

SUSHIL S. DALVI

ELECTRICAL MAINTENANCE ENGINEER

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PROFESSIONAL SUMMARY

Results-driven Electrical Maintenance Engineer with 1.5+ years of progressive hands-on experience in preventive, predictive, and corrective maintenance within highly regulated pharmaceutical API manufacturing environments. Demonstrated expertise in MCC/PCC panels, VFDs, DG sets, UPS systems, HT/LT power distribution, HVAC/AHU utilities, and GMP-compliant documentation. Proven ability to minimise plant downtime, implement energy conservation initiatives, and ensure regulatory compliance across USFDA, WHO, and CQA audit frameworks. Adept at PLC programming, SAP PM (EAM) work order management, and coordinating multi-disciplinary maintenance teams for seamless plant operations.

CORE COMPETENCIES

Electrical Maintenance	Preventive Maintenance	Breakdown Maintenance	Root Cause Analysis
MCC / PCC Panels	HT/LT Power Distribution	VFDs & Soft Starters	DG Sets & AMF Panels
UPS Systems	Transformers & Motors	HVAC / AHU Systems	RO / WFI / ETP Utilities
PLC Programming	Industrial Automation	Electrical Safety & LOTO	Energy Monitoring
GMP / GDP Compliance	SAP PM (EAM)	Calibration Support	Audit Readiness (USFDA/WHO)

TECHNICAL SKILLS

Electrical Systems: MCC/PCC Panels, HT/LT Panels, Power Distribution, Transformers, Motors, Switchgear, ACBs, MCCBs, MCCBs

Drives & Controls: VFDs (ABB, Danfoss, Siemens), Soft Starters, PLC Programming & Troubleshooting

Power Systems: DG Sets (AMF/ATS), UPS Systems, Steam Turbine (355 kW), Gas Engine (1.5 MW)

Utilities: HVAC/AHU Systems, RO Plants, WFI Systems, ETP, Industrial Boilers

Testing Equipment: Megger (Insulation Resistance Tester), Clamp Meter, Multimeter, Earth Resistance Tester, Thermography

Software & Tools: SAP EAM/PM (Work Orders, PM Notifications), MS Excel, MS Office

Compliance & Documentation: GMP Documentation, GDP, SOP Preparation, Calibration Records, IQ/OQ/PQ, Change Control, LOTO/PTW, Legal Inspections

PROFESSIONAL EXPERIENCE

Electrical Engineer | Embio Pvt. Ltd., Mahad, Maharashtra

Feb 2025 – Present

Pharmaceutical API Manufacturing Unit | Electrical Maintenance & Utilities

- Plant Operations & Monitoring:** Planned and executed daily engineering activities covering plant start-up, shutdown, and continuous equipment monitoring to ensure uninterrupted production.
- Preventive Maintenance:** Designed and implemented structured PM schedules (Daily/Weekly/Monthly/Quarterly) for all electrical systems, reducing unplanned breakdowns by ensuring timely upkeep.
- Breakdown & Corrective Maintenance:** Diagnosed and resolved faults in MCC/PCC panels, VFDs, soft starters, motors, transformers, and HT/LT power distribution systems with minimal downtime.
- HT Panel & Transformer O&M:** Performed operation and maintenance of HT panels and distribution transformers including load balancing, protection relay testing, and health assessments.
- DG Set Management:** Maintained and monitored diesel generator sets including AMF panel operations, load testing, diesel consumption tracking, and legal compliance inspections.
- VFD Installation & Programming:** Installed, programmed, and commissioned VFDs; provided specialist expertise in ABB drive setup to optimise motor control efficiency and energy performance.
- Steam Turbine & Gas Engine:** Operated and maintained a 355 kW steam turbine and 1.5 MW gas engine, performing routine inspections, troubleshooting, and performance monitoring.

