

1. Title	Design specific motor control and starter circuits
2. Code	EMELDE320A
3. Range	Applicable to electrical equipment system control design. Design appropriate electric machine control, protection and starter circuits according to the specific operational requirements for electric machine control and startup, and properly arrange the configuration, wiring and circuit terminal coding of circuit components inside and on the surface of the control cabinet.
4. Level	3
5. Credit	9
6. Competency	<p style="text-align: center;"><u>Performance Requirements</u></p> <p>6.1 Knowledge of operating various kinds of motor control circuits</p> <ul style="list-style-type: none"> <li>◆ Master the operational requirements for various kinds of single-phase and three-phase electrical equipment systems</li> <li>◆ Master the working principles of various kinds of control and protection circuits and working properties of relevant components</li> <li>◆ Master the working principles of various kinds of electric machine starter circuits and technical requirements for relevant components</li> <li>◆ Master the techniques of drawing motor control and starter circuit diagrams</li> </ul> <p>6.2 Design specific electric machine control, protection and starter circuits</p> <ul style="list-style-type: none"> <li>◆ Design single-phase and three-phase electric machine control, protection and starter circuits, including to : <ul style="list-style-type: none"> <li>• Design and draw electric machine control, protection and starter circuit diagrams, such as power control, electrical interlocking, sequential control and starter circuits, etc.</li> <li>• Design and draw the configuration, wiring and circuit terminal coding of circuit components of control cabinet</li> <li>• Calculate the quantity of materials required for control, protection and starter circuits and estimate the capacity grades</li> </ul> </li> </ul> <p>6.3 Professionalism in handling electrical equipment control, protection and starter circuits</p> <ul style="list-style-type: none"> <li>◆ Follow the Code of Practice for the Electricity (Wiring) Regulations to design various kinds of electric machine control, protection and starter circuits</li> </ul>
7. Assessment Criteria	The integrated outcome requirement of this unit of competency is: (i) Capable to design control, protection and starter circuits according to the specific operational requirements for electrical equipment control and startup.
8. Remarks	