Glossary of Terms		
Term	Definition	
Electrical Terms		
Alternating Current (AC)	Electrical current which, when being produced by a dynamo or generator, continually reverses its direction of travel. The dynamo or generator that produces alternating current is called an alternator. AC current can be changed to direct current through use of a rectifier. Voltage of AC current can be readily stepped up or down through use of a transformer.	
Amperes (Amps, A)	The basic unit for measuring electric current passing through a line in a given time. Amperage is equal to power (in watts) divided by voltage (in volts).	
Apparent Power (Volt-Ampere, VA)	The amount of power that appears to be used by the circuit based upon the output of that circuit. The apparent power is equal to voltage (in volts) times amperage (in amps) for a circuit, times the power factor of that circuit.	
Cycle	One complete reversal of the direction of current flow in a conductor. Used in conjunction with alternating current.	
Direct Current (DC)	Electrical current that flows only in one direction. The most common source of DC is from various types of storage batteries. DC can also be produced by a generator for use on DC motors and other applications.	
Electromagnetic Interference (EMI)	Any electrical or magnetic signal found in addition to a supplied signal. Electromagnetic interference is commonly detected on the power line between a power supply and an energy control or between an energy control and a load. Electromagnetic interference can adversely affect normal operation by causing excessively high or low voltages or by causing irregularities in the power supply signal.	
Frequency (Hertz, Hz)	The number of cycles per second in alternating current.	
Ground Connection	The connection from the device to Earth ground as a return path. This connection is in addition to the neutral connection and is provided as a secondary return path for safety and emergency use.	
Line Connection	The connection from the power supply to the energy control.	
Load Connection	The connection from the energy control to the load(s).	
Neutral Connection	The connection from the energy control and/or load to the power supply as a return path.	
Noise Filter	An electrical noise filter is a network of electrical components designed to offer a comparatively high resistance to voltages and/or frequencies outside of an acceptable range, generally used to mitigate the effects of electromagnetic interference.	
Overvoltage	An increase in voltage in an electrical circuit for a significant length of time. Overvoltages are typically caused by sources outside of a building. Overvoltages can cause permanent damage to energy controls and loads if the energy controls are properly protected.	
Power Factor	A measurement of the efficiency of a circuit, between zero and one. The closer a power factor is to zero, the more energy that is lost within the operation of the circuit. The closer a power factor is to one, the more energy that is transferred efficiently to the load.	
Radio Frequency Interference (RFI)	A type of electromagnetic interference associated specifically with radio frequency or wireless sources.	
Real Power (Watts, W)	The capacity of the circuit for performing work; the actual amount of power used by the circuit over time. The real power is equal to voltage (in volts) times amperage (in amps) for a circuit.	
Surge	Any unsustained increase in electrical energy. Surges include transients and overvoltages.	
Surge Suppressor	A device designed to mitigate or prevent the adverse effects of surges. Most surge suppressors are intended only for specific types of surges within specific operating conditions.	
Transient	A brief spike in voltage in an electrical circuit. Transient voltages are commonly in excess of 1,000 volts, but for a duration of less than 1/1,000 second. Transient voltages are typically caused by sources inside of a building, between the power supply and other devices. Transient voltages can cause intermittent or nuisance operation in energy controls, such as not turning ON when scheduled, or the display temporarily turning OFF.	
Traveler Connection	The connection from the energy management system to another device, such that either device can control the load. Often referred to as a three-way connection. An example would be a light switch at the top and bottom of a flight of stairs, where either switch could control the stairway light.	
Volts (V)	The basic unit for measuring the amount of electrical potential in a conductor. Voltage is equal to power (in watts) divided by amperage (in amps).	

Term	Definition	
	Product Features	
Astronomic	Products with the Astronomic feature are able to calculate sunrise and sunset times based upon the current date and geographical location, allowing them to automatically control outputs based on sunrise and sunset times without the use of a photocontrol.	
Auto-Voltage	A type of power supply that contains a single connection for multiple voltages or voltage ranges. The selection of the proper voltage or voltage range occurs automatically within the control.	
Dry Contact	Switch externally supplied power that does not have its own source of power for the loads. This type of contact can switch any load within its ratings.	
Duty Cycling	Switching loads ON/OFF on a rotating schedule to reduce energy consumption and reduce peak demand charges by ensuring that selected loads are not ON simultaneously.	
Holiday	An exception from the standard schedule of events. Holidays can be traditional holidays, such as New Year's Day, or other exceptions, such as maintenance done on the last Friday of every month. During holidays, the standard schedule of events is generally suppressed and a separate schedule may be used specifically for that holiday.	
Holiday Schedule	A schedule of events different from the standard schedule of events in an energy control meant to be used only during a defined holiday period.	
Independent Circuit	Sometimes called independent channels, referring to the number of loads that can be independently controlled based on the same time of day control system. Any of the independent circuits may control more than one load by switching those loads simultaneously.	
Multi-Tap	A type of power supply that contains multiple connections that are each for a different voltage or voltage range.	
