



Australian Government

UEEEL0068 Rewind three phase low voltage induction machines

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.

Application

This unit involves the skills and knowledge required to prepare, place and connect coils and insulation in three phase stators and rotors in low voltage (LV) induction machine.

It includes preparing to and rewinding three phase induction machines by working safely, using tools, measuring and stator windings. It also includes applying technical and quality industry standards and completing workplace reports and winding records.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

UEECD0007 Apply work health and safety regulations, codes and practices in the workplace

UEECD0019 Fabricate, assemble and dismantle utilities industry components

UEECD0020 Fix and secure electrotechnology equipment

UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications

UEEEL0020 Solve problems in low voltage a.c. circuits

UEEEL0023 Terminate cables, cords and accessories for low voltage circuits

UEEEL0074 Wind electrical coils

UEEEL0056 Place and connect electrical coils

UEEEL0019 Solve problems in direct current (d.c.) machines

UEEEL0021 Solve problems in electromagnetic devices

UEEEL0024 Solve problems in alternating current (a.c.) rotating machines

UEEEL0025 Test and connect transformers

and

UEECD0043 Solve problems in direct current circuits

or

UEECD0044 Solve problems in multiple path circuits

UEECD0046 Solve problems in single path circuits

Competency Field

Electrical

Unit Sector

Electrotechnology

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Prepare to rewind three phase induction machines

2 Rewind three phase induction machine

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1.1 Work health and safety (WHS)/occupational health and safety (OHS) requirements and workplace procedures for a given work area are identified and applied
- 1.2 Existing WHS/OHS risk control measures for work preparation are followed
- 1.3 Scope of work is determined from job specifications and regulatory requirements
- 1.4 Advice is sought from the work supervisor to ensure the work is coordinated effectively with others
- 1.5 Winding data is obtained from winding data records or directly from measurements of stator and recorded in accordance with workplace procedures
- 1.6 Materials required for the work are obtained in accordance with workplace procedures and job specifications
- 1.7 Tools, equipment and testing devices needed to carry out work are obtained and checked for correct operation and safety
- 2.1 Existing WHS/OHS risk control work measures are followed
- 2.2 Machines/equipment are checked and isolated in accordance with WHS/OHS requirements and workplace procedures

- 2.3 Induction machine is dismantled and parts tagged and stored to prevent loss or damage in accordance with workplace procedures and instructions
 - 2.4 Winding is stripped from stator in accordance with workplace procedures
 - 2.5 Stator is wound and insulated in accordance with winding data, job specifications and workplace procedures
 - 2.6 Machine is assembled and prepared for inspection and testing in accordance with workplace procedures
 - 2.7 Unplanned situations are responded to in accordance with workplace procedures in a manner that minimises risk to personnel and equipment
 - 2.8 Routine quality checks are conducted to ensure coils are correctly wound, with correct wire, number of turns and shape in accordance with workplace procedures and job specifications
 - 2.9 Electrical coil work is completed within timeframe, environment and workplace conditions
- 3 Complete workplace report**
- 3.1 WHS/OHS work completion risk control measures are followed
 - 3.2 Workplace report, forms/data sheets are completed accurately in accordance with workplace procedures

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions may be found in the UEE Electrotechnology Training Package Companion Volume Implementation Guide.

Dismantling and winding stators must include the following:

- three different three phase induction machines in an environment designed specifically for the purpose

Unit Mapping Information

This unit replaces and is equivalent to UEENEEG153A Rewind three phase low voltage induction machines.

Links

Companion Volume implementation guides are found in VETNet - -

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