



Australian Government

Assessment Requirements for UEEEL0068 Rewind three phase low voltage induction machines

Release: 2

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Modification History

Release 2. Minor change. Typographic error in prerequisites corrected.

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 relevant work health and safety (WHS)/occupational health and safety (OHS) requirements and workplace procedures and practices, including using risk control measures
- applying sustainable energy principles and practices
- completing workplace reports and forms
- dealing with unplanned events in accordance with workplace procedures in a manner that minimises risk to personnel and equipment
- inspecting and testing completed induction machine work
- planning to rewind three phase induction machines
- rewinding three phase induction machines rated for low voltage (LV), including:
 - adhering to quality workplace procedures
 - assembling machine and preparing for inspection and testing
 - completing workplace report/forms accurately
 - dismantling machine and storing parts securely
 - following winding specifications and/or instructions
 - preparing stator for winding
 - selecting correct coils and insulation
 - winding and connecting stator correctly
- using tools safely in accordance with workplace procedures.

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:

- three phase windings, including:
 - chain, lap and wave windings

- concentrated and distributed windings
- half-coil and whole-coil windings
- half-coil winding for a three phase alternator
- pole-pitch and coil-span
- three phase stator winding
- whole-coil stator winding for a three phase alternator
- rating and cooling of alternators and the voltage regulator
- techniques of winding three phase motors, including:
 - coil connection arrangements and terminations
 - coil placement techniques
 - electrical machine insulation types and applications
 - winding insulation methods
- testing techniques, including continuity, insulation testing, use of 'growler' and magnetic field testing
- relevant job safety assessments or risk mitigation processes
- relevant manufacturer specifications
- relevant WHS/OHS legislated requirements
- relevant workplace documentation
- relevant workplace policies and procedures
- sustainable energy principles and practices.

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 suitable simulated 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 other simulations
- relevant and appropriate materials, tools, facilities, equipment and personal protective equipment (PPE) currently used in industry
- resources that reflect current industry practices in relation to rewinding three phase induction machines rated for LV
- applicable documentation, including workplace procedures, equipment specifications, regulations, relevant industry standards, 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>