

1. Title	Design low voltage distribution network systems
2. Code	EMELDE514A
3. Range	Applicable to the design of low voltage distribution network and associated installations. Implement the tasks of designing low voltage power supply network system and associated installations directly fed by several transformers.
4. Level	5
5. Credit	9
6. Competency	<p style="text-align: center;"><u>Performance Requirements</u></p> <p>6.1 Master the design requirements for low voltage distribution network installations and associated equipment</p> <ul style="list-style-type: none"> ◆ Analyze and master the structure required by the design of low voltage power supply network system directly fed by several transformers according to client’s tender requirements ◆ Master the technical requirements for the design of low voltage distribution network installations and associated equipment directly fed by several transformers, including system arrangement for electrical installations, protection and control system plan, etc. <p>6.2 Design low voltage distribution network installations and associated equipment</p> <ul style="list-style-type: none"> ◆ Analyze and point out the design constraints for low voltage distribution network installations and associated installations and potential problems of the work site according to the actual situation of the work site ◆ Design low voltage distribution network installations and associated equipment directly fed by several transformers, including various kinds of switches, transformers, generators, cables, protection and control devices, etc. according to client’s requirements, site constraints, equipment manufacturer’s technical specifications and requirements, etc. ◆ Draw single-line diagrams of low voltage distribution network systems and floor layout plans for the installations ◆ Formulate low voltage distribution network system plan and protection device setup according to the needs of different networks ◆ Accurately judge and modify the assembly diagram and design drawing submitted by contracted manufacturers of the installations <p>6.3 Professionalism in designing low voltage distribution network systems and associated installations</p> <ul style="list-style-type: none"> ◆ Follow the Electricity (Wiring) Regulations and their Code of Practice to design low voltage distribution network systems

7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <ul style="list-style-type: none">(i) Capable to master client's requirements on the design of low voltage distribution network systems and associated equipment;(ii) Capable to design low voltage distribution network systems and associated installations according to technical requirements on design;(iii) Capable to formulate low voltage distribution network protection system plan and protection device setup; and(iv) Capable to draw single-line diagrams of low voltage distribution network systems and floor layout plans for the installations.
8. Remarks	