

iPRD, iPRD IT 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



2P



4P

Rated discharge current (Imax)	Nominal discharge current (In)	Type of protection	Network		Network						
			Incoming	Secondary	1P+N	3P+N	1P	2P	3P	4P	
iPRD65 65 kA Very high risk level (strongly exposed site)	20 kA	iPRD65					A9L65101				
					A9L65501			A9L65201			
									A9L65301		
						A9L65601					A9L65401
iPRD40 40 kA High risk level	15 kA	iPRD40					A9L40101				
							A9L40100				
					A9L40501						
					A9L40500				A9L40201		
									A9L40200		
										A9L40301	
										A9L40300	
						A9L40601					A9L40401
	A9L40600					A9L40400					
iPRD20 20 kA Medium risk level	5 kA	iPRD20					A9L20100				
					A9L20501						
					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					A9L08100				
					A9L08501						
					A9L08500						
								A9L08200			
									A9L08300		
						A9L08601					
	A9L08600					A9L08400					

iPRD, iPRD IT surge arresters

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



Cartridge

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

	Earthing system	Transfer	Surge arrester name	Width in mod. of 9 mm	Up - (kV) 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	-	-	-	350	-	-
A9L65501	TT & TN-S	■	iPRD65r 1P+N	4	-	≤ 1.5	≤ 1.5	-	-	260	350
A9L65201	TN-C	■	iPRD65r 2P	4	≤ 1.5	≤ 1.5	-	-	350	350	-
A9L65301	TN-C	■	iPRD65r 3P	6	≤ 1.5	-	-	-	350	-	-
A9L65601	TT & TN-S	■	iPRD65r 3P+N	8	-	≤ 1.5	≤ 1.5	-	-	260	350
A9L65401	TN-C	■	iPRD65r 4P	8	≤ 1.5	≤ 1.5	-	-	350	350	-
iPRD40											
A9L40101	TT & TN	■	iPRD40r 1P	2	≤ 1.6	-	-	230	350	-	-
A9L40100	TT & TN	■	iPRD40 1P	2	≤ 1.6	-	-	-	350	-	-
A9L40501	TT & TN-S	■	iPRD40r 1P+N	4	-	≤ 1.4	≤ 1.6	-	-	260	350
A9L40500	TT & TN-S	■	iPRD40 1P+N	4	-	≤ 1.4	≤ 1.6	-	-	260	350
A9L40201	TN-C	■	iPRD40r 2P	4	≤ 1.6	≤ 1.6	-	-	350	350	-
A9L40200	TN-C	■	iPRD40 2P	4	≤ 1.6	≤ 1.6	-	-	350	350	-
A9L40301	TN-C	■	iPRD40r 3P	6	≤ 1.6	-	-	230/400	350	-	-
A9L40300	TN-C	■	iPRD40 3P	6	≤ 1.6	-	-	-	350	-	-
A9L40601	TT & TN-S	■	iPRD40r 3P+N	8	-	≤ 1.4	≤ 1.6	-	-	260	350
A9L40600	TT & TN-S	■	iPRD40 3P+N	8	-	≤ 1.4	≤ 1.6	-	-	260	350
A9L40401	TN-C	■	iPRD40r 4P	8	≤ 1.6	≤ 1.6	-	-	350	350	-
A9L40400	TN-C	■	iPRD40 4P	8	≤ 1.6	≤ 1.6	-	-	350	350	-
iPRD20											
A9L20100	TT & TN	■	iPRD20 1P	2	≤ 1.25	-	-	230	350	-	-
A9L20501	TT & TN-S	■	iPRD20r 1P+N	4	-	≤ 1.4	≤ 1.25	-	-	260	350
A9L20500	TT & TN-S	■	iPRD20 1P+N	4	-	≤ 1.4	≤ 1.25	-	-	260	350
A9L20200	TN-C	■	iPRD20 2P	4	≤ 1.25	≤ 1.25	-	-	350	350	-
A9L20300	TN-C	■	iPRD20 3P	6	≤ 1.25	-	-	230/400	350	-	-
A9L20601	TT & TN-S	■	iPRD20r 3P+N	8	-	≤ 1.4	≤ 1.25	-	-	260	350
A9L20600	TT & TN-S	■	iPRD20 3P+N	8	-	≤ 1.4	≤ 1.25	-	-	260	350
A9L20400	TN-C	■	iPRD20 4P	8	≤ 1.25	≤ 1.25	-	-	350	350	-
iPRD8 (1) Type 2 / Type 3 (1)											
A9L08100	TT & TN	■	iPRD8 1P	2	≤ 1.15 / ≤ 1.2	-	-	230	350	-	-
A9L08501	TT & TN-S	■	iPRD8r 1P+N	4	-	≤ 1.4 / ≤ 1	≤ 1.15 / ≤ 1.2	-	-	260	350
A9L08500	TT & TN-S	■	iPRD8 1P+N	4	-	≤ 1.4 / ≤ 1	≤ 1.15 / ≤ 1.2	-	-	260	350
A9L08200	TN-C	■	iPRD8 2P	4	≤ 1.15 / ≤ 1.2	≤ 1.15 / ≤ 1.2	-	-	350	350	-
A9L08300	TN-C	■	iPRD8 3P	6	≤ 1.15 / ≤ 1.2	-	-	230/400	350	-	-
A9L08601	TT & TN-S	■	iPRD8r 3P+N	8	-	≤ 1.4 / ≤ 1	≤ 1.15 / ≤ 1.2	-	-	260	350
A9L08600	TT & TN-S	■	iPRD8 3P+N	8	-	≤ 1.4 / ≤ 1	≤ 1.15 / ≤ 1.2	-	-	260	350
A9L08400	TN-C	■	iPRD8 4P	8	≤ 1.15 / ≤ 1.2	≤ 1.15 / ≤ 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.

