



Australian Government

Assessment Requirements for UEEIC0016

Diagnose and rectify faults in a.c. motor drive systems

Release: 1

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Modification History

Release 1. This is the first release of this unit of competency in the UEE Electrotechnology Training Package.

Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements, performance criteria and range of conditions on at least two separate occasions and include:

- applying logical diagnostic methods
- applying problem-solving techniques
- applying relevant work health and safety (WHS)/occupational health and safety (OHS) requirements, including:
 - implementing workplace procedures and practices
 - using of risk control measures
- applying sustainable energy principles and practices
- completing and reporting fault diagnosis and rectification activities
- dealing with unplanned events/situations in accordance with workplace procedures in a manner that minimises risk to personnel and equipment
- documenting fault rectification activities and outcomes in accordance with workplace procedures
- identifying faults and determining components needed to rectify them
- inspecting, testing and verifying that the alternating current (a.c.) electrical system operates correctly
- preparing to diagnose and rectify faults in a.c. motor drive system
- rectifying faults in a.c. motor drive system controls
- using fault scenarios to test the cause of system faults.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements, performance criteria and range of conditions and include knowledge of:

- relevant job safety assessments or risk mitigation processes
- relevant manufacturer specifications
- relevant problem-solving techniques
- relevant WHS/OHS legislated requirements

- relevant workplace documentation
- relevant workplace policies and procedures
- variable speed drive (VSD) systems for a.c. motors, including:
 - methods and operating principles
 - installation requirements
 - filtering
 - performance characteristics
 - set-up and commissioning
 - common faults, their symptoms and causes.

Assessment Conditions

Assessors must hold credentials specified within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must satisfy the Principles of Assessment and Rules of Evidence and all regulatory requirements included within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must occur in suitable workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated suitable workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment must include access to:

- a range of relevant exercises, case studies and/or simulations
- relevant and appropriate materials, tools, facilities, equipment currently used in industry
- resources that reflect current industry practices in relation to diagnosing and rectifying faults in a.c. motor drive systems
- applicable documentation, including workplace procedures, equipment specifications, regulations, codes of practice and operation manuals.

Links

Companion Volume implementation guides are found in VETNet - -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b8a8f136-5421-4ce1-92e0-2b50341431b6>