Schneider Electric
Surge Protective Device

2015

Schneider Electric

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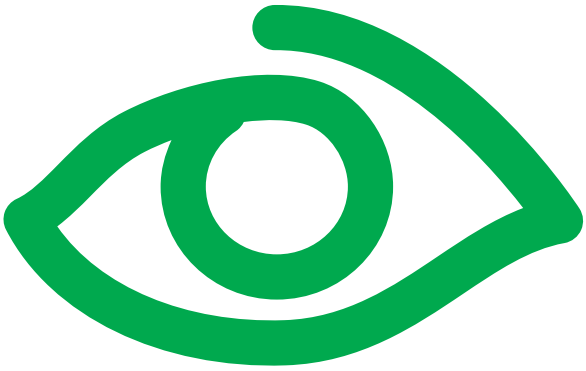


Product Overview

- Product family

Product family

Acti 9

Type 1

- iPRD1 20r pluggable Type1 surge protective device
- iPRF1 12. 5r voltage limiting type Type1 surge protective device

Type 2

- iPRU pluggable surge protective device
- PRU enclosure dedicated surge protective device
- iST monoblock surge protective device

Telecom surge protective device

- iPTU pluggable surge protective device for telecom market

Photovoltaic surge protective device

- iPRU PV pluggable surge protective device for photovoltaic market

Signal surge protective device

- iPRC surge protective device
- iPRI surge protective device

Product family

> Multi 9

☑ Signal surge protective device

> SE antenna surge protective device

> SE signal surge protective device

> Easy 9

☑ Type 2

> EA9L monoblock surge protective device

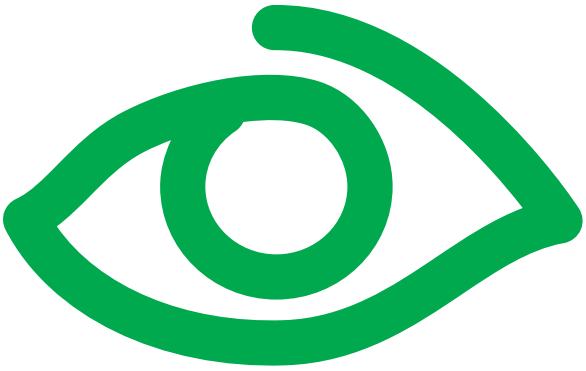
> iSCB SPD backup circuit breaker

☑ For Type I

> iSCB1 SPD backup circuit breaker

☑ For Type II

> iSCB2 SPD backup circuit breaker



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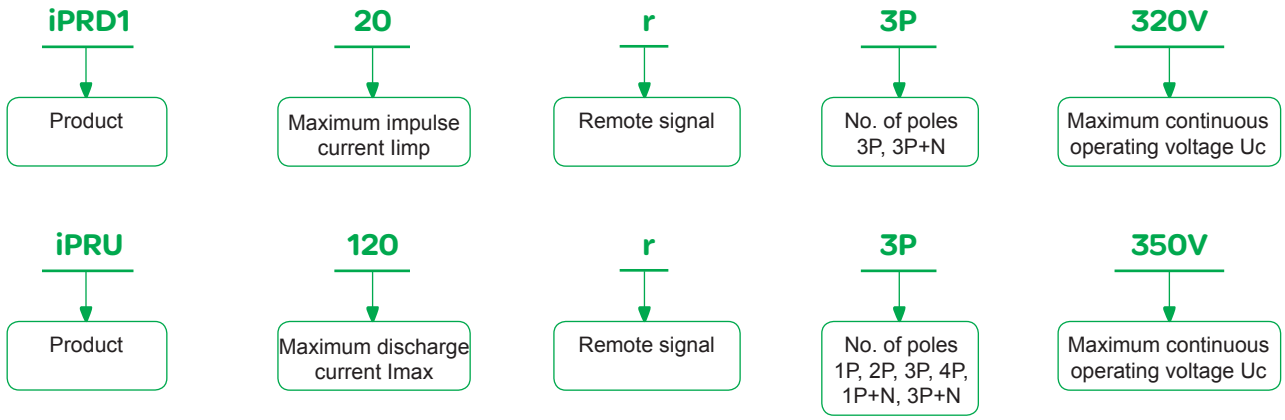
Product technical data

Prescription



	Product	Un (V)	Uc (V)	Up (kV)	Type (μs)	Imax (kA)	In (kA)	Poles	End of life indi-cation	Remote signal	Connection capability
iPRD1	 iPRD1 20r	230/400	320	1.7	10/350	I_{imp}=20 (L/N) 80 (N/PE)	30	3P 3P+N	Yes	Yes	Flexible cable: 2.5~35mm^2, Rigid cable: 2.5~50mm^2
iPRF1	 iPRF1 12.5r	230/400	350	1.5	10/350	I_{imp}=12.5 (L/N) 50 (N/PE)	25	3P 1P+N 3P+N	Yes	Yes	Flexible cable: 10~25mm^2, Rigid cable: 10~35mm^2
iPRU	 iPRU 120r	230/400	350/440	3.0	8/20	120	60	1P 2P 3P 4P 1P+N 3P+N	Yes	Yes	Flexible cable: 2.5~25mm^2, Rigid cable: 2.5~35mm^2
	 iPRU 80r	230/400	350/440	2.2	8/20	80	40		Yes	Yes	
	 iPRU 65r	230/400	350/440	1.9	8/20	65	35		Yes	Yes	

Product technical data

	Product	Un (V)	Uc (V)	Up (kV)	Type (μs)	Imax (kA)	In (kA)	Poles	End of life indi-cation	Remote signal	Connection capability
iPRU	 iPRU 40r/40	230/400	350/440	1.7	8/20	40	20	1P 2P 3P 4P 1P+N 3P+N	Yes	Yes/No	Flexible cable: 2.5~25mm^2, Rigid cable: 2.5~35mm^2
	 iPRU 20r/20	230/400	350/440	1.45	8/20	20	10		Yes	Yes/No	
	 iPRU 10	230/400	350/440	1.2	8/20	10	5		Yes	No	
PRU	 PRU 10	230/400	320/400	1.1	8/20	10	5	1P+N	Yes	No	Flexible cable: 2.5~25mm^2, Rigid cable: 2.5~35mm^2
	 PRU 6	230/400	320/400	1.0	8/20	6	3		Yes	No	
iST	 iST 65r/65	230/400	340/440	2.0	8/20	65	35	1P 2P 3P 4P 1P+N 3P+N	Yes	Yes/No	Flexible cable: 2.5~25mm^2, Rigid cable: 2.5~35mm^2
	 iST 40r/40	230/400	340/440	1.5	8/20	40	20		Yes	Yes/No	
	 iST 20r/20	230/400	340/440	1.2	8/20	20	10		Yes	Yes/No	

Product technical data

	Product	Un (V)	Uc (V)	Up (kV)	Type (μs)	Imax (kA)	In (kA)	Poles	End of life indi-cation	Remote signal	Connection capability
iPTU	 iPTU 40r/40	230/400	385/500	1.6	8/20	40	20	1P+N 3P+N	Yes	No	Flexible cable: 2.5~25mm^2, Rigid cable: 2.5~35mm^2
	 iPTU 20r/20	230/400	385/500	1.5	8/20	20	10		Yes	Yes	
iPRU PV	 iPR-DC	-	800/1000	3.0 3.9	8/20	40	15	-	Yes	Yes	Flexible cable: 2.5~16mm^2, Rigid cable: 2.5~25mm^2
EA9L	 EA9L	230/400	340/400	2.0 1.5 1.2	8/20	65/40/20	35/20/10	1P+N 3P+N	Yes	Yes/No	Flexible cable: 2.5~25mm^2, Rigid cable: 2.5~35mm^2
iPRC	 iPRC	< 130 VAC	130 VAC 180 VDC	300V	8/20	18	10	-	Yes	No	Flexible cable: 0.2~2.5mm^2, Rigid cable: 0.2~4mm^2
iPRI	 iPRI	48 VDC	37 VAC 53 VAC	70V	8/20	10	10	-	Yes	No	Flexible cable: 0.2~2.5mm^2, Rigid cable: 0.2~4mm^2

Product technical data

	Product	Product type	Interface	Frequency (MHz)	Power (W)	Up (V)	Dimension (mm)	Weight (g)
SE	 SETT	SETT8-10N-40	N	800-960	300	≤10V	33 x 66 x 75	210
		SETT17-24N-40		1700-2400	150		30 x 39 x 75	190
		SETT8-10D-60	DIN	800-960	500		37 x 92 x 101	640
		SETT8-25D-60		800-2500			37 x 65 x 90	385
	 SEKT	SEKT25N-10	N	DC-2500	100	≤700V	20 x 30 x 76	230
		SEKT25T-10M	TNC				F20 x 56	75
		SEKT25D-10	DIN				35 x 42 x 77	270
		SEKT15FL-10	FL	DC-2050			18.5 x 23 x 50	62
		SEKT20F-10	F					
	 SEWT	SEWT16N-10CN	N	1500-1600	60	≤100V	56 x 25 x 95	175
		SEWT10N-20N		700-1000	300		84 x 32 x 73	242
		SEWT20N-20N		1700-2000				
		SEWT10D-20N	DIN	700-1000				332
		SEWT20D-20N		1700-2000				

Product technical data

SE

Product	Product type	Interface	Frequency (MHz)	Power (W)	Up (V)	Dimension (mm)	Weight (g)
 SEXM	SEXM-1B-5	BNC		5	≤100V	80 x 27 x 25	75
	SEXM-1B-24			24			
 SEXL(RJ11)	SEXL-1H-12	RJ11		12	≤100V	80 x 27 x 25	70
	SEXL-1H-48			48			
	SEXL-1H-110			110			
 SEXM,SEXH	SEXM-2R-5	RJ45	10M	5	≤100V	80 x 27 x 25	95
	SEXH-2R-5		100M				
 SEXL (twisted pair)	SEXL-1J-5	Number of protected lines: A pair of twisted pair		5	≤100V	100 x 27 x 25	70
	SEXL-1J-12			12			
	SEXL-1J-24			24			
	SEXL-1J-110			110			
	SEXL-2J-5	2 pairs of twisted pair		5		100 x 47 x 25	110
	SEXL-2J-12			12			
	SEXL-2J-24			24			
	SEXL-2J-110			110			

Product technical data

iSCB SPD backup circuit breaker

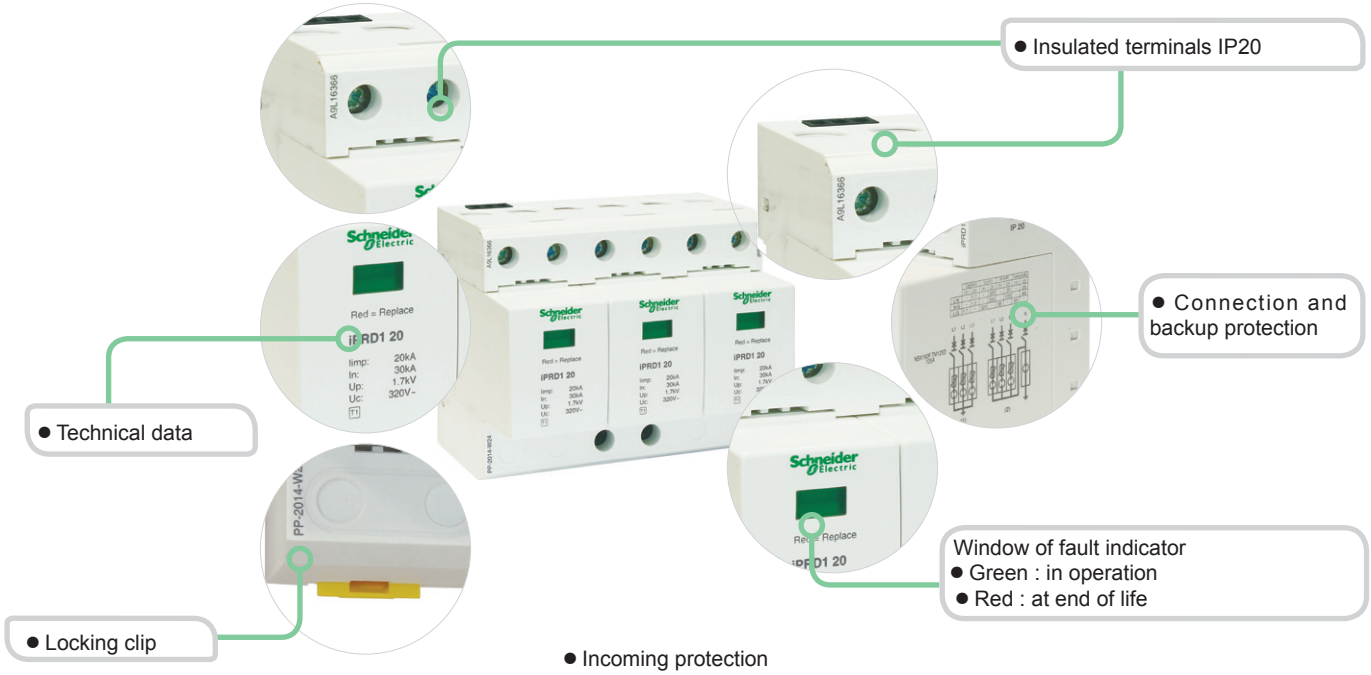
Prescription

iSCB	1	25	L2	4P
Product	Type of SPD: Type I	Maximum impulse current Iimp 25: 25kA	Short ciruit breaking capacity Isc L2: 100kA L1: 65kA	No. of poles 1P 2P 3P 4P

iSCB	2	120	L2	4P
Product	Type of SPD: Type II	Maximum discharge current Imax 120: 120kA 65: 65kA 20: 20kA	Short ciruit breaking capacity Isc L2: 100kA L1: 65kA H2: 50kA H1: 36kA N2: 25kA N1: 15kA	No. of poles 1P 2P 3P 4P

	Product	Un (V)	Type (μs)	Imax (kA)	In (kA)	Maximum short ciruit breaking capacity (kA)	Poles	Connection capability
iSCB	 iSCB1 25	230/400	10/350	Iimp=25kA	80	100 65	1P 2P 3P 4P	Flexible cable: 2.5~25mm^2, Rigid cable: 2.5~35mm^2
	 iSCB2 120	230/400	8/20	120	60	100 65		
	 iSCB2 65	230/400	8/20	65	35	50 36		
	 iSCB2 20	230/400	8/20	20	10	25 15		

iPRD1 20r Type1 surge protective device



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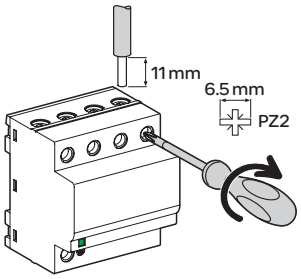
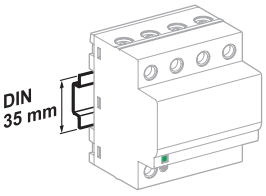
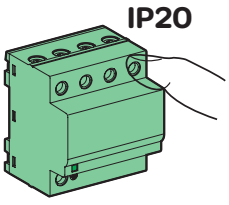
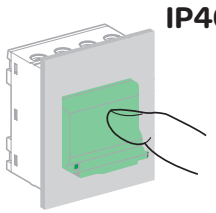




Installed on the 35 mm DIN rail





Technical data

Main characteristics		
Standard		GB 18802.1
Test class		I / T1
Operating frequency		50/60 Hz
Rated operating voltage Uo		230 V AC
Maximum continuous operating voltage Uc		320 V
Maximum impulse current Iimp		20 kA
Nominal discharge current In		30 kA
Up		1.7 kV
Poles		3P, 3P+N
Additional characteristics		
End of life indication		Indication window
	Green	In operation
	Red	At end of life
End of life remote indication		Remote signal
	Contact	11 common terminal, 12 normally closed, 14 normally open
	Uc	250 V AC
	Maximum switching current	1 A
Degree of protection	Front panel	IP40
	Terminals	IP20
Response time		100 ns
Working temperature		-40°C~+80°C

