CHAPTER 2: SPECIFICATIONS

Model	FC 105	FC 110	FC 120	FC 130
Output Characteristics				
Power Rating	500 VA	1 KVA	2 KVA	3 KVA
Max. Output Current				
0 – 150V	4.2 A	8.4 A	16.8 A	25.2 A
0 – 300V	2.1A	4.2 A	8.4 A	12.6 A
Output Voltage	0 – 300.0 VAC in 0.1 V step			
Output Frequency	45 – 500 Hz			
Frequency Stability	better than 100 PPM			
Frequency Response	+0.5% recovery time < 100μS			
Waveform	Sine Wave, THD < 0.5%, resistive load			
Load Regulation	<± 0.5 %, recovery time < 100μS			
Measurement				
Frequency	0.1 – 500.0 Hz			
Accuracy	± 0.2%			
Resolution	0.1 Hz			
Voltage (V), True RMS	0.0 – 300.0 VAC			
Accuracy	±1% of Reading +1 Count			
Resolution	0.1V rms			
Current (I), True RMS	0.000 – 2.000A			
Accuracy	±1% of Reading + 5 Counts			
Resolution	1mA			
Current (II), True RMS	1.80 – 35.00A			
Accuracy	+1% of Reading + 2 Counts			
Resolution	10mA			
Power (I)	0.0 – 360.0 W			
Accuracy	±1.5% of Reading + 5 Counts			
Resolution	0.1W			
Power (II)	320 – 3500 W			
Accuracy	±1.5% of Reading + 1 Count			
Resolution	1 W			
Power Factor (PF)	0.000 to 1.000			
Accuracy	+2% of Reading + 2 Counts			
Resolution	0.001			
Calibration	Built in software for front panel calibration			
General				
AC Input Voltage	115/230 V ±10%	115/230 V ±10%	230V ±10%	230V ±10%
AC Input Frequency	47 – 63 Hz			
Operation Environment	32–104° F, 80% RH 0-40° C, 80% RH			
Dimensions (H/W/D)				
(in)	5.25/17/19.7	8.75/17/20.5	10.5/17/21.7	18.3/17/25.6
(mm)	3U/432/500	5U/432/520	267/432/550	465/432/650
Weight (lbs.)	55	77	132	308
(Kg.)	25	35	60	138

