

## AVC110-6 and AVC110-6B VOLTAGE REGULATOR

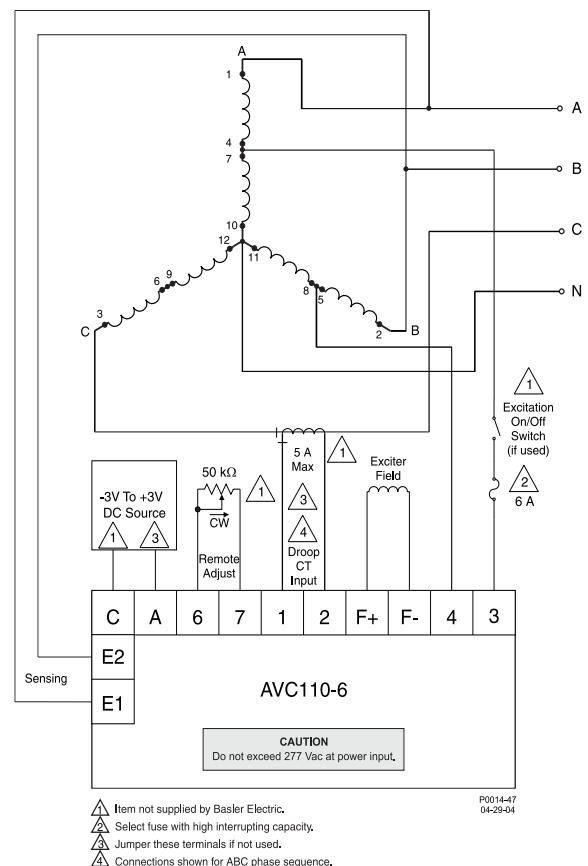
Using enhanced technology, the AVC110-6 and the AVC110-6B are full wave voltage regulators designed for use on 50/60 Hz brushless generators. The only difference between the two models is the Sensing Voltage level. The AVC110-6 accepts 480Vac, and the AVC110-6B accepts 240Vac. These encapsulated regulators are small in size, ruggedly constructed, and incorporate solid state technology with frequency compensation, a build-up circuit, overexcitation shutdown, droop input, accessory input, and EMI filtering as standard.

### FEATURES

- Integrated circuitry for compact size, simplicity, high reliability.
- Extremely rugged.
- Exciter field current 6A continuous, 10A forcing.
- Regulation accuracy better than  $\pm 0.5\%$  no load to full load.
- Fast response.
- Frequency compensation.
- Overexcitation shutdown.
- EMI suppression.
- Accessory input.

### ADDITIONAL INFORMATION INSTRUCTION MANUAL

Request Publication 9317700991 (AVC110-6)  
Request Publication 9317700992 (AVC110-6B)



**Figure 1 - Typical AVC110-6 Interconnection**  
277/480V nominal, 3-phase, 4-wire wye connection

**Basler Electric**

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## SPECIFICATIONS

DC OUTPUT				EXCITER FIELD RESISTANCE		POWER INPUT		SENSING INPUT	
MAX. CONT.		MAX FORCING 10 SEC (240Vac INPUT)		MIN. OHMS @ 25°C	MAX OHMS	SINGLE PHASE VOLTAGE RANGE	BURDEN	VOLTAGE ADJUST RANGE	
AMP	VOLT	AMP	VOLT					AVC110-6	AVC110-6B
6	110	10	200	18.3	100	180-277Vac ±10% 50/60Hz 125Hz PMG	800VA	342-528Vac 50/60Hz	180-277Vac 50/60Hz

**REGULATION ACCURACY:** Better than  $\pm 0.5\%$  no load to full load.

**RESPONSE TIME:** Less than 1.5 cycles for  $\pm 5\%$  change in sensing voltage.

**EMI SUPPRESSION:** Internal electromagnetic interference filtering.

**PARALLEL COMPENSATION:** 5A < 10VA. Adjustable up to 6% droop for 0.8PF.

**ACCESSORY INPUT:**  $\pm 3\text{Vdc}$  signal causes a  $\pm 30\%$  change in the regulation set point.

**OVEREXCITATION SHUTDOWN:** Field voltage shuts down after time delay if exciter field voltage exceeds a set point adjustable approx. 75-125Vdc. The time delay is inversely proportional to the magnitude of the detected overvoltage condition up to the 240 Vdc point, thus allowing nominal forcing for approximately 10 seconds. Beyond 240 Vdc, the field voltage is removed instantaneously.

**VOLTAGE BUILDUP:** Internal provisions for automatic voltage buildup from generator residual voltages as low as 5 Vac.

**TERMINATIONS:** Screw type.

**POWER DISSIPATION:** 35 Watts maximum.

**OPERATING TEMPERATURE:**  $-40^{\circ}\text{C}$  ( $-40^{\circ}\text{F}$ ) to  $+60^{\circ}\text{C}$  ( $+140^{\circ}\text{F}$ ).

**STORAGE TEMPERATURE:**  $-40^{\circ}\text{C}$  ( $-40^{\circ}\text{F}$ ) to  $+70^{\circ}\text{C}$  ( $+158^{\circ}\text{F}$ ).

**VIBRATION:** Withstands 1.5 Gs at 5 to 29 Hz; 0.036" double amplitude at 29 to 52 Hz; and 5 Gs at 52 to 500 Hz.

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

**WEIGHT:** 12.58 oz. (0.38 kg) Net.

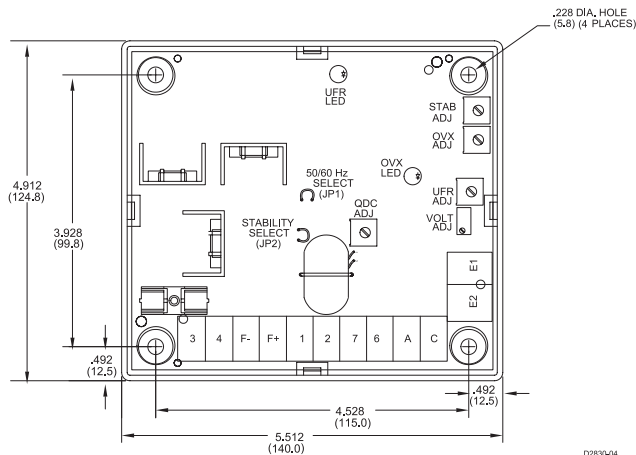


Figure 2 - Outline Drawing (Top view)

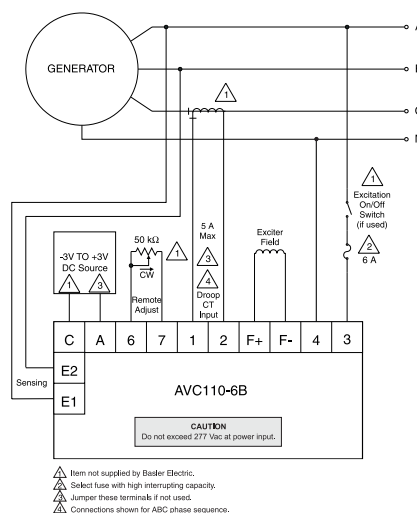


Figure 3 - Typical AVC110-6B Interconnection  
240V L-L nominal, 3-phase, 4-wire wye connection



Highland, IL: ISO 9001  
Wasselonne, France: ISO 9001  
Taylor, TX: ISO 9001

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