



merSETA
MANUFACTURING, ENGINEERING
AND RELATED SERVICES SETA

STATEMENT OF QUALIFICATIONS/UNIT STANDARDS

Name:	Suriaprakasan Reddy
Identity Number:	6706155048081
Registration Number:	null
Status	Approved
Accreditation Period	31/12/2022 - 31/12/2025

PROGRAMME/ SAQA ID	SKILLS PROGRAMME/SKILLS SET/UNIT STANDARD TITLE	APPROVAL DATE
65449	National Certificate: Air-conditioning, Refrigeration and Ventilation	31/12/2022
65489	National Certificate: Air-Conditioning, Refrigeration and Ventilation	31/12/2022
65509	Further Education and Training Certificate: Air-conditioning, Refrigeration and Ventilation	31/12/2022
119463	Access and use information from texts	31/12/2022
13202	Apply study and learning techniques	31/12/2022
116246	Behave in the proper manner under working conditions	31/12/2022
116238	Clean air-conditioning, refrigeration and ventilation plants, components and work sites	31/12/2022
116236	Define and explain the principles of thermodynamics and carry out basic calculations involving heat	31/12/2022
116223	Demonstrate knowledge of the OHS Act as it applies to employees in the air-conditioning, refrigeration and ventilation industries	31/12/2022
116232	Demonstrate understanding of fundamentals of electricity and its application in air conditioning, refrigeration and ventilation equipment	31/12/2022
7480	Demonstrate understanding of rational and irrational numbers and number systems	31/12/2022

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PROGRAMME/ SAQA ID	SKILLS PROGRAMME/SKILLS SET/UNIT STANDARD TITLE	APPROVAL DATE
262177	Explain the basic vapour compression cycle, the components, the handing and storage of refrigerants	31/12/2022
116355	Handle refrigerant containers and transfer refrigerants into service cylinders	31/12/2022
116234	Identify and apply fixing methods for piping, ducting and equipment used in the trade of air-conditioning, refrigeration and ventilation	31/12/2022
116233	Identify and state application of belt drives, couplings, gearboxes and bearings used on air-conditioning, refrigeration and ventilation plants and recognize misaligned, mismatched and worn components	31/12/2022
244564	Identify causes of stress in own life and indicate techniques to manage it	31/12/2022
116230	Identify materials, piping, fitting, jointing methods and insulation materials used for air-conditioning and refrigeration installations	31/12/2022
116334	Identify refrigerant containers, explain handling procedures and discuss the use of refrigerants	31/12/2022
9008	Identify, describe, compare, classify, explore shape and motion in 2-and 3-dimensional shapes in different contexts	31/12/2022
116239	Identify, use and maintain hand tools and measuring instruments used in the air-conditioning, refrigeration and ventilation trades	31/12/2022
116335	Identify, use and maintain refrigeration trade specific tools and instruments	31/12/2022
9266	Install self propelled transport refrigeration systems	31/12/2022
116243	Install, connect and maintain electrical cables and conductors as applied in air conditioning, refrigeration and ventilation installations	31/12/2022
116229	Join and install refrigerant piping	31/12/2022
116700	Maintain safety in the handling group 1 and 2 refrigerants	31/12/2022
116704	Maintain safety in the handling of ammonia refrigerant	31/12/2022
12444	Measure, estimate and calculate physical quantities and explore, describe and represent geometrical relationships in 2-dimensions in different life or workplace contexts	31/12/2022
116245	Perform basic arc welding of metals as applicable to air-conditioning, refrigeration and ventilation installations	31/12/2022
261802	Perform maintenance and repair on non-specialised marine refrigerated containers	31/12/2022



