

## MajorFC Frequency Converters - 1 K to 200 kVA, 3-Phase

**MajorFC Series**, 3-phase frequency converters are high quality, low noise units available in wide AC input and power levels from 1 to 200 kVA.

**MajorFC** units offer full sine wave output for a variety of military, industrial, and alternate energy applications.



### Product Features

- Pure Sine Wave Output
- Sample Data Control System
- High Efficiency Units
- Lightweight
- Proven Reliability
- FET and IGBT Technology
- Ideal for
  - ▶ AC Power Supply
  - ▶ Motor Controller
  - ▶ Power Oscillator
  - ▶ Power Converter
  - ▶ Military & Industrial Applications
  - ▶ Laboratory Quality AC Source

### Options

Options	
<b>1</b>	Output Ammeter - add suffix (A).
<b>2</b>	Output Voltmeter - add suffix (V).
<b>3</b>	Output Frequency Meter - add suffix (F).
<b>4</b>	Elapsed Time Meter - add suffix (ET).
<b>5</b>	Extended Temperature Range, -25°C to +55°C - add suffix (M).
<b>6</b>	Extended Humidity Range - add suffix (H).
<b>7</b>	Overtemperature Protection - add suffix (T).
<b>8</b>	Dual Input Voltage Range for Service at Either 115 VAC or 230 VAC - add suffix (C).
<b>9</b>	Delta Output Configuration - add suffix (D) to change a Wye output to a Delta output.
<b>10</b>	400 Hz Input - add suffix (HZ).
<b>11</b>	Slides - add suffix (S). Up to 175 lbs.
<b>12</b>	Slides Heavy up to 300 lbs- add suffix (SH).
<b>13</b>	Military Type Connectors - add suffix (MS).

## Product Specifications

Input	
<b>Voltage</b>	115 VAC $\pm$ 10%, single phase for units 2000 VA and below. 200 V single phase, or 208 V 3-phase for units >2000 VA. Other inputs available.
<b>Frequency</b>	47 - 65 Hz. 47 - 420 Hz input is available.
Output	
<b>Voltage</b>	120/208 V, 60/400 Hz outputs. 220/380 V, 50 Hz output. Other voltages available.
<b>Voltage Regulation</b>	<2% for combined no load to full load change and rated input voltage change. Voltage regulation also applies for 3-phase Frequency Converters regardless of load imbalances.
<b>Frequency</b>	Rated output frequency for each model is shown on chart. For adjustable frequency models, adjustment is on the front panel. (Custom output frequencies are available.)
<b>Frequency Stability</b>	Oscillator included in unit base price. Fixed frequency oscillators are crystal controlled with stability of $\pm$ 0.05%. Adjustable oscillators are RC controlled and have stability of $\pm$ 0.25%.
<b>Efficiency</b>	Between 70 - 80% (typical 75%). At least 70% from 40% of full load to full load.
<b>Configuration</b>	3-Phase, 4-wire neutral floating. (Delta output available as an option).
<b>Protective Circuits</b>	All models are equipped with automatic overload protection, including short circuit. Automatic reset upon overload removal. Circuit breaker or fuse on the input and fuse on the output. Automatic shutdown for input over-voltage, undervoltage.
<b>Meters</b>	Output voltmeter, ammeter, frequency meter & elapsed time meter offered as options. Adjustable frequency models include digital voltage and frequency meters.
<b>Power</b>	Rated output power for each model shown below. Max power per phase is 1/3 of 3-phase output.
<b>Waveshape</b>	Sinewave <3% THD, 1% max any single frequency. <4% for non-linear loads such as computer power supplies.
<b>Load Power Factor</b>	0.7 lead to 0.7 lag. Continuous 0 lead to 0 lag @ full rated output without damage.
<b>Peak Output Current</b>	110%, subcyclic reset.
<b>Duty Cycle</b>	Continuous duty at full rated output.
Environmental	
<b>Amb Temp Range</b>	Operating 0 to 40°C. Non-operating -20 to +85°C. Extended temp range available.
<b>Amb Humidity Range</b>	$\pm$ 95% to 25°C, $\pm$ 75% to 40°C and $\pm$ 45% to 50°C
Mechanical	
<b>Input and Output Terminations</b>	Rear mounted barrier strips provided. Rear mounted MS connectors & mates provided for all 400 Hz and 350 - 450 Hz output units (3500 VA or less). MS connectors optional.
<b>Construction</b>	Units less than 6KVA are standard 19" Rackmount. Larger units are cabinet models.

## Model Selection Guide

Model	Output Power (VA)	Output Frequency	Dimensions	Weight (lbs)
<b>MajorFC1K</b>	1000	50/60/45-65/400/350-450	8¾H x 19W x 20D	70
<b>MajorFC1.6K</b>	1600	50/60/45-65/400/350-450	8¾H x 19W x 20D	110
<b>MajorFC2.5K</b>	2500	400/350-450	12¼H x 19W x 20D	140
<b>MajorFC3K</b>	3000	50/60/45-65	17½H x 19W x 20D	170
<b>MajorFC3.5K</b>	3500	400/350-450	17½H x 19W x 20D	170
<b>MajorFC6K</b>	6000	50/60/45-65/400/350-450	30H x 24W x 30D	400
<b>MajorFC7.5K</b>	7500	400/350-450	30H x 24W x 30D	650
<b>MajorFC10K</b>	10000	50/60/45-65/400/350-450	70H x 24W x 30D	750
<b>MajorFC15K</b>	15000	50/60/45-65/400/350-450	30H x 24W x 30D	1000
<b>MajorFC20K</b>	20000	50/60/45-65	63H x 46W x 30D	1400
<b>MajorFC30K</b>	30000	50/60/45-65/400/350-450	63H x 46W x 30D	2100
<b>MajorFC50K</b>	50000	50/60/45-65/400/350-450	63H x 46W x 30D	3000
<b>MajorFC75K</b>	75000	50/60/400	63H x 46W x 30D	4000
<b>MajorFC200K</b>	200000	50/60/400	74H x 60W x 30D	5500

Some options may alter dimensions offered on this table