Connection

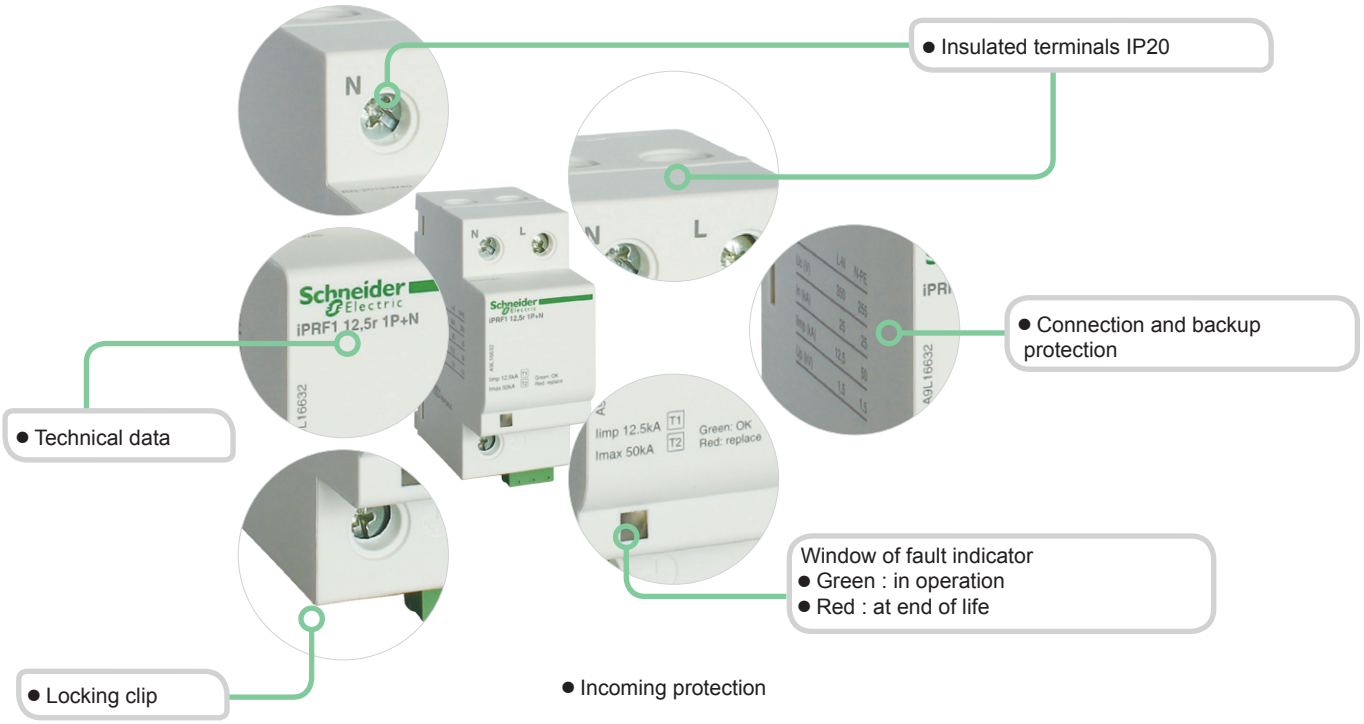
Type	Tightening torque	Type of connection terminals		Recommended cables	
		Rigid cable	Flexible cable	L/N	Earthing cable
iPRD1	3.5 Nm	2.5...50 mm²	2.5...35 mm²	≥16 mm²	≥16 mm²

A9L16367

Type	Product	Iimp (kA)	In (kA)	Up(kV) differential mode L/N	Up(kV) common mode N/⏚	Up(kV) common mode L/⏚	Un (V)	Uc (V)	Width (In mod. of 9 mm)	Reference
3P	iPRD1	20	30	-	-	1.7	230	320	12	**A9L16366**
3P+N	iPRD1	20	30	1.7	1.5	-	230	320	16	**A9L16367**

Type	Product	Applied to	Width (In mod. of 9 mm)	Reference
Pluggable modules	iD20-320	iPRD1 20r	2	**A9L16322**
	iDGn-255	iPRD1 20r	2	**A9L16323**

iPRF1 12. 5r surge protective device Type I



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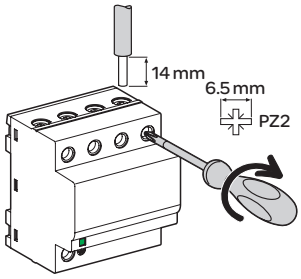
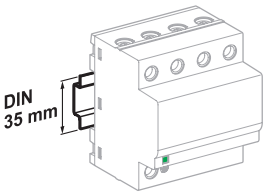
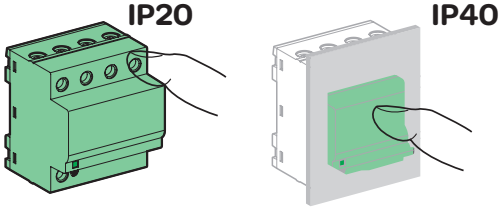




Installed on the 35 mm DIN rail



Technical data

Main characteristics		
Standard		GB 18802.1-2011
Test class		I / T1
Operating frequency		50/60 Hz
Rated operating voltage Uo		230 V AC
Maximum continuous operating voltage Uc		350 V
Maximum impulse current Iimp (L-N)		12.5 kA
Maximum impulse current Iimp (N-PE)		50 kA
Nominal discharge current In		25 kA
Up		1.5 kV
Poles		1P+N/3P/3P+N
Earthing system		TT, TN
Backup protection		According to the appendix
Additional characteristics		
End of life indication		Indication light
	Green	In operation
	Red	At end of life
End of life remote indication		Remote signal
	Contact	11 common terminal, 12 normally closed, 14 normally open
	Uc	250 V AC
	Maximum switching current	1 A
	Type of connection terminals	0.5...1.5 mm^2
Degree of protection	Front panel	IP40
	Terminals	IP20
Response time		25 ns
Working temperature		-25ºC ~ +60ºC

Connection

Type	Tightening torque	Type of connection terminals		Recommended cables	
		Rigid cable	Flexible cable	L/N	Earthing cable
iPRF1 12.5r	2 Nm	10...35 mmv	10...25 mm^2	≥16 mm^2	≥16 mm^2

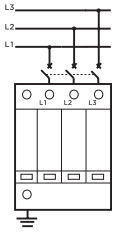
iPRF1 12. 5r surge protective device Type I

A9L16632

Type	Product	Imax (kA)	In (kA)	Up(kV) differential mode L/N	Up(kV) common mode N/⏚	Up(kV) L/⏚	Un (V)	Uc(V) differential mode L/N	Uc(V) common mode N/⏚	Uc(V) L/⏚	Width (In mod. of 9 mm)	Reference
1P+N	iPRF1 12.5r	12.5	25	1.5	1.5	1.6	230/400	350	255	440	4	**A9L16632**

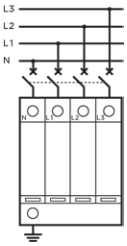
A9L16633

Type	Product	Imax (kA)	In (kA)	Up(kV) differential mode L/N	Up(kV) common mode N/⏚	Up(kV) L/⏚	Un (V)	Uc(V) differential mode L/N	Uc(V) common mode N/⏚	Uc(V) L/⏚	Width (In mod. of 9 mm)	Reference
3P	iPRF1 12.5r	12.5	25	-	-	1.5	230/400	-	-	350	8	**A9L16633**

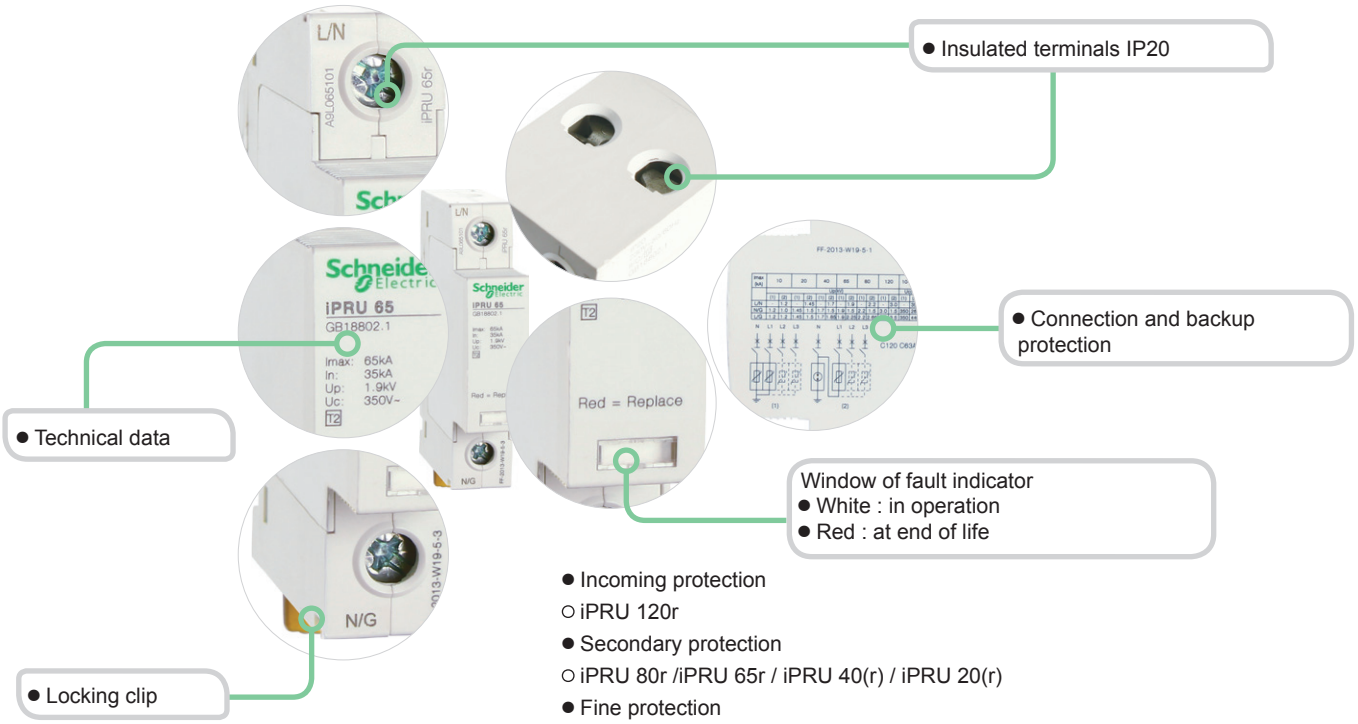


A9L16634

Type	Product	Imax (kA)	In (kA)	Up(kV) differential mode L/N	Up(kV) common mode N/⏚	Up(kV) L/⏚	Un (V)	Uc(V) differential mode L/N	Uc(V) common mode N/⏚	Uc(V) L/⏚	Width (In mod. of 9 mm)	Reference
3P+N	iPRF1 12.5r	12.5	25	1.5	1.5	1.6	230/400	350	255	440	8	**A9L16634**

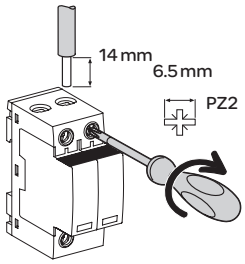


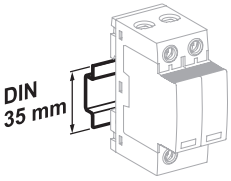
iPRU surge protective device



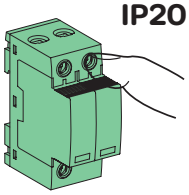
● Incoming protection
○ iPRU 120r
● Secondary protection
○ iPRU 80r /iPRU 65r / iPRU 40(r) / iPRU 20(r)
● Fine protection
○ iPRU 10

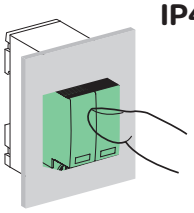
Description





Installed on the 35 mm DIN rail





Technical data

Main characteristics				
Standard		GB 18802.1-2011		
Test class		II / T2		
Operating frequency		50/60 Hz		
Rated operating voltage Uo		230 V AC		
Maximum continuous operating voltage Uc		350 V		
Maximum discharge current Imax Imax		120/80/65/40/20/10 kA		
Nominal discharge current		60/40/35/20/10/5 kA		
Up		3.0/2.2/1.9/1.7/1.45/1.2 kV		
Poles		1P/2P/3P/4P/1P+N/3P+N		
Earthing system		TT, TN		
Backup protection		According to the appendix		
Additional characteristics				
End of life indication		Indication window		
	White	In operation		
	Red	At end of life		
End of life remote indication		Remote signal		
	Contact	11 common terminal, 12 normally closed, 14 normally open		
	Uc	250 V ~	220 V ⎓	30 V ⎓
	Maximum switching current	0.25 A	0.24 A	2 A
	Type of connection terminals	0.5...1.5 mm^2		
Degree of protection		IP20		
Response time		25 ns		
Working temperature		-25°C ~ +60°C		
Storage temperature		-40°C ~ +70°C		
lie (0.75U1mA)		< 20 μA		

Connection

Maximum discharge current Imax	Tightening torque	Type of connection terminals		Recommended cables	
		Rigid cable	Flexible cable	L/N	Earthing cable
120 kA	3.5 Nm	2.5...35 mm^2	2.5...25 mm^2	≥6 mm^2	≥10 mm^2
80/65/40/20 kA				≥4 mm^2	≥6 mm^2
10 kA				≥2.5 mm^2	≥4 mm^2

iPRU surge protective device

Maximum discharge current I_{max} = 65/40/20/10 kA

A9L065101

Type	Product	Imax (kA)	In (kA)	Up(kV) differential mode L/N	Up(kV) common mode N/⏚	Up(kV) L/⏚	Un (V)	Uc(V) differential mode L/N	Uc(V) common mode N/⏚	Uc(V) L/⏚	Earthing system	Width (In mod. of 9 mm)	Reference
1P	iPRU 65r	65	35	-	-	1.9	230	-	-	350	TN	2	**A9L065101**
	iPRU 40r	40	20	-	-	1.7	230	-	-	350	TN	2	**A9L040101**
	iPRU 40	40	20	-	-	1.7	230	-	-	350	TN	2	**A9L040100**
	iPRU 20r	20	10	-	-	1.45	230	-	-	350	TT&TN	2	**A9L020101**
	iPRU 20	20	10	-	-	1.45	230	-	-	350	TT&TN	2	**A9L020100**
	iPRU 10	10	5	-	-	1.2	230	-	-	350	TT&TN	2	**A9L010100**

A9L065201

Type	Product	Imax (kA)	In (kA)	Up(kV) differential mode L/N	Up(kV) common mode N/⏚	Up(kV) L/⏚	Un (V)	Uc(V) differential mode L/N	Uc(V) common mode N/⏚	Uc(V) L/⏚	Earthing system	Width (In mod. of 9 mm)	Reference
2P	iPRU 65r	65	35	-	1.9	1.9	230	-	350	350	TN-S	4	**A9L065201**
	iPRU 40r	40	20	-	1.7	1.7	230	-	350	350	TN-S	4	**A9L040201**
	iPRU 40	40	20	-	1.7	1.7	230	-	350	350	TN-S	4	**A9L040200**
	iPRU 20r	20	10	-	1.45	1.45	230	-	350	350	TT&TN-S	4	**A9L020201**
	iPRU 20	20	10	-	1.45	1.45	230	-	350	350	TT&TN-S	4	**A9L020200**
	iPRU 10	10	5	-	1.2	1.2	230	-	350	350	TT&TN-S	4	**A9L010200**

A9L065301

Type	Product	Imax (kA)	In (kA)	Up(kV) differential mode L/N	Up(kV) common mode N/⏚	Up(kV) L/⏚	Un (V)	Uc(V) differential mode L/N	Uc(V) common mode N/⏚	Uc(V) L/⏚	Earthing system	Width (In mod. of 9 mm)	Reference
3P	iPRU 65r	65	35	-	-	1.9	230/400	-	-	350	TN-C	6	**A9L065301**
	iPRU 40r	40	20	-	-	1.7	230/400	-	-	350	TN-C	6	**A9L040301**
	iPRU 40	40	20	-	-	1.7	230/400	-	-	350	TN-C	6	**A9L040300**
	iPRU 20r	20	10	-	-	1.45	230/400	-	-	350	TN-C	6	**A9L020301**
	iPRU 20	20	10	-	-	1.45	230/400	-	-	350	TN-C	6	**A9L020300**
	iPRU 10	10	5	-	-	1.2	230/400	-	-	350	TN-C	6	**A9L010300**

A9L065401

Type	Product	Imax (kA)	In (kA)	Up(kV) differential mode L/N	Up(kV) common mode N/⏚	Up(kV) L/⏚	Un (V)	Uc(V) differential mode L/N	Uc(V) common mode N/⏚	Uc(V) L/⏚	Earthing system	Width (In mod. of 9 mm)	Reference
4P	iPRU 65r	65	35	-	1.9	1.9	230/400	-	350	350	TN-S	8	**A9L065401**
	iPRU 40r	40	20	-	1.7	1.7	230/400	-	350	350	TN-S	8	**A9L040401**
	iPRU 40	40	20	-	1.7	1.7	230/400	-	350	350	TN-S	8	**A9L040400**
	iPRU 20r	20	10	-	1.45	1.45	230/400	-	350	350	TT&TN-S	8	**A9L020401**
	iPRU 20	20	10	-	1.45	1.45	230/400	-	350	350	TT&TN-S	8	**A9L020400**
	iPRU 10	10	5	-	1.2	1.2	230/400	-	350	350	TT&TN-S	8	**A9L010400**

