

1500VA, Rugged, Industrial Quality, Single Phase to 3-Phase Frequency Converter

FTP 1K5 Series

- 3-Phase sinewave output voltage
- Filtered input/output
- Cooling by internal fans
- Full electronic protection
- Field-proven design topology



Photo:
Chassis-mount



Photo:
Rack-mount

The FTP 1K5 Series rugged AC/AC frequency converter uses a field-proven design to deliver 3-Phase, 1500VA continuous output power. It is a mature design with a track record in hundreds of applications. The standard 3-phase outputs are 208Vrms, 380Vrms or 400Vrms (L-L). Phase-to-neutral voltages can also be used: 115Vrms, 220Vrms or 240Vrms. All output neutrals are internally connected to chassis (GND) in "Y" configuration. The input modules perform the AC to DC voltage conversion. The output module performs the DC voltage to 3-phase AC voltage conversion. The unit has full electronic protection. This design is optimized for low component count and high efficiency. The use of components with established reliability results in high MTBF. Cooling is by built-in fans. The FTP 1K5 is manufactured at our plant under strict quality control. Customized versions are also available.

SPECIFICATIONS

Input Voltage

115 or 230Vac, +/-15%
47 ... 410Hz are standard
Factory set for required input
95 – 264Vac universal input with
PFC is also available

Input Protection

Inrush current limiting
Varistors
Reverse polarity protection
Internal safety fuse
Lower voltage than the specified
minimum input will not damage
the unit

Isolation

Compliant to input and output
voltages according to the
corresponding standards

Standards

Designed to meet
C22.2 No. 107.1 - 01,
UL 458 and EN60950

EMI

EN 55022 Class A
Class B filtering available

Output Voltage

208Vrms (L-L)/3-phase continuous at
60 or 400Hz or
380Vrms or 400Vrms (L-L)/ 3-phase
continuous at 50 or 60Hz.
All neutrals are internally connected
to chassis (GND) in "Y" configuration
(Phase-to-neutral voltages can also
be used: 115Vrms, 220Vrms or
240Vrms)
Consult factory for other voltages,
frequencies and options

Output Wave Form

Sinusoidal

Total Harmonic Distortion

Less than 5% at full load

Line/Load Regulation

Maximum $\pm 6\%$ from no load
to full load.

Load Crest Factor

Maximum 2.5 at 90% load

Output Noise

High frequency ripple is less
than 500mVrms (20MHz BW)

Output Overload Protection

Current limiting with short circuit
protection.
Thermal shutdown with automatic
recovery in case of insufficient
cooling

Output Overvoltage Protection

Output voltage is limited by
internal supply voltage

Efficiency

Depends on input and output
voltage combination.
Typically 78% at full load

Operating Temperature Range

0°C to +50°C for full specification
without derating.
Extended temperature ranges
available

Temperature Drift

0.05% per °C over operating
temperature range

Cooling

Built-in fans drawing air into
the unit

Environmental Protection

Basic ruggedizing
Full ruggedizing and conformal
coating available as option

Shock/Vibration

IEC 61373 Cat 1 A&B

Humidity

5 - 95% non-condensing

MTBF

Min. 95,000 hours at 45°C
Demonstrated MTBF is
significantly higher
Fans excluded

Indicators

None

Control Input

None
Remote shutdown as option

Alarm Output

None
Option: output fail alarm (Form C)

Package/Dimensions (H x W x D)

3U7 chassis mount:
432 x 132 x 407 mm
(17" x 5.2" x 16") including connectors
Mounting holes are clear
19" rack-mount version is available at
the same price

Weight

14 kg (30 lb.)

Connections

Input/output: Terminal block

RoHS Compliance

Fully compliant

Warranty

Two years subject to application
within good engineering practice

Enhancements to these general specifications can be accommodated upon request. Specifications are subject to change

Designer and manufacturer of quality ac-dc power supplies and battery chargers, converters, inverters, dc-output UPS systems, complete rack mount systems and DC-input fluorescent lamp inverters since 1982. Custom or standard. Absopulse is a BABT-approved Facility.



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