# CHAPTER 3: PANEL VIEWS OF THE AC SOURCES

3.1 FRONT AND REAR VIEWS OF THE FC 105
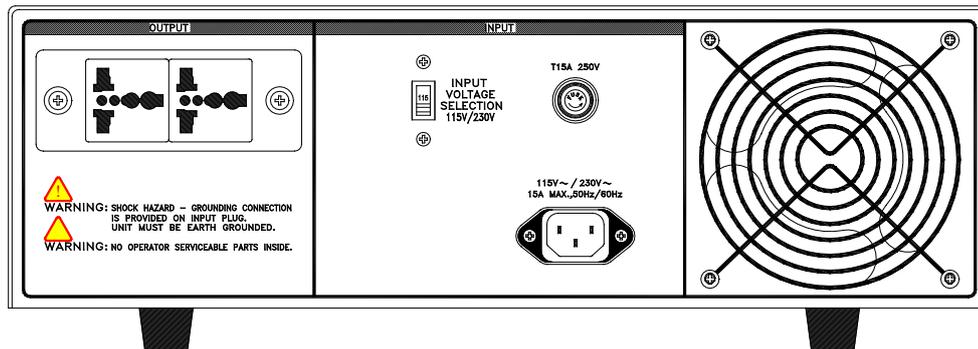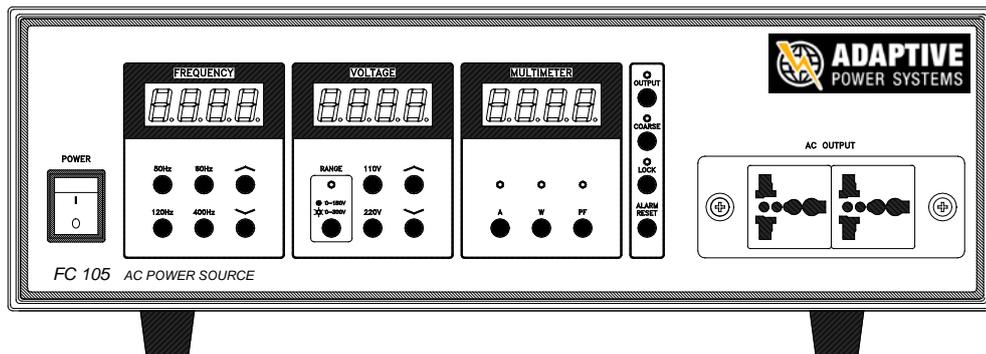
3.2 FRONT AND REAR VIEW OF THE FC 110