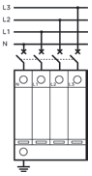
iPRU surge protective device

Maximum discharge current I_{max} = 65/40/20/10 kA

A9L065501

Type	Product	Imax (kA)	In (kA)	Up(kV) differential mode L/N	Up(kV) common mode N/⏚	Up(kV) L/⏚	Un (V)	Uc(V) differential mode L/N	Uc(V) common mode N/⏚	Uc(V) L/⏚	Earthing system	Width (In mod. of 9 mm)	Reference
1P+N	iPRU 65r	65	35	1.9	1.5	2.25	230	350	260	440	TT&TN-S	4	**A9L065501**
	iPRU 40r	40	20	1.7	1.5	1.85	230	350	260	440	TT&TN-S	4	**A9L040501**
	iPRU 40	40	20	1.7	1.5	1.85	230	350	260	440	TT&TN-S	4	**A9L040500**
	iPRU 20r	20	10	1.45	1.5	1.5	230	350	260	440	TT&TN-S	4	**A9L020501**
	iPRU 20	20	10	1.45	1.5	1.5	230	350	260	440	TT&TN-S	4	**A9L020500**
	iPRU 10	10	5	1.2	1.0	1.2	230	350	260	440	TT&TN-S	4	**A9L010500**

A9L065601

Type	Product	Imax (kA)	In (kA)	Up(kV) differential mode L/N	Up(kV) common mode N/⏚	Up(kV) L/⏚	Un (V)	Uc(V) differential mode L/N	Uc(V) common mode N/⏚	Uc(V) L/⏚	Earthing system	Width (In mod. of 9 mm)	Reference
3P+N	iPRU 65r	65	35	1.9	1.5	2.25	230/400	350	260	440	TT&TN-S	8	**A9L065601**
	iPRU 40r	40	20	1.7	1.5	1.85	230/400	350	260	440	TT&TN-S	8	**A9L040601**
	iPRU 40	40	20	1.7	1.5	1.85	230/400	350	260	440	TT&TN-S	8	**A9L040600**
	iPRU 20r	20	10	1.45	1.5	1.5	230/400	350	260	440	TT&TN-S	8	**A9L020601**
	iPRU 20	20	10	1.45	1.5	1.5	230/400	350	260	440	TT&TN-S	8	**A9L020600**
	iPRU 10	10	5	1.2	1.0	1.2	230/400	350	260	440	TT&TN-S	8	**A9L010600**

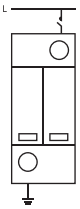
Type	Product	Applied to	Width (In mod. of 9 mm)	Reference
Pluggable modules	iD65-350	iPRU 65r	2	**A9L065102**
	iD40-350	iPRU 40r / 40	2	**A9L040102**
	iD20-350	iPRU 20r / 20	2	**A9L020102**
	iD10-350	iPRU 10	2	**A9L010102**
	iDGn-350	iPRU 65r / 40r / 40 / 20r / 20 Gn	2	**A9L000002**
	iDGn 10-350	iPRU 10 Gn	2	**A9L010002**

iPRU surge protective device

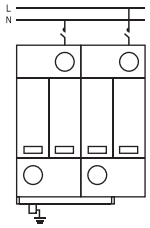
Maximum discharge current I_{max} = 120/80 kA

A9L120101

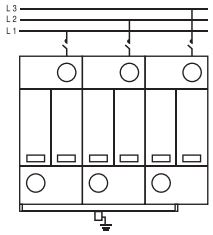
Type	Product	Imax (kA)	In (kA)	Up(kV) differential mode L/N	Up(kV) common mode N/⏚	Up(kV) L/⏚	Un (V)	Uc(V) differential mode L/N	Uc(V) common mode N/⏚	Uc(V) L/⏚	Earthing system	Width (In mod. of 9 mm)	Reference
1P	iPRU 120r	120	60	-	-	3.0	230	-	-	350	TN	4	**A9L120101**
	iPRU 80r	80	40	-	-	2.2	230	-	-	350	TN	4	**A9L080101**



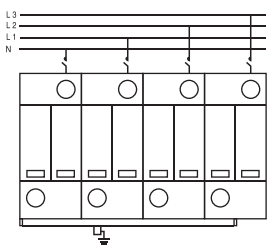
Type	Product	Imax (kA)	In (kA)	Up(kV) differential mode L/N	Up(kV) common mode N/⏚	Up(kV) L/⏚	Un (V)	Uc(V) differential mode L/N	Uc(V) common mode N/⏚	Uc(V) L/⏚	Earthing system	Width (In mod. of 9 mm)	Reference
2P	iPRU 120r	120	60	-	3.0	3.0	230	-	350	350	TN-S	8	2 x **A9L120101**
	iPRU 80r	80	40	-	2.2	2.2	230	-	350	350	TN-S	8	2 x **A9L080101**



Type	Product	Imax (kA)	In (kA)	Up(kV) differential mode L/N	Up(kV) common mode N/⏚	Up(kV) L/⏚	Un (V)	Uc(V) differential mode L/N	Uc(V) common mode N/⏚	Uc(V) L/⏚	Earthing system	Width (In mod. of 9 mm)	Reference
3P	iPRU 120r	120	60	-	-	3.0	230/400	-	-	350	TN-C	12	3 x **A9L120101**
	iPRU 80r	80	40	-	-	2.2	230/400	-	-	350	TN-C	12	3 x **A9L080101**



Type	Product	Imax (kA)	In (kA)	Up(kV) differential mode L/N	Up(kV) common mode N/⏚	Up(kV) L/⏚	Un (V)	Uc(V) differential mode L/N	Uc(V) common mode N/⏚	Uc(V) L/⏚	Earthing system	Width (In mod. of 9 mm)	Reference
4P	iPRU 120r	120	60		3.0	3.0	230/400	-	350	350	TN-S	16	4 x **A9L120101**
	iPRU 80r	80	40		2.2	2.2	230/400	-	350	350	TN-S	16	4 x **A9L080101**

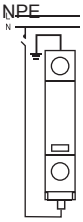


iPRU surge protective device

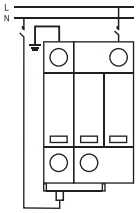
Maximum discharge current I_{max} = 120/80 kA

A9L120001

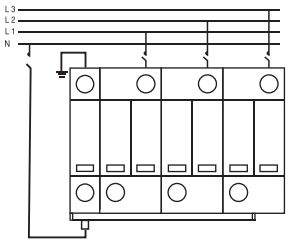
Type	Product	Imax (kA)	In (kA)	Up(kV) differential mode L/N	Up(kV) common mode N/⏚	Up(kV) common mode L/⏚	Un (V)	Uc(V) differential mode L/N	Uc(V) common mode N/⏚	Uc(V) common mode L/⏚	Width (In mod. of 9 mm)	Reference
NPE	iPRU 120r Gn	-	-	-	≤1.5	-	-	-	260	-	2	**A9L120001**
	iPRU 80r Gn	-	-	-	≤1.5	-	-	-	260	-	2	**A9L080001**



Type	Product	Imax (kA)	In (kA)	Up(kV) differential mode L/N	Up(kV) common mode N/⏚	Up(kV) common mode L/⏚	Un (V)	Uc(V) differential mode L/N	Uc(V) common mode N/⏚	Uc(V) common mode L/⏚	Earthing system	Width (In mod. of 9 mm)	Reference
1P+N	iPRU 120r	120	60	3.0	1.5	3.5	230	350	260	440	TT&TN-S	6	1x **A9L120101** + 1x **A9L120001**
	iPRU 80r	80	40	2.2	1.5	2.65	230	350	260	440	TT&TN-S	6	1x **A9L080101** + 1x **A9L080001**



Type	Product	Imax (kA)	In (kA)	Up(kV) differential mode L/N	Up(kV) common mode N/⏚	Up(kV) common mode L/⏚	Un (V)	Uc(V) differential mode L/N	Uc(V) common mode N/⏚	Uc(V) common mode L/⏚	Earthing system	Width (In mod. of 9 mm)	Reference
3P+N	iPRU 120r	120	60	3.0	1.5	3.5	230/400	350	260	440	TT&TN-S	14	3x **A9L120101** + 1x **A9L120001**
	iPRU 80r	80	40	2.2	1.5	2.65	230/400	350	260	440	TT&TN-S	14	3x **A9L080101** + 1x **A9L080001**



Type	Product	Applied to	Width (In mod. of 9 mm)	Reference
Pluggable modules	iD120-350	iPRU 120r	4	**A9L120102**
	iDGn 120-350	iPRU 120r Gn	2	**A9L120002**
	iD80-350	iPRU 80r	4	**A9L080102**
	iDGn 80-350	iPRU 80r Gn	2	**A9L080002**

iPRU 120r/iPRU 80r installation introduction

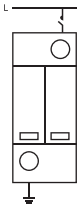
Type

- iPRU 120r/iPRU 80r
  - 1P = 1 x A9L120101/A9L080101 (Reference)
  - 2P = 2 x A9L120101/A9L080101 (Reference)
    1 x A9XPH112 (Comb busbar)
    2 x A9XPE110 (Side plates)
  - 3P = 3 x A9L120101/A9L080101 (Reference)
    1 x A9XPH112 (Comb busbar)
    2 x A9XPE110 (Side plates)
  - 4P = 4 x A9L120101/A9L080101 (Reference)
    1 x A9XPH112 (Comb busbar)
    2 x A9XPE110 (Side plates)

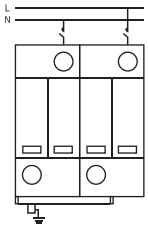
- iPRU 120r/iPRU 80r
  - 1P+N = 1 x A9L120101/A9L080101 (Reference)
    1 x A9L120001/A9L080001 (Reference)
    1 x A9XPH112 (Comb busbar)
    2 x A9XPE110 (Side plates)
  - 3P+N = 3 x A9L120101/A9L080101 (Reference)
    1 x A9L120001/A9L080001 (Reference)
    1 x A9XPH112 (Comb busbar)
    2 x A9XPE110 (Side plates)

Connection

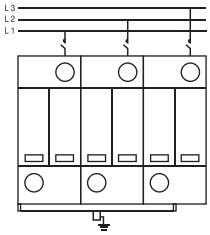
iPRU 120r/iPRU 80r
1P = 1 x A9L120101/A9L080101



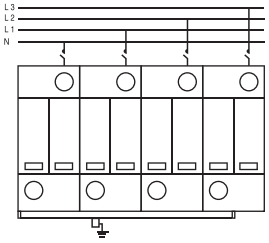
iPRU 120r/iPRU 80r
2P = 2 x A9L120101/A9L080101



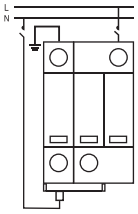
iPRU 120r/iPRU 80r
3P = 3 x A9L120101/A9L080101



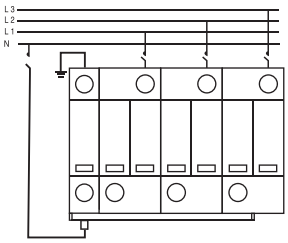
iPRU 120r/iPRU 80r
4P = 4 x A9L120101/A9L080101



iPRU 120r/iPRU 80r
1P+N = 1 x A9L120101/A9L080101
1 x A9L120001/A9L080001



iPRU 120r/iPRU 80r
3P+N = 3 x A9L120101/A9L080101
1 x A9L120001/A9L080001



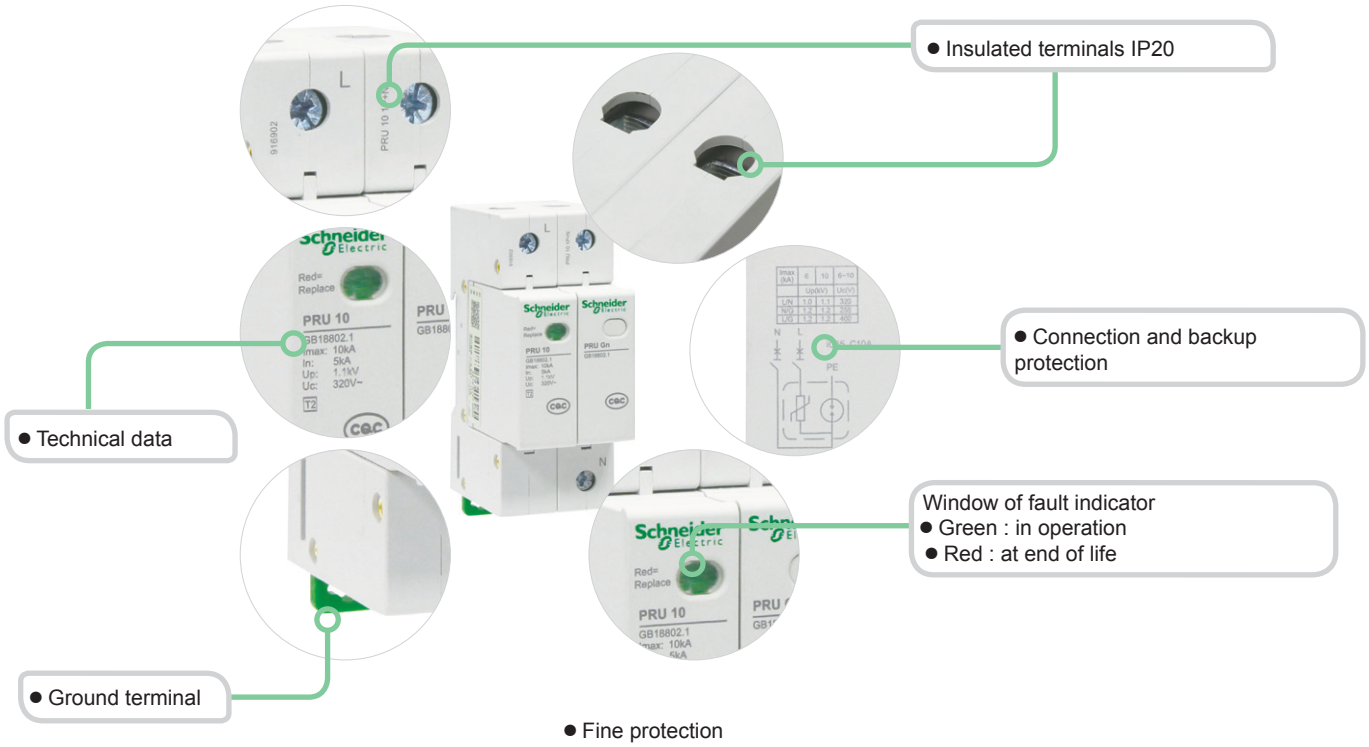
Accessories

A9XPH112

Type	Comb busbar root number	Length (In mod. of 18 mm)	Reference
iC65 comb busbar			
1P	1	12	**A9XPH112**

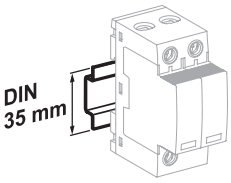
Type			Reference
Accessory			
	Side plates (a set of 10)	Applied to comb busbar	**A9XPE110**

PRU enclosure dedicated surge protective device

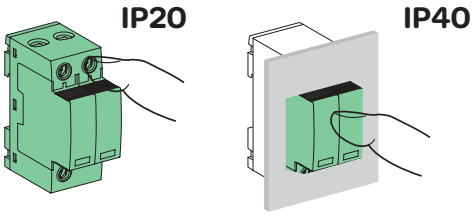


● Fine protection
○ PRU 10/6

Description



Installed on the 35 mm DIN rail



Technical data

Main characteristics		
Standard		GB 18802.1
Test class		II / T2
Operating frequency		50/60 Hz
Rated operating voltage Uo		230 V AC
Maximum continuous operating voltage Uc		320 V
Maximum discharge current Imax		10/6 kA
Nominal discharge current In		5/3 kA
Up		1.1/1.0 kV
Poles		1P+N
Earthing system		TT, TN
Additional characteristics		
End of life indication		Indication window
	Green	In operation
	Red	Try to reset the handle, if success, SPD can keep operating , or else, at end of life
Degree of protection		IP20
Response time		25 ns
Working temperature		-5°C ~ +40°C
Storage temperature		-40°C ~ +70°C

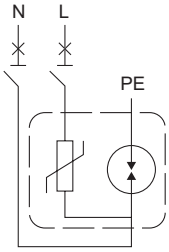
Connection

Maximum discharge current Imax	Tightening torque	Type of connection terminals		Recommended cables	
		Rigid cable	Flexible cable	L/N	Earthing cable
10/6 kA	2.5 Nm	2.5...35 mm^2	2.5...25 mm^2	≥2.5 mm^2	≥4 mm^2

