



Australian Government

UEEEL0062 Provide engineering solutions to problems in complex polyphase power circuits

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 provide engineering solutions to problems in complex polyphase power circuits at balanced and unbalanced conditions.

It includes working safely, applying problem-solving techniques, using electrical measuring devices, and providing solutions from measurements and calculations and justification for solutions.

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

Pre-requisite Unit

UEECD0036 Provide engineering solutions for problems in complex multiple path circuits

UEEEL0020 Solve problems in low voltage a.c. circuits

Competency Field

Electrical

Unit Sector

Electrotechnology

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Prepare to develop engineering solutions in complex polyphase

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) processes and workplace procedures for a given work area are identified, obtained and applied

power circuit problems

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| | 1.2 | WHS/OHS risk control work preparation measures and workplace procedures are followed |
| | 1.3 | Scope of complex polyphase power circuit problems is identified from documentation and/or work instructions |
| | 1.4 | Advice is sought from the work supervisor to ensure the work is coordinated effectively with others |
| | 1.5 | Sources of materials required for work are identified in accordance with workplace procedures |
| | 1.6 | Tools, equipment and testing devices required for work are obtained and checked for correct operation and safety |
| 2 | Provide engineering solutions to problems | |
| | 2.1 | WHS/OHS risk control work measures and procedures are followed |
| | 2.2 | The need to test and measure live electrical work is determined in accordance with WHS/OHS requirements and workplace procedures |
| | 2.3 | Circuits are checked and isolated in accordance with WHS/OHS requirements and workplace procedures |
| | 2.4 | Complex polyphase power circuit problems are solved from interpreting measurements and calculated values in accordance with workplace procedures |
| | 2.5 | Unplanned situations are dealt with safely and with the approval of relevant person/s |
| | 2.6 | Problems are solved without damage to apparatus, circuits, the environment and/or services using sustainable energy practices |
| 3 | Complete work and document solutions | |
| | 3.1 | WHS/OHS work completion risk control measures and workplace procedures are followed |
| | 3.2 | Worksite is cleaned and made safe in accordance with workplace procedures |
| | 3.3 | Justification for solutions used to solve complex polyphase power circuit problems is documented |
| | 3.4 | Work completion is documented and relevant person/s notified 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.

Unit Mapping Information

This unit replaces and is equivalent to UEENEEG149A Provide engineering solutions to problems in complex polyphase power circuits.

Links

Companion Volume implementation guides are found in VETNet - -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b8a8f136-5421-4ce1-92e0-2b50341431b6>