



Picture does not show the exact version

## FCSTrail10k-U6154 RAILWAY FREQUENCY CONVERTER

### SERIES FCSTrail10k

This rugged, DC/AC frequency converter uses field proven, microprocessor controlled high frequency PWM technology to generate the required output power with pure sine wave output voltage.

It is constructed with four 3U7 modules. Each interconnection between modules is made with cable with connector.

Three of these modules convert the AC input voltage to an internal DC voltage, which feeds the AC output module.

All modules are built with internal power cards. The complete system has twelve input cards, six capacitor banks and six output cards.

The build-in fans provide sufficient airflow for operation without de-rating. The high-frequency conversion enables a compact construction, low weight and high efficiency.

The unit has full electronic protection. The input and output are filtered for low noise.

The use of components with established reliability results in high MTBF.

The unit is manufactured at our plant, under strict quality control.



Pure Sinewave



3-Phase output



High frequency technology



Light weight, compact size



Full electronic protection



Output fail alarm (Form C)

### APPLICATIONS

- Railway Applications
- Industrial Controls
- Telecom Power Plants
- Marine & other rugged environments
- Electric Utilities and Substations
- Base Station Power

### FEATURES

- 3-Phase sine wave output voltage
- 230Vac/16.7Hz input voltage
- Field-proven rugged design
- Cooling by internal fans
- Filtered input and output
- Full electronic protection
- Compact size
- 10kVA of output power

# SPECIFICATIONS

Input Voltage	230Vac nominal, 16.7Hz 177-240Vac operating range Input current: 102Arms max. total 34Arms per input module
Input Protection	Inrush current limiting Varistor Internal safety fuse Lower voltage than the specified minimum input will not damage the unit
Isolation	2250Vdc input to chassis Output neutral is connected to the chassis internally
Output Voltage	400Vac L-L, 3-phase, 50Hz 14.5Arms per phase 10kW continuous Output neutral is internally connected to chassis
Output Wave Form	Sinusoidal
Total Harmonic Distortion	Less than 5% at full load
Line/Load Regulation	± 6% from no load to full load
Load Crest Factor	2 at 90% load
Output Ripple Noise	High frequency ripple is less than 500mVrms (20MHz BW)
Efficiency	80% at full load
Output Overload Protection	Current limiting with short circuit protection Thermal shutdown with automatic recovery in case of insufficient cooling
Output Overvoltage Protection	450V (L-L) by internal supply voltage limiting

Standards	Designed to meet C22.2 No. 107.1 – 01, UL 458 and EN 62368-1
EMI	EN55032 Class A with margins
Operating Temperature	0 to +50°C for full specification
Humidity	5 - 95% non-condensing
Temperature Drift	0.05% per °C over operating temperature range
Cooling	Built-in fans draw air into the unit
Environmental Protection	Basic ruggedizing and conformal coating
Shock/Vibration	IEC 61373 Cat 1 A&B
Dimensions	Four 3U7 case with each with sizes: 132 x 483 x 432mm
Weight	48 Kg
Connections	Input: Terminal block Phoenix 125A on each input module Output: Terminal block Phoenix FRONT type Interconnections: Cable with connector
MTBF	80,000 hours at 45°C Demonstrated MTBF is significantly higher Fans excluded
Indicators	None
Control Input	None
Alarm output	Not installed
RoHS Compliance	Fully compliant
Warranty	2 years

