



Australian Government

Assessment Requirements for UEERA0092 Solve problems in low voltage refrigeration and air conditioning 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.

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:

- altering an existing circuit to comply with specified function and operating parameters
- applying relevant work health and safety (WHS)/occupational health and safety (OHS) requirements, including hazards and control measures
- completing work and documentation
- developing a circuit to comply with a specified function and operating parameters
- preparing to work on low voltage (LV) refrigeration and air conditioning circuits
- solving problems in single and multiple alternating current (a.c) circuits
- using meters/testers to check for continuity, insulation resistance and obtain resistance, voltage, current and capacitance values.

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:

- circuit protection and isolation
- devices used for circuit protection and circuit isolation, including fuses, circuit breakers, residual current devices (RCDs) and over/under voltage
- factors affecting resistance
- impedance
- parallel circuits and calculating equivalent circuit resistance and current
- power
- relevant standards, codes of practice and regulations
- single phase a.c.
- three phase a.c.
- types of magnetic devices, including relays, contractors, solenoids, transformers and motors
- types of meters/testers suitable for measuring capacitance
- types of meters/testers suitable for measuring current flow

- types of meters/testers suitable for measuring insulation resistance
- types of meters/testers suitable for measuring resistance values and circuit conductivity
- types of meters/testers suitable for measuring voltage
- types, uses and safety considerations of capacitors used in the refrigeration and air conditioning industry
- types, uses, and construction of transformers.

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 workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in 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, equipment and personal protective equipment (PPE) currently used in industry
- applicable documentation, including workplace procedures, industry standards, 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>