

# BN206 Instructions

BN206 is designed to improve the starting capacity of generator with motor load, Which is 4 times faster than the recovery time of the mainstream half wave thyristor controlled AVR products in the market when sudden loading and unloading, With excellent instant strong excitation capacity, And more than 50% higher than the motor starting capacity of general AVR. It reduces the damage of generator voltage fluctuation to sensitive equipment.

## Product characteristics:

Adopt full wave rectifier PWM modulation output, 4 pulse output per week (1 pulse output in common half wave rectifier), So that the voltage drop during motor starting can be effectively controlled, The recovery time is less than 120ms, And the voltage rise during load sudden unloading can also be effectively suppressed, And the recovery time is less than 100ms.

Built in over excitation current protection, Factory set as 4.5a, and equipped with 8A slow fuse. When the excitation output current exceeds 4.5a and lasts for 10s, The over excitation protection will be triggered, and the excitation current will immediately drop and be locked at 0.2-0.3 A, So that most generators can maintain the generation voltage at 80-160 vac. When the AVR control circuit fails, The over excitation protection function cannot be started normally, and the current continues to exceed 6.3A, The hot-melt fuse will be fused to prevent damage to the generator winding.

It has low-frequency protection function. The factory preset inflection point frequency is 46hz, and the voltage drop rate is 12V / Hz.

## Performance Parameter:

Power(Detect)Input: 165~264VAC	Low frequency protection:
Exciting Output: Max.160VDC @Input240VAC	50HZ sys. inflection point fre. :46HZ
Excitation current: 3.8A @Continuous	60Hz sys. inflection point fre. : 55Hz
Max excitation current: 6A @10S	External fine adjustment range: 20V @1KΩ/1W
Excitation Impedance: >10Ω	Voltage build up time: 3S
Regulation accuracy: ± 0.5%	EMI: built-in EMI suppression circuit
Voltage vs. temperature drift:0.03%/°C	Outline size: 90mm*160mm
Over excitation protection: 4.5A @10S	Weight: 193g ±5g

## Adjustment instruction:

Before starting the generator, first confirm whether the line voltage input by the power supply is less than 265 vac, whether the positive and negative pole connection of the excitation is correct (if it is wrong, voltage build failure may occur), whether the external voltage trimming potentiometer is adjusted to the middle position, whether the frequency selection is correct, set the Vol on the AVR to the minimum, and stab to the middle.

After starting the generator, First adjust the Vol to make the voltage near the rated value, Then check whether there is voltage swing (more obvious with the pointer table), If it is fast swing, adjust clockwise, if it is slow swing, adjust anticlockwise, and finally fine adjust the Vol to the rated voltage.

If there is voltage establishment failure (the generation voltage is lower than 5V), The generator needs to be magnetized. The specific operation needs to be carried out by professionals. Please pay attention to the safety risks.

**Please refer to the following table for other problems :**

Phenomenon	Reason	Countermeasures
No electricity	Generator speed too low	Refer to generator manual
	Remanent voltage too low	Requires professionals to magnetize
Voltage output	7 8 F + F- wire is not connected properly	Refer to figures 2 to 3
	Bad condition of generator	Refer to generator manual
Voltage transmission is too low	Whether the 7 or 8-terminal input line is connected correctly	Refer to figures 2 to 3
	External VR potentiometer is not properly connected or in bad condition	Check VR and connecting lines
	Low frequency	Refer to generator manual
	Generator excitation parameters are inconsistent	Refer to generator manual
Fuse blown	The excitation current of the generator is too large and the wiring is wrong	Refer to generator manual and figures 2 to 3
Voltage output is too high	Whether the 7 or 8-terminal input line is connected correctly	Refer to figures 2 to 3
Voltage output is variable	Stability Improper adjustment	Refer to the previous section "adjustment"

