

The ET range of Induction Loop Drivers



The ET150, 300 & 450 form the professional range of Current Thinkings' *Easy T*TM series of audio frequency induction loop (AFILS) amplifiers and are designed to provide studio quality sound in an AFILS system. The amplifiers have 3 inputs on XLR; 2 dedicated microphones and one microphone or line selectable using a rear panel switch. User selectable Phantom Powering is available for the microphone inputs, enabled via a rear panel switch. The inputs are individually mixed before passing to the compressor limiter, which prevents loop overload whilst compensating for varying microphone usage. All controls are recessed to prevent unauthorised access. Indication is provided for compression level, output current, loop status and power supply. A loop current monitor socket is provided to allow headphones to be used to monitor the actual loop current. An audio output (post compressor) is provided for recording, with a slave audio in to allow cascading. A loop OK voltage is available to illuminate a sign showing correct loop operation. The units are all 1u (44.5mm) high and a 19" rack mounting kit is available.

Choosing the right unit

In order to remove the "magic" from loop amplifier specification, Current Thinking recommends loop amplifiers are specified thus; by maximum square area and by length of the shortest side. These areas relate to loops fitted at skirting board or ceiling (2.4m) height and provide even loop coverage. For example, the ET150 will cover a square room 12.25m per side (150m²), however the same amplifier will also cover a rectangular room 10m by 20m (200m²). In this example the ET150 is rated at 150m² square area and 10m for the shortest side. The shortest side rating is valid for distances up to twice the shortest side, for example the ET450 is rated at 20m shortest side, so the other side of the rectangle can be a maximum of 40m (giving a coverage of 800m²). If the loop is above 2.4m in height, then 20% should be subtracted from the shortest length for every additional metre in height the loop is (to a maximum of 4m). These values do not take into account additional losses present in some building constructions, if you are in any doubt always lay a temporary loop. It is always wise to allow 20% spare capacity when specifying a loop amplifier, just to cover the unknown element.

Amplifier	Square Area	Shortest Side	Maximum Area
ET150	150m ²	10m	200m ²
ET300	300m ²	15m	450m ²
ET450	450m ²	20m	800m ²

Technical Specifications

Audio inputs 2 off microphone, 1 mic / line selectable
Type XLR
Phantom Selectable, 15V 2mA
Sensitivity -50dB Microphone -10dB Line

Mains Input

Voltage 230V ~ 50/60 Hz
ET150 ET300 ET450
Power 100VA Max 180VA Max 300VA Max
Internal fuse 2 off 2A (T) 2 off 3.15A (T) 2 off 5A (T)
Plug top Fuse 5A
Fuse for Spur 5A

Indication & Controls

LED indicators 4 off gain reduction, 5 off loop current, power, loop integrity and protection operating.
User Controls 3x input mixer and current Drive.
Protection Recessed screwdriver adjust only.

Audio Processing

Compressor Variable ratio 1:1 to limit 20:1.
Attack 10mS
Release Automatic from 500mS to 1500mS
Dynamic Range >60dB
THD <0.25%

Output Stage

Type Current Mode
Loop impedance 0.1Ω to 1Ω
ET150 ET300 ET450
Peak Current >9A peak >12A peak >15A peak
125mS burst >6A peak >8A peak >10A peak
RMS Current 2A 3A 4A
(@1KHz)
Protection DC, Thermal, Short circuit, soft start.

Dimensions

Extents Height 44.5mm
Width 432mm (free standing) 485mm with Rack kit
Depth 165mm