# **Electronic Terms Glossary**

# AC

Current that flows in alternating directions between two points. See also AMP, Current and DC.

#### AC/DC Adapter

Adapter that has an AC voltage input and an DC voltage output.

## AMP

Ampere...which is a measure of current. Can be abbreviated by either "Amps", "A", or expressed as milliamps (mA). See <u>MilliAmps</u> below..

## CE

The European mark signifying compliance to low voltage and electromagnetic requirements..

#### Creepage

Creepage is the shortest distance between two conducting parts measured along the surface of the insulating material between them.

#### Current

The measure of current is expressed in AMPs.

#### DC (Direct Current)

Current that flows in one direction between two points.

#### Frequency

Measures the number of times that a flow of current changes direction in one second. Expressed as <u>Hertz</u> (Hz). Most North and South American locations operate on an input of 60Hz while most of Europe has a 50Hz input.

#### Hertz

Measure of frequency. Usually expressed as Hz.

#### Impedance

Ratio of voltage to current expressed in ohms. This measurement shows the resistance to the <u>AC current</u> flow. Impedance between circuits must be matched in certain design situations. See also <u>OHM</u>.

#### Leakage Current

The <u>AC</u> or <u>DC current</u> going from the input to output (and/or chassis) of an isolated power supply at a specified <u>voltage</u>.

#### **MilliAmps**

Measure of AMPs expressed as 1000 times Amps. For example .5Amps would be 500mA (.5 x 1000).

#### MTBF

Mean Time Between Failure.

#### Nominal

Objective for a specified parameter...may not be the actual value measured.

## <u>NRTL</u>

Acronym for "Nationally Recognized Testing Laboratory."

#### <u>OHM</u>

The ratio of <u>voltage</u> to <u>current</u> is expressed in ohms. This measurement shows the resistance to the AC current flow. Impedance (or the number of measured ohms) between circuits must be matched in certain design situations. See also <u>Impedance</u> and <u>Resistance</u>.

#### Open Circuit

When a circuit has been broken so that conducting components do not allow for the flow of <u>current</u>, the circuit is said to be open. This condition can either be intentional (to provide protection), or unintentional (such as when a wire breaks).

#### **Overload Protection**

Function of a power supply that automatically shuts down the supply in the event of reaching a predetermined excessive output current.

#### **Overvoltage Protection**

Function of a power supply that automatically shuts down the supply in the event of reaching a predetermined excessive voltage.

#### Parallel Circuit

Two or more parallel paths for current flow. See also Series Circuit.

#### **Primary**

A winding to which the <u>input</u> voltage is applied. This winding then powers the <u>secondary</u> winding to generate an output voltage.

#### Rectification

Conversion of AC <u>currents</u> and <u>voltages</u> into DC currents and voltages. Typical rectifications are: half-wave, full-wave and bridge.

#### Regulation (Line)

The percentage change in the output voltage due to a change in <u>input</u> voltage level. This is usually a measurement of the output deviation as the input voltage is varied from low line to high line.

#### Regulation (Load)

The percentage change in <u>output</u> voltage due to a change in output loading. This is usually a measurement of the output deviation as the loading is changed from no load to full load.

#### Resistance

This measurement shows the resistance to the AC current flow measured in ohms. See also <u>Impedance</u> and <u>OHM</u>.

#### Secondary

Generates an output voltage and current when voltage is applied to the primary winding.

#### Series Circuit

A single, continuous path for current flow. See also Parallel Circuit.

# Short Circuit Protection

Function of a unit that limits the output current under short-circuit conditions so that the unit can avoid being damaged.

# VA

Volt Amperes (power). Is the <u>output</u> voltage multiplied by the output current. For instance, and ouput of 12V @.5A = 6VA.

## VAC

Statement of the voltage requirement. For example an input of 120VAC is 120Volts at AC current.

#### VDC

Statement of the voltage requirement. For example an output of 4VDC is 4Volts at DC current.

#### Volt

Measurement of voltage which is required to move a certain number of electrons from one point to another.

# Watt

Measurement of power determined by multiplying the output current by the output voltage.