

## 1500VA, 3-Phase to 3-Phase Frequency Converter with Sine-wave Output Rugged, Industrial Quality FTT 1K5

- 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 FTT 1K5 Series is a rugged, modular AC/AC frequency converter system that uses microprocessor controlled, high frequency PWM technology to deliver 3-Phase, 1500VA continuous sine-wave output power from a 3-phase input. It is a mature design with a track record in numerous applications. The standard 3-phase outputs are 208V, 380V or 400V (L-L). The output neutrals are internally connected to the chassis in "Y" configuration, therefore the phase-to-neutral voltages (115V, 220V or 230V) are also available. Full electronic protection eliminates the possibility of failure due to abnormal operating conditions, including application errors. Low component count and the use of components with established reliability results in high MTBF. Cooling is by built-in fans, which draw air into the unit. The FTT 1K5 is manufactured at our plant under strict quality control. Customized versions are also available.

### SPECIFICATIONS

#### Input Voltage

208Vac (L-L) +/-15% 3-phase  
380V or 400Vac (L-L) +/-15%  
3-phase  
47 ... 410Hz are standard  
Factory set for required input

#### Input Protection

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

#### Isolation

According to the  
corresponding input/output  
combination, as minimum:

2250Vdc input to chassis,  
4300Vdc input to output,  
8mm spacing  
500Vdc output to chassis

#### 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

208Vac (L-L)/3-phase continuous at  
60 or 400Hz or  
380Vac or 400Vac (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: 115Vac, 220Vac or 230Vac)  
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 ± 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 80% 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 or enable 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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