

## RDB1 Lightning Protection Box

### Application



RDB1 Series precision lightning protection box for power supply system, mainly applied to Class B, C lightning protection, suitable for all kind of maintenance-free power supply system with AC 50/60Hz, 220/380V.

Suitable for the surge protection for all kind of precision electronic equipment and all kind of low voltage power supply equipment of finance network, post and tele-communication, telecom, electric power, petrol station, highway toll station, railway, air-port, high building, residential houses etc. Prevent the damage caused by lightning stroke over voltage or switching over voltage.

### Model Meanings

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① ② ③ ④ ⑤ ⑥

①	Company Code
②	Surge protection device (SPD)
③	Design code
④	Nominal pass through capacity 40KA, 60KA, 80KA, 100KA, 120KA
⑤	Three phase lightning protection box (S), single phase lightning protection box (D)
⑥	Max. continuous operating voltage 385V, 420V...

### Main Technical Parameters (Single, Three Phase )

Type	Nominal Pass through (KA)	Max. pass through (kA)	Continuous operating voltage (V)	Protection Level (kV)	Input wire cross section (mm <sup>2</sup> )	Earthing line cross section (mm <sup>2</sup> )	Outline size (mm)
RB1-40	20	40	275~420	<1.8	>10	>16	340×240 ×130
RB1-60	30	60		<2.2	>16	>16	
RB1-80	40	80		<2.4	>16	>16	
RB1-100	60	100		<2.6	>25	>25	
RB1-120	80	120		<2.8	>25	>25	

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## Main Structure And Working Principle

Lightning protection box is composed with high breaking capacity circuit breaker, SPD and working status test, display part, the key part is SPD. The SPD parallel connection with the power supply wire, under normal status, it is high resistance status, when there is instant over voltage in the power grid due to lightning strike or other reasons, the SPD immediately breakover within nanosecond time to discharge the lightning current, so then to protect the equipment in the power grid. After the surge disappear, the SPD recover to high resistance status again, no influence to the normal running of power grid. When the SPD deterioration short circuit or incorrect installation causes the lightning flow exceed its max. pass through capacity, the over current, overheating fuse will tripping off, the high breaking capacity circuit breaker inside the lightning protection box will also immediately action, to cut off the short circuit current, the working status display part will give alarm signal, to achieve the alarm function.

## Main Features

RB1 Series Power supply lightning protection box is designed and manufactured as per IEC standard, the lightning protection box and lightning protection module (SPD) all have passed the type test in national laboratory, with compact size, nice appearance, easy installation and wiring. With intelligent warning system, build in overheating over current temperature controlled cut off technology, with hot backup, no need frequently maintenance, can be equipped with lightning counter, to record the lightning strike times.