1. Title	Assess AC-DC traction control system performance
2. Code	EMELDE412A
3. Range	Applicable to tasks related to electrical and mechanical work. Assess AC-DC traction control system performance and provide the best operational status for AC-DC traction control system design.
4. Level	4
5. Credit	6
6. Competency	Performance Requirements 6.1 Understand the basic performance data for AC-DC traction control systems ♦ Understand the basic performance data for AC-DC traction control systems including performance data for conduction angles of converters and inverters commonly used, rectifier control circuits, inverter control circuits, voltage control circuits and chopper control circuits ♦ Understand the effect of different voltage and frequencies on three-phase induction motors ♦ Understand the characteristics of three-phase induction motors ♦ Understand the constraints of working temperature on various kinds of controllers 6.2 Assess AC-DC traction control system performance to provide the optimum operating condition for AC-DC traction control system design ♦ Assess AC-DC traction control system performance including performance data for conduction angle of converters and inverters, output and input voltage and current, three-phase induction motors, rectifier control circuits, inverter control circuits, voltage control circuits and chopper control circuits, etc. ♦ Provide the optimum operating data for AC-DC traction control systems
7. Assessment Criteria	The integrated outcome requirement of this unit of competency is: (i) Capable to assess AC-DC traction control system performance to provide the optimum operating condition for AC-DC traction control system design.
8. Remarks	