

PromovTM

SURGE PROTECTION



Double Protection Device

Triple Protection Device
Surge Protection
Over Voltage Protection
Dip Voltage Protection

TPS220 Surge & Over Voltage Protection

Applications & Features

Sudden increase of voltage in our power supply system will damage household appliances, office equipment, etc. and could also lead to fire.

These can be caused by a short circuit on one of the phase, ferromagnetic resonance, resulting in high-pressure break-voltage low-pressure side exceeding the safety range, hence damaging household appliances, office automation equipment, lighting and other electronic products hence damaging them within seconds. Surge protection and transient over voltage protection and transient dip voltage protection is a common solution everyone seeks.

TAIHANG with years of experience in designing and after a series of tests, have successfully developed a device with combination of Over & Dip voltage , surge protector — TPS220.

TPS220 is a surge protector with over and dip voltage protector , combining three into one, These units of three module width, 35mm DIN rail installation and comes in there category of 16A, 40A, 63A. When lightning strike occurs, 10kA discharge capacity with voltage protection level <1.5kV will occur. When the voltage exceeds the safe value, the protector will disconnect the power supply immediately. When the voltage is restored to the safe level, the protective device will automatically restore the power supply after few seconds delay. Our TPS220 offers a total protection for over voltage with the combination of dip voltage and surge protection. It is most suitable for air conditioners, communication equipment, household appliances, office equipment, industrial electronic control products, and any other products or control systems which requires this combination of protection.

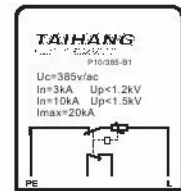
TPS220 surge protection meets IEC61643-1-2005, voltage protection is in line with IEC 947-6-2:1992.

Towards Customers Satisfaction

TPS220 uses high-quality load current relay, surge protection devices made of high-quality pressure-sensitive resistors, a hot-tripping function module and failure status remote alarm transmission capability.

TAIHANG supports the safety needs of our customers. In the current globalization of business activities, we hope to become active partners with our customers to constantly meet new challenges together.

■ Uses hot-tripping surge protection modules.



Lead-free Technology

From the reliability point of view of mass production, we use Sn-In-Ag-Cu element, or to add more than trace elements of lead-free solder materials.

Quality Policy

- To achieve total customer satisfaction
- Based on the ISO9001, the establishment of quality control systems, and continuous improvement.
- Participation by all staff to promote quality assurance activities.



Model Definition

TPS 220 / 40A

Nominal Working Current

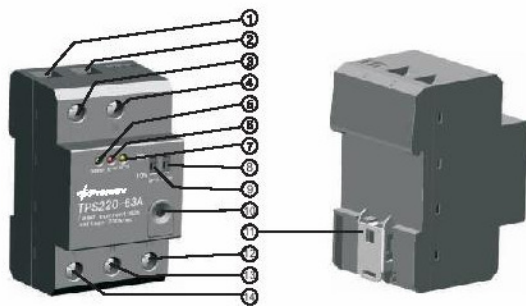
Nominal System Voltage

Surge & Over Voltage Protection and Dip Voltage Protection

Specifications

		TPS220/16A	TPS220/40A	TPS220/63A
Surge protection	Order NO.	4037001601	4037004001	4037006301
	EN61643-11	Class III	Class III	Class III
	Protection level DIN VDE0675-6	D	D	D
	Max Cont. Operating Voltage U_c	230V	230V	230V
	Nominal Discharge Current (8/20 μ s) I_n	10kA	10kA	10kA
	Max Discharge Current (8/20 μ s) I_{max}	20kA	40kA	40kA
	MS IEC 61643-1 Class III U_p	<1000V	<1000V	<1000V
	MS IEC 61643-1 Class II U_p	<1.5kV	<1.5kV	<1.5kV
	Response time T_a	<25ns	<25ns	<25ns
	Leakage current	<2 μA	<2 μA	<2 μA
Over voltage protection	Cos ϕ =0.2 Line Current	16A	35A	55A
	Cos ϕ =0.98 Line Current	20A	80A	80A
	Line Current	16A	40A	63A
	Over-voltage set value	Un*110% Un*120%	Un*110% Un*120%	Un*110% Un*120%
	Over-voltage protection value	253V \pm 2%, 276V \pm 2%	253V \pm 2%, 276V \pm 2%	253V \pm 2%, 276V \pm 2%
Dip voltage protection	Over-voltage recovery working value	243V-4% 270V-4%	243V-4% 270V-4%	243V-4% 270V-4%
	Over-voltage recovery to working delay time	5s \pm 1s 5s \pm 1s	5s \pm 1s 5s \pm 1s	5s \pm 1s 5s \pm 1s
	Dip-voltage set value	Un*90% Un*80%	Un*90% Un*80%	Un*90% Un*80%
	Dip-voltage protection value	207V \pm 2% 184V \pm 2%	207V \pm 2% 184V \pm 2%	207V \pm 2% 184V \pm 2%
	Dip-voltage recovery working value	212V+4% 190V+4%	212V+4% 190V+4%	212V+4% 190V+4%
	Dip-voltage recovery to working delay time	5s \pm 1s	5s\pm1s	5s\pm1s
	Operating temperature T_u	-20 $^{\circ}$ C~50 $^{\circ}$ C	-20 $^{\circ}$ C~50 $^{\circ}$ C	-20 $^{\circ}$ C~50 $^{\circ}$ C
	Enclosure material	PBT/PA-F UL 94 V-0	PBT/PA-F UL 94 V-0	PBT/PA-F UL 94 V-0

Introduction



- ① "L" Line terminal
- ② "N" Line terminal
- ③ "L" Line screw
- ④ "N" Line screw
- ⑤ Power indicator
- ⑥ Over voltage indicator
- ⑦ Dip voltage indicator
- ⑧ Over voltage set switch
- ⑨ Dip voltage set switch
- ⑩ Test button
- ⑪ DIN rail mounting
- ⑫ "L" out line screw
- ⑬ "N" out line screw
- ⑭ "PE" Line screw

Typical Products



16A

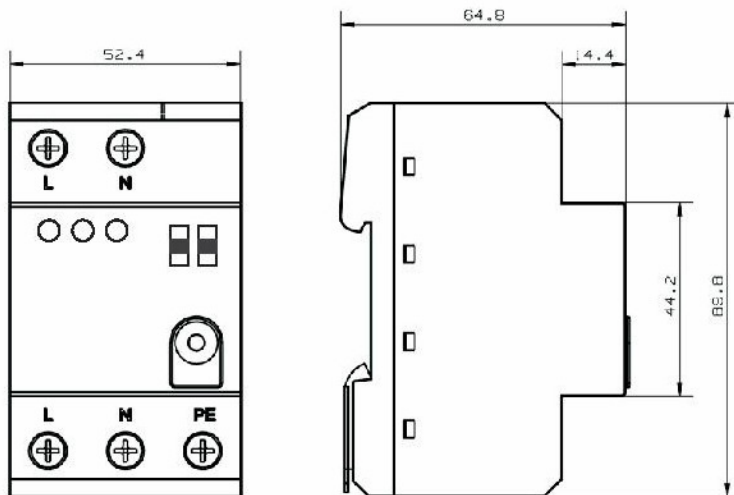


40A



63A

Dimensions



Typical Applications

