INSULATION RESISTANCE PRACTICAL: BIG NUMBERS THIS TIME

ONE MEGOHM ON A BRAND NEW CIRCUIT. PASS?

The last of the main dead tests. Polarity is confirmed after it — mostly proved already by your continuity tests, with Edison screw lampholders checked on their own (except E14 and E27 to BS EN 60238). You are proving the insulation is intact: **line not touching neutral, line not touching earth, neutral not touching earth**.

So you want **big** numbers: megohms, millions of ohms. Ideally the tester runs out of range and shows its over-range reading — **>999 MΩ** on one meter, **>200** or **>2000** on another. Off the scale is exactly what you want.

CIRCUIT	TEST VOLTAGE	MINIMUM
SELV and PELV	250 V DC	0.5 MΩ
Up to and including 500 V (ordinary single and three phase)	**500 V DC**	**1 MΩ**
Above 500 V	1000 V DC	1 MΩ

> ✋ **1 MΩ complies. On new work, look harder.** Guidance Note 3 says a value as low as 1 MΩ would conform, but that in new installations a value below **20 MΩ** should be investigated.

Guidance Note 3 · 2.6.7 · insulation resistance · from p.68

Guidance Note 3 · 2.6.7 · minimum values; below 20 MΩ on new work · p.70

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