IEC 60601-2-40: Performance Requirements

This document summarizes the key performance values defined in IEC 60601-2-40 for electromyographs (EMG) and evoked response equipment. It highlights accuracy in low-amplitude bio-signal measurement and immunity to noise and interference (EMC aspects).

Category	Requirement	Value / Limit
Accuracy	Measurement error	≤ ±10% or ±1 µV (whichever is greater)
Accuracy	Amplifier noise	< 1 µV RMS (0.5–100 Hz bandwidth)
Accuracy	Signal reproduction	Faithful down to 0.5 µV
Noise / EMC	CMRR (50/60 Hz)	≥ 100 dB
Noise / EMC	Residual interference	≤ 10 µV p-p
Noise / EMC	Radiated immunity	Up to 10 V/m (80 MHz – 2.7 GHz)
Noise / EMC	ESD immunity	±8 kV (contact), ±15 kV (air)
Noise / EMC	Defibrillator recovery	Baseline shift ≤ 100 µV, recovery ≤ 5 s