

FC300 Series

Economical Benchtop Frequency Converter
up to 500 VA/W or up to 1000 VA/W



FC305	FC310
500 VA	1000 VA
40 Hz - 450 Hz	
0 - 155 Vac / 0 - 310 Vac	

Key Specifications

- **Output Power:** 500VA and 1000VA
- 45-450 Hz Full Power Bandwidth
- **Output Voltage Dual Ranges:** 0-155Vac / 0-310Vac, 1 phase
- **Isolated Output, VTHD:** < 0.3% @ 110/220Vac, 50/60Hz (R load)
- **Input Requirements:** 115/230VAC $\pm$ 10%, 1 phase, 47-63Hz
- **Intuitive Front Panel Controls:** Frequency, Voltage and Current Limit
- **Easy to read LED Display:** Frequency, Voltage, Current, Power or Power Factor
- **Current Limit Protection**
- **Measurement readout** for Frequency, Voltage, Current and Power all at once
- **Low Voltage Distortion**
- **High Crest Factor and Peak Current Capability**
- **Memory Locations:** Save three desired settings of any voltage, frequency and current limit output parameters
- **Power Outlets:** Front Panel Universal, Domestic and International Connector

FC 300 Series Frequency & Voltage Converters: Simple & Cost Effective for AC Power Conversion Needs

The series consists of two single phase output instruments with power levels of 500VA and 1000VA.

These power converters allow the user to emulate utility grids up to 310Vac and 50 or 60 Hertz for export product testing or operation of imported equipment.

The frequency can also be adjusted up to 450 Hertz for applications such as the testing of military/ avionics equipment or for the operation of 400 Hertz electronics that are onboard an aircraft or a military vessel.

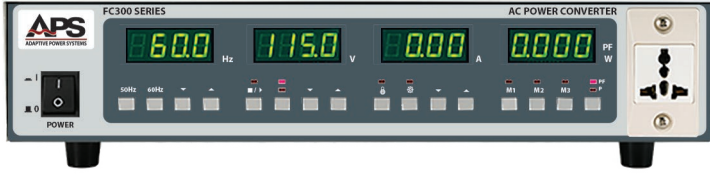
The adjustable frequency band of 45 to 450 Hertz in conjunction with the dual voltage ranges of 0-155 volts and 0-310 volts provides full capabilities for testing and operating electronics worldwide.

Setup and operation of the FC 300 Series is exceptionally easy.

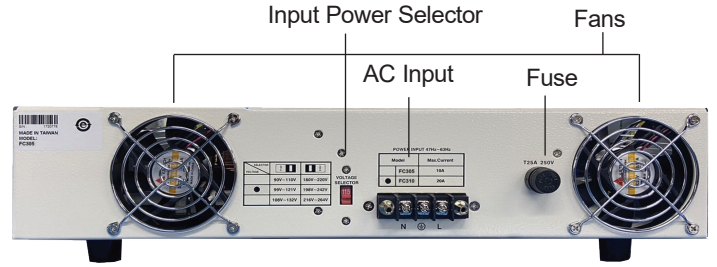
The simple front panel layout allows users to continuously vary voltage and frequency or to select preset standard frequency settings.

Individual meter displays provide digital readouts for frequency and voltage settings as well as measurement of frequency, voltage, current, power and power factor.

FC305 / FC310 Front Panel



FC305 Rear Panel



MODEL		FC305	FC310
INPUT SPECIFICATIONS			
Phases		1Ø / 2 Wire + Ground	
Voltage		110 / 220V ± 10%	
Frequency		47-63Hz	
Max. AC Input Current (RMS)		10A / 5A	20A / 10A
Input Power Factor / Efficiency		> 0.67 / > 78%	> 0.67 / > 80%
OUTPUT SPECIFICATIONS			
Power Rating	Total Power	500 VA	1000 VA
Max Current ¹	Ranges H / L	4.6 A / 2.3 A	9.2 A / 4.6 A
Phases		1Ø / 2 Wire + Ground	
Voltage	Ranges H / L	0 - 310 V / 0 - 155 V	
	Resolution	0.1 V	
	Accuracy	±(1.0% of setting + 0.1% F.S.)	
Frequency	Range	45 - 450 Hz	
	Resolution	0.1 Hz at 40 - 99.9 Hz, 1 Hz at 100 - 450 Hz	
	Accuracy	±0.03% of setting	
Total Harmonic Distortion (V _{THD})		< 0.3% @ 110 / 220Vac & 50 / 60Hz (Resistive load)	
Crest Factor		≥ 3 to 1	
Regulation Load / Line		± (0.5% of output + 0.5 V) for Resistive load / ± 0.1 V	
Protection		OCP, OVP, OPP, OTP, Short Circuit and Alarm	
MEASUREMENTS			
Frequency	Range	0.0 - 450.0 Hz	
	Res. / Accuracy	0.1 Hz / ± 0.1 Hz	
Voltage RMS	Range	0.0 - 400.0 V	
	Res. / Accuracy	0.1 V / ±(1.0% of reading + 0.1% F.S.)	
Current RMS	Range H / L	0.005A - 0.600A / 0.50A - 6.50A	0.005A - 1.200A / 1.00A - 13.00A
	Res. / Accuracy	0.001A / ±(1.0% of reading + 0.005A)	
Real Power	Range H / L	0.005A - 0.600A / 0.50A - 6.50A	0.005A - 1.200A / 1.00A - 13.00A
	Res. / Accuracy ²	High Range: 0.1W / ±(2.0% of reading + 5W) Low Range: 0.1W / ±(2.0% of reading + 1.5W)	
ENVIRONMENTAL			
Operating Temperature		32° - 104° F / 0° - 40° C	
Relative Humidity		20% - 80%, non-condensing	
DISPLAYS AND MEMORY			
Displays		Green LEDs for Frequency, Voltage, Current, Power or Power Factor (simultaneously)	
Memory (standard)		3 Programmable Memory Locations for Voltage, Frequency and Current	
MECHANICAL SPECIFICATIONS			
Model		FC305	FC310
Dimensions	(H x D x W)	3.5" x 11.8" x 17" / 89 x 300 x 430 mm	3.5" x 15.75" x 17" / 89 x 400 x 430 mm
Weights	(Kg / lbs.)	12.5/ 27.6	18.2 / 40.1

Note 1: Maximum current available at output voltage 110Vac on low voltage range or 220Vac on high voltage range.

Note 2: At PF > 0.2 and output voltage > 5Vac