Glossary

AMBIENT TEMPERATURE
* The temperature of the environment or medium in which the circuit protector is installed and into which the heat of the device is dissipated.

ARMATURE
* The moving part of an electromechanical device. The movement usually results when energy is transferred from an electromagnetic field to the armature.

AUTOMATIC RESET CIRCUIT PROTECTOR
* Is a circuit protector that automatically re-closes the circuit following a nominal cool-down period. Opening/closing or cycling of the contacts will continue until the overload is corrected.

CIRCUIT BREAKER
* See "Circuit Protector".

CIRCUIT PROTECTOR
* A resettable device used to automatically interrupt the flow of current in a circuit if the current should exceed a predetermined value. This description also applies to "Overcurrent Protectors" and "Supplementary Protectors".

CURRENT RATING
* Is the maximum alternating or direct current a circuit protector can carry continuously without exceeding its performance limits.

ENDURANCE CYCLING
* The electrical life expectancy of a switching type circuit protector. Typically stated as the number of on/off operations, switching 100% of the rated load at a specific cycle frequency.

INTERRUPT CAPACITY
* See "Short Circuit Capacity".

MAGNETIC CIRCUIT BREAKER
* A circuit protector which operates on the principle of "load current sensing" through the coil of a solenoid, which, at the calibrated trip point, activates a trip armature and instantaneously opens the circuit.

MAGNETIC HYDRAULIC CIRCUIT BREAKER
* Is a magnetic circuit breaker of which the solenoid is equipped with a hydraulic magnetic time-delay element calibrated to trip the breaker within specific time and current parameters.

MANUAL RESET CIRCUIT PROTECTOR
* A circuit protector that requires manual closing of the circuit after tripping.

MAXIMUM INTERRUPT CAPACITY
* See "Short Circuit Capacity".

MAXIMUM TRIP CURRENT
* See "Must Trip Point".

MECHANICAL LIFE
* The life expectancy of the mechanical components of a switching type circuit protector. Typically stated as the minimum number of "no load" on/off switching operations at a specific cycle frequency.

MUST HOLD POINT
* The maximum current the circuit protector will continuously carry without tripping, normally 100% of rated load.

MUST TRIP POINT
* The minimum current at which the circuit protector will trip reliably. It is normally designated as the "Must Trip Point" and specified as a percentage of overload versus trip time.

OVERCURRENT
* A current in excess of the rating of the nominal current. This includes both overload and short circuit current.

OVERLOAD CURRENT
* See "Overcurrent".

OVERLOAD CYCLING
* The electrical life expectancy of the circuit protector, i.e. the number of times it can safely and repeatedly interrupt an overload. Typically stated as a number of operations at a specific percentage of overload.

OVERCURRENT PROTECTOR
* A device that: (1) is intended for free standing use, (2) is current sensitive, and (3) is intended to be reset or is self-resetting following operation. Operation is the interrupting of a circuit(s) when the current flowing through it exceeds the preselected value.

RATED CURRENT
* See "Current Rating".

RESETTABLE OVERLOAD CAPACITY
* Represents the maximum current the circuit protector is capable of interrupting without damaging itself.

RESET TIME
* The time it takes for a thermal circuit protector to cool down and become resettable following circuit interruption on overload. Cool-down time depends upon the amount of overload and the heat generated, the thermal mass of the breaker and the ability to dissipate the heat generated to the environment in which the circuit protector is installed.

RMS
* Stands for "Root Mean Square". It is a measurement standard for alternating current.

SHORT CIRCUIT CAPACITY
* Also called "Interrupt Capacity" or "Maximum Interrupt Capacity". Represents the maximum amperage a circuit protector can safely trip without evidence or risk of fire or electric shock during or after the application of this maximum amperage. It is acceptable if, at this maximum amperage, the circuit protector is rendered inoperable, providing it fails in the open position and the leads or terminals are not damaged.

SOLENOID
* An electromagnet with a movable plunger or armature for producing a mechanical force.

SUPPLEMENTARY PROTECTOR
* A manually resettable device designed to open the circuit automatically at a predetermined overload current within an appliance or other electrical equipment. It may also be provided with manual means for opening or closing the circuit.

THERMAL CIRCUIT PROTECTOR
* A device using a resistive bi-metal or expansion type sensing element which, at a predetermined amperage, bends or expands and in so doing opens a set of contacts.

TRIP FREE
* Denotes a circuit protector designed to make it impossible to hold the contacts manually closed should an overload exist.

TRIP TIME
* The time required by the circuit protector to interrupt the circuit upon sensing an overload condition.

ULTIMATE TRIP CURRENT
* See "Must Trip Point".

VOLTAGE RATING
* The maximum alternating or direct current voltage for which the circuit protector is designed to operate.