**Product installation and wiring diagram :**

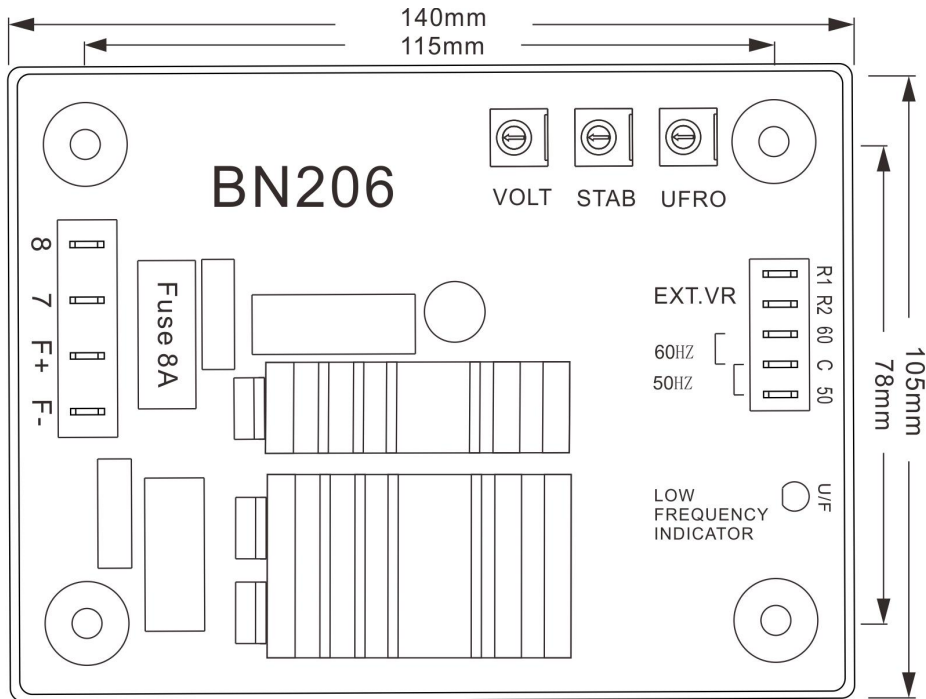


Figure 1 : dimensional drawing

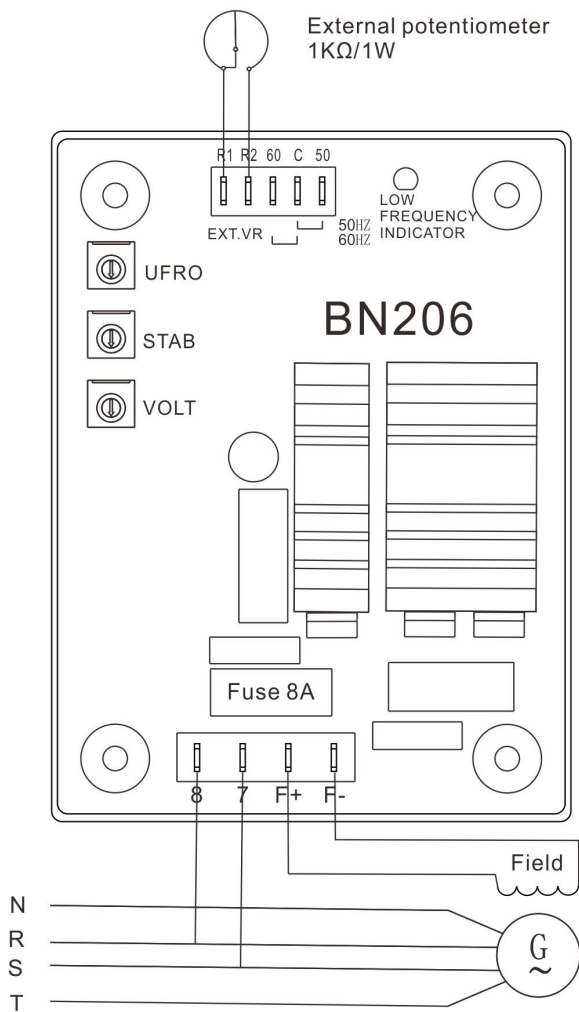


Figure 2: 220V wiring and setting

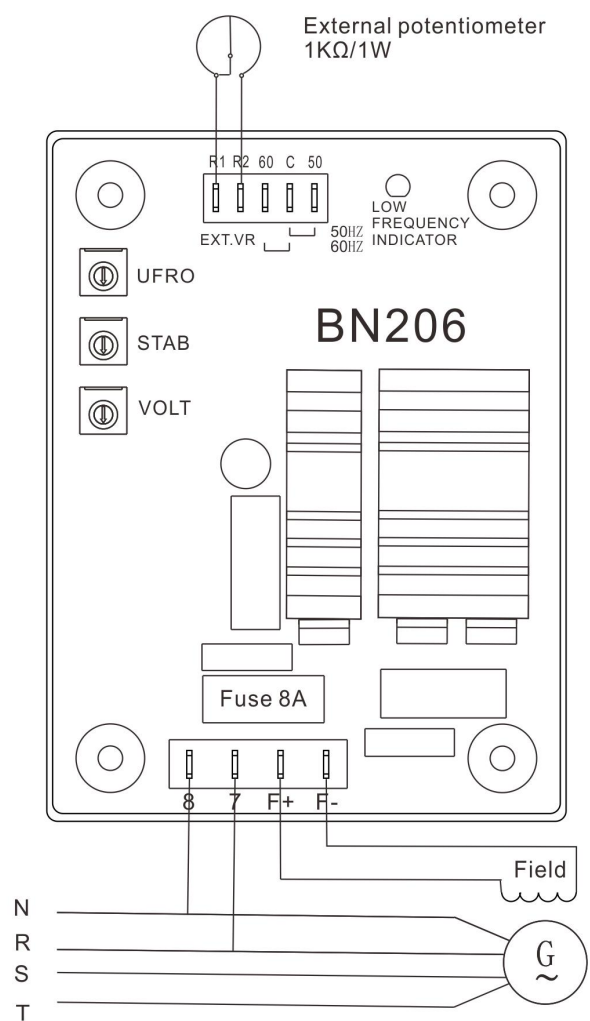


Figure 3: 380V wiring and setting