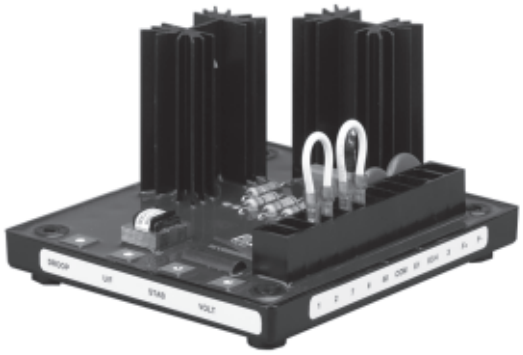

AVC63-7, AVC63-7F, AVC63-7S, AVC63-7FS, AVC63-7-1A VOLTAGE REGULATOR

The AVC63-7 family of voltage regulators uses enhanced technology that is designed for use on 50/60Hz brushless generators. Several models are available with 240 or 480Vac sensing and with or without paralleling provisions. Each model provides reliable performance due to its small, ruggedly constructed package.

FEATURES

- Integrated circuitry for compact size, simplicity, high reliability.
- Extremely rugged.
- Exciter field current 7A continuous, 11.5A forcing.
- Regulation accuracy better than ± .25% no load to full load.
- Fast response.
- Frequency compensation.
- Built-in parallel droop compensation (optional).
- EMI suppression.
- CSA certified.
- Gost R certified #POCC US.ME05.B03392.
- Qualified to the requirements of:
  - IEEE C37.90.1 for Surge Withstand Capability.
  - ASTM B117-73, Method 711-1C, for Salt Fog.

ADDITIONAL INFORMATION

INSTRUCTION MANUALS

AVC63-7: Request Publication 9302800991
AVC63-7F: Request Publication 9302800994
AVC63-7S: Request Publication 9302800995
AVC63-7FS: Request Publication 9302800996
AVC63-7-1A: Request Publication 9302800993

Basler Electric

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DESCRIPTION

The AVC63-7 family of voltage regulators maintains generator line voltage on brushless generators typically from 100kW to over 500kW in size. The voltage regulator senses the average voltage from the generator output to maintain precise voltage regulation. This is accomplished by converting the single phase power input into a controlled DC signal to provide excitation voltage and current to the generator's exciter field. The solid state voltage buildup circuit allows the generstor voltage to automatically build up to rated voltage with as little as 6Vac of residual voltage on its power input. Customer accessible stability and underfrequency adjustments allow for fine tuning of the voltage regulator to the generator's own characteristics.

Five models make up the AVC63-7 family of voltage regulators that consist of different combinations of sensing voltages and paralleling provisions. For stand-alone/ non-paralleling applications, consider using models signified with an "S". Refer to Spec Table below for details.

Figure 1 displays the underfrequency characteristics of the voltage regulator through its frequency range. The speed of the prime mover is directly proportional to the generator frequency. Provisions to select 50 or 60Hz operation are provided.

