

MFC SERIES FlatPak™ 400 Hz FREQUENCY CONVERTER 187 kVA to 313 kVA



FIXED CONFIGURATION

STANDARD FEATURES:

- MIL-STD-704E, ARP 5015, DFS 400 and ISO 6858 Compliant
- Indoor/Outdoor Use
- Automatic Input Line Monitoring
- Automatic Line Drop Compensation (ALDC)
- Emergency Mushroom "OFF" Switch
- Input Safety Disconnect
- Built-in Maintenance Diagnostics
- Analog Control Panel
- Output Voltage and Amp Meter
- Internal Elapsed Time Meter
- Front Panel Summary Fault Indicators
- Lockable Controls and Entry
- Lifting Eyes and Forklift Channels

APPLICATION:

Since its beginning in 1960, Unitron has specialized in the design and development of reliable, solid-state power systems. Through an innovative design, advanced self-diagnostic systems (BITE) and modular construction, Unitron products assure maximum power availability and minimal repair time.

The FlatPak™ Series includes 400 Hz converters specifically designed for installation where space is limited. The units mount "flat" against a wall, and offer the smallest size to power rating ratio in the industry. Also, by using noise reduction technology, Unitron converters are quiet enough to be located close to the equipment they serve. No special soundproofing or other insulation is required.

Output power ratings for the **400 Hz FlatPak Converter** range from 15 kVA to 400 kVA. In addition to fixed units, Unitron offers 400 Hz, 28 VDC and combination AC/DC converters in mobile and towable configurations.

OPTIONS:

- Alternate Input Voltages Available (specify)
- Input Frequency 50 Hz
- Input/Output Contactor
- Front Panel AC Voltage Adjust ($\pm 15\%$)
- Front Panel Frequency Adjust ($\pm 10\%$)
- No Break Power Transfer (NBPT) Compatible
- Low Input Current Distortion (12-pulse)
- Remote Monitoring and Control
- Auto Restart
- Parallel 2 or more Units
- Up to 500% Overload (dependent on rating)
- Advanced Integrated Digital (AID™) Control Console
- Alternate Mounting Configurations Available

ISO 9001



Registered to ISO 9001:2000

GENERAL SPECIFICATIONS

INPUT:

Voltage	480 volts, +10%, -15%, 3Ø, 3 wire plus ground
Frequency	60 Hz ± 10%
Phase Rotation	Any
Protection	Over/undervoltage, loss of phase, overcurrent, and short circuit
Inrush Current	No greater than 100% of full load current

MECHANICAL:

Size:	See Figure 1
Weight:	187 kVA = 3585 lbs. (1626 kgs) 250 kVA = 3725 lbs. (1690 kgs) 313 kVA = 4205 lbs. (1907 kgs)
Construction:	Indoor/outdoor
Cooling:	Forced convection
Connection:	Hardwire terminals

ENVIRONMENTAL:

Acoustical Noise	65 dBA maximum at 5 feet
Temperature Range	-40°C to +55°C

OUTPUT:

Power Rating	187 to 313 kVA (specify)
Overload	150% for 5 min., 200% for 20 sec.
Voltage	115/200 volts, 3Ø, 4 wire, grounded neutral
Voltage Regulation	± 1.0% under all conditions of line, load and temperature
Voltage Transients	IAW MIL-STD-704E
Frequency Regulation	400 Hz ± 0.01% under all conditions of line, load and temperature
Frequency Transients	None
Phase Angle Regulation	± 2° for balanced loads
Harmonic Distortion	2.0% maximum
Protection	Overload, short circuit, over/ undervoltage and over/under frequency

ENERGY FACTORS:

Efficiency	95% typical at full load, 93% typical at half load; varies depending on configuration and rating
Energy Efficiency Ratio	20.0 typical

FIGURE 1

