ETA-ECS3

Power Sequencer and Conditioner

KEY FEATURES

- 3 Sequencer Timing Sections Fixed 3-Second Intervals, 6 Seconds Total
- 9 Total Outlets are Provided
- 6 Rear Panel Outlets are Sequenced in Three Steps
- 2 Front Panel and 1 Rear Panel Unswitched Convenience Outlets
- RFI Noise Filtering to Reduce Radio Frequency Interference
- EMI Filtering to Reduce Electromagnetic Interference
- Dual Clamping Spike & Surge Suppression, DCS Circuitry
- Front Panel Digital AC Mains Voltmeter
- LED Indication of Reversed "Hot" and "Neutral" Wiring
- Abnormal AC Line Voltage Indicator for Voltages Between 101V–107V or 128V–132V
- Extreme Voltage Shutdown (EVS) Below 101V or Above 132V AC Line
- Circuit Breaker Protection @ 15A Indicated by "Breaker Open" Indicator
- Front Mounted Pull-out LED Light with 2-Position Dimmer
- Rear Mounted XLR Connector for 12VDC LED Lamp (Lamp Sold Separately, Atlas Power Model AP-GNL18)
- External Switch Sequence Trigger Activation
- External DCV Sequence Trigger Activation 5-24VDC
- 24VDC Sequence Trigger Output for Optional External AC Outlet

APPLICATIONS

The ETA-ECS3 was designed to be flexible with features that allow it to be used in a variety of applications. The sequenced outputs allow the turning of equipment On and Off in a particular order, to eliminate an in rush of current and audible pops that often occur with non-sequenced power strips. It also can be used solely for protection against voltage surges. If fuzzy video or frequent static pops occur, the AC power conditioning will eliminate or reduce those inconveniences. The following are just a few examples of applications the ETA-ECS3 can be used:

- Restaurants
- Houses of Worship
- Schools
- Home Theaters
- Office Buildings
- Sports Bars

GENERAL DESCRIPTION

The ETA-ECS3 has been designed to meet most installation requirements for AC power distribution and equipment power protection. The 15A compact 1 RU unit features three sequential timing sections that can be activated via the unit, or remotely. Front panel activation is via a momentary switch, while rear activation is via a momentary contact closure, or by 5-24VDC trigger feed. AC Mains Voltage can be monitored via the front panel from the precision Digital Volt Meter. To light your rack, the ETA-ECS3 has incorporated a front panel pull-out dimmable LED tube light. The rear of the rack can be illuminated by the optional 18" gooseneck LED lamp connected via an XLR style socket. LED lamps are far superior in longevity along with heat reduction when compared to traditional incandescent lamps and the XLR base mounts are also superior to the commonly used BNC type base. If a 15A AC Mains power source is not enough to meet the amperage demand of your system, the ETA-ECS3 provides a sequenced 24VDC output that can be used to trigger other devices such as the ETA Systems ETA-20SH 20A stand alone AC power module.

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ARCHITECT & ENGINEER SPECIFICATIONS

The electronic control system sequencer panel and power conditioner shall be Model ETA-ECS3.

The Electronic Control System Sequencer and Power Conditioning Panel shall be equipped with a front panel digital voltmeter to monitor AC mains, and LED indicators to alert the user to abnormal voltage, breaker open, wiring fault, AC fault in addition to the 3 sequence activations of the unit. Front panel shall feature a 3 position switch (HIGH, LOW, & OFF) to activate a pull out LED light. The rear panel shall be illuminated via an optional plug in lamp with a separate On/Off switch for activation.

The sequencer shall be equipped for multiple modes of sequencing activation to include front panel mounted momentary switch, rear panel mounted euro-block style four position connector with contact closure and 5VDC – 24VDC External Voltage Activation trigger paralleled to Sequencer Activation Mode 3. The unit shall be capable of activating a remotely powered switched outlet (Model ETA-15SH or ETA-20SH) assembly via an included 24VDC output accessed on a rear mounted two position euroblock connector.