- ▶ **Boiler Management:** Performed operation and maintenance of industrial boilers; carried out detailed inspections, troubleshooting, and repairs to ensure safety compliance and minimise downtime.
- ▶ **PLC Programming & Automation:** Programmed and troubleshoot PLCs for industrial automation and process control systems, improving operational reliability.
- ▶ **HVAC / AHU Maintenance:** Maintained all AHU units across the site, ensuring GMP-compliant air handling, environmental control, and regulatory readiness.
- ▶ **Utilities Management:** Maintained and coordinated RO, WFI, and ETP utility systems, ensuring continuous availability for API manufacturing processes.
- ▶ **Energy Conservation:** Identified and implemented energy conservation and cost-saving measures; monitored and reported on consumption patterns for the substation on a monthly basis.
- ▶ **Electrical Safety & Compliance:** Ensured legal compliance for electrical installations, boilers, DG sets, steam turbine, and gas engine through scheduled inspections and statutory adherence.
- ▶ **Equipment Procurement:** Selected electrical equipment, prepared Bills of Quantity (BOQ) and Bills of Material (BOM), and coordinated purchase order preparation and delivery tracking.
- ▶ **Manpower & Contractor Coordination:** Managed and supervised maintenance technicians and external contractors, ensuring timely completion of maintenance and project activities.
- ▶ **SAP PM Work Orders:** Raised and managed PM work orders, notifications, and equipment history records within SAP EAM/PM for systematic maintenance tracking.
- ▶ **GMP Documentation & Audits:** Prepared and maintained GMP-compliant documentation, calibration records, and SOPs; supported USFDA, WHO, and CQA regulatory inspections and audits.
- ▶ **Insulation & Earthing Testing:** Performed insulation resistance testing using Megger, earthing system inspections, and panel health checks as part of preventive maintenance protocols.

Maintenance Engineer | Ajit Electricals, Pune, Maharashtra
Industrial Electrical Services | Motor Rewinding & Panel Maintenance

Sep 2023 – Oct 2023

- ▶ Diagnosed industrial motor failures; supported rewinding, refurbishment, and performance testing activities.
- ▶ Troubleshoot and repaired MCC panels, control wiring, and switchgear systems at industrial client sites.
- ▶ Supported installation, testing, and commissioning of electrical equipment and control systems.

Electrical Engineering Intern | Electric Empire, Pune, Maharashtra
Industrial Electrical Contracting | Panel Wiring & Site Installation

Oct 2023 – Nov 2023

- ▶ Performed control panel wiring, testing, and commissioning support under senior engineer supervision.
- ▶ Assisted in cable laying, cable termination, and site electrical installation activities.

EDUCATION

Bachelor of Engineering — Electrical Engineering

CGPA: 7.2 / 10

Zeal College of Engineering & Research, Savitribai Phule Pune University | 2021 – 2024

Diploma in Electrical Engineering

74.2%

Smt. Geeta D. Tatkare Polytechnic, Roha (MSBTE) | 2019 – 2021

CERTIFICATIONS & TRAINING

- ▶ Electrical Safety & LOTO Procedures — In-plant training, Embio Pvt. Ltd.
- ▶ GMP / GDP Documentation Practices — On-the-job training, Pharmaceutical Manufacturing
- ▶ VFD Programming & Commissioning — ABB Drive Hands-on, Site-based
- ▶ SAP EAM/PM Work Order Management — Self-trained, Applied in Production Environment

KEY ACHIEVEMENTS

- ▶ **Audit Readiness:** Successfully supported plant preparation for USFDA, WHO, and CQA regulatory audits — maintaining zero critical observations related to the electrical maintenance department.
- ▶ **Steam Turbine & Gas Engine Commissioning:** Took operational ownership of a 355 kW steam turbine and 1.5 MW gas engine, ensuring consistent uptime and performance compliance.
- ▶ **VFD Optimisation:** Led VFD installation and ABB drive commissioning projects that improved motor control efficiency and reduced energy wastage across production utilities.
- ▶ **Downtime Reduction:** Established and enforced structured PM schedules across all electrical and utility systems, contributing to measurable reduction in breakdown frequency.
- ▶ **Energy Monitoring Programme:** Introduced monthly substation power consumption tracking and diesel consumption records, enabling cost visibility and conservation initiatives.

LANGUAGES

Marathi: Native **Hindi:** Fluent **English:** Professional Working Proficiency