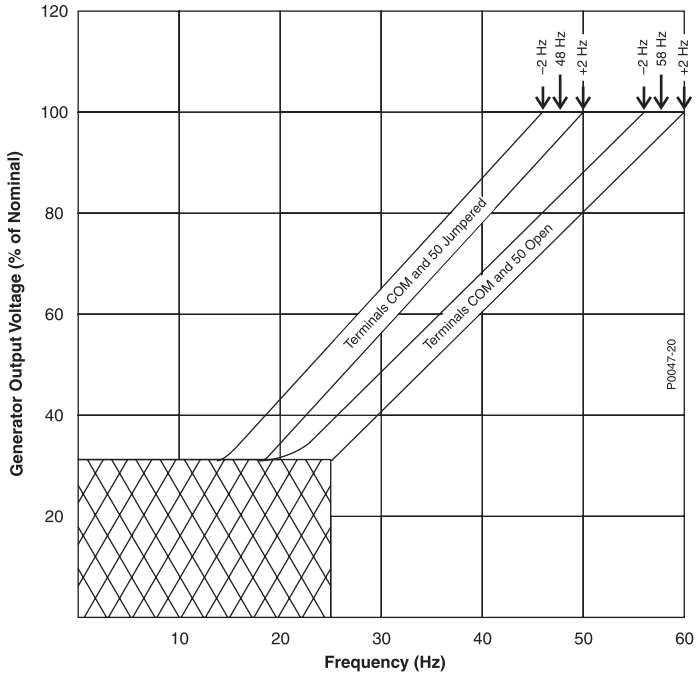

Figure 1 - Frequency Compensation Characteristic

SPECIFICATIONS

	SENSING INPUT		PARALLELING PROVISIONS		DC OUTPUT				EXCITER FIELD RESISTANCE		POWER INPUT	
Model	Voltage Adjust Range	Burden	Current Input	Burden	Max. Cont.		Max. Forcing 10 Sec (240Vac Input)		Min. Ohms @ 25°C	Max. Ohms	Single Phase Voltage Range	Burden
AVC63-7	190-240Vac ±10%	< 5VA	5 Amp	2.5VA	63Vdc	7Adc	105Vac	11.5Adc	9Ω	100Ω	190-277Vac ±10% (50/60Hz)	900VA
AVC63-7S			N/A									
AVC63-7F	380-480Vac ±10%		5 Amp	2.5VA								
AVC63-7FS			N/A									
AVC63-7-1A	190-240Vac ±10%		1 Amp	0.1VA								

SPECIFICATIONS (continued)

REGULATION ACCURACY: Better than ±.25% no load to full load.

RESPONSE TIME: Less than 1.5 cycles for ±5% change in sensing voltage.

EMI SUPPRESSION: Internal electromagnetic interference filtering.

VOLTAGE BUILDUP: Internal provisions for automatic voltage buildup from generator residual voltages as low as 6 Vac.

TERMINATIONS: 1/4 "Fast-On" Terminals.

POWER DISSIPATION: 35 Watts maximum.

OPERATING TEMPERATURE: -40°C (-13°F) to +60°C (+140°F).

STORAGE TEMPERATURE: -40°C (-40°F) to +85°C (+185°F).

VIBRATION: Withstands 1.2 Gs at 5 to 26 Hz; 0.036" double amplitude at 27 to 52 Hz; and 5 Gs at 53 to 1000 Hz.

SHOCK: Withstands up to 15 Gs in each of three mutually perpendicular axes.

WEIGHT: 10 oz. (0.28 kg) Net.