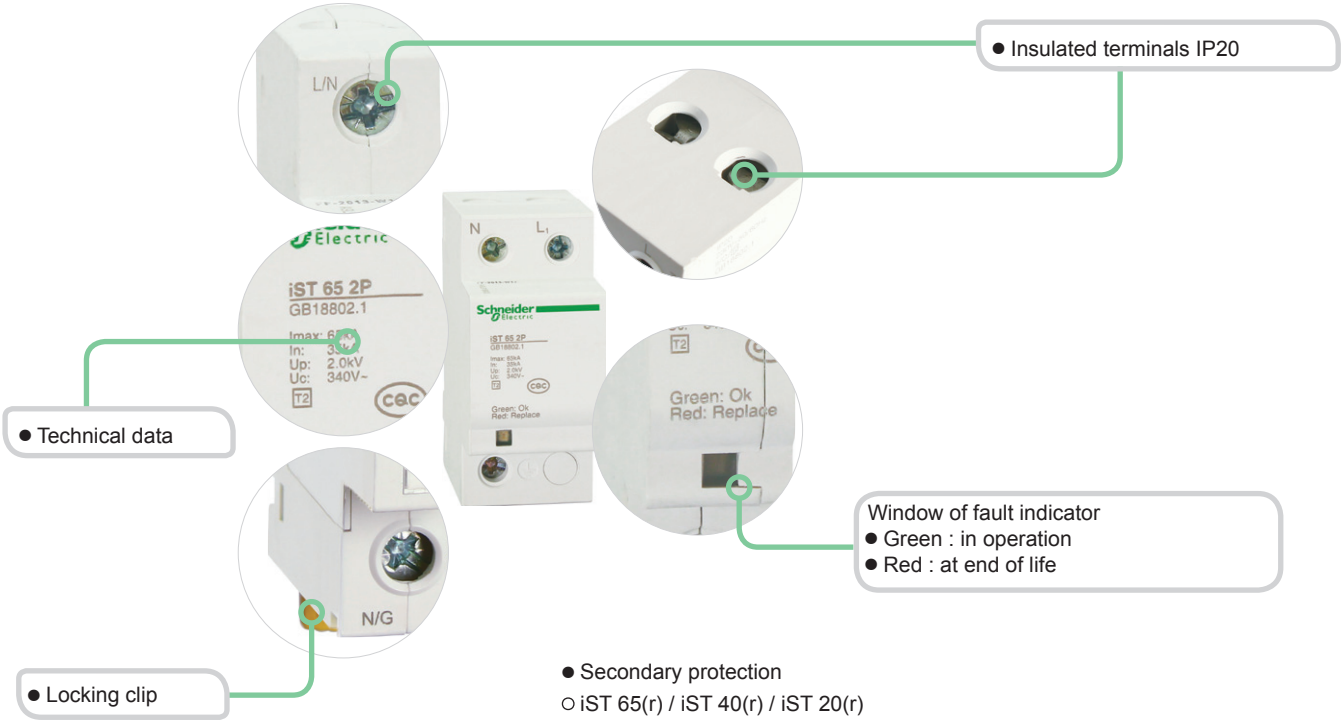
PRU enclosure dedicated surge protective device

916902

Type	Product	Imax (kA)	In (kA)	Up(kV) differential mode L/N	Up(kV) common mode N/⏚	Up(kV) common mode L/⏚	Un (V)	Uc(V) differential mode L/N	Uc(V) common mode N/⏚	Uc(V) common mode L/⏚	Width (In mod. of 9 mm)	Reference
1P+N	PRU 10	10	5	1.1	1.2	1.2	230	320	255	400	4	**916902**
	PRU 6	6	3	1.0	1.2	1.2	230	320	255	400	4	**916903**

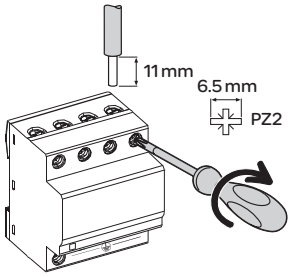


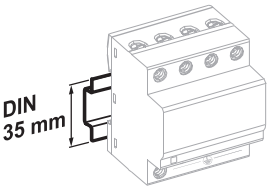
iST surge protective device



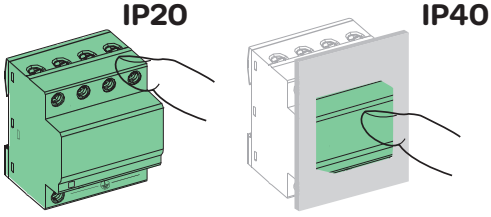
● Secondary protection
○ iST 65(r) / iST 40(r) / iST 20(r)

Description





Installed on the 35 mm DIN rail



Technical data

Main characteristics		
Standard		GB 18802.1-2011
Test class		II / T2
Operating frequency		50/60 Hz
Rated operating voltage Uo		230 V AC
Maximum continuous operating voltage Uc		340 V
Maximum discharge current Imax		65/40/20 kA
Nominal discharge current In		35/20/10 kA
Up		2.0/1.5/1.2 kV
Poles		1P/2P/3P/4P/1P+N/3P+N
Earthing system		TT, TN
Additional characteristics		
End of life indication		Indication light
	Green	In operation
	Red	At end of life
End of life remote indication		Remote signal
	Contact	11 common terminal, 12 normally closed, 14 normally open
	Uc	250 V AC
	Maximum switching current	0.25 A
	Connection capability	0.5...1.5 mm^2
Degree of protection		IP20
Response time		25 ns
Working temperature		-20ºC ~ +60ºC
Storage temperature		-40ºC ~ +70ºC
Iie (0.75U1mA)		< 210 μA (Without internal auxiliary circuit)
		< 760 μA (With internal auxiliary circuit)

Connection

Maximum discharge current Imax	Tightening torque	Type of connection terminals		Recommended cables	
		Rigid cable	Flexible cable	L/N	Earthing cable
65/40/20 kA	3.5 Nm	2.5...35 mm^2	2.5...25 mm^2	≥4 mm^2	≥6 mm^2

iST surge protective device

A9L916600

Type	Product	Imax (kA)	In (kA)	Up(kV) differential mode L/N	Up(kV) common mode N/⏚	Up(kV) L/⏚	Un (V)	Uc(V) differential mode L/N	Uc(V) common mode N/⏚	Uc(V) L/⏚	Earthing system	Width (In mod. of 9 mm)	Reference
1P	iST 65	65	35	-	-	≤2.0	230	-	-	340	TN	2	**A9L916600**
	iST 40	40	20	-	-	≤1.5	230	-	-	340	TN	2	**A9L916609**
	iST 20	20	10	-	-	≤1.2	230	-	-	340	TT & TN	2	**A9L916618**

A9L916603

Type	Product	Imax (kA)	In (kA)	Up(kV) differential mode L/N	Up(kV) common mode N/⏚	Up(kV) L/⏚	Un (V)	Uc(V) differential mode L/N	Uc(V) common mode N/⏚	Uc(V) L/⏚	Earthing system	Width (In mod. of 9 mm)	Reference
2P	iST 65	65	35	-	≤2.0	≤2.0	230	-	340	340	TN-S	4	**A9L916603**
	iST 40	40	20	-	≤1.5	≤1.5	230	-	340	340	TN-S	4	**A9L916612**
	iST 20	20	10	-	≤1.2	≤1.2	230	-	340	340	TT & TN-S	4	**A9L916621**

A9L916604

Type	Product	Imax (kA)	In (kA)	Up(kV) differential mode L/N	Up(kV) common mode N/⏚	Up(kV) L/⏚	Un (V)	Uc(V) differential mode L/N	Uc(V) common mode N/⏚	Uc(V) L/⏚	Earthing system	Width (In mod. of 9 mm)	Reference
3P	iST 65	65	35	-	-	≤2.0	230/400	-	-	340	TN-C	8	**A9L916604**
	iST 40	40	20	-	-	≤1.5	230/400	-	-	340	TN-C	8	**A9L916613**
	iST 20	20	10	-	-	≤1.2	230/400	-	-	340	TT & TN-C	8	**A9L916622**

A9L916607

Type	Product	Imax (kA)	In (kA)	Up(kV) differential mode L/N	Up(kV) common mode N/⏚	Up(kV) L/⏚	Un (V)	Uc(V) differential mode L/N	Uc(V) common mode N/⏚	Uc(V) L/⏚	Earthing system	Width (In mod. of 9 mm)	Reference
4P	iST 65r	65	35	-	≤2.0	≤2.0	230/400	-	340	340	TN-S	8	**A9L916607**
	iST 65	65	35	-	≤2.0	≤2.0	230/400	-	340	340	TN-S	8	**A9L916608**
	iST 40r	40	20	-	≤1.5	≤1.5	230/400	-	340	340	TN-S	8	**A9L916616**
	iST 40	40	20	-	≤1.5	≤1.5	230/400	-	340	340	TN-S	8	**A9L916617**
	iST 20	20	10	-	≤1.2	≤1.2	230/400	-	340	340	TT & TN-S	8	**A9L916624**

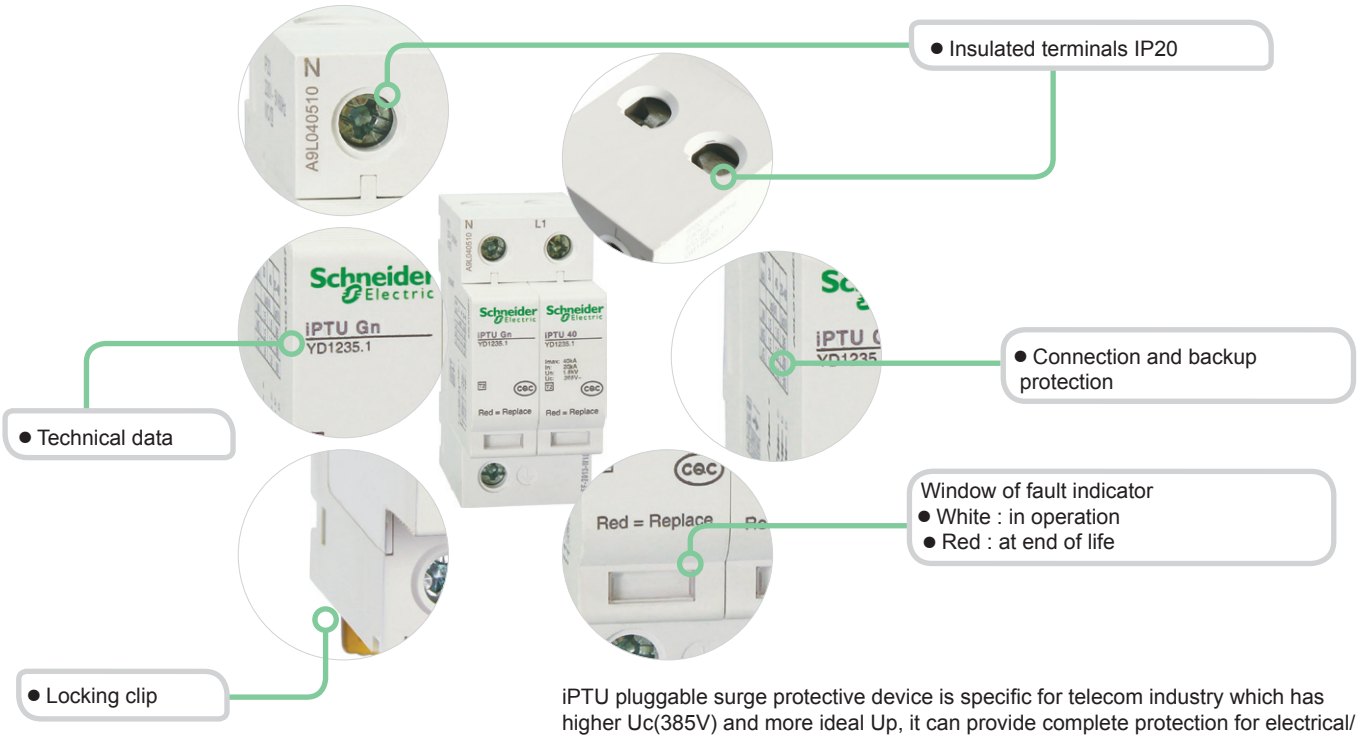
A9L916611

Type	Product	Imax (kA)	In (kA)	Up(kV) differential mode L/N	Up(kV) common mode N/⏚	Up(kV) L/⏚	Un (V)	Uc(V) differential mode L/N	Uc(V) common mode N/⏚	Uc(V) L/⏚	Earthing system	Width (In mod. of 9 mm)	Reference
1P+N	iST 40	40	20	≤1.5	≤1.5	≤1.7	230	340	260	440	TT & TN-S	4	**A9L916611**
	iST 20	20	10	≤1.2	≤1.6	≤1.5	230	340	260	440	TT & TN-S	4	**A9L916620**

A9L916615

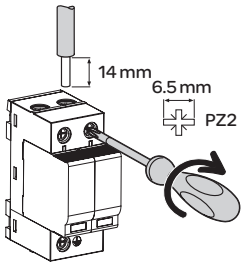
Type	Product	Imax (kA)	In (kA)	Up(kV) differential mode L/N	Up(kV) common mode N/⏚	Up(kV) L/⏚	Un (V)	Uc(V) differential mode L/N	Uc(V) common mode N/⏚	Uc(V) L/⏚	Earthing system	Width (In mod. of 9 mm)	Reference
3P+N	iST 65r	65	35	≤2.0	≤1.5	≤2.1	230/400	340	260	440	TT & TN-S	8	**A9L916605**
	iST 65	65	35	≤2.0	≤1.5	≤2.1	230/400	340	260	440	TT & TN-S	8	**A9L916606**
	iST 40r	40	20	≤1.5	≤1.5	≤1.7	230/400	340	260	440	TT & TN-S	8	**A9L916614**
	iST 40	40	20	≤1.5	≤1.5	≤1.7	230/400	340	260	440	TT & TN-S	8	**A9L916615**
	iST 20r	20	10	≤1.2	≤1.6	≤1.5	230/400	340	260	440	TT & TN-S	8	**A9L916625**
	iST 20	20	10	≤1.2	≤1.6	≤1.5	230/400	340	260	440	TT & TN-S	8	**A9L916623**

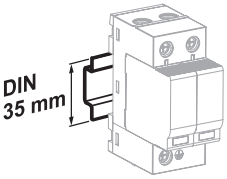
iPTU surge protective device



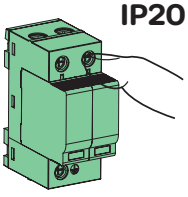
iPTU pluggable surge protective device is specific for telecom industry which has higher Uc(385V) and more ideal Up, it can provide complete protection for electrical/ electronic equipment of the communication power supply.

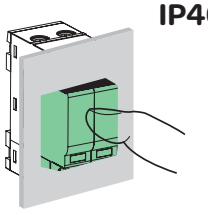
Description





Installed on the 35 mm DIN rail





Technical data

Main characteristics		
Standard		YD 1235.1
Test class		II / T2
Operating frequency		50/60 Hz
Rated operating voltage Uo		230 V AC
Maximum continuous operating voltage Uc		385 V
Maximum discharge current Imax		40/20 kA
Nominal discharge current In		20/10 kA
Up		1.6/1.5 kV
Poles		1P+N/3P+N
Earthing system		TT, TN
Additional characteristics		
End of life indication		Indication window
	White	In operation
	Red	At end of life
End of life remote indication		Remote signal
	Contact	11 common terminal, 12 normally closed, 14 normally open
	Uc	250 V AC
	Maximum switching current	1 A
	Connection capability	0.5...1.5 mm^2
Degree of protection		IP20
Response time		25 ns
Working temperature		-20°C ~ +60°C
Storage temperature		-40°C ~ +70°C
lie (0.75U1mA)		< 20 μA

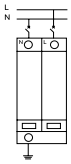
Connection

Maximum discharge current Imax	Tightening torque	Type of connection terminals		Recommended cables	
		Rigid cable	Flexible cable	L/N	Earthing cable
40/20 kA	3.5 Nm	2.5...35 mm^2	2.5...25 mm^2	≥4 mm^2	≥6 mm^2

iPTU surge protective device

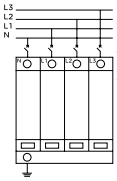
A9L040510

Type	Product	Imax (kA)	In (kA)	Up(kV) differential mode L/N	Up(kV) common mode N/⏚	Up(kV) L/⏚	Un (V)	Uc(V) differential mode L/N	Uc(V) common mode N/⏚	Uc(V) L/⏚	Earthing system	Width (In mod. of 9 mm)	Reference
1P+N	iPTU 40	40	20	≤1.6	≤1.5	≤1.8	230	385	260	500	TT & TN-S	4	**A9L040510**
	iPTU 20	20	10	≤1.5	≤1.5	≤1.6	230	385	260	500	TT & TN-S	4	**A9L020510**