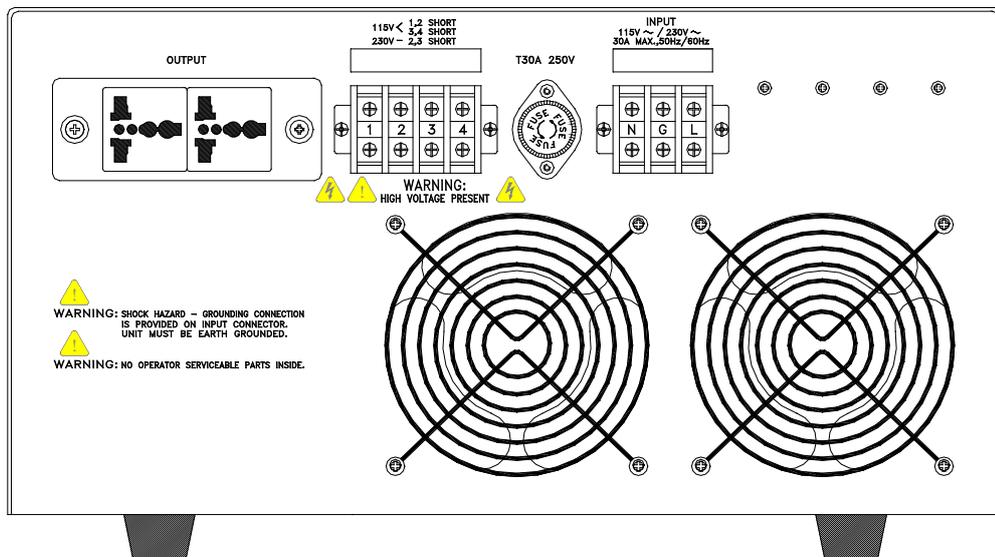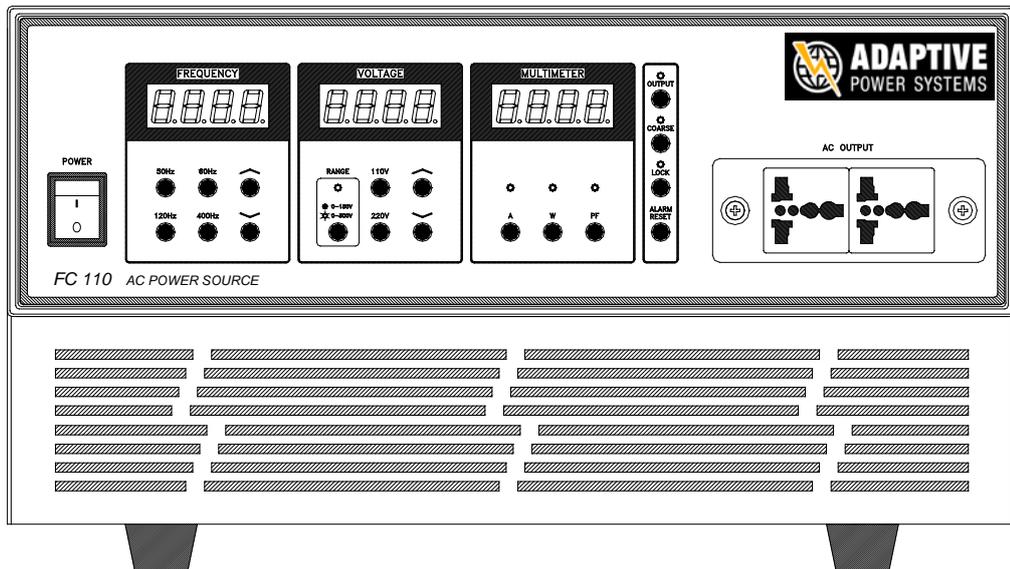
3.3 FRONT AND REAR PANEL OF THE FC 120
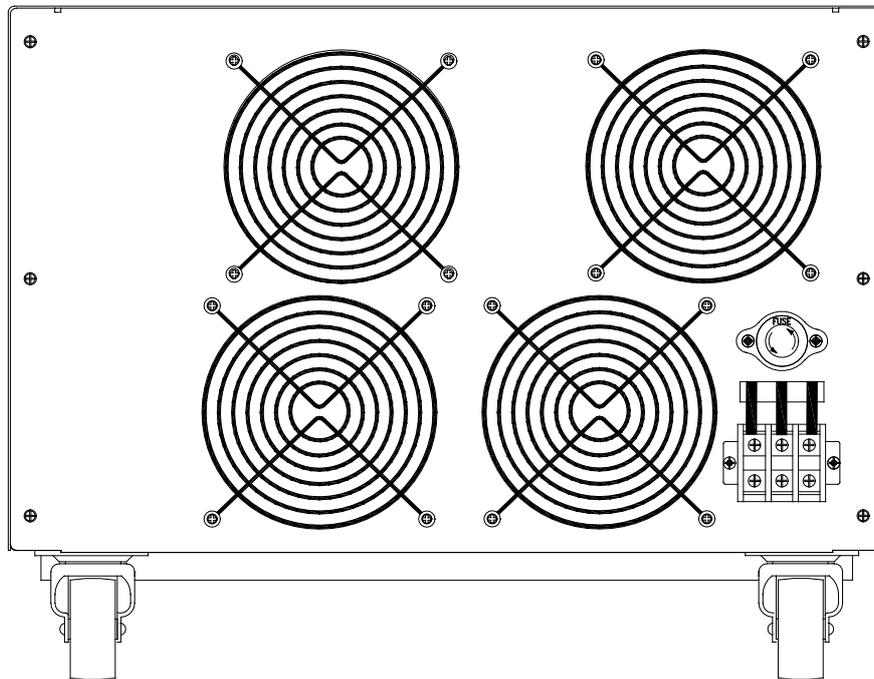