



**Australian Government**

# **UEE32211 Certificate III in Air-conditioning and Refrigeration**

**Release 5**

## UEE32211 Certificate III in Air-conditioning and Refrigeration

### Modification History

Release	Action	Core/Elective	Details	Points
2	Update	Group A	HLTCPR211A Perform CPR	10
2	Update	Group A	HLTFA311A Apply first aid	10

5	Update	Group A	CPCPCM2043A – Carry out WHS requirements	40
5	Update	Group A	CPCPMS3035A – Install and test ducting systems	10

### Description

#### Scope

This qualification provides competencies to select components, install, set up, test, fault find, repair and maintain refrigeration systems and equipment that apply to food storage and preservation, air conditioning and air distribution equipment in buildings and premises. It includes regulatory requirements for purchasing and handling refrigerants.

#### Note:

The Ozone Protection and Synthetic Greenhouse Gas Legislation Amendment Bill 2003 apply to this qualification. Prior to planning the delivery of any training and/or assessment activities all legislative and regulatory requirements shall be identified and included.

### Pathways Information

Not Applicable

### Licensing/Regulatory Information

Not Applicable

### Entry Requirements

Not Applicable

## **Employability Skills Summary**

Not Applicable

## Packaging Rules

### Completion requirements

The requirements for granting this qualification will be met when competency is demonstrated and achieved for:

- All the Core competency standard units, defined in the Core Competency Standard Units table below and
- A combination of Elective competency standard units to achieve a total weighting of 60 points in accordance with the Elective Competency Standard Units table below.

<b>Core Competency Standard Units</b>		<b>Weighting points</b>
All Core competency standard units to be achieved		
UEENEEC025B	Participate in refrigeration and air conditioning work and competency development activities	60
UEENEEE101A	Apply Occupational Health and Safety regulations, codes and practices in the workplace	20
UEENEEE102A	Fabricate, assemble and dismantle utilities industry components	40
UEENEEE103A	Solve problems in ELV single path circuits	40
UEENEEE105A	Fix and secure electrotechnology equipment	20
UEENEEE107A	Use drawings, diagrams, schedules, standards, codes and specifications	40
UEENEEE137A	Document and apply measures to control OHS risks associated with electrotechnology work	20
UEENEEJ102A	Prepare and connect refrigerant tubing and fittings	30
UEENEEJ103A	Establish the basic operating conditions of vapour compression systems	60
UEENEEJ104A	Establish the basic operating conditions of air conditioning systems	20
UEENEEJ106A	Install refrigerant pipe work, flow controls and accessories	60
UEENEEJ107A	Install air conditioning and refrigeration systems, major components and associated equipment	80
UEENEEJ108A	Recover, pressure test, evacuate, charge and leak test	60

<b>Core Competency Standard Units</b>		<b>Weighting points</b>
All Core competency standard units to be achieved		
	refrigerants	
UEENEEJ109A	Verify functionality and compliance of refrigeration and air conditioning installations	20
UEENEEJ110A	Select refrigerant piping, accessories and associated controls	50
UEENEEJ111A	Diagnose and rectify faults in air conditioning and refrigeration systems and components	40
UEENEEJ113A	Commission air conditioning and refrigeration systems	40
UEENEEJ153A	Find and rectify faults motors and associated controls in refrigeration and air conditioning systems	50
UEENEEJ170A	Diagnose and rectify faults in air conditioning and refrigeration control systems	70
UEENEEJ194A	Solve problems in low voltage refrigeration circuits	40
UEENEEK142A	Apply environmentally and sustainable energy procedures in the energy sector	20
UEENEEP012A	Disconnect / reconnect composite appliances connected to low voltage installation wiring	60
UEENEEP017A	Locate and rectify faults in low voltage composite appliances using set procedures	20
UEENEEP024A	Attach cords and plugs to electrical equipment for connection to a single phase 230 Volt supply	20
UEENEEP025A	Attach cords, cables and plugs to electrical equipment for connection to 1000 Va.c. or 1500 Vd.c. supply	20
<b>Total points in core</b>		<b>1000</b>

### **Elective Competency Standard Units**

Complete Elective units to achieve a total of weighting of 60 points from the following groups:

