POWER HOUSE DISTRIBUTION

Volume 2

# PHD NEWS

# The Live WIRE

**PHD Contacts**

*Tel: 011 346 1812*
*Fax: 011 346 1818*
*Add: 115 10th rd*
*Kew JHB*

***THIS WEEKS TOP STORIES***



***TOPICS FOR NEXT WEEK***



## Surge Suppression

In business today it is clear that profitability is directly related to the efficiency and reliability of our electronic systems. Reliability of these systems is directly and often catastrophically affected by poor quality of supply. Surges, under and over-voltage conditions, including dips or sags, swells, brownouts and Blackouts all negatively impact our supply quality causing computer malfunction and loss of data.

Surges may occur at levels ranging from a few Amps to several thousands of Amps and are caused by incidents such as lightning, electrostatic discharge, excessive grid loading, and switching of heavy loads to name a few.

It is considered good practice to take a holistic view of power quality when designing a power protection system and in light of this it would be safe to state that surge protection forms a critical component.

## MOV Protection

The simplest and most common technique used for surge protection is the “shunt” or “parallel” system, where a clamping device is placed across the AC power lines. The device mostly used is the Metal Oxide Varistor (MOV). This type of suppressor is really designed to protect against catastrophic equipment damage.


***Metal Oxide varistor (MOV)***

The SABS 0142 recommends that Surge Protection Devices (SPD) be installed in distribution boards of any premises, whether they be residences, factories or offices before a certified electrical officer issues a certificate of compliance. Many of PHD's computer grade suppressors combine EMI/RFI filters with MOV’S which ensure large surge clamping capabilities, as well as filtering.

All PHD's Surge/Transient and Lightning power protection products are earthed correctly by plugging the units into a mains socket. It is important that earthing in the building is correctly installed.

***By Michael Pires (Director)***

# Power Quility Problems

***Dip (Sag):*** *is a short term decrease in line voltage.*

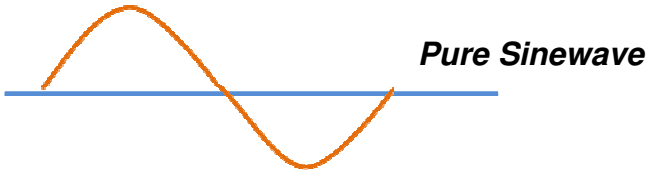
***Surge:*** *It is a temporary increase in line voltage that lasts at least one cycle (approx. 16mS).*

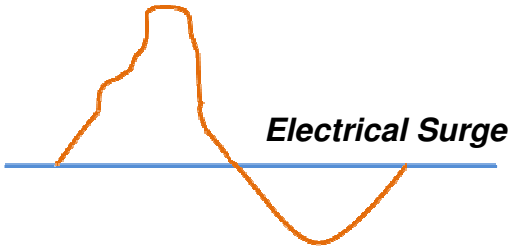
***Spike (transient)****: is similar to a surge except that it lasts less than a full cycle (often only a few milliseconds).*

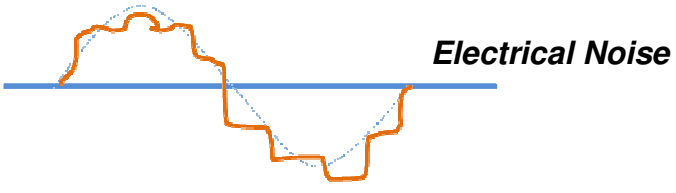
***Electrical Noise****: probably the most common type of disturbance, which is a random high voltage, or high frequency interference on the power line caused mostly by non-linear loads.*

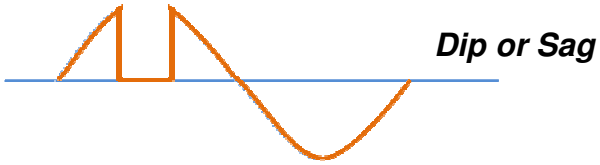
***Brownout****: is a deliberate reduction in AC line voltage by the utility company during periods of unusual high demand or insufficient load capacity.*

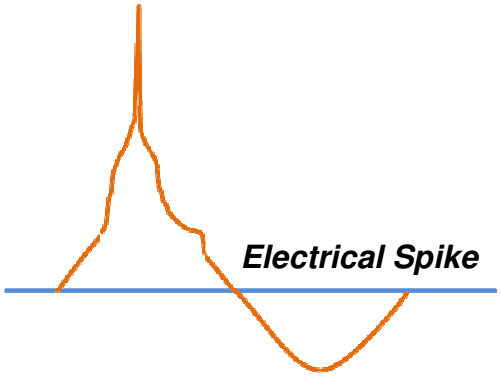
***Blackout****: this is the ultimate power disturbance. It is a complete cut in the power line supply (power failure).*



# PCP/A


# Featured Product

*The **Mains Power, Aerial and DSTV line transient conditioner** combines powerful protection circuitry for your mains and TV / DSTV Aerials*

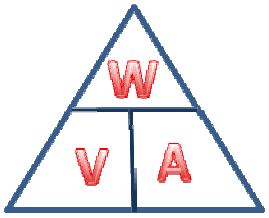
***Standard models are fitted with:***

*1 x 16 Amp Plug*
*2 x TV Aerial sockets*
*2 x DSTV F—Type sockets*

# Any Questions ?

1 . ***Do you have a product that can protect my TV and DSTV from bad power?***
Yes, the PCP/A has internal protection for DSTV cables in/out and a TV cables in/ out as well as a standard 16 Amp plug.

2 . ***How do I calculate VA?***
Its quite easy Volts X Amps = Watts,
Watts ÷ Power factor = VA




3 . ***What Does MOV Stand for?***
Metal oxide Varistor

# NEXT WEEK

## Any Questions

***If you have any power related questions that need answering, please feel free to send them to us***

**POWER HOUSE DISTRIBUTION**

***Phone:*** *011 346 1812*
***Fax:*** *011 346 1818*
*anthony@powerhoused.co.za*
*Www.powerhoused.co.za*