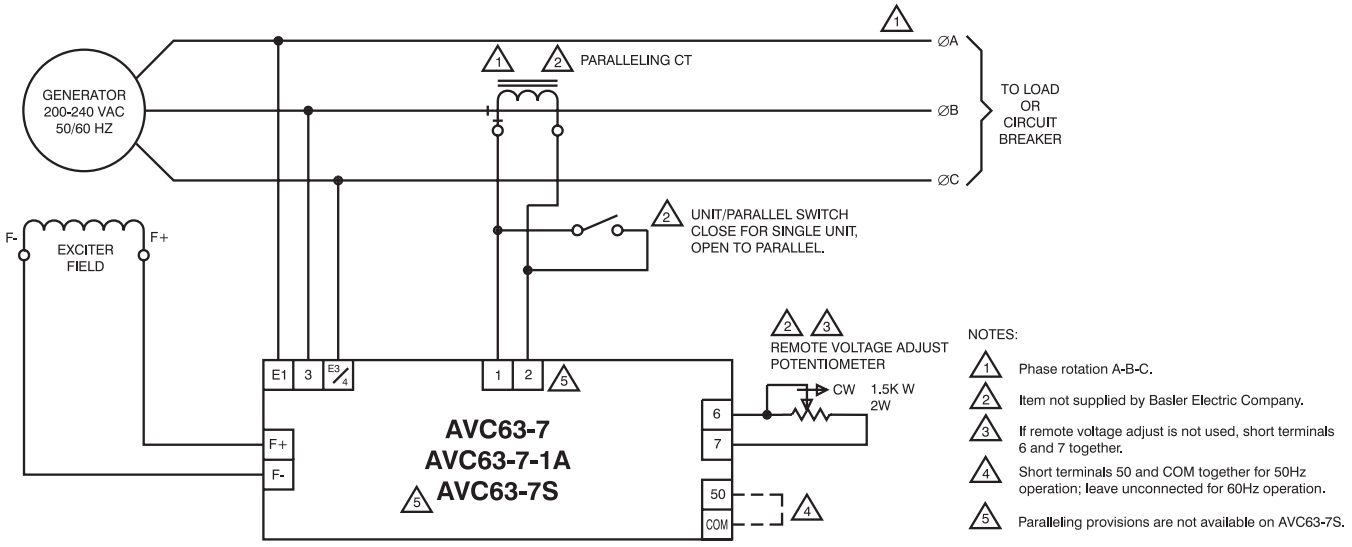

Figure 2 - Typical Interconnection Diagram

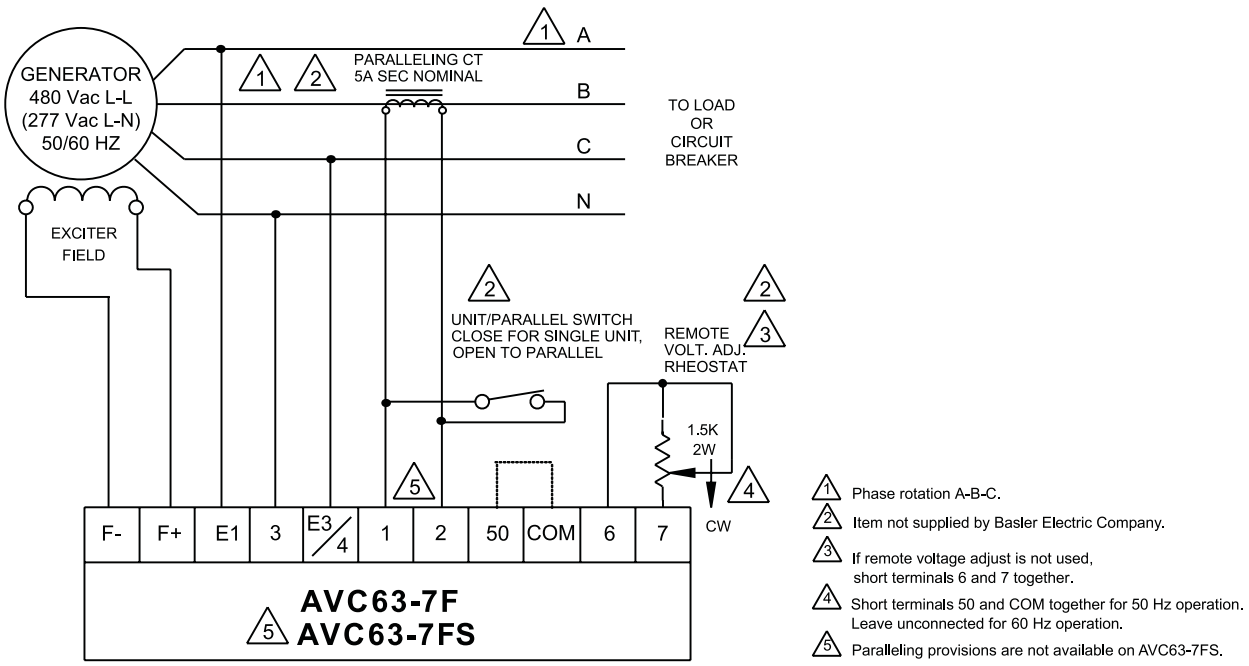

Figure 3 - Typical Shunt-Powered Interconnection Diagram (Wye Connection)

