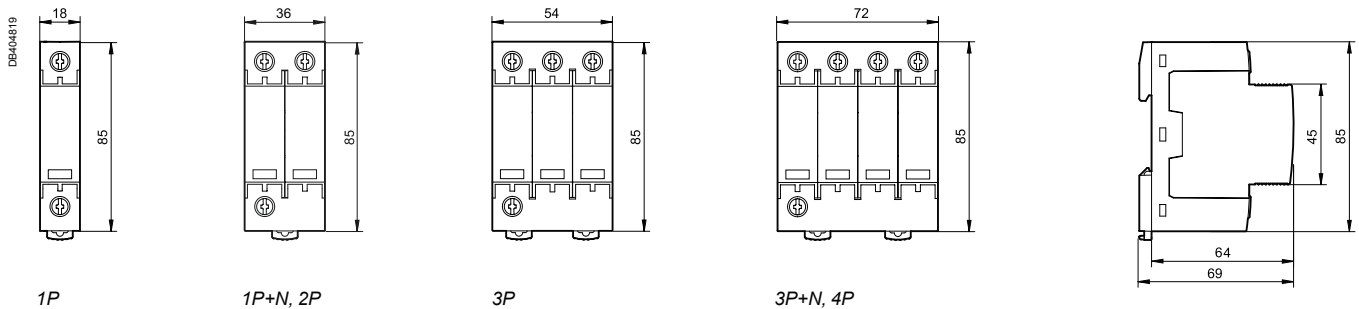
Degree of protection (IEC 60529)	Device only	IP20 (built-in)
	Device in modular enclosure	IP40
Operating temperature		-25°C to +60°C
Humidity range		5 % to 95 %
Type of connection terminals		Tunnel terminals, 2.5 to 35 mm ²
Standards		IEC 61643-11: 2011 [T2], [T3] and EN 61643-11: 2012 Type 2, Type 3

Surge arrester/circuit breaker association

Type of surge arrester	Associated circuit breaker (1 to 4 poles protected)
iPRD65	Curve C 50 A
iPRD40	Curve C 40 A
iPRD20	Curve C 25 A
iPRD8	Curve C 20 A



iPRD dimensions (mm)



Weight (g)

Surge arrester

Type	iPRD
1P	115
1P+N, 2P	220
3P	340
3P+N, 4P	450

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PB110281-60

Satisfactory operation indication

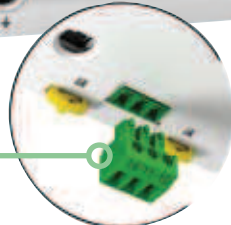
- By mechanical indicator
- white: operating
- red: cartridge must be replaced



Terminals

- IP20

■ Transfer to Acti 9 Smartlink



Connection iPRD surge arrester with its short circuit disconnecter

TT / TN-S
Power supply through the top
Connection with cables

PB110289-50



Surge arrester iPRD 3P+N + iC60N 3P+N

Reversible

- The surge arrester base can be turned over to allow the phase/neutral/earth cables to enter through either the top or the bottom

TT / TN-S
Power supply through the bottom
Connection with comb busbar

PB110783-50



Surge arrester iPRD 3P+N + iC60N 3P+N

TNC-S with neutral
Power supply through the top
Connection with comb busbar

PB110287-60



Surge arrester iPRD 4P + iC60N 4P

TNC-S with neutral
Power supply through the bottom
Connection with comb busbar

PB110794-50



Surge arrester iPRD 4P + iC60N 4P