<b>Group</b>		<b>Minimum points</b>	<b>Maximum points</b>
<b>A</b>	<b>Imported and Common Elective Units</b> Imported units from other training packages and/or state accredited courses can be added to this group, but they must be selected from qualifications where the unit is first packaged at AQF level 3. If units have not being assigned a weighting by the relevant EE-Oz Industry Technical Advisory Committee, their weighting will be 10 points.	0	30
<b>B</b>	<b>Qualification Elective Units</b> You may select all your elective units from this Group	30	60

<b>Group A – Imported and Common Elective Units</b>		<b>Weighting Points</b>
You may complete units to a maximum weighting of 30		
UEENEEC001B	Maintain documentation	20
UEENEEC002B	Source and purchase material/parts for installation or service jobs	20
UEENEEC003B	Provide quotations for installation or service jobs	20
UEENEEC010B	Deliver a service to customers	20
UEENEED101A	Use computer applications relevant to a workplace	20
UEENEEE009B	Comply with scheduled and preventative maintenance program processes	20
UEENEEE020B	Provide basic instruction in the use of electrotechnology apparatus	20
CPCCOHS1001A	Work safely in the construction industry	10
CPCPCM2043A	Carry out WHS requirements	40
CPCPMS3035A	Install and test ducting systems	10
HLTCPR211A	Perform CPR	10
HLTFA311A	Apply first aid	10
	<p>Imported units from other training packages and/or state accredited courses can be added to this group, but they must be selected from qualifications where the unit is first packaged at AQF level 3. If units have not being assigned a weighting by the relevant EE-Oz Industry Technical Advisory Committee, their weighting will be 10 points.</p> <p>Note: For further information see Application of the NQC Flexibility Formula, UEE11 Electrotechnology Training Package, Version 1, Volume 1 Qualification Framework</p>	Up to 30 points

<b>Group B – Qualification Elective Units</b>		<b>Weighting Points</b>
Complete units to a minimum weighting of 30 You may select all your elective units from this Group		
UEENEEI150A	Develop, enter and verify discrete control programs for programmable controllers	60
UEENEEJ114A	Resolve problems in hydronic systems	40
UEENEEJ115A	Resolve problems in beverage dispensers	40
UEENEEJ116A	Resolve problems in transport refrigeration systems	20
UEENEEJ117A	Resolve problems in ultra-low temperature refrigeration systems	20
UEENEEJ118A	Resolve problems in post mix refrigeration systems	20
UEENEEJ119A	Resolve problems in ice making systems	20
UEENEEJ120A	Resolve problems in industrial refrigeration systems	20
UEENEEJ166A	Resolve problems in dairy refrigeration systems	20
UEENEEJ167A	Resolve problems in central plant air conditioning systems	40
UEENEEJ168A	Maintain microbial control of refrigeration and air conditioning systems	20
UEENEEJ171A	Resolve problems in refrigerated beverage vending cabinets	20
UEENEEJ174A	Apply safety awareness and legal requirements for hydrocarbon refrigerants	10
UEENEEJ175A	Service and repair self contained hydrocarbon air conditioning and refrigeration systems	20
UEENEEJ176A	Install and commission hydrocarbon refrigeration systems, components and associated equipment	20
UEENEEJ178A	Apply safety awareness and legal requirements for ammonia refrigerant	10
UEENEEJ179A	Repair and service ammonia refrigeration systems	20



UEENEEJ180A	Install and commission ammonia refrigeration systems, components and associated equipment	20
UEENEEJ182A	Repair and service secondary refrigeration systems	20
UEENEEJ184A	Apply safety awareness and legal requirements for carbon dioxide refrigerant	10
UEENEEJ185A	Repair and service carbon dioxide refrigeration systems	20
UEENEEJ186A	Install and commission carbon dioxide refrigeration systems, components and associated equipment	20
UEENEEJ188A	Repair and service self contained carbon dioxide refrigeration and heat pump systems	20
UEENEEJ196A	Operate Ammonia Refrigeration Plan	40

**Note:**

1. Pre-requisite pathways shall be identified and met for all elective units selected.
2. In selecting elective units considerations to career planning advice should be given to units that form part of a pre-requisite pathway for the progression to achieve particular competencies or qualification at a higher level.

**END OF QUALIFICATION**