

Design, Installation and Testing of Electrical Switchboard and Supply Turn-on

Course Code: ESG06

COURSE OBJECTIVES

Upon completion of this course, participants will be able to:

- Understand the construction of a Low Voltage Switchboard (LV SwBd) and the function of its components such as busbar, circuit breaker and protective devices
- Understand inspection and testing of LV switchboard and its associated earthing system to comply with safety requirement (CP5) for supply turn-on

MAIN CONTENTS

- Type tested LV switchboard, making capacity and breaking capacity, degree of protection for the switchboard enclosure, internal segregation/compartments of LV SwBd.
- Mechanical design, temperature rise, Busbar rating, diversity factor for busbar, short circuit protection, short circuit withstand strength, protection against electric shock complying with CP5, earth-bar in LV SwBd.
- Air circuit breaker / Mould case circuit breaker and the function of their built-in protective elements.
- Trip rating / breaking capacity / making capacity of circuit breaker, current transformers.
- Basic construction of electromagnetic type IDMTL relay, DTL relay for over current and earth fault protection.
- Earthing system for LV SwBd based on SS 551: 2009, measurement of earthing resistance.
- Inspection of LV SwBd, polarity test for CT, secondary injection test for protection relays, insulation resistance test, polarity and phase rotation test, earth fault loop impedance test, trip test of protection relay.

METHODOLOGY

Lecture

TARGET AUDIENCE

Engineering and technical staff who are required to carry out design, installation and testing of switchboard related work

COURSE DETAILS

Duration	:	14 hours
Mode of Delivery	:	Face-to-face or Synchronous E-learning
Certification	:	SIPG Certificate of Completion
PDU by PE Board	:	12
Additional Requirement/s	:	Not applicable

COURSE FEES

Full Course Fee	:	S\$1,600 [before GST]
For Singapore Citizens/PR/LTVP+*	:	Not applicable
For Singapore Citizens [40 years old and above]	:	Not applicable

ADDITIONAL REMARKS

- Trainee must attain at least 75% attendance rate and pass the assessment to receive Certificate of Completion and funding grant (if applicable).
- Subsidy of up to 70% is applicable for Singapore Citizens, Permanent Residents or Long-Term Visitor Pass Plus (LTVP+) Holders, subject to funding agency's approval.
- Enhanced subsidy of up to 90% is applicable for Singapore Citizens aged 40 years and above, subject to funding agency's approval. Note that GST payable will be computed from fee after 70% funding.
- Professional Development Unit (PDU) is applicable for Professional Engineers registered under the Professional Engineers (PE) Board only.
- All published fees are subject to prevailing GST.

CONTACT US

For more information, please contact SIPG at +65 6916 7930 or email training-institute@spgroup.com.sg.

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