iPRD, iPRD IT surge arresters

Type 2 or 3 LV withdrawable surge arresters

Catalogue number iPRD IT surge arresters



3P



4P

Rated discharge current (I _{max})	Nominal discharge current (I _n)	Type of protection		DBI122942		
		Incoming	Secondary	1P	3P	4P
iPRD65 IT						
65 kA Very high risk level (strongly exposed site)	20 kA	iPRD65		A9L16555	A9L16558	
iPRD40 IT						
40 kA High risk level	15 kA	iPRD40			A9L16563	A9L16597
iPRD20 IT						
20 kA Medium risk level	5 kA	iPRD20			A9L16573	A9L16599
iPRD8 IT						
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		A9L16578	A9L16678

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



Cartridge

Spare cartridges iPRD IT		
Type	Spare cartridges for	Cat. no
C 65-460	iPRD65r IT	A9L16682
C 40-460	iPRD40r IT	A9L16684
C 20-460	iPRD20r IT	A9L16686
C 8-460	iPRD8r IT	A9L16688

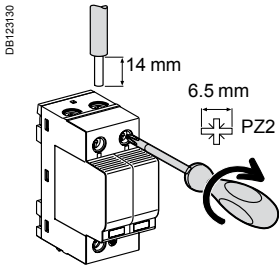
	Earthing system	Transfer	Surge arrester name	Width in mod. of 9 mm	Up - (kV) Protection level			Un - (V) Rated voltage network	Uc - (V) Maximum continuous operating voltage		
					CM*		DM*		CM*		DM*
					L/±	N/±	L/N		L/±	N/±	L/N
iPRD65 IT											
A9L16555	IT	■	iPRD65r 1P IT	2	≤ 2	-	-	230	460	-	-
A9L16558	IT	■	iPRD65r 3P IT	6	≤ 2	-	-	230/400	460	-	-
iPRD40 IT											
A9L16563	IT	■	iPRD40r 3P IT	6	≤ 2	-	-	-	460	-	-
A9L16597	IT	■	iPRD40r 4P IT	8	≤ 2	≤ 2	-	-	460	460	-
iPRD20 IT											
A9L16573	IT	■	iPRD20r 3P IT	6	≤ 1.6	-	-	-	460	-	-
A9L16599	IT	■	iPRD20r 4P IT	8	≤ 1.6	≤ 1.6	-	-	460	460	-
iPRD8 IT (1) Type 2 / Type 3 (1)											
A9L16578	IT	■	iPRD8r 3P IT	6	≤ 1.4 / ≤ 1.6	-	-	-	460	-	-
A9L16678	IT	■	iPRD8r 4P IT	8	≤ 1.4 / ≤ 1.6	≤ 1.4 / ≤ 1.6	-	-	460	460	-

* **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, iPRD IT surge arresters



