

CR SERIES 50/60 Hz - 400 Hz FREQUENCY CONVERTER 2.5 kVA to 7.0 kVA



INPUT:

Voltage Range	120/208 VRMS $\pm 10\%$
Configuration	3-Phase, 4 Wire
Frequency Range	45 to 66 Hz
Protection	45 AMP Circuit breaker, over/undervoltage, loss of phase, over/underfrequency, over current, short circuit

OUTPUT:

Power	2.5, 5.0, or 7.5 kVA (specify)
Overload	125% for 1 minute, 150% for 5 seconds (10% duty cycle)
Configuration* Voltage*	3-Phase, 4 Wire 120/208 VRMS $\pm 2.0\%$ (Adjustable $\pm 10\%$)
Current	Adjustable 0-150% max rated load
Response Time	A sudden 50% load change of 0.8 lagging power factor causes output voltage deviation of $\leq 13\%$. The terminals will recover within 0.10 second.
Frequency	400 ± 2 Hz (Adjustable $\pm 10\%$)
Phase Angle	120 $\pm 1^\circ$ balanced load; 120 $\pm 3^\circ$ unbalanced loads up to 50%
Amplitude Modulation	1% max
Power Factor Range	0.7 lag to 0.7 lead
Distortion	1.0% typ., 1.5% max.
Protection	Overvoltage, overload, short circuit
Efficiency	75% min. at rated load

ISO 9001



Registered to ISO 9001:2000

APPLICATION:

Since its beginning in 1960, Unitron has focused on the design and development of reliable solid-state power systems. The CR SERIES Frequency Converters provide 400 Hz 120/208 VRMS (Nominal) 3-phase power from a 50/60 Hz 120/208 VRMS input source. These versatile converters have been designed to meet the exacting needs of ground, mobile and shipboard support equipment as well as design, test and manufacturing laboratories and plants.

CONTROLS:

Input / Output Voltmeter • Output Ammeter for each phase • Output Frequency Meter (reed type) • Voltage / Current / Frequency Adjustment and Lock Controls • Voltmeter Switch • Standby Operate Toggle Switch • Input Circuit Breaker • Output Circuit Breaker • Elapse Time Indicator • Output Line Drop Compensation Adjusts

INDICATOR LAMPS:

Input Power On • Input Under / Overvoltage • Input Under / Overfrequency • Input Incorrect Phase Rotation • Input Loss of Phase • Input Overload • Output Overvoltage • Output Overload • Over Temperature

MECHANICAL:

Size	17.5" height, 19" width, 24" depth
Weight	2.5 kVA = 250 lbs. 5.0 kVA = 255 lbs. 7.5 kVA = 265 lbs.
Connections	<u>Input:</u> MS 3102A-24-22P <u>Output:</u> MS 3102A-24-22S
Paralleling	With identical units for increasing system power capacity

ENVIRONMENTAL:

Temperature	0°C to +50°C operating; -20°C to +71°C storage
Altitude	15,000 ft. operating; 50,000 ft. storage
Acoustical Noise	65db average at 5 ft.
Vibration	MIL-STD-810B, Method 516.1-2 Proc. I, and Meth. 514.1 Table VII
Humidity	MIL-STD-810E, Method 507.3 (95% RH max at 30°C)
RFI	MIL-STD-461A, Change Notice 6, Class V Procedure, CE03-RE02 Relaxed 20db

* 115 VRMS, Three Phase, 3 wire, delta optional

REV. A

