

### TSY1 series Surge Protective Device (SPD)

#### OUTLINE

Circuit system will bring the strong pulse voltage due to the Thunder strike or other reasons, which will destroy the electric equipment. Under popularization of computer and Micro-electronics, people pay more attention on the over-voltage protection of low voltage circuit system. TSY1 type Surge Protective Device (SPD) is the exact product to protect this kind circuit system.

#### WORKING PRINCIPLE

In the system of three phase four line, there are SPD between both 3 live wires and the neutral line connecting with the earth (Ref. Chart 1). Under normal condition, the SPD is in the status of high resistance, once circuit system bring the surge over voltage due to the Thunder strike or other reasons, SPD will put through within ns (Time unit) and lead the surge overload voltage into the earth to protect the electric device on the wire. After make the surge voltage disappear, the SPD will change back to the resistance status which will not effect the normal work of circuit system.

#### CHARACTERISTIC

- Modularization---Replacing the protector dispense without shutting off the power
- High Breaking Capacity---Max. breaking capacity can endure 100kA (8/20  $\mu$  s)
- High Speed---Tripping time less than 25ns
- Status Show---color of status window show the working status of protector
- Green (Normal) Red (fault)



TSY1 1P



TSY1 2P



TSY1 3P



TSY1 4P

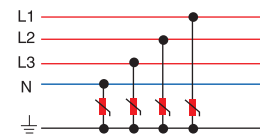


Chart 1: 380V circuit system

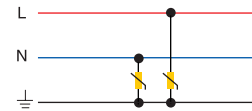


Chart 2: 220V circuit system

#### TECHNICAL SPECIFICATION

Type	TSY1-C/N-PE	
Max. durative work voltage	320V/50Hz	
Release current $I_n$ (8/20 $\mu$ s)	5KA, 10KA,15KA, 20KA, 30KA, 40KA, 60KA, 80KA, 100KA	
Max. allowed durable current under $U_c$ condition	20Arms	
Voltage protection level $U_p$ (1.2/50 $\mu$ s)	1.5KV	
Action time $T_A$	100ns	
Working circumstance temperature	-40 $^{\circ}$ C ~+80 $^{\circ}$ C	
Connection specification	2.5 335mm	
Installation condition	35mm orbit	
Protection rank	IP20	
Color of case	Module	Yellow, red, blue, white
	Base	White

#### DIMENSION AND MOUNTING

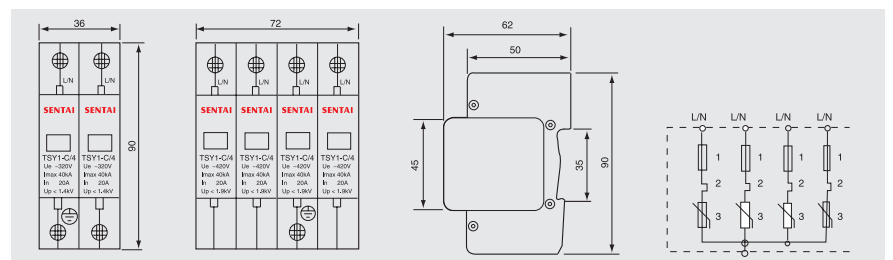


Chart 1: SPD Chart 2: SPD Chart 4 Chart 3: Electric elements of TSY1-C/4

- Destroy Abate Release
- Thermal Abate Release
- Metal Oxide Varistors (MOV)