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Simcenter Qsources measurement amplifier

Product Information

Simcenter/Q-AMP/3/20200114

Benefits

- Place all connectors on the front to allow fast test setup
- Deliver a low self-noise level
- Provide one amplifier for all Simcenter Qsources hardware

Features

- High-power output
- Fanless housing
- Robust lightweight housing
- Built-in protection that prevents damage to connected excitation equipment

Summary

The Simcenter Qsources hardware measurement amplifier has been designed to power all Simcenter Qsources structural and acoustic exciters. The Bayonet Neill–Concelman (BNC) input and banana output connectors are chosen to match all Simcenter Qsources exciters. The amplifier provides a pop-free start-and-stop control. Excessive heat is transferred to its housing, which serves as a heatsink. The absence of a ventilator makes it a low-noise amplifier, essential for acoustic measurements.

It is compatible with all Simcenter Qsources exciters:

- Low-mid frequency volume source (Q-LMF)
- Mid-high frequency volume source (Q-MHF)
- Miniature volume source (Q-IND)
- High frequency shaker (Q-HSH)
- Miniature shaker (Q-MSH)
- Thumper shaker (Q-TMP)
- Low-frequency monopole source (Q-MED)



Physical specifications

- Dimensions: 200 millimeters (mm) X 260 mm X 72 mm
- Mass: 2.45 kilograms (kg)
- Input connector type: female BNC
- Output connector type: female banana

Performance

- Max input signal voltage: 10 volt (V) peak
- Maximum output voltage: 31 voltage root mean square (Vrms)
- Maximum output current: 6.5 Ampère rms (Arms)
- Amplification (relative to input signal): -32 to 28 decibels (dB)
- Amplification accuracy: 0.5 dB
- Frequency range (+1dB/-3 dB): 10 to 40,000 Hz
- Minimum/maximum output load impedance: 3/100 Ohm nominal
- Self noise level: <20 dB(A)
- Signal to noise ratio: >110 dB
- Available in 115/230V version

Supplied accessories

- User manual
- Power cable
- Flight case

Simcenter Qsources structural and acoustic

- exciters
- Low-mid frequency volume source [Q-LMF]
- Mid-high frequency volume source [Q-MHF]
- Miniature volume source [Q-IND]
- High frequency shaker [Q-HSH]
- Miniature shaker [Q-MSH]
- Thumper shaker [Q-TMP]
- Low-frequency monopole source [Q-MED]

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