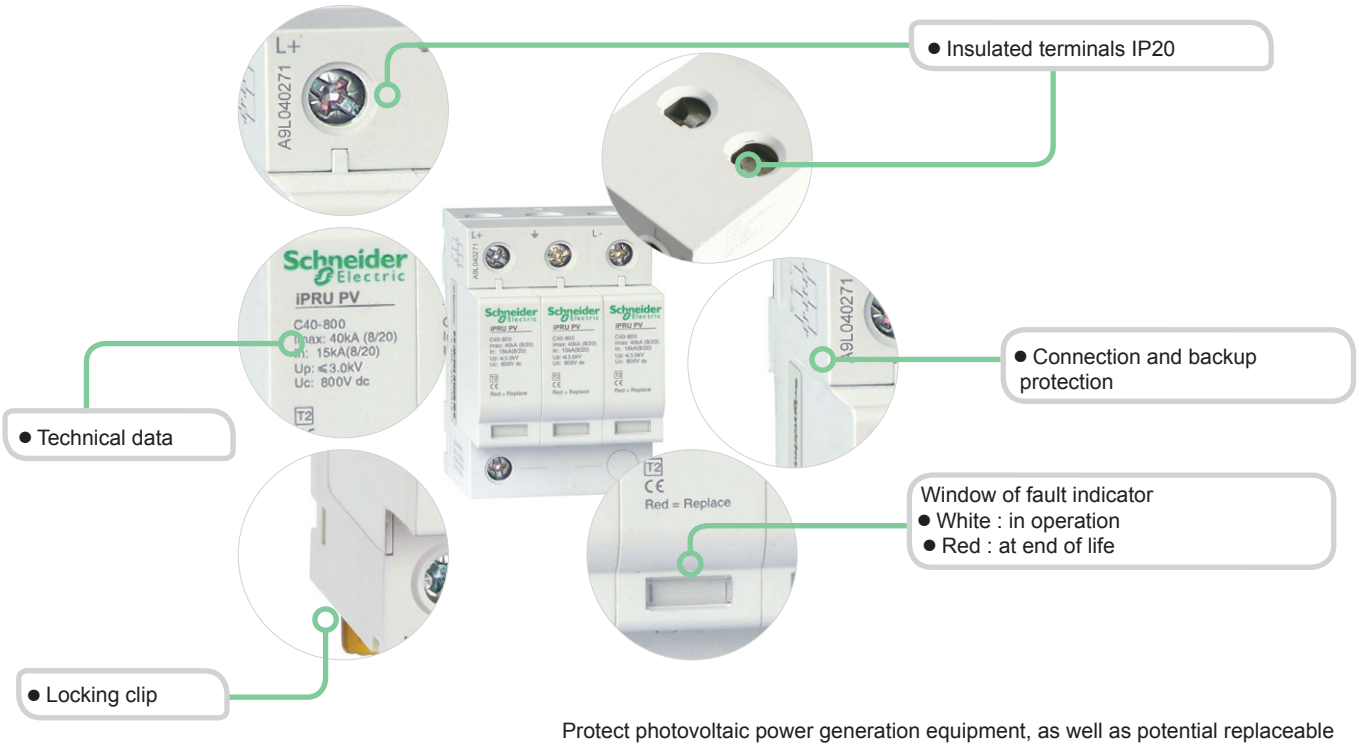
A9L020611

Type	Product	Imax (kA)	In (kA)	Up(kV) differential mode L/N	Up(kV) common mode N/⏚	Up(kV) L/⏚	Un (V)	Uc(V) differential mode L/N	Uc(V) common mode N/⏚	Uc(V) L/⏚	Earthing system	Width (In mod. of 9 mm)	Reference
3P+N	iPTU 40r	40	20	≤1.6	≤1.5	≤1.8	230/400	385	260	500	TT & TN-S	8	**A9L040611**
	iPTU 40	40	20	≤1.6	≤1.5	≤1.8	230/400	385	260	500	TT & TN-S	8	**A9L040610**
	iPTU 20r	20	10	≤1.5	≤1.5	≤1.6	230/400	385	260	500	TT & TN-S	8	**A9L020611**
	iPTU 20	20	10	≤1.5	≤1.5	≤1.6	230/400	385	260	500	TT & TN-S	8	**A9L020610**



Type	Product	Applied to	Width (In mod. of 9 mm)	Reference
Replaceable part	iD40-385	iPTU 40r / 40	2	**A9L040112**
	iD20-385	iPTU 20r / 20	2	**A9L020112**
	iDGn	iPTU 40r / 40 / 20r / 20	2	**A9L000012**

iPRU PV surge protective device



Protect photovoltaic power generation equipment, as well as potential replaceable part of other DC system.

Description

Technical data

Main characteristics		
Maximum continuous operating voltage Uc		800/1000 V DC
Maximum discharge current Imax		40 kA
Nominal discharge current In		15 kA
Up		3.0/3.9 kV
Additional characteristics		
End of life indication		Indication window
	White	In operation
	Red	At end of life
End of life remote indication		Remote signal
	Contact	11 common terminal, 12 normally closed, 14 normally open
	Uc	250 V AC
	Maximum switching current	1 A
	Connection capability	0.5...1.5 mm^2
Degree of protection		IP20
Response time		25 ns
Working temperature		-20°C ~ +60°C
Storage temperature		-40°C ~ +70°C

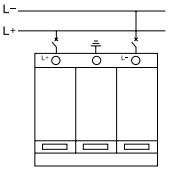
Connection

Maximum discharge current Imax	Tightening torque	Type of connection terminals		Recommended cables	
		Rigid cable	Flexible cable	L/N	Earthing cable
40 kA	3.5 Nm	2.5...35 mm^2	2.5...25 mm^2	≥4 mm^2	≥6 mm^2

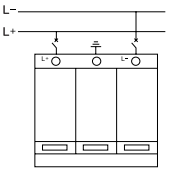
iPRU PV surge protective device

A9L040271

Type	Product	Imax (kA)	In (kA)	Up(kV) L+/⏚	Up(kV) L-/⏚	Up(kV) L+/L-	U_{OCSTC} (V)	Uc(V) L+/⏚	Uc(V) L-/⏚	Uc(V) L+/L-	Width (In mod. of 9 mm)	Reference
3MOV	iPRU 40r 800PV	40	15	1.6	1.6	3.0	600	600	600	840	6	**A9L040271**



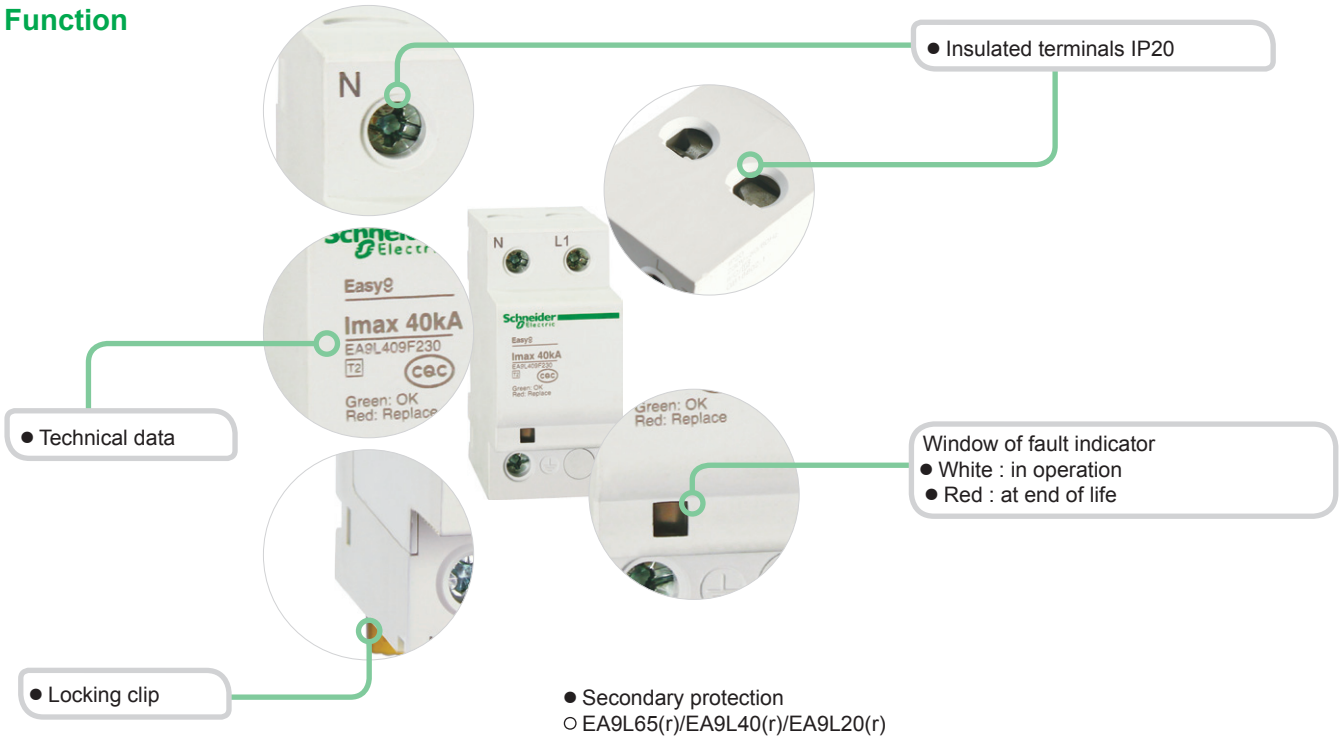
Type	Product	Imax (kA)	In (kA)	Up(kV) L+/⏚	Up(kV) L-/⏚	Up(kV) L+/L-	U_{OCSTC} (V)	Uc(V) L+/⏚	Uc(V) L-/⏚	Uc(V) L+/L-	Width (In mod. of 9 mm)	Reference
3MOV	iPRU 40r 1000PV	40	15	3.9	3.9	3.9	1000	1230	1230	1230	6	**A9L040281**



Type	Product	Applied to	Width (In mod. of 9 mm)	Reference
Replaceable part	iD40-800PV	iPRU 40r 800PV	2	**A9L040172**
	iD40-1000PV	iPRU 40r 1000PV	2	**A9L040182**

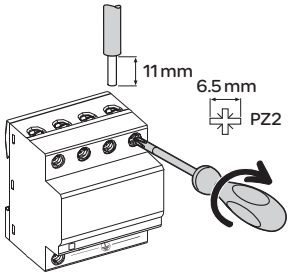
EA9L surge protective device

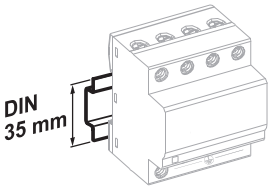
Function



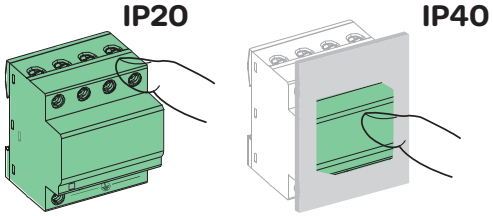
● Secondary protection
○ EA9L65(r)/EA9L40(r)/EA9L20(r)

Description





Installed on the 35 mm DIN rail



Technical data

Main characteristics		
Standard		GB 18802.1-2011
Test class		II / T2
Operating frequency		50/60 Hz
Rated operating voltage Uo		230 V AC
Maximum continuous operating voltage Uc		340 V
Maximum discharge current Imax		65/40/20 kA
Nominal discharge current In		35/20/10 kA
Up		2.0/1.5/1.2 kV
Poles		1P+N/3P+N
Earthing system		TT, TN
Additional characteristics		
End of life indication		Indication window
	White	In operation
	Red	At end of life
End of life remote indication		Remote signal
	Contact	11 common terminal, 12 normally closed, 14 normally open
	Uc	250 V AC
	Maximum switching current	0.25 A
	Connection capability	0.5...1.5 mm^2
Degree of protection		IP20
Response time		25 ns
Working temperature		-20°C ~ +60°C
Storage temperature		-40°C ~ +70°C
Iie (0.75U1mA)		< 210 μA (Without internal auxiliary circuit)
		< 760 μA (With internal auxiliary circuit)

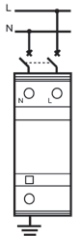
Connection

Maximum discharge current Imax	Tightening torque	Type of connection terminals		Recommended cables	
		Rigid cable	Flexible cable	L/N	Earthing cable
65/40/20 kA	3.5 Nm	2.5...35 mm^2	2.5...25 mm^2	≥4 mm^2	≥6 mm^2

EA9L surge protective device

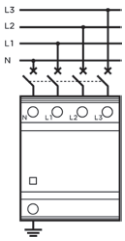
EA9L409F230

Type	Reference	Imax (kA)	In (kA)	Up(kV) differential mode L/N	Up(kV) common mode N/⏚	Up(kV) L/⏚	Un (V)	Uc(V) differential mode L/N	Uc(V) common mode N/⏚	Uc(V) L/⏚	Earthing system	Width (In mod. of 9 mm)
1P+N	**EA9L209F230**	20	10	1.2	1.6	1.5	230	340	260	440	TT & TN-S	4
	EA9L409F230	40	20	1.5	1.5	1.7	230	340	260	440	TT & TN-S	4
	EA9L659F230	65	35	2.0	1.5	2.1	230	340	260	440	TT & TN-S	4



EA9L408F400

Type	Reference	Imax (kA)	In (kA)	Up(kV) differential mode L/N	Up(kV) common mode N/⏚	Up(kV) L/⏚	Un (V)	Uc(V) differential mode L/N	Uc(V) common mode N/⏚	Uc(V) L/⏚	Earthing system	Width (In mod. of 9 mm)
3P+N	**EA9L208Fr400**	20	10	1.2	1.6	1.5	230/400	340	260	440	TT & TN-S	8
	EA9L208F400	20	10	1.2	1.6	1.5	230/400	340	260	440	TT & TN-S	8
	EA9L408Fr400	40	20	1.5	1.5	1.7	230/400	340	260	440	TT & TN-S	8
	EA9L408F400	40	20	1.5	1.5	1.7	230/400	340	260	440	TT & TN-S	8
	EA9L658Fr400	65	35	2.0	1.5	2.1	230/400	340	260	440	TT & TN-S	8
	EA9L658F400	65	35	2.0	1.5	2.1	230/400	340	260	440	TT & TN-S	8



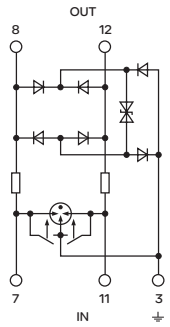
iPRC/iPRI surge protective device

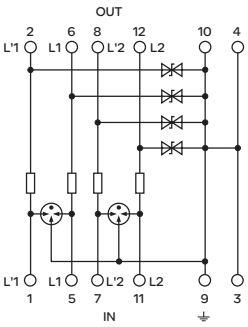
iPRC surge protective device is applied to protect sensitive equipment in analogue telephone line. Such as the telephones, the PABX, the modems (including ADSL), etc.

iPRI surge protective device is applied to protect sensitive equipment in digital telephone line .Such as automatic systems, computer networks, data networks, etc.

A9L16337

A9L16339

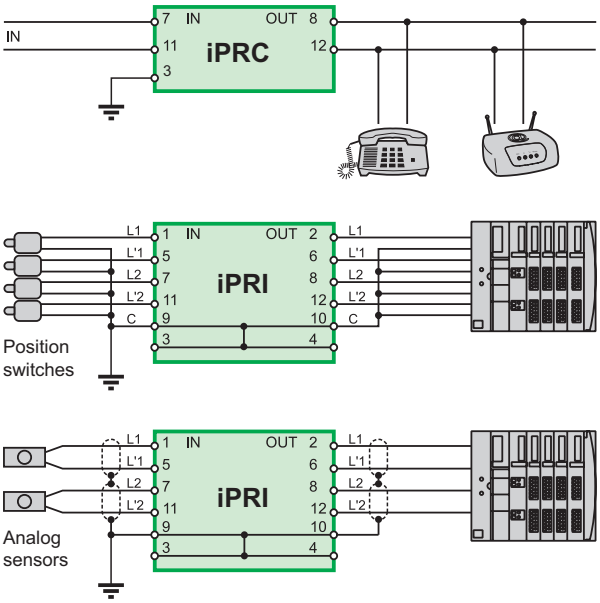




Line L1	7-8	Line L1	5-6
Line L2	11-12	Line L2	11-12
-	-	Line L'1	1-2
-	-	Line L'2	7-8
⏚	3	⏚	3-4-9-10
IN	Line side	IN	Line side
OUT	Protected side	OUT	Protected side

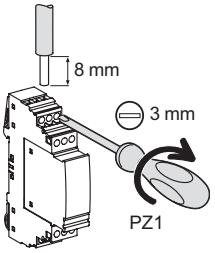
	iPRC	iPRI
Un	< 130V AC	48V DC
Analogue telephone system	●	-
Telephone transmitter	●	-
Digital telephone system	-	●
Automation network	-	●
VLV load power supply (12...48 V)	-	●
xDSL compatibility	●	-
Reference	**A9L16337**	**A9L16339**
Width (in mod. of 9 mm)	2	2

iPRC

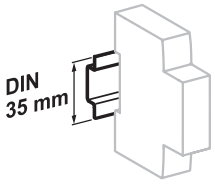


iPRC/iPRI surge protective device

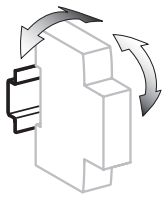
Type of connection terminals



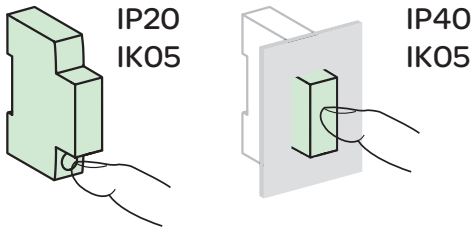
Tightening torque	Copper cables	
	Rigid	Flexible or ferrule
		
0.8N.m	0.2-4mm^2	0.2-2.5mm^2



Installed on the 35 mm DIN rail



Fit to different direction of installation



Technical data

		iPRC	iPRI
Standard		GB 18802.21	
The number of protected incoming lines		2	2
Maximum continuous operating voltage (Uc)		180 V DC, 130 V AC	53 V DC, 37 V AC
Up		300 V	70 V
Nominal discharge current (8/20)(In)		10 kA	10 kA
Maximum discharge current Imax (8/20) (Imax)		18 kA	10 kA
Response time		< 500 ns	≤1 ns
Nominal impulse current		100 A	70 A
Rated current (IN)		450 mA (under 45 °C)	300 mA (under 45 °C)
Series resistance		2.2 Ω	4.7 Ω
End of life indication		No dial tone	No transmission
Degree of protection	Front panel	IP20	IP20
	Terminals	IP40	IP40
IK		05	05
Working temperature		-25 °C ~ +60 °C	-25 °C ~ +60 °C
Storage temperature		-40 °C ~ +85 °C	-40 °C ~ +85 °C

Weight (g)

Type	iPRC	iPRI
	25	65

SE antenna surge protective device

Function

SE antenna surge protective device is applied to protect all kinds of mobile communication base station, such as GPS positioning system, cable TV system, remote education system, and other high power communication equipment.

