

Industrial & Commercial Facility Testing

Independent inspection, power quality and energy auditing for Syrian factories, offices, hotels and commercial complexes



From distribution boards to capacitor banks and motor circuits — measured evidence of efficiency, compliance and uptime.rusted.

Factories, workshops, hotels, malls and commercial buildings across Syria are reopening with a mix of original equipment, war-era patchwork and new installations — drawing power from constrained grids and expensive diesel back-up. Hidden losses, weak power factor, harmonic pollution and silent insulation degradation translate directly into wasted fuel, tripped lines and unplanned downtime. Mizan provides the independent inspection, power-quality measurement and energy-audit services that owners, facility managers, insurers and lenders need to confirm that each installation is safe, efficient and compliant with international standards.

▪ Why It Matters

Industrial and commercial facilities concentrate the largest controllable electrical losses in the country:

- Weak power factor and harmonic distortion increase demand charges and overload transformers and cables.
- Hot joints, overloaded circuits and ageing capacitors cause fires, outages and lost production.
- Uncontrolled energy use turns every kilowatt-hour of expensive fuel into avoidable operating cost.

▪ What We Verify

Mizan inspects, measures and audits the full electrical and energy chain:

- Compliance and safety of electrical installations against IEC standards.
- Power quality, harmonics and reactive compensation at incomers and major loads.
- Energy use, motor systems and lighting against energy-efficiency benchmarks.

Regular testing ensures electrical distribution systems and grounding are safe for personnel and meet industry regulations



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Scope of Services

A structured testing and auditing programme covering industrial plants, commercial buildings and mixed-use complexes, delivered on site with calibrated instruments and qualified engineers.

- **Electrical Installation Safety & Compliance**
 - Periodic inspection and verification of LV installations per the IEC 60364 series.
 - Low-voltage switchgear and distribution board inspection per IEC 61439.
 - Short-circuit and protection coordination review per IEC 60909.
 - Insulation resistance, continuity and earth-loop impedance measurement per IEC 61557.
- **Power Quality, PF Correction & Harmonics**
 - Class-A power-quality survey per IEC 61000-4-30 at incomers and critical loads.
 - EN 50160 voltage-quality assessment at the point of supply.
 - IEEE 519 harmonic-limit verification at the point of common coupling.
 - Inspection of power-factor correction banks and capacitors per IEC 60831-1 / IEC 60831-2.
- **Energy Efficiency & Thermographic Surveys**
 - Energy efficiency assessment of electrical installations per IEC 60364-8-1.
 - Site energy audit per ISO 50002 with motor, lighting and HVAC efficiency benchmarking.
 - Thermographic surveys of MV / LV panels, busbars, motors and transformers to detect hot joints before failure.
 - HVAC and chilled-water performance verification against design specifications.

Technical Reports to IEC, EN, IEEE & ISO Standards

Every site visit is documented in a structured report that ties each measurement to the standard it verifies, quantifies losses and inefficiencies, flags non-conformities and gives the facility a clear corrective-action and savings path.

The technical reports issued by Mizan include the following:

- IEC 60364 series electrical-installation inspection and verification report.
- IEC 60364-8-1 energy-efficiency assessment of the electrical installation.
- IEC 60831-1 / 60831-2 power-factor correction capacitor inspection report.
- EN 50160 voltage-quality assessment at the point of supply.
- IEC 61000-4-30 Class-A power-quality measurement campaign report.
- IEEE 519 harmonic-distortion limit-verification report.
- Thermographic survey report of MV / LV electrical assets.
- ISO 50002 energy-audit report with prioritised efficiency actions.



Testing the air upstream and downstream verifies that filtration systems are capturing contaminants as designed.

Lower losses, higher uptime, full compliance — efficiency that is measured, not assumed.



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