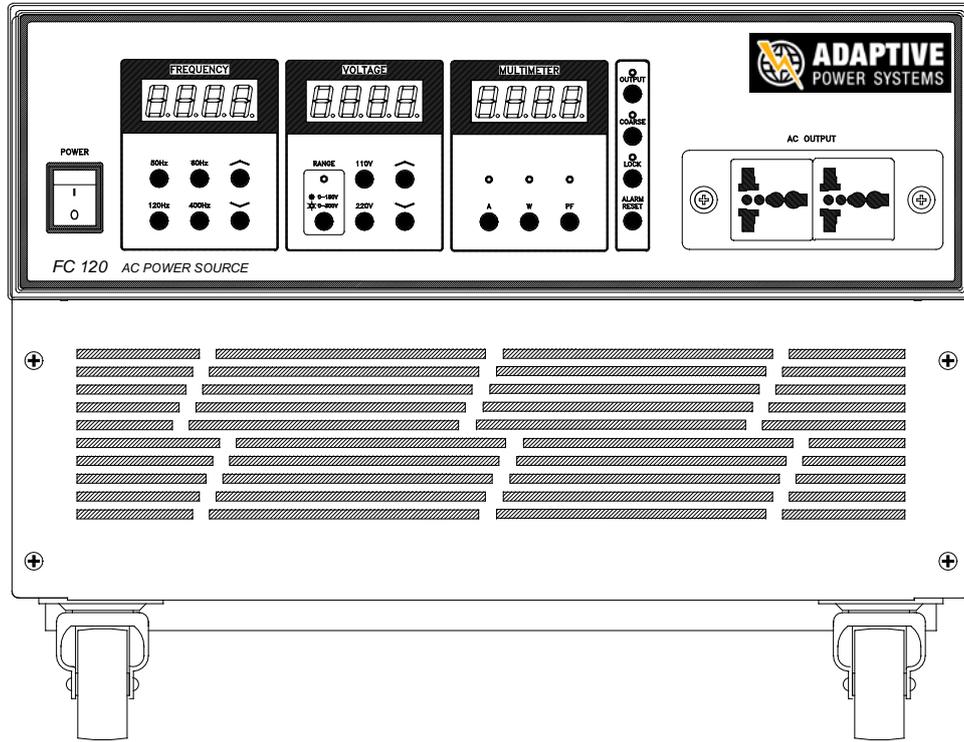
## 3.4 FRONT AND REAR PANEL OF THE FC 130
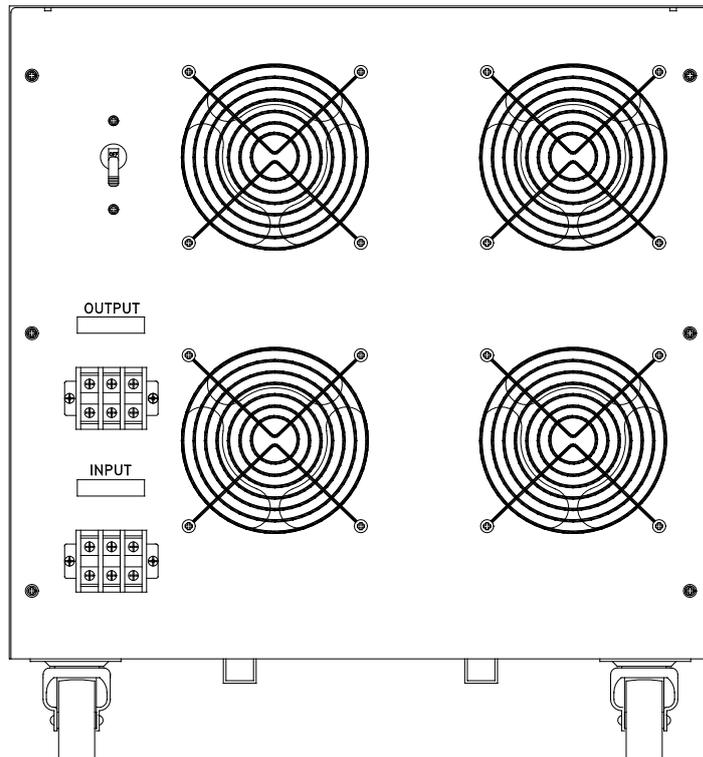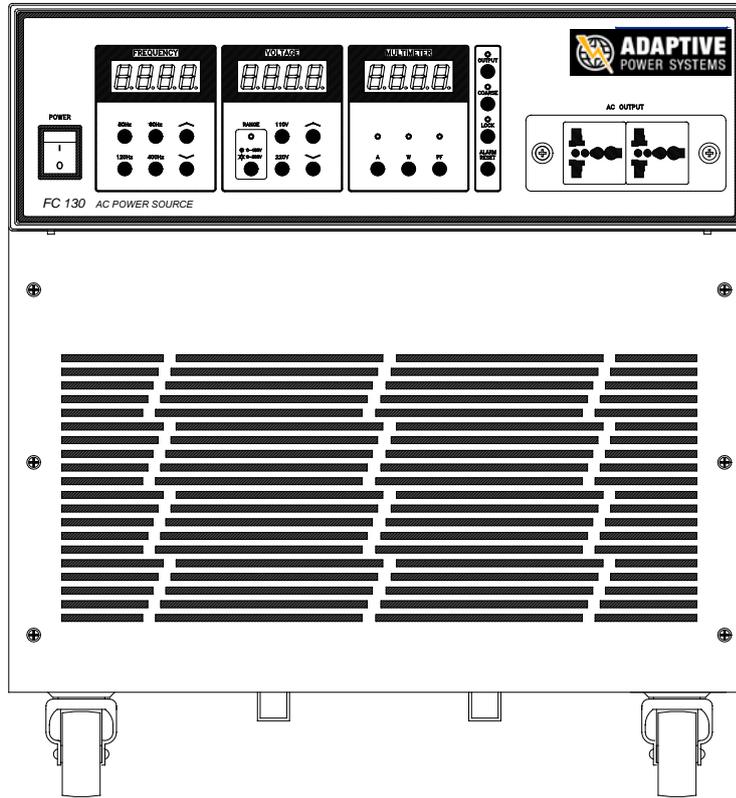
3.4 FRONT PANEL DESCRIPTION
