

# AVC63-4A Voltage Regulator



## Overview

Enjoy proven, dependable, high performance with Basler Electric’s AVC line. These extremely rugged and reliable regulators provide performance and functionality that revolutionized the modern analog voltage regulator market, and they are still unrivaled today. Others have attempted to imitate the AVC’s features and functions, but only the AVC remains the total solution.

## Features

- Integrated circuitry for compact size, simplicity, high reliability
- Extremely rugged
- Exciter field current 4 A continuous, 6 A forcing
- Regulation accuracy better than  $\pm 1.0\%$  no-load to full-load
- Fast response
- Frequency compensation
- Overexcitation shutdown
- Electromagnetic Interference (EMI) suppression

## Benefits

- Voltage regulation performance is constant over the entire operating temperature range without derating or degradation.
- Potted design allows installation in harsh environments.
- Reduce or eliminate expensive service calls because of the reliable, rugged construction.
- The AVC63-4A offers a full-wave power stage for improved transient performance and voltage stability.
- Volts-per-hertz limiting, overexcitation shutdown, and provisions for external voltage adjustments make the AVC line a good fit for most applications. It’s the “universal” regulator that reduces inventory to one device on the shelf.
- Small size for easy installation in virtually any generator terminal box.
- Eliminate settings errors with simple adjustments.

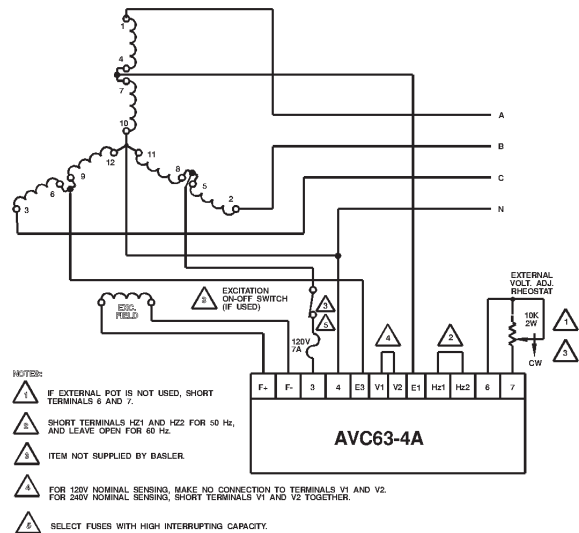


Figure 1 - AVC63-4A Connection Diagram for a Typical Application

## Specifications

### Input Power (1-Phase)

Range: 95 to 139 Vac,  $\pm 10\%$   
 Frequency: 50/60 Hz  
 Burden: 450 VA

### Sensing Input (1-Phase)

Range: 95 to 139 Vac,  $\pm 10\%$  or  
 190 to 277 Vac,  $\pm 10\%$   
 Frequency: 50/60 Hz

### Output Power

Max Continuous: 63 Vdc at 4 Adc (252 W)  
 One-Minute Forcing: 90 Vdc at 6 Adc (540 W)  
 Ten-second Forcing: 134 Vdc at 9 Adc (1,206 W)

### Power Dissipation

15 W maximum

### Exciter Field DC Resistance

15  $\Omega$  minimum, 100  $\Omega$  maximum

### Regulation Accuracy

Better than  $\pm 1\%$ , no-load to full-load

### Response Time

<1.5 cycles for  $\pm 5\%$  change in sensing voltage

### EMI Suppression

Internal EMI filtering

### Overexcitation Shutdown

Field voltage shuts down after time delay if exciter field voltage exceeds 95 Vdc,  $\pm 5\%$ .

### Voltage Buildup

Automatic voltage buildup occurs for residual generator voltages as low as 6 Vac.

### Agency/Certifications

UL 6200:2019 recognized, China RoHS compliant

### Environmental

Operating Temp:  $-40^{\circ}\text{C}$  to  $60^{\circ}\text{C}$  ( $-40^{\circ}\text{F}$  to  $140^{\circ}\text{F}$ )  
 Storage Temp:  $-40^{\circ}\text{C}$  to  $85^{\circ}\text{C}$  ( $-40^{\circ}\text{F}$  to  $185^{\circ}\text{F}$ )  
 Shock: 20 G in three perpendicular planes  
 Vibration:  
     5 to 26 Hz: 1.2 G  
     27 to 52 Hz: 0.036" double amplitude  
     53 to 1000 Hz: 5 G

### Physical

Weight: 10 oz. (283 g)  
 Dimensions (WxHxD):  
     5.49" x 4.90" x 1.97"  
     (139.5 mm x 124.4 mm x 50.0 mm)

For complete specifications, download the instruction manual at [www.basler.com](http://www.basler.com).

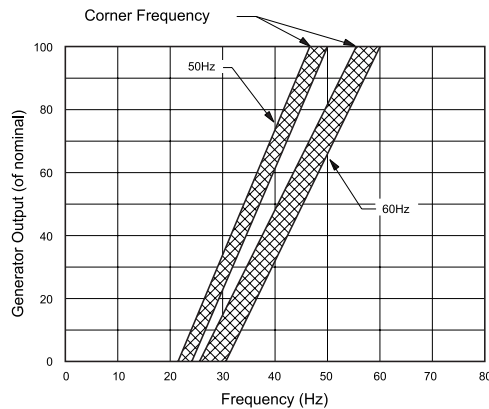


Figure 2 - AVC63-4A Frequency Compensation Curves

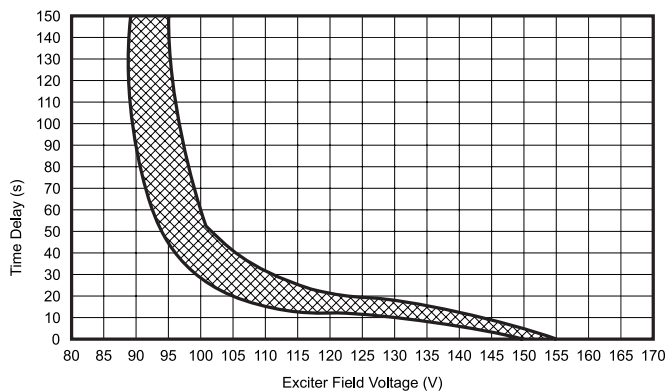


Figure 3 - AVC63-4A Overexcitation Shutdown Time Delay Curves

## Related Products

AVC63 Series Voltage Regulators provide the performance and functionality that revolutionized the modern analog voltage regulator market.

- [AVC63-12](#)
- [AVC63-4, AVC63-4D](#)
- [AVC63-7, AVC63-7F](#)

### BE1-FLEX Protection, Automation and Control System

Designed to be configurable for nearly any Power System Application.

### ES Series Protection Relays

Provide a wide variety of cost-saving options to simplify industrial application protection.

### DECS-150 Digital Excitation Control System

Provides precise voltage regulation, exceptional system response, and valuable protection of the generator and excitation system.

### DGC-2020 Digital Genset Controller

Provides genset and transfer switch control, metering, protection and programmable logic in a simple, easy-to-use, reliable, rugged, and cost-effective package.

### DGC-2020ES Digital Genset Controller

Total system solution for emergency and stand-alone generator set applications.

### DGC-2020HD Digital Genset Controller

An advanced but rugged, genset control system designed for paralleling and complex load sharing schemes.