AVC63-7, AVC63-7D, AVC63-7F Voltage Regulators

Overview

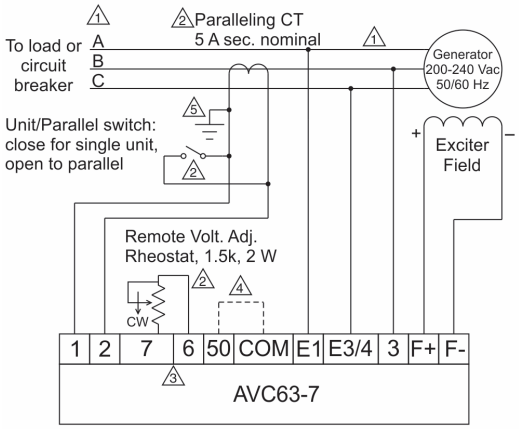
Enjoy proven, dependable, high performance with Basler Electric's AVC line. These extremely rugged and reliable regulators provide performance and functionality that revolutionized the modern analog voltage regulator market, and they are still unrivaled today. Others have attempted to imitate the AVC's 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 7 A continuous
- Regulation accuracy better than ±0.25% no-load to full-load
- Fast response
- Frequency compensation
- Built-in parallel droop compensation

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.
- Integrated paralleling provides exceptional reactive load sharing with simple setup for quick commissioning.
- Volts per hertz limiting, overexcitation shutdown, provisions for external voltage adjustments, integrated paralleling provisions, and potted construction 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.



1. Phase rotation A-B-C
2. Item not supplied by Basler Electric Co.
3. If remote voltage adjust is not used, short terminals 6 and 7 together.
4. Short terminals 50 and COM together for 50 Hz operation. Leave unconnected for 60 Hz operation.
5. The secondary winding of a sensing transformer must be grounded as closely to the transformer as practical. When interconnecting more than one transformer, ensure that the secondary winding of only one transformer is grounded.

Figure 1 - DECS-150 Connection Diagram for a Typical Application

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Specifications

Input Power (1-phase)

Voltage Range:	170 to 305 Vac
Frequency:	50/60 Hz
Burden:	900 VA max at 240 Vac

Sensing Input (1-phase)

Voltage Range:	
AVC63-7:	170 to 264 Vac
AVC63-7F:	380 to 480 Vac
Frequency:	50/60 Hz
Burden:	5 VA

Output Power

Max Continuous:	7 Adc at 63 Vdc
Field Resistance:	9 Ω minimum

Voltage Adjust Range

Internal Adjust:	
AVC63-7:	170 to 264 Vac
AVC63-7F:	340 to 528 Vac
External Adjust:	±10% of nominal internal adjust value

Regulation Accuracy

Better than ±0.25% no-load to full-load

Voltage Drift

<±1% voltage variation for a 50°C (122°F) change

Response Time

<16 ms

Frequency Compensation

See Figure 2.

Voltage Buildup

Automatic voltage buildup occurs for residual generator voltages as low as 6 Vac at 25 Hz.

Power Dissipation

35 W maximum

Paralleling Provisions

Input for 5 A CT with 2.5 VA input burden.

Adjustable droop from 0 to 6% at 0.8 power factor

Agency/Certifications

CSA certified, EAC certified, UL 6200:2019 recognized

Environmental

Operating Temp:	-40°C to 60°C (-40°F to 140°F)
Storage Temp:	-65°C to 85°C (-85°F to 185°F)
Shock:	15 G in three perpendicular planes
Vibration:	
5 to 26 Hz:	1.2 G
27 to 53 Hz:	0.036" double amplitude
54 to 1,000 Hz:	5 G

Physical

Weight:	17 oz (482 g)
Dimensions (WxHxD):	5.52 x 4.92 x 2.98 inches (138 x 123 x 75 mm)

For complete specifications, download the instruction manual at www.basler.com.

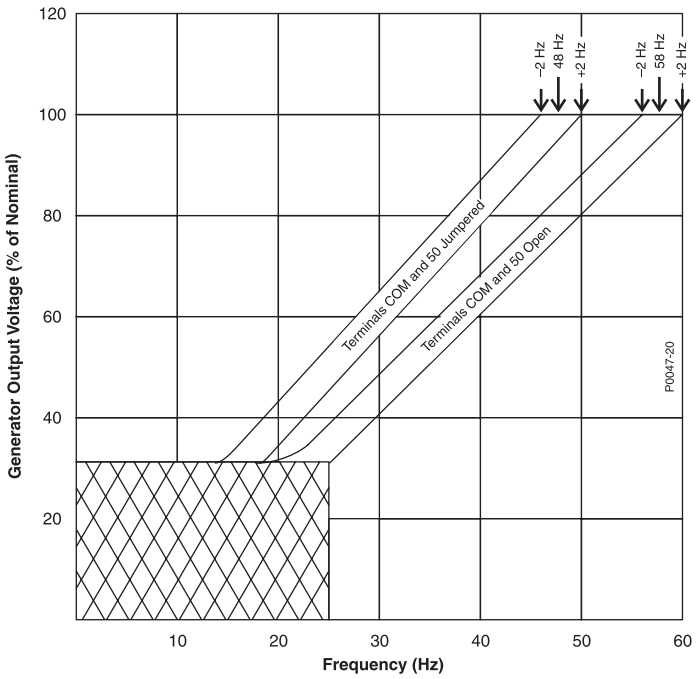

Figure 2 - Frequency Compensation Curves

Related Products

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

- AVC63-4, AVC63-4D
- AVC63-12

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. Ideal for distributed generation, cogeneration, and peak shaving applications.

DECS-250 Digital Excitation Control System

Provides precise voltage, var and Power Factor regulation, and exceptional system response, plus generator and motor protection.

DGC-2020 Digital Genset Controller

An advanced genset control system with extensive functionality and flexibility.

DGC-2020ES Digital Genset Controller

The 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.

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