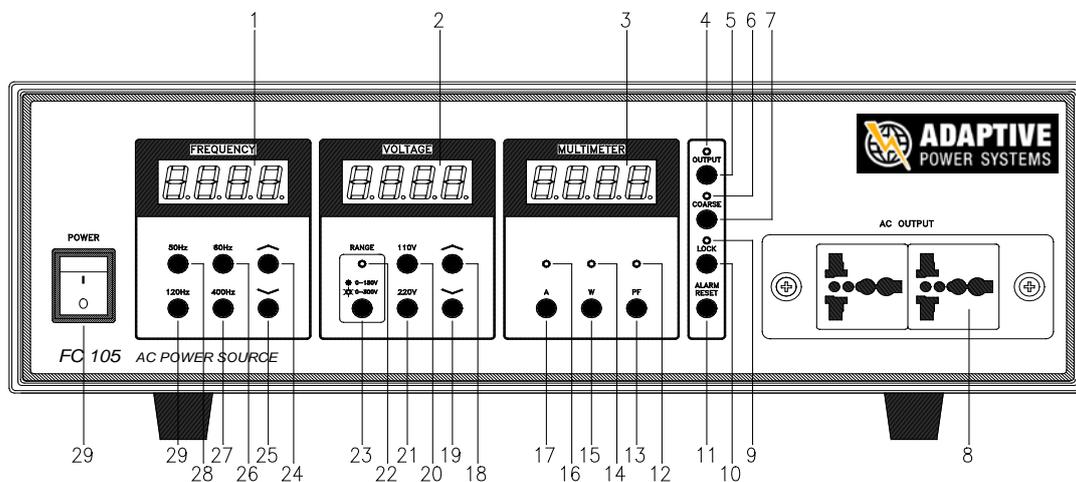
1. **Frequency Display.** When the output is OFF, it shows the frequency setting. Otherwise, it shows the actual frequency of the output.