Description

ETT antenna surge protective device can undertake narrowband or broadband design according to the principle of λ/4, and because lightning current has low frequency, it can be removed from the operating signal .

SETK antenna surge protective device uses coaxial gas discharge tube, it has better transmission characteristics and can obtain higher transmission frequency.

SEWT surge protective device interior is innovatively designed with passive, reciprocity work which makes the thunder electric wave and operating signal wave go through different channels and achieves the aim of shunt.

Common technical data

- Standing wave ratio: ≤1.2 (≤1.5, F interface)
- Insertion loss: <0.2 dB
  - KT≤0.3 dB
  - British system F joint ≤ 0.5 dB
  - Metric system FL joint ≤ 1.0 dB
- Maximum discharge current Imax (8/20μs): 60/40/20/10 kA
- nominal discharge current In(8/20μs): 40/20/10/5 kA
- Interface: Male/Female
- Characteristic impedance: 50 Ω
- Third order intermodulation: Better than -160dBC
- Environmental temperature: -40 °C ~ +80 °C

Standard

- GB/T 18802.21

911663

SETT series λ/4 antenna surge protective device

Product	Interface	Frequency MHz	Power W	Up V (10/700μs)	Dimension mm	Weight g	Reference
SETT8-10N-40	N	800-960	300	≤10V	33 x 66 x 75	210	**911660**
SETT17-24N-40	N	1700-2400	150	≤10V	30 x 39 x 75	190	**911661**
SETT8-10D-60	DIN	800-960	500	≤10V	37 x 92 x 101	640	**911662**
SETT8-25D-60	DIN	800-2500	500	≤10V	37 x 65 x 90	385	**911663**

911666

SEKT series discharge tube type antenna surge protective device

Product	Interface	Frequency MHz	Power W	Up V (10/700μs)	Dimension mm	Weight g	Reference
SEKT25N-10	N	DC-2500	100	≤700V	20 x 30 x 76	230	**911664**
SEKT25T-10M	TNC	DC-2500	100	≤700V	F20 x 56	75	**911665**
SEKT25D-10	DIN	DC-2500	100	≤700V	35 x 42 x 77	270	**911666**
SEKT15FL-10	FL	DC-2050	100	≤700V	18.5 x 23 x 50	62	**911672**
SEKT20F-10	F	DC-2050	100	≤700V	18.5 x 23 x 50	62	**911673**

note: SEKT15FL-10: metric thread.

911668

SEWT series microstrip type antenna surge protective device

Product	Interface	Frequency MHz	Power W	Up V (10/700μs)	Dimension mm	Weight g	Reference
SEWT16N-10CN	N	1500-1600	60	≤100V	56 x 25 x 95	175	**911667**
SEWT10N-20N	N	700-1000	300	≤100V	84 x 32 x 73	242	**911668**
SEWT20N-20N	N	1700-2000	300	≤100V	84 x 32 x 73	242	**911669**
SEWT10D-20N	DIN	700-1000	300	≤100V	84 x 32 x 73	332	**911670**
SEWT20D-20N	DIN	1700-2000	300	≤100V	84 x 32 x 73	332	**911671**

SE antenna surge protective device

Function

SE signal surge protective device uses high-quality transient voltage suppression diode, solid discharge tube and gas discharge tube. The product family has differential mode and common mode protection products, the equilibrium and non-equilibrium circuit products, low speed circuit and high speed circuit products, fine protection and composite protection products.

Application

Applied to surge protection for computer network, data lines, SPC exchange, various types of fire monitoring equipment, RS422/485 interface, current loop, automatic control and instrumentation line.

Function

SEXM protects the monitoring system such as camera, matrix controller, etc.

Description

Technical data

- Characteristic impedance: 75 Ω
- Uc: 5/24V
- Transmission rate: 10 M
- Nominal discharge current: 5 kA
- Up: ≤ 100 V (Composite wave with 1.2/50μs and 8/20μs)
- Insertion loss: ≤ 0.3 dB
- Interface: Male/Female
- Working temperature: -40 °C ~ +80 °C

Standard

- GB/T 18802.21

9116676

Product	Interface	Up V	Dimension mm	Weight g	Reference
SEXM-1B-5	BNC	≤100V	80 x 27 x 25	75	**9116676**
SEXM-1B-24	BNC	≤100V	80 x 27 x 25	75	**9116677**

Function

SEXL (RJ11) protects DDN line ,dialup line, FAX.

Description

Technical data

- Uc: 12/48/110 V
- Number of protected lines: 3,4
- Transmission rate: 2 M
- Nominal discharge current: 2 kA
- Up: ≤100 V (Composite wave with 1.2/50μs and 8/20μs)
- Insertion loss: ≤ 0.5 dB
- Working temperature: -40 °C ~ +80 °C

Standard

- GB/T 18802.21

9116678

Product	Interface	Up V	Dimension mm	Weight g	Reference
SEXL-1H-12	RJ11	≤100V	80 x 27 x 25	70	**9116678**
SEXL-1H-48	RJ11	≤100V	80 x 27 x 25	70	**9116679**
SEXL-1H-110	RJ11	≤100V	80 x 27 x 25	70	**9116680**

SE antenna surge protective device

Function

SEXM, SEXH protects hubs, network switches and other network equipment.

Description

9116681

Technical data

- Uc: 5 V
- Number of protected lines: 1,2,3,6
- Transmission rate: 10/100 M
- Nominal discharge current: 5 (shielded line to earth) / 2 (core wire to shielded line) kA
- Up: ≤100 V (Composite wave with 1.2/50μs and 8/20μs)
- Insertion loss: ≤1 dB
- Working temperature: -40 °C ~ +80 °C

Standard

- GB/T 18802.21

Product	Interface	Transmission rate M	Up V	Dimension mm	Weight g	Reference
SEXM-2R-5	RJ45	10M	≤100V	80 x 27 x 25	95	**9116681**
SEXH-2R-5	RJ45	100M	≤100V	80 x 27 x 25	95	**9116682**

Function

SEXL (twisted-pair) protects industrial control Internet,RS422/485 interface, automatic control instrument circuit ,data cable and telephone equipment, as well as protects sensors in current loop and the secondary instrument.

Description

9116688

Technical data

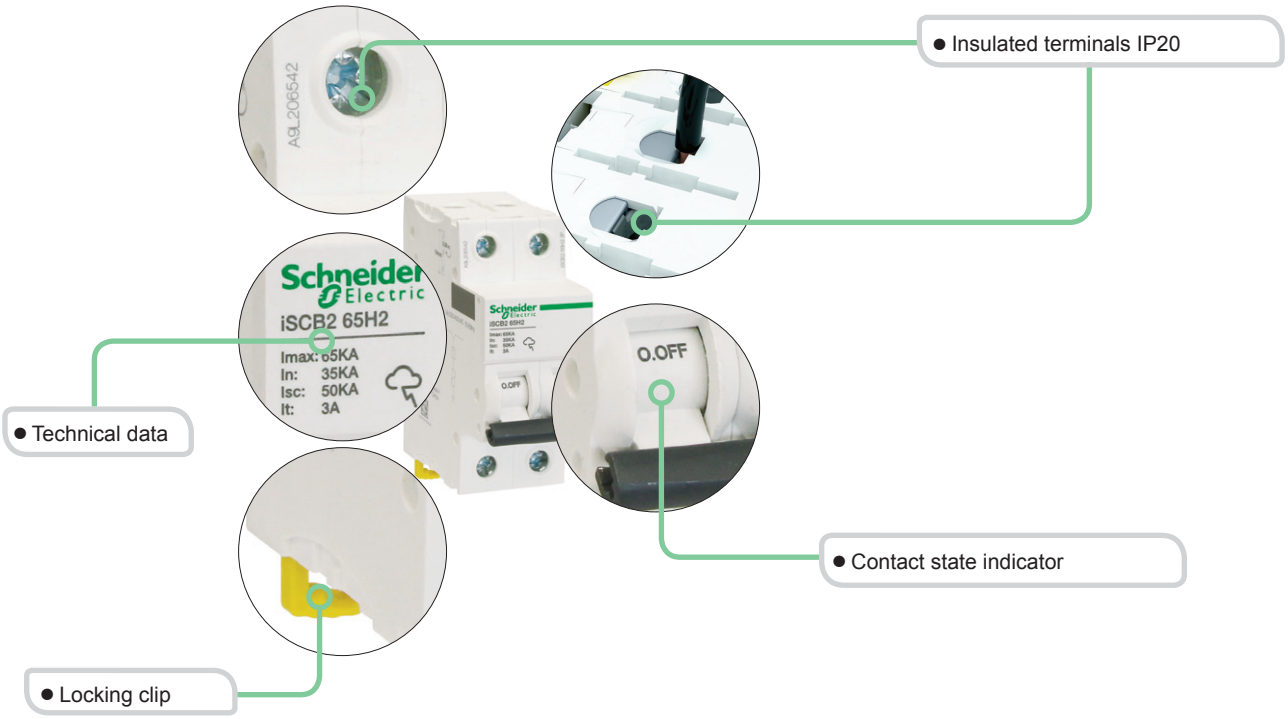
- Uc: 5/12/24/110 V
- Number of protected lines: SEXL-1J/SEXL-2J: line 1 / line 2
- Transmission rate: 2 M
- Nominal discharge current: 5 kA
- Up: ≤ 100 V (Composite wave with 1.2/50μs and 8/20μs)
- Insertion loss: ≤ 0.5 dB
- Working temperature: -40 °C ~ +80 °C

Standard

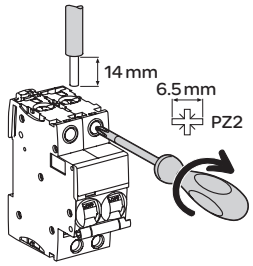
- GB/T 18802.21

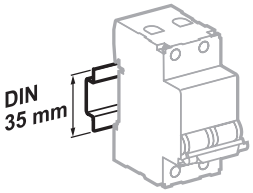
Product	Number of protected lines	Up V	dimension mm	weight g	Reference
SEXL-1J-5	1 pair of twisted pair	≤100V	100 x 27 x 25	70	**9116683**
SEXL-1J-12	1 pair of twisted pair	≤100V	100 x 27 x 25	70	**9116684**
SEXL-1J-24	1 pair of twisted pair	≤100V	100 x 27 x 25	70	**9116685**
SEXL-1J-110	1 pair of twisted pair	≤100V	100 x 27 x 25	70	**9116686**
SEXL-2J-5	2 pairs of twisted pair	≤100V	100 x 47 x 25	110	**9116687**
SEXL-2J-12	2 pairs of twisted pair	≤100V	100 x 47 x 25	110	**9116688**
SEXL-2J-24	2 pairs of twisted pair	≤100V	100 x 47 x 25	110	**9116689**
SEXL-2J-110	2 pairs of twisted pair	≤100V	100 x 47 x 25	110	**9116690**

iSCB SPD backup circuit breaker

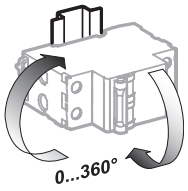


Description

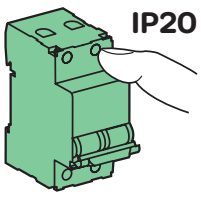


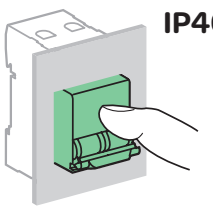


Installed on the 35 mm DIN rail



Flexible installation direction





Technical data

Main characteristics		
Test class of SPD		T1/T2
Rated operating voltage		230/400 VAC
Working frequency		50/60 Hz
Maximum impulse current Iimp		25 kA
Maximum discharge current Imax		120/65/20 kA
Nominal discharge current In		60/35/10 kA
Maximum short circuit breaking capacity Isc		100/65/50/36/25/15 kA
Poles		1P, 2P, 3P, 4P
Low shore circuit operating current		3 A
Additional characteristics		
Local indication		Contact state
Remote indication		Remote signal
Degree of protection	Front pane	IP40
	Terminals	IP20

Connection

Iimp	Tightening torque	Connection capability		Recommended cables
		Rigid cable	Flexible cable	
25kA	3.5 N·m	2.5...35 mm^2	2.5...25 mm^2	16 mm^2

Imax	Tightening torque	Connection capability		Recommended cables
		Rigid cable	Flexible cable	L/N
120kA	3.5 N·m	2.5...35 mm^2	2.5...25 mm^2	≥ 6 mm^2
65kA				≥ 4 mm^2
20kA				≥ 4 mm^2

iSCB SPD backup circuit breaker
For Type I SPD

A9L102551

SPD applied to	Product	Iimp (kA)	In (kA)	Isc (kA)	It (A)	Poles	Width (In mod. of 9 mm)	Reference
iPRD1 20r iPRF1 12.5r	iSCB1 25L2 1P	25	80	100	3	1P	4	**A9L102561**
	iSCB1 25L1 1P	25	80	65	3	1P	4	**A9L102551**
	iSCB1 25L2 2P	25	80	100	3	2P	8	**A9L102562**
	iSCB1 25L1 2P	25	80	65	3	2P	8	**A9L102552**
	iSCB1 25L2 3P	25	80	100	3	3P	12	**A9L102563**
	iSCB1 25L1 3P	25	80	65	3	3P	12	**A9L102553**
	iSCB1 25L2 4P	25	80	100	3	4P	16	**A9L102564**
	iSCB1 25L1 4P	25	80	65	3	4P	16	**A9L102554**

iSCB SPD backup circuit breaker
For Type II SPD

A9L206542

SPD applied to	Product	Imax (kA)	In (kA)	Isc (kA)	It (A)	Poles	Width (In mod. of 9 mm)	Reference
iPRU 120r iPRU 80r	iSCB2 120L2 1P	120	60	100	3	1P	2	**A9L212061**
	iSCB2 120L1 1P	120	60	65	3	1P	2	**A9L212051**
	iSCB2 120L2 2P	120	60	100	3	2P	4	**A9L212062**
	iSCB2 120L1 2P	120	60	65	3	2P	4	**A9L212052**
	iSCB2 120L2 3P	120	60	100	3	3P	6	**A9L212063**
	iSCB2 120L1 3P	120	60	65	3	3P	6	**A9L212053**
	iSCB2 120L2 4P	120	60	100	3	4P	8	**A9L212064**
	iSCB2 120L1 4P	120	60	65	3	4P	8	**A9L212054**

A9L206544

SPD applied to	Product	Imax (kA)	In (kA)	Isc (kA)	It (A)	Poles	Width (In mod. of 9 mm)	Reference
iPRU 65r iPRU 40r/40 iST 65r/65 iST 40r/40 EA9L 65kA EA9L 40kA	iSCB2 65H2 1P	65	35	50	3	1P	2	**A9L206541**
	iSCB2 65H1 1P	65	35	36	3	1P	2	**A9L206531**
	iSCB2 65H2 2P	65	35	50	3	2P	4	**A9L206542**
	iSCB2 65H1 2P	65	35	36	3	2P	4	**A9L206532**
	iSCB2 65H2 3P	65	35	50	3	3P	6	**A9L206543**
	iSCB2 65H1 3P	65	35	36	3	3P	6	**A9L206533**
	iSCB2 65H2 4P	65	35	50	3	4P	8	**A9L206544**
	iSCB2 65H1 4P	65	35	36	3	4P	8	**A9L206534**

SPD applied to	Product	Imax (kA)	In (kA)	Isc (kA)	It (A)	Poles	Width (In mod. of 9 mm)	Reference
iPRU 20r/20 iPRU 10 iST 20r/20 EA9L 20kA	iSCB2 20N2 1P	20	10	25	3	1P	2	**A9L202021**
	iSCB2 20N1 1P	20	10	15	3	1P	2	**A9L202011**
	iSCB2 20N2 2P	20	10	25	3	2P	4	**A9L202022**
	iSCB2 20N1 2P	20	10	15	3	2P	4	**A9L202012**
	iSCB2 20N2 3P	20	10	25	3	3P	6	**A9L202023**
	iSCB2 20N1 3P	20	10	15	3	3P	6	**A9L202013**
	iSCB2 20N2 4P	20	10	25	3	4P	8	**A9L202024**
	iSCB2 20N1 4P	20	10	15	3	4P	8	**A9L202014**