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

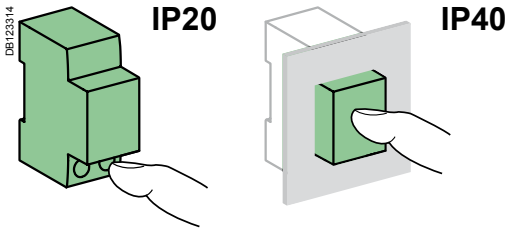
Technical data iPRD, iPRD IT surge arresters

Main characteristics

Operating frequency	50/60 Hz	
Operating voltage (U _e)	230/400 V AC	
Permanent operating current (I _c)	< 1 mA	
Response time	< 25 ns	
Short circuit withstand (I _{scrr})	50 kA (50 Hz)	
Temporary overvoltage withstand (U _T)	U _T (L-PE)	337 V AC / 5 s
	U _T (N-PE)	1200 V AC / 200 ms
Ground residual current (I _{PE})	I _{PE} (L-N)	600 μA
	I _{PE} (N-PE)	3 μA
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

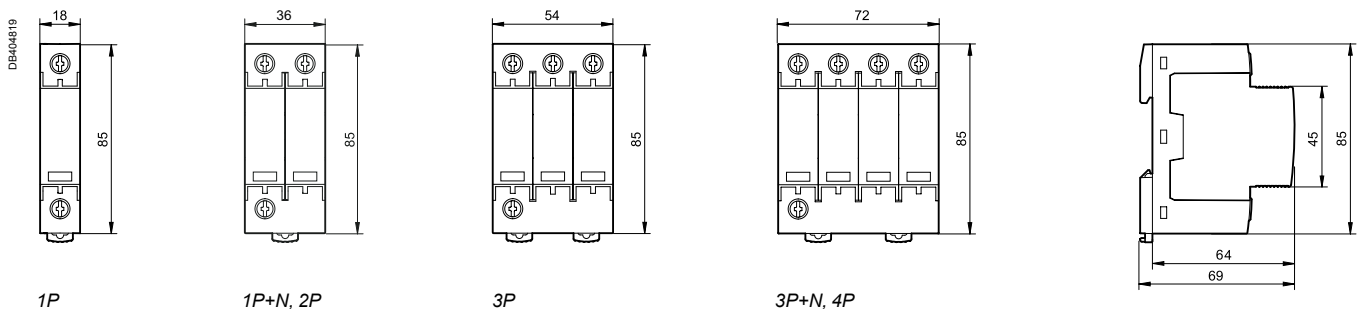
Degree of protection (IEC 60529)	Device only	IP20 (built-in)
	Device in modular enclosure	IP40
Operating temperature	-25°C to +60°C	
Type of connection terminals	Tunnel terminals, 2.5 to 35 mm ²	
Standards	IEC 61643-11: 2011 [T2], [T3] and EN 61643-11: 2012 Type 2, Type 3	



Surge arrester/circuit breaker association

Type of surge arrester	Associated circuit breaker
iPRD65	Curve C 50 A
iPRD40	Curve C 40 A
iPRD20	Curve C 25 A
iPRD8	Curve C 20 A

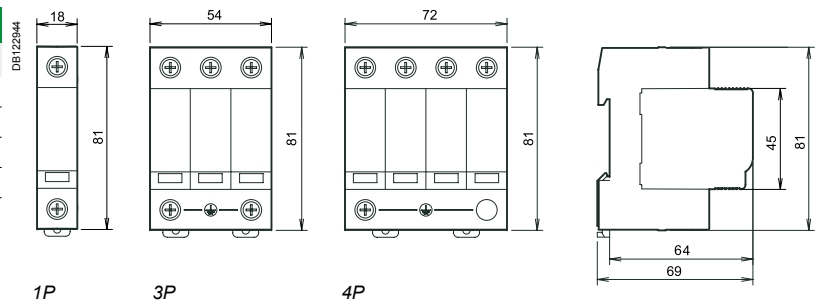
iPRD dimensions (mm)



Weight (g)

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

iPRD IT dimensions (mm)



iPRD, iPRD IT surge arresters

PB1102281-80

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

PB1102289-50



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 / IT 230 V (L-L) with neutral
 Power supply through the top
 Connection with comb busbar

PB1102287-50



Surge arrester iPRD 4P + iC60N 4P

TNC-S / IT 230 V (L-L) with neutral
 Power supply through the bottom
 Connection with comb busbar

PB110794-50



Surge arrester iPRD 4P + iC60N 4P