Multi-Volt	A type of power supply that contains a single connection for multiple voltages or voltage ranges. The selection of the proper voltage or voltage range is done manually, generally via a switch located near the connection.	
Offset	A configurable difference between a calculated value and the desired control value. For example, sunset may be offset to occur 15 minutes earlier than calculated.	
Override	A secondary control used to manually turn a load ON/OFF when a schedule of events is active on the primary control.	
Pulse	Pre-defined duration for the controlled output to remain in the ON state. Typically, a pulse is only for a few seconds, such as when used with bells or alarms. However, some controls do allow for significantly longer durations to simplify scheduling, eliminating the need for separate ON and OFF events.	
Zone	A group of circuits or a defined space within a building where energy demand requirements are sufficiently similar so that safe, convenient, and energy conscious conditions can be maintained throughout by a single controlling device.	
Ratings		
British Thermal Unit (BTU)	A unit of heat equal to 252 calories. The quantity of heat required to raise the temperature of one pound of water from 62 °F to 63 °F.	
Electronic Ballast	A load category referring to any load that utilizes a modern electronic ballast to start, typically found in LED lighting.	
Full Load Amp (FLA) Ratings	The amount of current used by a motor when it is in normal operation with a load, typically the minimum amount of current that a motor requires to remain ON.	
Inductive Ballast	A load category referring to any load that utilizes a traditional inductive or magnetic ballast to start, typically found in fluorescent lighting.	
Inductive Load	A load category referring to any load that utilizes an inductor, including motors, relays, solenoids, and transformers.	
Lock Rotor Amp (LRA)Ratings	The amount of current used by a motor when it is powered but not rotating, typically the maximum amount of current that a motor requires to turn ON.	
Pilot Duty Rating	A load category designed to switch the coil of electromagnetic devices such as solenoids, relays, contactors, or motor starters. The VA rating of the controlling contacts must be equal to or greater than the sealed VA, not the inrush VA, of the controlled coil in order to prevent excessive contact wear or contact welding.	
Rating	The limits of the ability of a device to operate safely and satisfactorily within its normal environmental extremes.	



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Term	Definition
	Ratings
Resistive Load	A load category for any purely resistive load, such as a heater. Contact ratings are resistive unless otherwise marked.
Tungsten Load	A load category referring to any load that utilizes a tungsten filament, typically found in incandescent and halogen lighting.
Type 1 Enclosure	Any enclosure that meets specific safety and performance testing standards for use indoors, protecting the enclosed equipment against dust and dirt, and providing protection against incidental contact with the enclosed equipment.
Type 3R Enclosure	Any enclosure that meets specific safety and performance testing standards for use indoors or outdoors, protecting the enclosed equipment against dust, dirt, rain, sleet, snow, and ice and providing protection against incidental contact with the enclosed equipment.
Type 4X Enclosure	Any enclosure that meets specific safety and performance testing standards for use indoors or outdoors, protecting the enclosed equipment against dirt, rain, sleet, snow, ice, windblown dust, splashing water, hose-directed water, and corrosion.
	Products and Components
Contactor	An electromechanical device used for direct control of a load, comparable to a heavy-duty relay.
Cycle Timer	A specific schedule type that repeats on a frequent basis, also referred to as duty cycle. The schedule consists of an ON duration and an OFF duration, which repeat continuously. For example, a control could be set to be ON for 20 minutes, then OFF for 40 minutes, and then turn back ON for 20 minutes, etc., repeating every hour. This type of control is commonly used for feeders, misters, blowers, and similar outputs.
DIN Rail	A specific type of mounting style used by several controls, named for the German Institute for Standardization "Deutsches Institut für Normung". Controls with this mounting style are generally small, low profile devices ideal for custom panel and OEM applications.
Electrically-Held Contactor	A contactor that is electrically held in the open position or the closed position by applying continuous electrical current to the contactor control circuit.
Lighting Contactor	A contactor specifically designed for controlling filament loads commonly found in the lighting industry.
Mechanically-Held Contactor	A contactor that requires only a brief supply of electrical current (pulse) to switch between the open and closed positions. After switching, the contactor is then retained in the new position by means of a mechanical latch.
Self-Clearing Latching Contactor	A type of mechanically-held contactor that has a common input for its open and closed position. Each brief supply of elctrical currrent (pulse) causes the contactor to alternate between its open and closed state.
Tripper	A tripper is a component used in setting the schedule on a mechanical timer. Each tripper is inserted or fastened near a representative time slot to inform the control when to turn ON or OFF. Each time the time slot aligns with the actual time, the tripper makes contact with or "trips" a mechanical connection that adjusts the output.
	Industry Terms
Cycling	The action of switching ON or OFF.
Event	A single setpoint within a schedule. Each event generally contains a date, time, controlled outputs, and an ON/OFF setting. For example, one scheduled event could be to turn all lights on at sunset.
HVAC	Abbreviation for Heating, Ventilation, and Air Conditioning.
HVACR	Abbreviation for Heating, Ventilation, Air Conditioning, and Refrigeration.
Load	The device or devices controlled by the energy control either directly or indirectly through a control circuit.