Appendix

Selection table

How to select a surge protective device in a building or structure

For a general building or structure, the selection of multi-level surge protective devices should comply with the requirements of GB50057-2010 and GB50343-2012. The surge protective devices in low voltage distribution system recommended by Schneider Electric comply with the above standards and the details are listed in below table:

Selection

Select the specification of surge protective devices based on the lightning protection level of electronic information system in building and different lightning protection zone

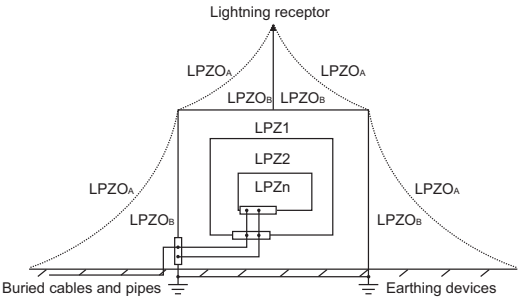
Protection level	the boundary between LPZ0 and LPZ1		the boundary between LPZ1 and LPZ2	the boundary of the following protection zone
	Main switchboard		Sub-switchboard	Enclosure of sensitive equipment to be protected
	10/350μs	8/20μs	8/20μs	8/20μs
	I_{imp} (kA)	In (kA)	In (kA)	In (kA)
A	≥20	≥80	≥40	≥5
	iPRD1 20r iPRF1 12.5r (by GB50057)	Please contact us	iPRU 80r	iPRU 10 / PRU 10
B	≥15	≥60	≥30	≥5
	iPRD1 20r iPRF1 12.5r (by GB50057)	iPRU 120r	iPRU 65r	iPRU 10 / PRU 10
C	≥12.5	≥50	≥20	≥3
	iPRF1 12.5r	iPRU 120r	iPRU 40r / iPRU 40	iPRU 10 / PRU 6
D	≥12.5	≥50	≥10	≥3
	iPRF1 12.5r	iPRU 120r	iPRU 20r / iPRU 20	iPRU 10 / PRU 6

Lightning Protection Level of Electronic Information System in Building

Lightning Protection Level	Building type
A	● Electronic information systems in important public facilities such as state level computing centers, state level communication hubs, highest level and Level 1 monetary facilities, medium and large airports, state and provincial level radio and TV center, hub ports, train hub stations, provincial and municipal level water, electricity and heat facilities ● The CCTV monitoring and alarm systems of Level 1 security units, such as State Cultural Relic and Archive Museums ● Electronic medical equipment of level1 hospitals
B	● Electronic information system of medium computing centers, Level 2 monetary facilities, medium communication hubs, mobile communication base stations, large stadiums, small airports, large ports, and large train stations ● The CCTV monitoring and alarm systems of Level 2 security units, such as Provincial Cultural Relic and Archive Museums ● Electronic information systems of radar stations and microwave stations, as well as highway monitoring and toll collection systems ● Electronic medical equipment of level 2 hospitals ● Electronic information systems of Five-Star and higher level hotels
C	● Electronic information systems of Level III monetary facilities and small communication hub ● Large and medium cable TV system ● Electronic information systems of Four-Star and lower level hotels
D	General-purpose electronic information equipment which requires protection except for the above A, B and C cases

Lightning protection zone partition

- Lightning protection zone partition means to divide the buildings which require protection and control of lightning EMP environment into different lightning protection zones (LPZ) from exterior to interior.
- Lightning protection zones are divided into: $LPZO_A$, $LPZO_B$, LPZ1, LPZ2, LPZn (refer to the right figure), and meet the following regulations:
  - $LPZO_A$: Electromagnetic field does not decay, various objects may be directly struck by lightning , and it is a completely exposed nonprotection zone.
  - $LPZO_B$: Electromagnetic field does not decay, various objects are unlikely to be directly struck by the lightning, and it is a completely exposed direct lightning protection zone.
  - LPZ1: Because of the shielding measures of the building, the lightning current flowing through various conductors is less than the current in the direct lightning protection zone ($LPZO_B$). The electromagnetic field decays, and various objects cannot be directly struck by lightning.
  - LPZ2:Followinng protection zone which is introduced to further decrease the guided lightning current or electromagnetic field.
  - LPZn: Following protection zones which are introduced to further decrease lightning electromagnetic pulse to protect highly sensitive equipment.



: equipotential earthing terminal board

: grading shield ,such as exterior walls of the buildings, rooms

Dotted line: LPS protection range calculated through rolling sphere method

Building lightning protection zone(LPZ) partition

Surge protective device selection

Effective $U_{p/f}$ selection

The selection of effective Up/f need to consider two aspects. (More details in GB50057 2010):

- d: The distance between surge protective device and equipment.
- Uw: rated impulse withstand voltage of equipment

$U_{p/f}$ should comply with:

When d ≤ 5m or 10m (Lines are shielded and both ends is continuously equipotential)

$$Up/f \leq Uw$$

when d>10m

$$Up/f \leq \frac{Uw}{2}$$

Rated impulse withstand voltage of equipment(Uw) in 220/380V distribution system.

Type	I Low	II Normal	III High	IV Very high
Equipment	Electronic equipment: TV, audio, recorder	Household device: washer, refrigerator, power tools, heater, computers and other communication	Industrial electrical equipment: Motors, switchboard, power plug, transformer, etc.	Industrial electrical equipment: Electrical measuring instrument , overcurrent protection device.
Uw	1.5 kV	2.5 kV	4 kV	6 kV

Uc selection

According to the type of earthing system and protection mode of surge protective device

Surge protective device	Earthing system				
Connected to	TT	TN-C	TN-S	IT system with neutral line	IT system without neutral line
L-N	1.15Uo	Not applicable	1.15Uo	1.15Uo	Not applicable
L-PE	1.15Uo	Not applicable	1.15Uo	$\sqrt{3}$Uo	Voltage between phases
N-PE	Uo	Not applicable	Uo	Uo	Not applicable
L-PEN	Not applicable	1.15Uo	Not applicable	Not applicable	Not applicable

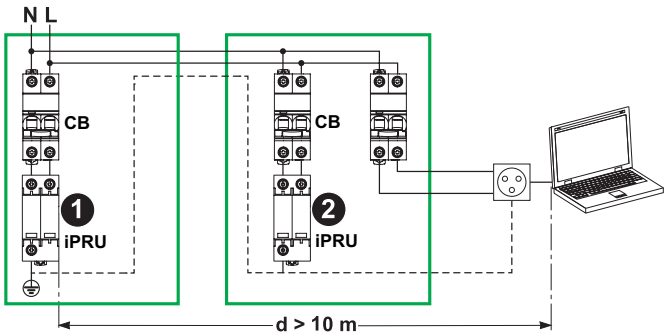
Uo: phase voltage, 220V.

PS: we suggest that Uc should be higher than 320v because of the instability of Chinese grid.

Surge protective device selection

Principle of hierarchical configuration

To offer best selection, surge protective device configuration is usually multilevel in application. The first protection should withstand most lightning current, and the second protection discharges residual lightning current, limits residual voltage at the equipment, and cooperates with the first protection.



When d>10m ,surge protective device should be installed as close as possible to the protected equipment.

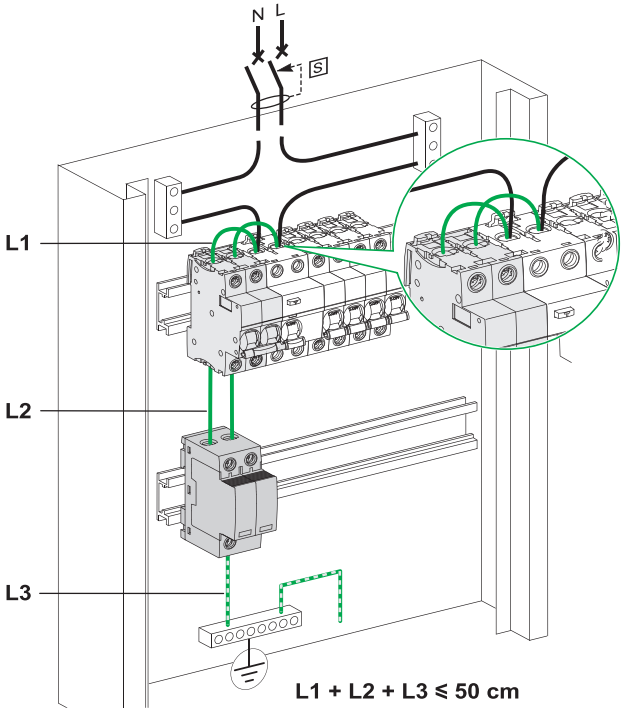
When the lightning current invades and discharges, SPD1 has two possibilities:

- Up is much higher than Uw
- Surge protective device is far away from fine equipment (>10 m)

In both cases, surge protective device shall be installed near the load to reduce overvoltage and make it match the Uw of protected equipment .

Principle of 50 cm connection

Installation of connection requires d1+d2+d3< 50cm, the connection among terminal of surge protective device , the electric wiring and grounding bus connection should be as short as possible to avoid the partial pressure get too high and busbar voltage rise too much.



Technical terms explanation

Class I test
Test with In ,1.2 /50 surge voltage and Iimp.

Class II test
Test with In ,1.2 / 50 surge voltage and Imax.

Maximum continuous operating voltage Uc
Maximum r.m.s. or d.c. voltage, which may be continuously applied to the surge protective device's mode of protection

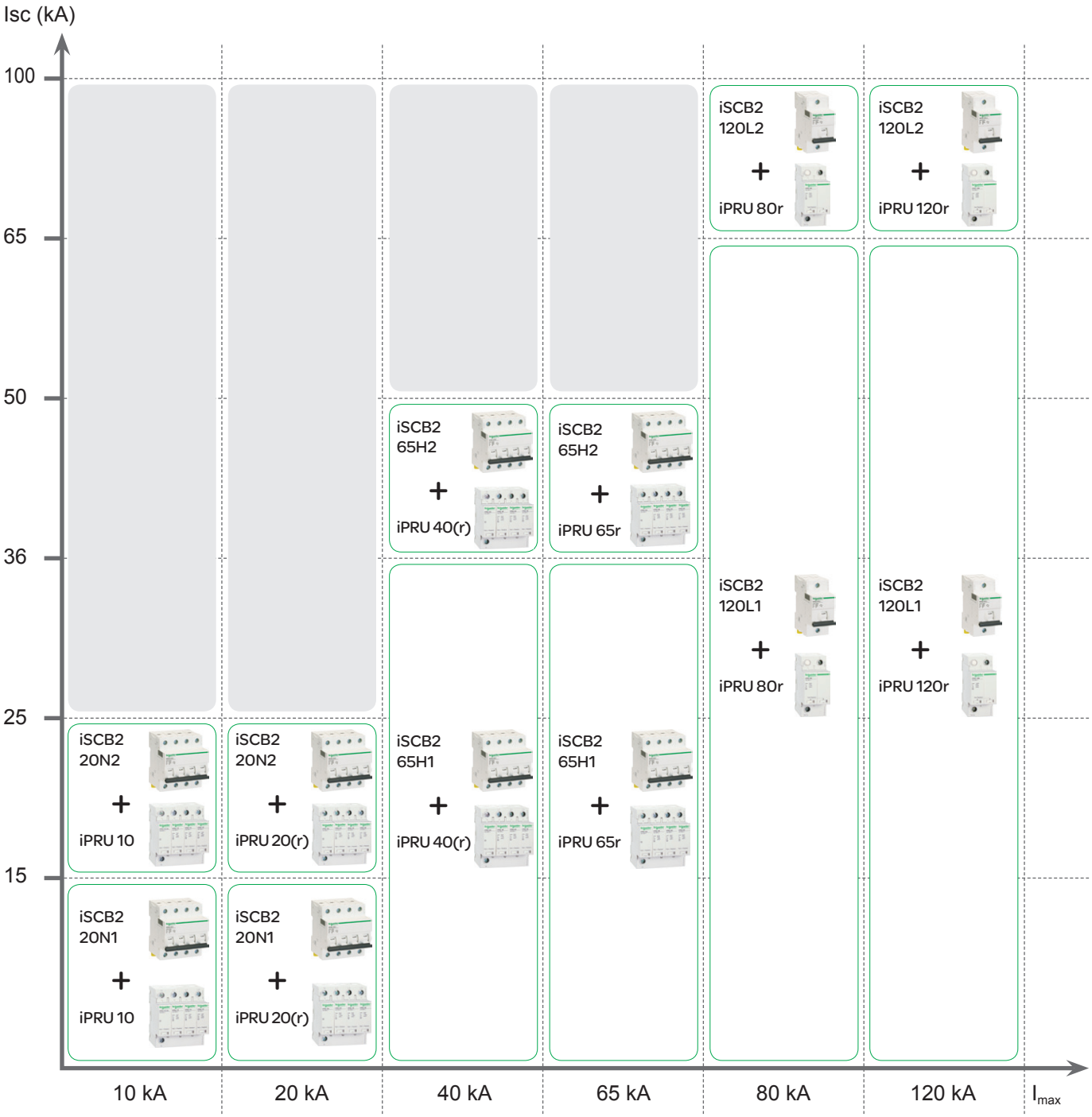
Maximum discharge current Imax
Crest value of a current through the surge protective device having an 8/20μs wave-shape and magnitude according to the test sequence of the class II operating duty test. Imax is greater than In

Nominal discharge current In
Crest value of the current through the surge protective device having a current wave-shape of 8/20μs. This is used for the classification of the surge protective device for class II test and also for preconditioning of the surge protective device for class I and II tests.

Voltage protection level Up
A parameter that characterizes the performance of the surge protective device in limiting the voltage across its terminals, which is selected from a list of preferred values. This value shall be greater than the highest value of the measured limiting voltages.

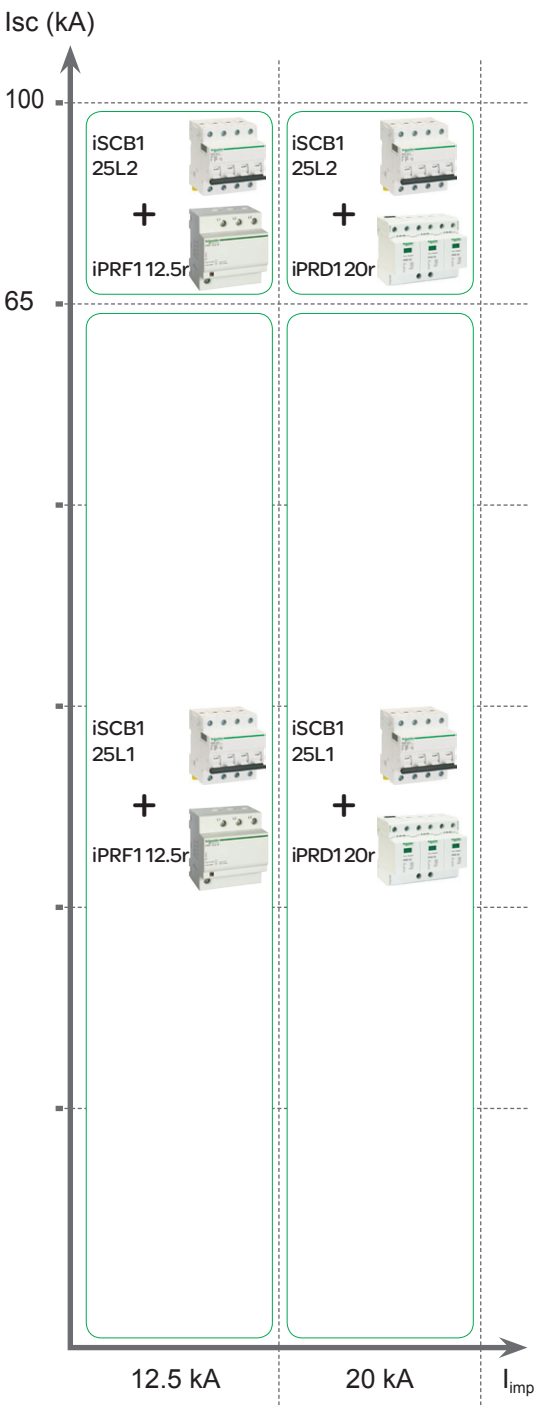
Backup circuit breaker selection
II (8/20μs) Surge protective device

