

1. Title	Apply various protective devices in electrical protection system design		
2. Code	111496L3		
3. Range	Applicable to design and installation of electrical work, which involves implementing the design of electrical protection system using various protective devices.		
4. Level	3		
5. Credit	2		
6. Competency			<u>Performance Requirements</u>
	6.1	Understand the structure, type, working principles of different types of protective devices	◆ Understand the structure, types, working principles of various protective devices, including: ➤ Low voltage fuses - cartridge fuses to BS88, ➤ Circuit Breakers - miniature circuit breakers, moulded case circuit breakers, air circuit breakers, ➤ Residual Current Devices (RCD), ➤ Mechanical / Electronic type Inverse Definite Minimum Time Lag (IDMTL) relay etc.
	6.2	Master the operation principles and characteristics of various type of protective devices in electrical protection system design	◆ Master the operation principles and characteristics of various type of protective devices in electrical protection system design, ➤ time-current characteristics, ➤ let-through energy, ➤ discrimination, ➤ backup protection, ➤ application of RCD, ➤ IDMTL relay setting calculation.
	6.3	Exhibit professionalism in designing electrical protection system using various protective devices	◆ Follow the Code of Practice for the Electricity (Wiring) Regulations and relevant standards in designing electrical protection system using various protective devices.
7. Assessment Criteria	The integrated outcome requirements of this unit of competency are: (i) Capable to understand the structure, type, working principles and application of different types of protective devices in electrical system design. (ii) Capable to master the design of electrical protection system in application of operation principles and characteristics of various protection devices.		

8. Remarks	The credit value of this unit of competency is set on the presumption that the person already possesses basic electrical and mechanical knowledge.
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