

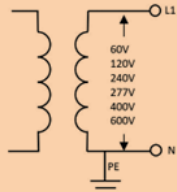
Surge Protection Quick Selector: Find the right SPD for your system

Note: Cells outlined in bold are commonly used configurations.

Power

Single phase

Grid system



120 V

VPU AC II US 2 R 120/50
2730480000



240 V

VPU AC II US 2 R 240/50
2736330000

VPU AC II US 1+1 R 240/50
2736350000



277 V

VPU AC II US 2 R 277/50
2730640000

VPU AC II US 1+1 R 277/50
2730660000



400 V

VPU AC II US 1 R 400/50
2730710000



480 V

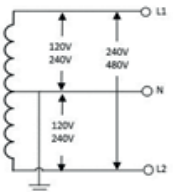
600 V

VPU AC II US 1 R 600/35
2736420000

VPU AC II US 2 R 600/35
2736430000



Split phase



VPU AC II US 3 R 120/50
2730520000

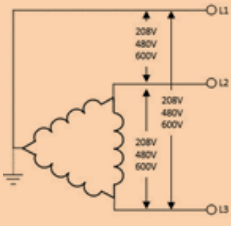


VPU AC II US 3 R 240/50
2730550000

VPU AC II US 3 R 240/50 Y
2736450000



Delta



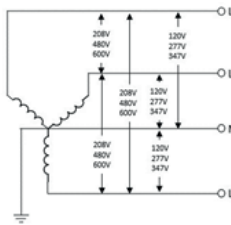
VPU AC II US 3 R 600/35
2730780000



VPU AC II US 3 R 600/35
2730780000



WYE w/ N



VPU AC II US 4 R 120/50
2730500000



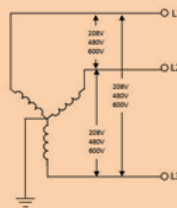
VPU AC II US 3+1 R 277/50
2730680000



VPU AC II US 4 R 400/50
2730750000



WYE w/o N



VPU AC II US 3 R 240/50
2730550000



VPU AC II US 3 R 277/50
2730600000



VPU AC II US 3 R 400/50
2730730000



VPU AC II US 3 R 600/35
2730780000



Signal

0...20 mA - 0...10 V

24 V - AC/DC

2 analog circuits

VSPC 2CL 24 VDC
8924470000 + 8924710000
 Plug Base



1 analog circuit

VSSC4 CL 24VAC/DC 0.5A
1063730000



1 analog circuit

VSPC 1CL 24VDC
8924480000 + 8924290000
 Plug Base



2 binary signals

VSPC 2SL 24VDC
8924330000 + 8924720000
 Plug Base



1 binary signal

VSSC SL 24VAC/DC 0.5A
1063840000



Ethernet - Data Protection

Ethernet

VDATA CAT6
1348590000



VSPC TELE UKO 2Wire
8924660000 + 8924710000
 Plug Base



VSSC6 RS485 DP
1065010000

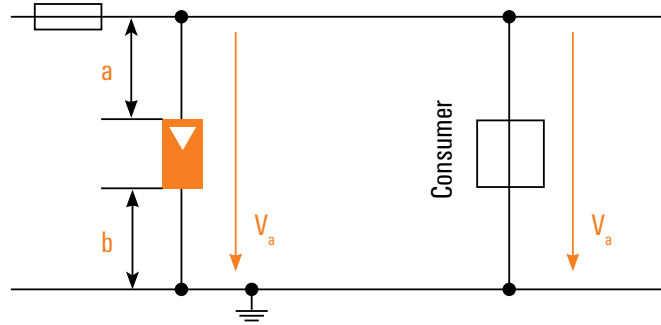
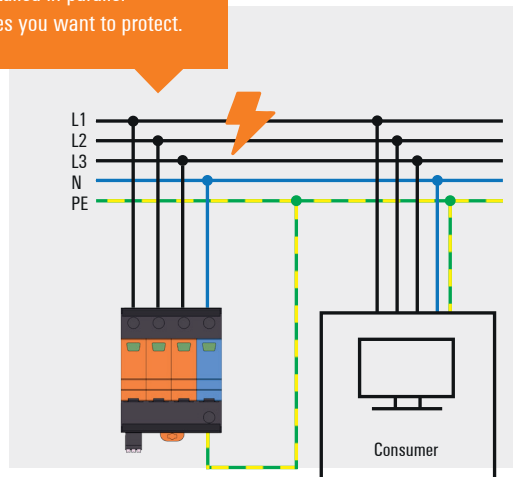


How is the SPD installed?

A power SPD has to be installed in parallel (T-connection) to the devices you want to protect.



Visit our [eShop](#) to discover more about our VPU US series



Technical advice:

The VPR of SPDs is tested with a wire length of 6 inches. The voltage drop over the SPDs line increases by 1kV with every 40 inches of wire length added from line to the SPD (a) and from SPD to PE (b). This results in a larger surge needed to activate the SPD. E.g. the cable length a+b is 86 (6"+2*40") inches, and the SPD has a VPR of 1500V. 1500V + 2000V = 3500V in surge until the SPD is activated – which means 3500V reach the consumer.

A surge is a sudden spike in electrical voltage that can cause high impedance in the circuit. The longer the wire, the greater the inductance, resulting in an inductive voltage drop of 1kV for every 40 inches of cable. Because a voltage drop in a network is consistent across all parallel lines, the voltage over the SPD and its wires is as high as each parallel connection.

Surge Protection: UL, values and meaning

Value	Meaning	Weidmuller Solution
I_N	Nominal discharge current: the current a SPD can carry multiple times if a surge event occurs	All Weidmuller US series SPDs have an I_N of 20kA NEC demands a min of 10kA
VPR (L-PE)	Voltage protection rating: the pass-through voltage of the SPD	Weidmuller SPDs VPR goes down to 330V
Energy Network	WYE, Delta, WYE-N, Single Phase,...	Weidmuller offers solutions for all grid system types
U_N	Rated voltage: the voltage of the system the SPD will be installed in	Weidmuller offers solutions from 60V to 600V AC, plus DC, PV and signal protection
MCOV	Maximum continuous voltage: the voltage SPD can carry without degenerating	Weidmuller SPDs MCOV is 125% above U_N Market demands $\geq 115\%$ of U_N
SCCR	Short Circuit Current Rating (SCCR): the max. available SCCR in cabinet will not exceed the SPDs	All Weidmuller US series SPDs have an SCCR of 200kA; I_{SCCR} is an IEC value with a different testing process
Category	UL type: the SPD is categorized in 1,2,3 or 4	All Weidmuller US series SPDs are UL type I and can be used in any location

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