Power sequencer shall include three unswitched (two front panel and one rear panel mounted) and six switched outlets (rear mounted) in three sequence activation modes. Sequence Mode 1 features three outlets turned on immediately upon activation. Sequence Mode 2 features three outlets turned on immediately upon activation and after a three second delay, two additional outlets are turned on. Sequence Mode 3 features the same sequence as Sequence Mode 2 with an additional 3 second delay activating an additional single outlet for a total of a 6 second turn on sequence to minimize the in rush current draw of the connected components. Power Off sequence is Mode 3 off, Mode 2 off with a three second delay, Mode 1 off with a three second delay.

Protection of incoming AC mains and Sequence 1 and 2 spike suppression shall be accomplished by DCS (Dual Clamping Spike / Surge Suppression) circuitry with three stage MOV protection circuits. Noise Attenuation of EMI/RFI in Sequence 1 & 2 shall be 10dB @ 10kHz, 40dB @ 100kHz, and 100dB @ 10MHz. Tested and Agency Listed MET Code (UL1449).

Unit shall be constructed of 16-gauge CRS finished in black epoxy powder coated CRS with integrated 1RU brackets for rack mounting.

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ETA SYSTEMS™
Leading by Design.™

ETA-ECS3
Power Sequencer and Conditioner

SPECIFICATIONS

Type	Power Sequencer, Power Conditioner & Suppressor
Sequencer Sections	3, Fixed Time of 3 Seconds Between "On" Seq. 2 & 3, "Off" 2 & 1
Load Rating	15A Continuous
Safety Listing	ETL (UL 60065 Standard)
Front Panel	
AC Outlets	2 Unswitched
Lights	1 Pull out LED with Dimmer Switch
Activation Switch	Momentary
Circuit Breaker	15A Resettable
AC Mains Voltmeter	Three Digits (Digital)
Indicators	Sequencer Sections 1, 2 & 3, Abnormal Voltage, AC Fault, Breaker Open, Wiring Fault
Rear Panel	
AC Outlets	7 Total, Sequence Section 1 (3 outlets), Sequence Section 2 (2 Outlets), Sequence Section 3 (1 outlet), Unswitched (1 Outlet)
External Switch Activation Trigger Phoenix	Momentary Contacts, 2 Position Euro/ 5.08mm Type Connector
External Voltage Activation Trigger	5-24VDC Continuous, 10mA, 2 Position Euro/Phoenix 5.08mm Type Connector
DC Output	12VDC 100mA Output Paralleled to Sequencer Section 3 Timing
LED Light Socket	XLR Socket to Provide 12VDC for Optional 18" Gooseneck Lamp
LED Light Switch	Two Position On/Off
Grounding Terminal	Hand Screw Type Terminal to Chassis Ground
AC Mains Power Cord	9' (3 Meters) 14-gauge
Technical Data	
Current Rating	15 amps
Power Consumption	12 watts
Operating Voltage	102 - 132VAC
High Voltage Surge Protection	Trigger at 133VAC, 1ms Typically
Low Voltage Surge Protection	Trigger at 101VAC, 1ms Typically
Voltmeter Accuracy	±1.5VAC
Spike Protection Modes	DCS (Dual Clamping Suppression) Circuitry on Incoming AC Mains and Each Sequential Section Output
Min. Spike Clamping Voltage	460 VRMS @ 3,000A
Max. Spike Clamping Voltage	6kV
Max. Spike Clamping Resp. Time	1 nanosecond
Spike Clamping Voltage @ 100A	1250Vp for 20µs
Maximum Surge Current	6,500A
Energy Rating @ 2ms	2000 Joules
Noise Attenuation EMI/RFI Seq. Section 1 & 2	10dB @ 10 kHz, 40dB @ 100 kHz, 100dB @ 10 MHz
Temperature Range	5° to 35° C
Humidity Range	5% to 95% R.H.
Mechanical	
Chassis Finish	Black
Mounting	Rack Mount, 19", 1 RU
Dimensions	Height 1.75" (44.45mm) Width 19" (482.6mm) Depth 8.5" (215.9mm)
Weight	7.6 lbs (3.45kg)

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