Tune® Specifications

Simple Energy Savings.

Electrical System
Inductive Filtering/Transformer

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PRODUCT DESCRIPTION

The Tune® device (formerly named the T7 EMI Facility Filter) is a unique, passive, variable-inductor filtering/transformer designed to improve 60Hz power performance in your building by filtering out current harmonics or 'noise' created by non-linear loads. Current harmonics are created by non-linear electrical loads (DC power supplies for personal and office equipment, modern lighting, variable-frequency motor controllers, etc.) that introduce emission currents, disruption currents, and leakage current into the fundamental 60Hz frequency powering your building's electrical loads. In the presence of harmonics, additional heat is created and power is drawn through the meter to satisfy the load. By mitigating these harmonics, Tune® improves your building's Power Quality and reduces energy consumption and kW power demand. Tune® is patented with the USPTO. UL® listing is file E464646. Tune® is manufactured in ISO-certified facilities. Tune® is not a power-factor correction (PFC) device, capacitor-based device, or a transient voltage surge suppression (TVSS) device. Tune® is a passive, inductive transformer installed on the neutral-side of the electrical circuit.

FEATURES AND BENEFITS

Tune® improves power quality by filtering current harmonics from your building's electrical system. Tune® is suitable for use in most electric breaker boxes, up to 480 VAC, that have a neutral current and do not already have a dedicated secondary transformer connected to the breaker box.

FEATURE	ADVANTAGES AND POTENTIAL BENEFITS
Current harmonic mitigation	7-12+%* decreased building energy consumption; 2-6%* decreased building power demand; lower system current should lower equipment heating; extend equipment life; improve equipment performance, and decrease equipment downtime.
Variable-inductor technology	Designed for wide-range of current harmonic frequencies in operational situations, greatly broadening building-type applicability; no tuning required.
Passive design	When properly installed, Tune® operates without outside input. The device consumes no power, so it neither consumes nor wastes energy.
Long-lasting design	10 year expected lifetime.
Low maintenance costs	Tune® requires no outside monitoring, maintenance, or upkeep.

*In commercial applications; individual results may vary.

APPLICATION

Tune® is recommended for use in buildings:

- Up to 480 VAC single-phase and three-phase electrical sub panels where neutral-wired loads are present.
  - + Combination of linear and non-linear loads on individual breaker boxes.
  - + The number and percentage of non-linear electrical loads in your building.
  - + The number and percentage of non-linear electrical loads in neighboring buildings.

Tune® is not recommended for use in:

- 3 phase/3 wire with no neutral electric breaker boxes.
- 2 hot wire breaker boxes with no neutral current.

USING THE DEVICE

Tune® is intended for use in electrical breaker boxes with an operating voltage of 480 VAC or lower. Tune® is installed in each breaker box in your building, in parallel on the neutral bar, during normal operations in about 1 hour. The installation procedure includes testing for efficacy to ensure measurement of current through the Tune® device to confirm the installation. Detailed instructions are provided to all commercial customers with their shipment. Installation must be performed by a licensed electrician.

PROPERTIES AND SPECIFICATIONS

	COMMERCIAL	LITE COMMERCIAL
Size	3.5"L x 2.5"W x 2.5"D	3.5"L x 2.5"W x 2.5"D
Weight	0.3 lbs.	0.3 lbs.
Temperature Range	0 - 160 F	0 - 160 F
Amperage Rating	20A	12A
Voltage Rating	480 VAC	300 VAC
Wiring - Single Phase	Yes	Yes
Wiring - Three Phase (Four Wire)	Yes	Yes

THEORY OF OPERATION

Tune® is an inductive/transformer device designed to attract and mitigate the current harmonics above the fundamental (50/60 Hz) frequency. By creating an alternate current flow-path to the neutral bar — with a lower impedance than the neutral bar itself for these frequencies — the Tune® device attracts the harmonic waveforms produced by non-linear loads.

The Tune® Device:

- Attracts the 3rd, 5th, 7th, 9th, 11th and higher current harmonics without tuning
- Attracts and reduces current harmonics
- Does not attract energy at the fundamental (50/60 Hz) frequency

tune®

Simple Energy Savings.

Contact Your Tune® Representative To Learn More

Save energy + Save electronics + Save resources = Save money
energybytune.com

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