The maximum short-circuit breaking capacity

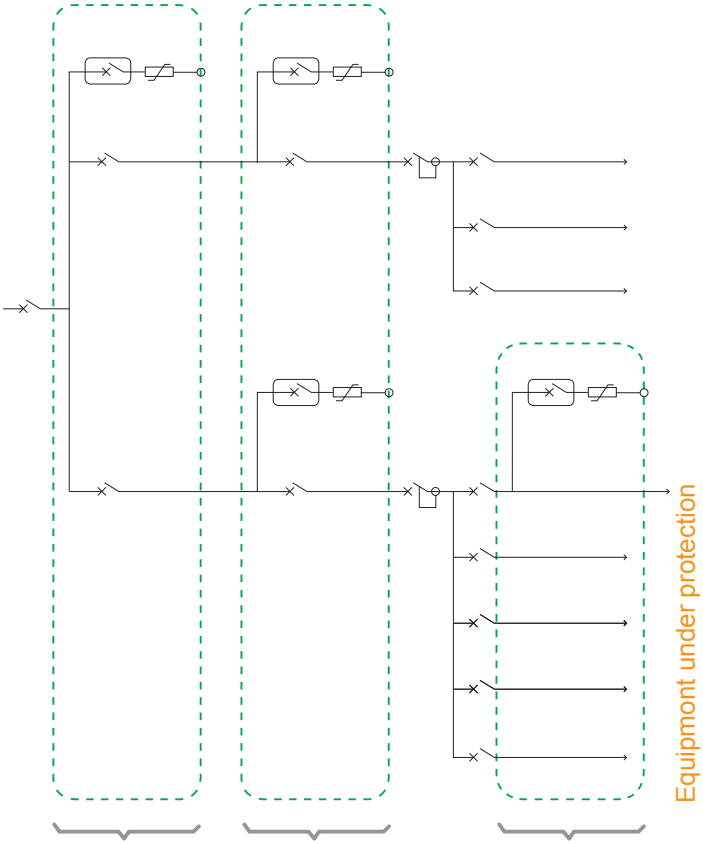


Backup circuit breaker selection I (10/350µs) Surge protective device

The maximum short-circuit breaking capacity



Application case



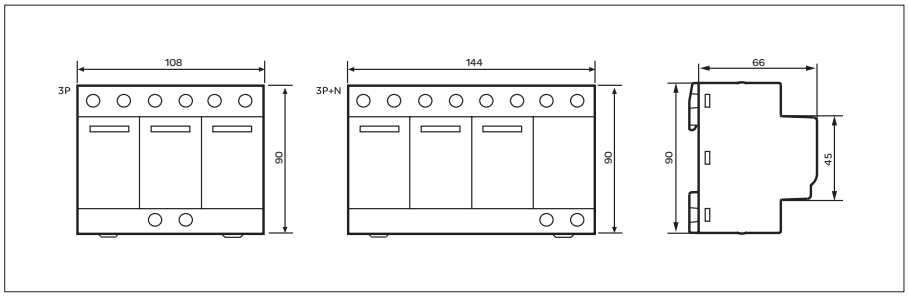
First level protection:
iSCB1 25L2
+
iPRD1 20r / iPRF1 12.5r
or
iSCB2 120L2
+
iPRU 120r

Secand level protection:
iSCB2 65H2
+
iPRU 40r

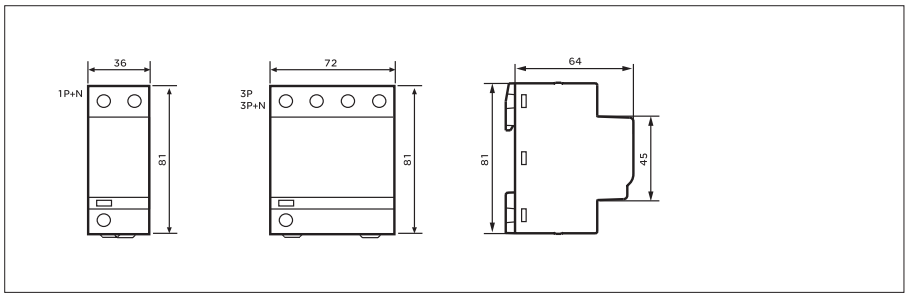
Third level protection:
iSCB2 20N2
+
iPRU 10

Dimension

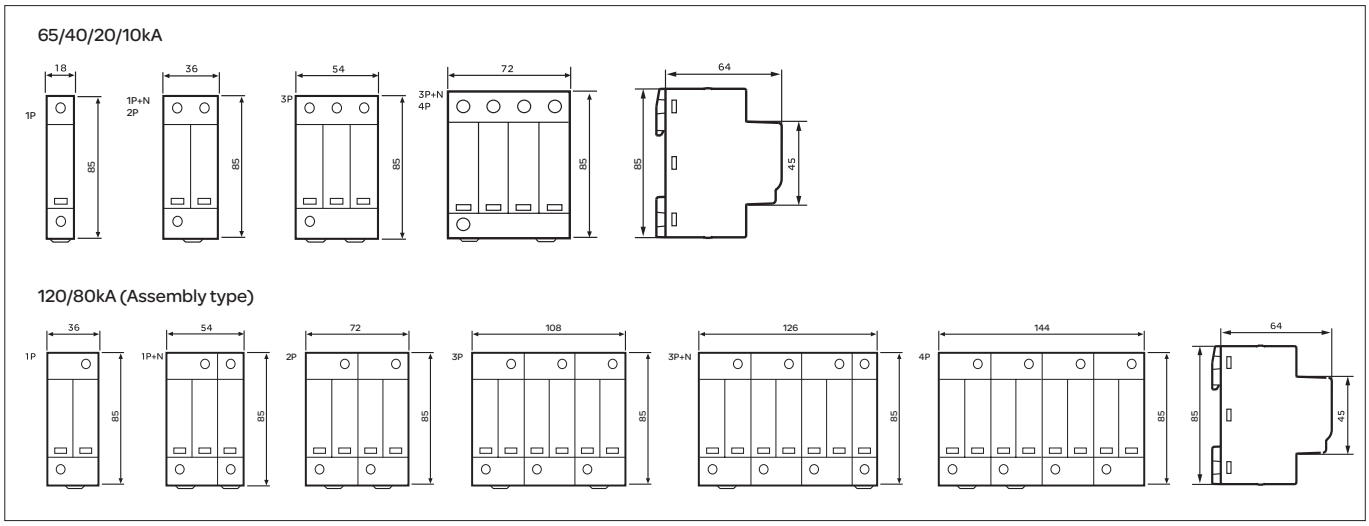
iPRD1 20r surge protective device



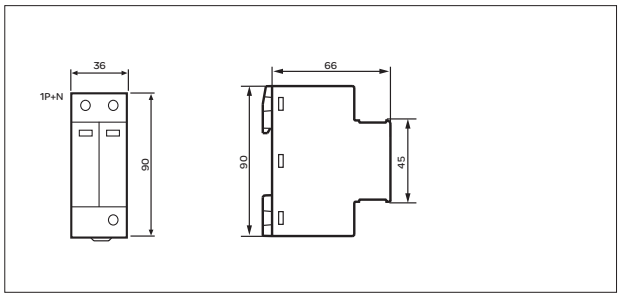
iPRF1 12.5r surge protective device



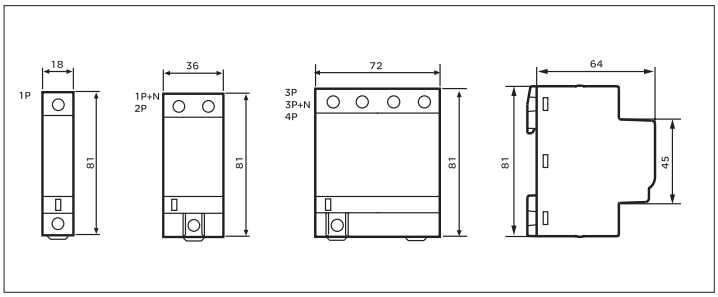
iPRU surge protective device



PRU surge protective device

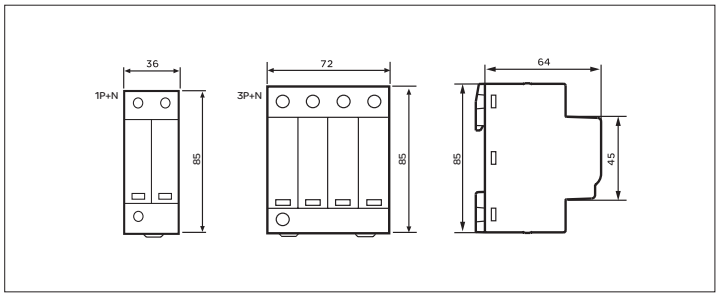


iST surge protective device

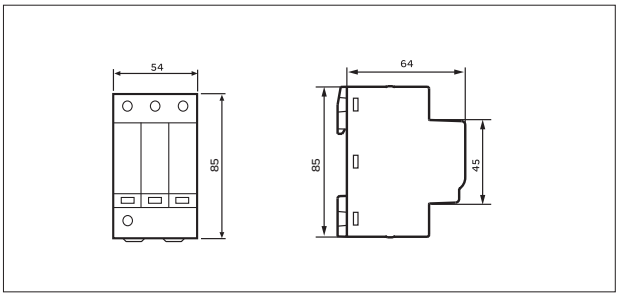


Dimension

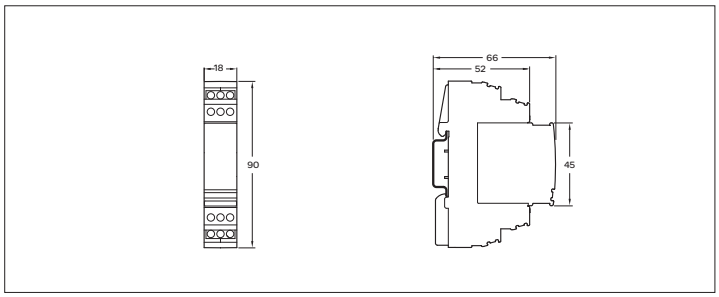
iPTU surge protective device



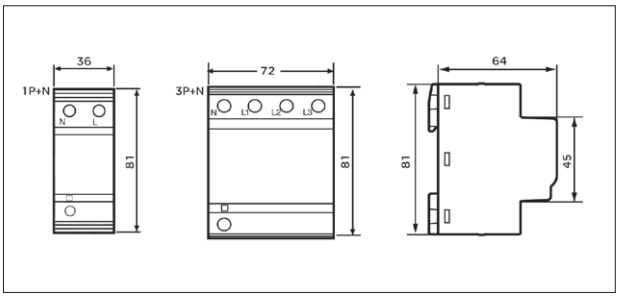
iPRU PV surge protective device



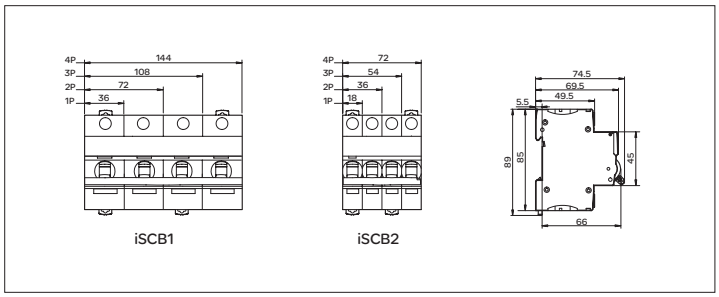
iPRC/iPRI surge protective device



EA9L surge protective device

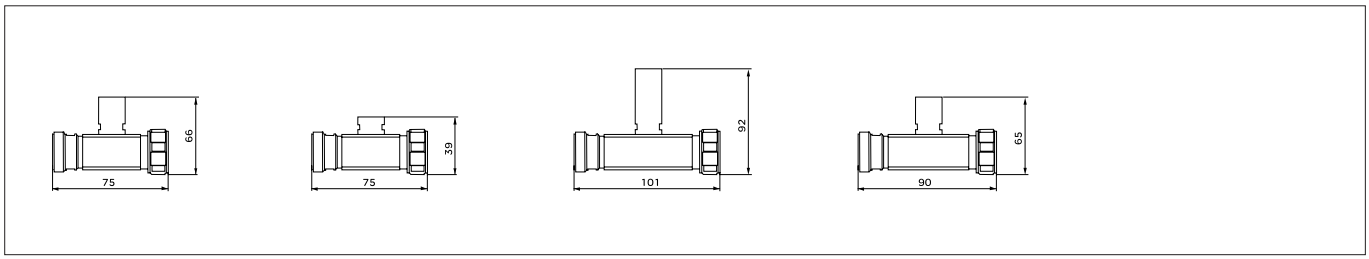


iSCB SPD backup circuit breaker

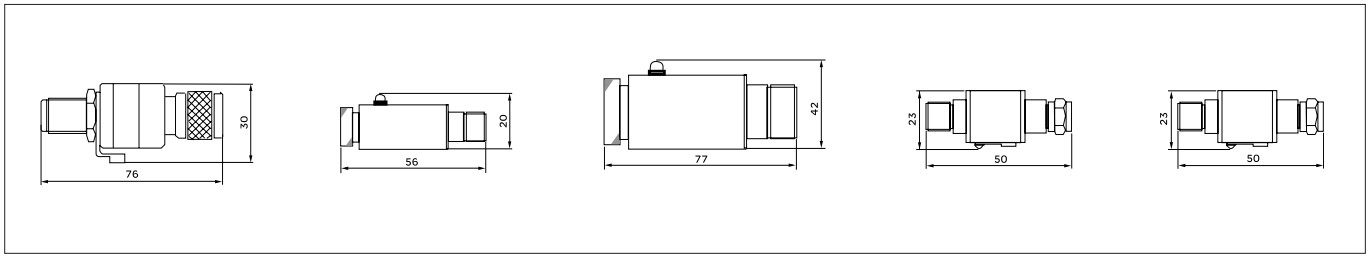


Dimension

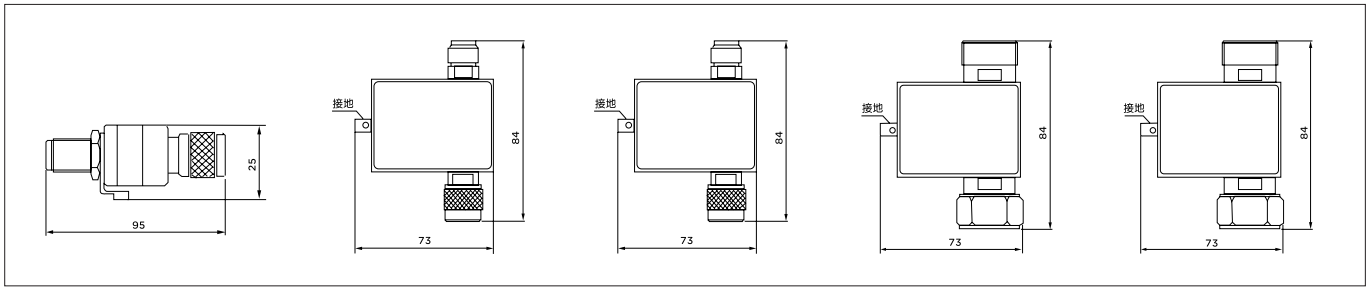
SETT series λ/4 antenna surge protective device



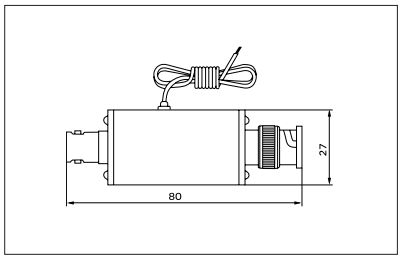
SEKT series discharge tube type antenna surge protective device



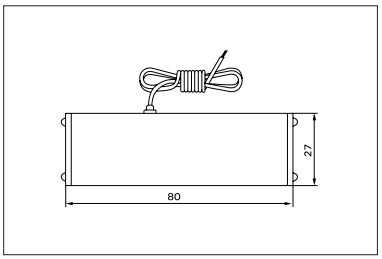
SEWT series microstrip type antenna surge protective device



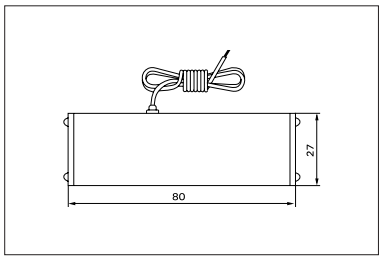
SEXM signal surge protective device



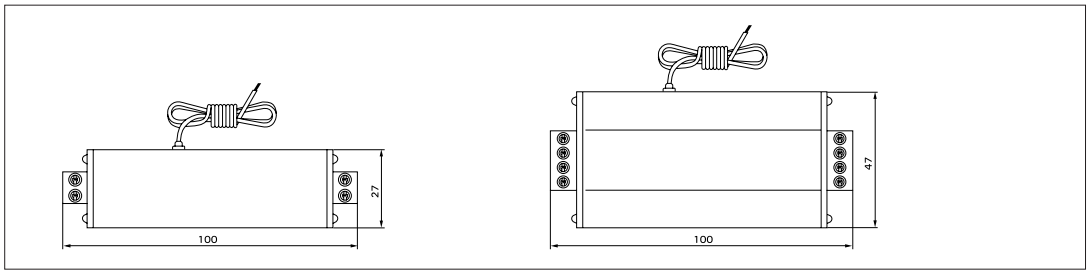
SEXL(RJ11) signal surge protective device



SEXM, SEXH signal surge protective device



SEXL (twisted-pair) signal surge protective device



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