

Surge Protection Equipment for Power Supply Circuits



To protect the low voltage power receiving equipments from lightning damage caused by direct lightning strike.

This protection equipment is used to protect the low voltage power receiving equipment installed in the micro-wave relay station on the top of the mountain or in the base station of the carrying telephone etc. equipment with steel tower from direct lightning strike and is aimed at the same time also to be able to prevent possibly the discharge of lightning surge current to the low voltage distribution side. According to the lightning strike frequency and lightning strike energy due to the regional difference of the station with steel tower 3 sort of typical lightning protection equipment are prepared.



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GI-30AC type

The top class current withstanding in the world corresponding to 10/350 μ s wave-form

Besides keeping the conventional excellent protection performance withstanding to the surge current at the intrusion of the direct lightning strike is increased drastically (more than 10 times) corresponding to JIS (10/350 μ s 50kA). This protection equipment is effective especially on the equipments installed in the telecommunication station building where direct lightning strike is predicted

SI-30AC type

Gap-less lightning protector is used

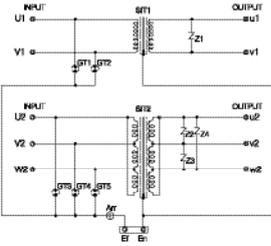
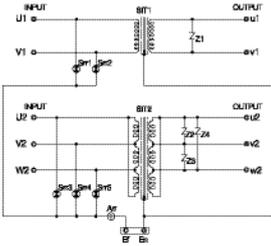
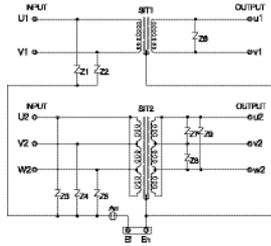
In the primary side gap-less lightning protector with high-current withstanding (4/10 μ s 100kA) is used.

ZI-30AC type

Surge absorber is used

In the primary side surge absorber with high-current withstanding (8/20 μ s 20kA) is used.

■ Specifications

Type-name	GI-30AC type	SI-30AC type	ZI-30AC type
Application	For the station buildings with steel tower, which are located in the Nipponkai coast and have high probability of direct lightning strikes with extremely high lightning energy especially in winter this type is the most suitable equipment and uses the lightning protector which has the biggest current capacity in the world corresponding to JIS.	For the station with steel tower, where direct lightning strikes are predicted a lot of this standard type equipment have been installed actually. This type is the most suitable type for micro-wave relay station on the mountain top and for the measures to lightning strikes in summer.	For the protection of equipment installed in the downtown of the big cities, where the direct lightning strike is very seldom and the measures to the inductive lightning from low voltage distribution line are mainly necessary, this type is the most suitable equipment with excellent cost performance.
Rated in-and output voltage	according to customer' s designation		
Number of phase	Single phase 2W, Single phase 3W, 3 phase 3W		
Rated frequency	50or60 (Hz)		
Transformer capacity	according to customer' s designation		
Protection level	less than 200(V)		
Withstanding to impulse voltage (between primary and secondary, between primary and grounding)	1.2/50 μ s 30kV		
Withstanding to commercial voltage (between primary and secondary, between primary and grounding)	AC10kV in 1 minute		
Withstanding to impulse current	10/350 μ s 50kA	4/10 μ s 100kA	8/20 μ s 20kA
Circuit diagram (Example ; Single phase side shows 2W)			

SHODEN CORPORATION

Head Office 3-8 Taihei 4-chome, Sumida-ku, Tokyo 130-8543 Japan

e-mail: f@sdn.co.jp