2. **Voltage Display.** When the output is OFF, it shows the output voltage setting. Otherwise, it shows the actual voltage of the output.

3. **Multi Function Display.** Displays the value of output current, wattage or power factor.

4. **Voltage Output Indicator.** When it is lit, voltage is present at the universal output connectors.

5. **Output Enable.** To turn the output ON or OFF.

6. **Coarse Adjust LED.** When the LED is lit, the coarse adjust function for voltage or frequency is enabled.

7. **Coarse Adjust Key.** To toggle between coarse and fine adjustment of voltage or frequency.

8. **Universal socket.** AC power output socket. The universal socket on the FC 130 has an integral circuit breaker that is rated for a maximum usage of 15 A. Please use the external output terminal strip on the rear of the machine for full power capabilities.

9. **Lock Indicator.** When this LED is lit, all the keys are disabled.

10. **Lock Key**. To disable all the keys on the front panel. It toggles between Lock and Unlock.

11. **Alarm Reset.** Reset Key to stop the audible alarm and reset the output to OFF.

12. **Power Factor Indicator.** When the LED is ON, the display shows the output power factor.

13. **Power Factor Key.** To select the display of output power factor.

14. **Wattmeter Indicator.** When this LED is ON, the display shows the output power.

15. Wattmeter Key. Displays the output power.
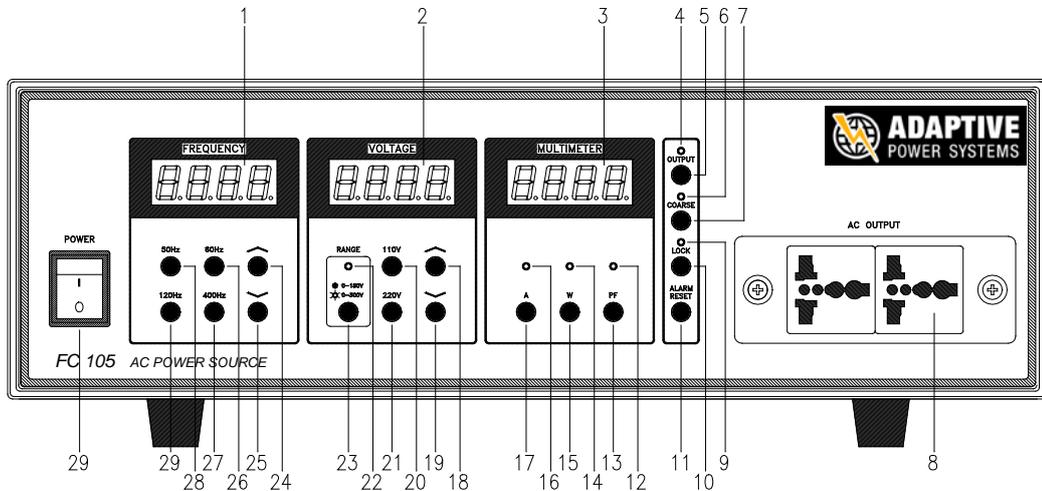
16. Ammeter Indicator. When this LED is ON, the display shows the output current.

17. Ammeter Key. To display the output current.

18. Voltage Up Key. To increase the output.

19. Voltage Down Key. To reduce the output voltage.

20. 110 V Output Voltage Key. Press to set output voltage to 110 V.

21. 220 V Output Voltage Key. Press to set output voltage to 220 V.

22. Voltage Range LED. When the LED is lit, the output is set in the 0-300V range. Otherwise, it is set in the 0-150 V range.

23. Range Key. To toggle between the 0-300V and the 0-150V range. When the voltage LED is lit, press the Range key and it will turn the LED OFF. The range is now changed to 0-150V or vice versa.

24. Frequency Up Key. To increase the output frequency.

25. Frequency Down Key. To reduce the output frequency.

26. 60 Hz Frequency Key. Press to set the output frequency to 60 Hz.

27. 400 Hz Frequency Key. Press to set the output frequency to 400 Hz.

28. 50 Hz Frequency Key. Press to set the output frequency to 50 Hz.

29. 120 Hz Frequency Key. Press to set the output frequency to 120 Hz.

30. Input Circuit Breaker. To turn the input power ON/OFF.

CHAPTER 4: USING THE AC POWER SOURCES

The FC 100 series AC Power Source's have a common front panel. The height changes depending on the output power rating. It has only a few keys and it is very easy to use.

Model	FC 105	FC 110	FC 120	FC 130
Power Rating	500 VA	1000 VA	2000 VA	3000 VA
Height	3U	5U	6U	9U

Step 1. Power Up
Check the input power selector switch on the rear of the machine to make sure that the correct input voltage is selected before turning the AC Source ON.

Step 2. Select Output Frequency
To set the output frequency, press the Frequency Key for 50 Hz, 60 Hz, 120 Hz or 400 Hz. For any other frequency from 45-500Hz, use the UP or DOWN Key to scroll. The selected frequency is indicated by the LED display.

Step 3. Select Output Voltage
If the voltage is higher than 150 volts, press the 0-300 Volt range key first. The LED is lighted to indicate the AC source is now in 0-300 Volt range. Now select the voltage 110 V or 220 V by pressing the voltage key. Press and hold the UP or Down key to scroll the display. When the desired voltage is reached, release the key. The selected voltage is indicated by the LED display. To speed up the scrolling, press the COARSE key once. The Coarse LED is lighted to indicate that the Coarse scrolling is turned on. The value indicated by the LED changes in larger steps.

Step 4. Select the output display
The user can select one of the three parameters for display in the LED by pressing the A, W or PF key. When the key is pressed, the LED above the key is lighted. The LED display will show the reading of the selected parameter.

Step 5. Turn On the output
After checking to make sure the voltage and frequency are set correctly, press the OUTPUT key. The LED above the OUTPUT key is lighted. This indicates that the AC output voltage is available at the universal socket.