

Broadband amplifiers DC to 500 kHz with integral feedback voltage protection 63 W output power

TOE 7608
TOE 7608 S



TOE 7608

Function/signal generators generally provide signals with a small amplitude into 50-Ohm systems.

Signal conditioning and amplification are therefore required in many technical areas.

The TOE 7608 broadband amplifier is suitable as a non-inverting power output stage for the amplification of such signal sources. Each generator with an output voltage of 20 V_{pp} is able to cover the full operating range of the TOE 7608 amplifier; the power is 63 W into 8 Ohm at a max. output amplitude of 45 V_{pp}. The bandwidth is DC to 500 kHz.

Overcurrent protection at the output, protection against feedback voltages, and overtemperature protection provide the amplifier with a high degree of operational safety.

The TOE 7608 S is a special version and provides higher output voltages in a limited frequency range.

Voltages up to 115 V_{rms} into 400 Ohm can be generated in this case at an output power of > 30 W and in a frequency range from 15 Hz to 20 kHz. Other output voltages (e.g. 230 V_{rms}) or frequency ranges are available on request.

Special features

- Frequency range DC to 500 kHz
- Short-circuit and no-load proof
- Feedback voltage protection up to 120 V
- 115 V_{rms} output voltage with TOE 7608 S

Technical specifications

Amplifier data **TOE 7608**

Frequency range	0 to 500 kHz (-3 dB)
AC coupling	Approx. 3 Hz to 500 kHz (-3 dB)
Gain	Non-inverting, fixed at +7 dB with input impedance > 10 kOhm, +13 dB with input impedance 50 Ohm
Input impedance	
AC coupling	> 10 kOhm (pass band)
DC coupling	> 10 kOhm or 50 Ohm, selectable
Permissible input voltage	Max. 10 V _{rms} , continuous
Output impedance	Approx. 0.2 Ohm, short-circuit proof
Output voltage	Max. ± 22.5 V into 8 Ohm load Response times: t _r , t _f < 0.8 µs
Output noise	< 1 mV _{rms} with short-circuited input
Distortion	< 0.1 % up to 50 kHz, < 0.2 % up to 100 kHz
Feedback voltage protection	Up to 120 V, fused by F4AC in accordance with DIN 41661, IEC 127-2/11

Technical specifications

Amplifier data **TOE 7608 S**

Frequency range	15 Hz to 20 kHz (-3 dB)
Gain	Non-inverting, fixed at +25.6 dB with input impedance > 10 kOhm, +31.6 dB with input impedance 50 Ohm
Input impedance	
AC coupling	> 10 kOhm (pass band)
DC coupling	> 10 kOhm or 50 Ohm, selectable
Permissible input voltage	Max. 10 V _{rms} , continuous
Output impedance	Approx. 70 Ohm, short-circuit proof
Output voltage	Max. 115 V _{rms} into 400 Ohm load
Output noise	< 5 mV _{rms} with short-circuited input
Distortion factor	< 0.5 % at V _{out} < 100 V _{rms} into 400 Ohm load in frequency range 50 Hz to 20 kHz
Feedback voltage protection	Fused by F 0.5 AC in accordance with DIN 41661, IEC 127-2/11

General data

Line voltage	115V/230 V ± 10 %, 47 Hz to 63 Hz
Amplifier fusing	115 V: T4AC, 230 V: T2AC in accordance with DIN 41662, IEC 127-2/11
Power consumption	Max. 180 VA
Operating temperature	0 °C to 50 °C
Dimensions (W x H x D)	265 x 147 x 375 mm
Weight	Approx. 8.2 kg
Housing	Aluminium

Ordering data

Broadband amplifier	TOE 7608
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Options

TOE 9008	Carrying handle
TOE 9501	19" adapter, 3 HU
TOE 9503	19" rack module, 4 HU