

# IT-REFERENCE 16 E



# DISCRETE SYMMETRICAL - LINEARLY FILTERED AC POWER SOURCE

Unparalleled Power Purification and Protection

# **FEATURES**

- Symmetrical Balanced Power cancels hum-inducing noise
- Three banks of 100% discrete isolation virtually eliminate inter-component AC noise distortion
- Power Factor Correction provides surplus current for power-starved amplifiers
- · Linear Filtering Technology (LiFT) for unequaled audio / video clarity
- Series Multi-Stage Protection (SMP) for virtually maintenance-free AC surge suppression
- Four pairs of TiVO friendly high definition ready cable/satellite loop through protectors

#### DESCRIPTION

For over 32 years, Furman has pioneered the development of AC power products for the most demanding audio, video, and broadcast professionals. Though the need for pristine AC power is nothing new, the IT-Reference 16 E's technology and its unique implementation are revolutionary and without peer. The extreme AC demands encountered in the professional audio/video arena have required technological developments far in excess of typical home theater/audiophile power products. In studios, live sound, and broadcast facilities, breakdown is unacceptable. Equipment failure or poor performance is costly. The same is true of today's home theater. Our solution based technology, extensive engineering expertise, and

robust build quality have answered the challenge of today's corrupted power lines, and led to the creation of the IT-Reference 16 E.

Today's AC lines are plagued with ever increasing noise. When AC noise couples into your system's critical components, it masks low level signals and cripples performance. This low level content is critical because it relays the crucial harmonics and ambience in audio, and the depth and clarity in video. With Furman's exclusive Linear Filtering Technology, DVD - SACD players, pre-amplifiers, satellite receivers, and scalers are fed linearly-filtered AC power. This dramatically reduces noise, ensuring consistent peak operation regardless of load conditions or the time of day. For the first time, you

will see and hear your theater or audio system as it should be – uncompromised.

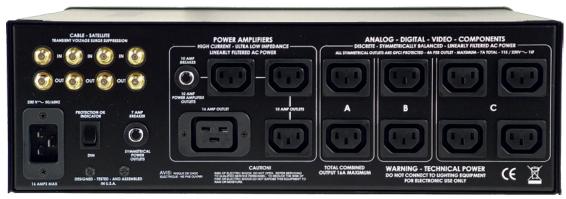
Further, our Discrete Symmetrical Power features total isolation between each of the IT-Reference 16 E's three outlet banks and the high current power factor corrected outlets. This positively breaks noise inducing hum bars, as well as power supply backwash between your plasma screen, projector, or DVD player, and all other interconnected equipment - all without compromising electrical safety. This enables a plasma screen or projector to function without AC ground contamination from a satellite receiver, processor, or high current power amplifier. The IT-Reference 16 E also features our exclusive Series Multi-Stage Protection. This virtually maintenance free surge suppression assures the highest level of AC protection possible, without sacrificing itself even when the offending surge is severe – no damaged equipment, no service calls, no down time.

Additionally, the IT-Reference 16 E employs our unique Power Factor Correction Circuit. For the first time, low-level analog, digital, and video components are not modulated or distorted via the power amplifier's extreme AC current demands. Further, the power amplifier sees a highly filtered, extremely

low-impedance supply of AC power. The IT-Reference 16 E also has a continuous current reserve in excess of 8 amps (over 80 amps peak charge) for the most extreme peak power demands. This technology enables power amplifiers and powered subwoofers to operate at peak efficiency and reach levels of performance previously unattainable.

No longer will your amplifier's performance be at the mercy of your home's incoming AC power or inferior AC protection/filtering devices. The net effect is as if your power amplifier virtually doubled in power and improved immeasurably in quality.

When employing the IT-Reference 16 E you will immediately notice far clearer, stunningly focused sound and visual images from your system. Video presentation will be crisp and colors true with greater gray and black scale definition, as well as noticeably improved depth and clarity. Sonic transients will be startlingly fast with bass fundamentals that shake foundations with their weight and visceral impact. Mid and high frequencies will bloom with sweet, non-glaring ease while imaging improves dramatically, all the while remaining true to your system's inherent virtues.



IT-Reference 16 E Rear Panel

# IT-REFERENCE 16 E SPECIFICATIONS

#### **AC Current Capacity:**

Input - 16 Amp capacity required

Output - 8 - 16 Amps RMS\* (maximum, all outlets combined - continuous)

### **Linear Noise Attenuation:**

Transverse (Differential) Mode:

>40 dB from 10Khz. - 100 kHz. >80 dB from 100 Khz. - 1GHz.

(Linear attenuation curve from 0.05 – 100 ohms line impedance

Common Mode (symmetrical power outlets):

>90 dB, 10Hz. - 50 kHz. >40 dB 50kHz. - 1MHz.

#### **Transient Voltage Surge Suppression:**

266 VAC - Series Multi-Stage Protection - Non-Sacrificial with Zero Ground Contamination (376 V peak clamping @ 6000V / 3000A input)

Extreme Voltage Shutdown (>275 VAC)

Cable / Satellite (less than .1dB insertion loss)

#### **Power Consumption:**

2 Watts for display and control circuits independent of actual load.

#### **Outlets:**

8 (Symmetrically balanced outlets)

4 (Power Factor Corrected outlets - 9 amps RMS reserve - resistive load - over 80 amps peak charge;

#### **Dimensions:**

152 mm H x 432 mm W x 413 mm D (Standard 3 RU height without feet)

# Weight:

37 kg.

# **Safety Agency Listing:**

CE

#### 5-Year Connected Equipment Warranty:

The Furman IT-Reference 16 E features a five year warranty covering the unit and connected equipment. (See manual for details)

\* Due to the power factor correction circuit, available RMS power varies with the reactance of the load (vector). However, this only affects the circuit breaker for continuous RMS current draw, typically it will be close to the maximum input current. Since power amplifiers will require high transient current demands, the IT-Reference 16 E will never succumb to current compression. Quite the opposite, in fact, it will buffer the power amplifier's power supply, while lowering the AC input impedance, allowing power amplifiers to work more efficiently

# **Engineered in the USA**

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