



Australian Government

UEECD0042 Solve problems in ELV single path circuits

Release: 1

UEECD0042 Solve problems in ELV single path circuits

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 solutions to predictable problems in single path circuits operated at extra-low voltage (ELV) as they apply to energy sector work functions.

It includes working safely; using voltage, current and resistance measuring devices; and providing solutions to predictable circuit problems.

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

Competency Field

Cross Discipline

Unit Sector

Electrotechnology

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Prepare to work on ELV single path electrical circuits

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 the relevant work area are identified and applied |
| 1.2 | Hazards are identified, risks are assessed, and control measures and workplace procedures are implemented |

- | | | |
|--|------------|--|
| | 1.3 | Nature of the circuit/s problem is obtained from relevant documentation or work supervisor to determine the scope of work to be undertaken |
| | 1.4 | Advice is sought from work supervisor to ensure work is coordinated effectively with others |
| | 1.5 | Materials required for the work are identified and accessed in accordance with workplace procedures |
| | 1.6 | Tools, equipment and testing devices required for work are obtained and checked for correct operation and safety in accordance with workplace procedures |
| 2 Solve ELV single path electrical circuits problem | 2.1 | WHS/OHS risk control work measures and procedures are followed |
| | 2.2 | Need to test or measure live electrical work is determined and conducted in accordance with WHS/OHS, workplace and regulatory requirements |
| | 2.3 | Circuits are confirmed as being isolated, as required, in accordance with WHS/OHS, workplace and regulatory requirements |
| | 2.4 | Methodological techniques are used to solve circuit problems using measured and calculated values as they apply to single path, single source circuits in accordance with workplace procedures |
| | 2.5 | Problems are solved without damage to apparatus, circuits, the surrounding environment or services using sustainable energy practices |
| 3 Complete work and document problem-solving activity | 3.1 | WHS/OHS risk control measures for work completion are followed |
| | 3.2 | Worksite is cleaned and made safe in accordance with workplace procedures |
| | 3.3 | Justification for solutions used to solve circuit problems is documented in accordance with workplace procedures |
| | 3.4 | Work completion is documented and appropriate 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.

Solving problems in ELV single path circuits must include three of the following types of circuit problems:

- identifying and locating open circuits
- identifying and locating short circuits
- identifying loss of supply

Unit Mapping Information

This unit replaces and is equivalent to UEENEEE103A Solve problems in ELV single path circuits.

Links

Companion Volume implementation guides are found in VETNet - -

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