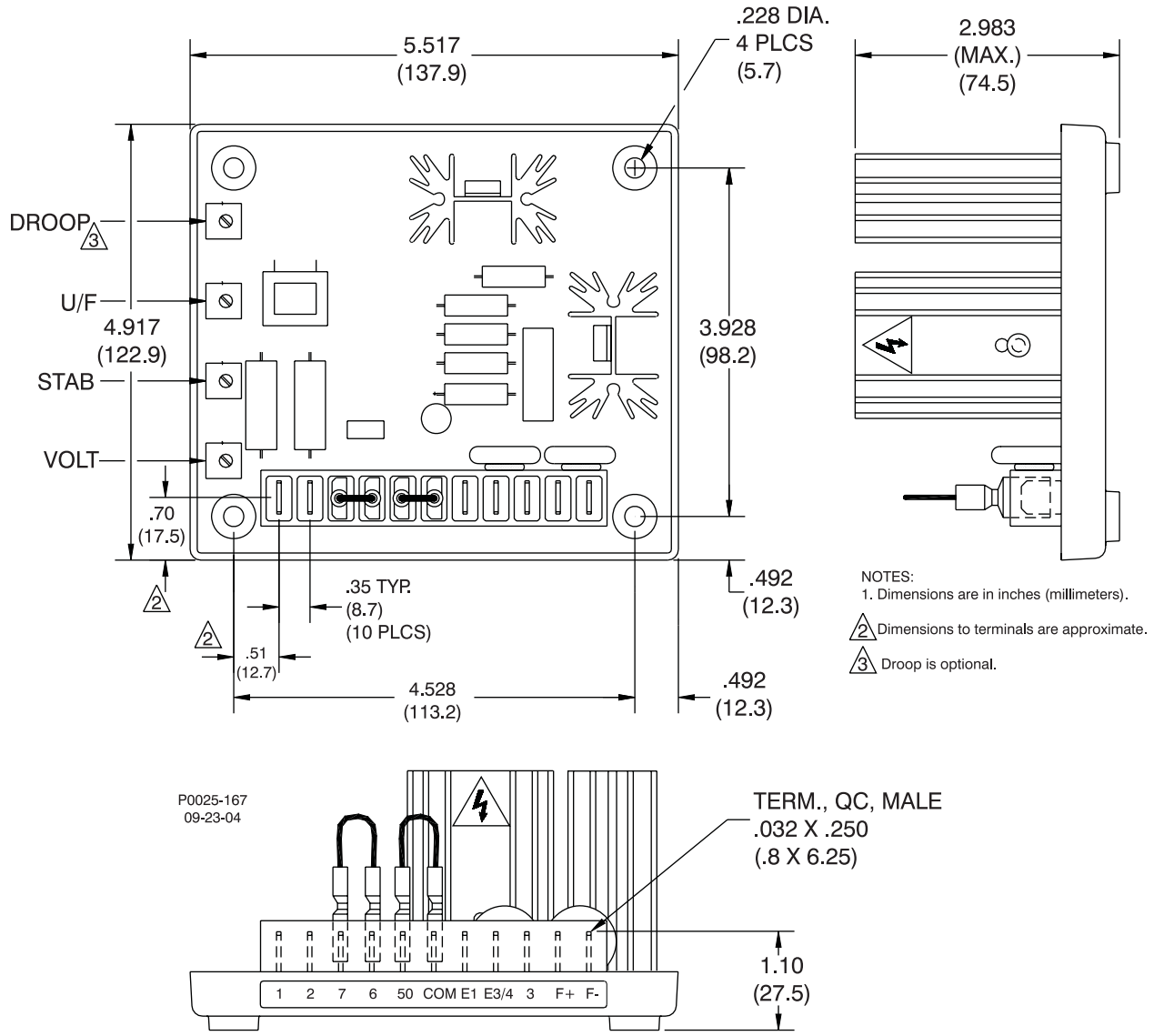

Figure 4 - Outline Drawing

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