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PROGRAMME/ SAQA ID	SKILLS PROGRAMME/SKILLS SET/UNIT STANDARD TITLE	APPROVAL DATE
119455	Respond to selected literary texts	31/12/2022
262161	Set instrumentation and perform inspections on marine refrigerated containers	31/12/2022
116244	Sketch and construct electrical circuits applicable to single-phase air conditioning, refrigeration and ventilation installations	31/12/2022
119460	Use language and communication in occupational learning programmes	31/12/2022
7469	Use mathematics to investigate and monitor the financial aspects of personal and community life	31/12/2022
9322	Work in a team	31/12/2022
116241	Work Safely and use safety equipment when carrying out mechanical or electrical work on air conditioning, refrigeration and ventilation installations	31/12/2022
9007	Work with a range of patterns and functions and solve problems	31/12/2022
119456	Write/present for a defined context	31/12/2022
116468	Adhere to the legal requirements of SANS 10147 (SABS 0147) standards when handling group 1 refrigerants	31/12/2022
119458	Analyse and respond to a variety of literary texts	31/12/2022
261819	Apply an understanding of various systems, system components, the actual and the theoretical refrigeration cycle	31/12/2022
116703	Check and maintain air-conditioners in vehicles	31/12/2022
9010	Demonstrate an understanding of the use of different number bases and measurement units and an awareness of error in the context of relevant calculations	31/12/2022
9532	Demonstrate basic knowledge of computers	31/12/2022
116719	Demonstrate knowledge of the OHS Act as it affects experienced workers in the air conditioning, refrigeration and ventilation industries	31/12/2022
9013	Describe, apply, analyse and calculate shape and motion in 2-and 3-dimensional space in different contexts	31/12/2022
116708	Diagnose and repair air-conditioners in vehicles	31/12/2022
116712	Dismantle and assemble air conditioning and refrigeration equipment	31/12/2022



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PROGRAMME/ SAQA ID	SKILLS PROGRAMME/SKILLS SET/UNIT STANDARD TITLE	APPROVAL DATE
116697	Fault find an air-conditioning, refrigeration or ventilation plant stoppage or failure	31/12/2022
116701	Handle and place in position equipment used within the air-conditioning, refrigeration and ventilation industries	31/12/2022
116707	Identify and apply insulation methods and materials for piping and flat surfaces as applicable to air-conditioning and refrigeration systems	31/12/2022
116465	Identify and commission modulating control systems as used in air conditioning and refrigeration systems	31/12/2022
116226	Identify and set ON-OFF control devices as used in air conditioning and refrigeration systems, explain their operation and discuss their application and fault finding	31/12/2022
244589	Identify causes of stress and techniques to manage it in the workplace	31/12/2022
116718	Identify water reticulation systems, its components, accessories and controls used in air-conditioning and refrigeration installations	31/12/2022
116702	Identify, handle and sample refrigeration oils for analysis, and demonstrate how oil can indicate the general condition of a refrigeration system	31/12/2022
116696	Identify, use and maintain power tools used in the air-conditioning, refrigeration and ventilation trades	31/12/2022
116713	Install and service power transmission systems for air-conditioning, refrigeration and ventilation equipment	31/12/2022
9546	Install externally powered transport refrigeration systems	31/12/2022
119466	Interpret a variety of literary texts	31/12/2022
116717	Interpret air-conditioning, refrigeration and ventilation plant layout and component drawings, sketches and specifications	31/12/2022
119457	Interpret and use information from texts	31/12/2022
9012	Investigate life and work related problems using data and probabilities	31/12/2022
9530	Manage work time effectively	31/12/2022
116706	Operate water treatment systems used in air-conditioning and refrigeration installations	31/12/2022
116715	Remove, install and service bearings used on air-conditioning, refrigeration and ventilation equipment	31/12/2022
116720	Show understanding of diversity in the workplace	31/12/2022
116705	Supply and fit air conditioners to vehicles	31/12/2022
9533	Use communication skills to handle and resolve conflict in the workplace	31/12/2022

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PROGRAMME/ SAQA ID	SKILLS PROGRAMME/SKILLS SET/UNIT STANDARD TITLE	APPROVAL DATE
119467	Use language and communication in occupational learning programmes	31/12/2022
7456	Use mathematics to investigate and monitor the financial aspects of personal, business and national issues	31/12/2022
9015	Apply knowledge of statistics and probability to critically interrogate and effectively communicate findings on life related problems	31/12/2022
116698	Carry out elementary airflow measurements and calculations	31/12/2022
7465	Collect and use data to establish complex statistical and probability models and solve related problems	31/12/2022
12488	Complete feasibility and commissioning reports	31/12/2022
116460	Demonstrate an understanding of logic controllers as used in air conditioning, refrigeration and ventilation applications	31/12/2022
116379	Demonstrate knowledge of the OHS Act applicable to technicians employed in the air-conditioning, refrigeration and ventilation industries	31/12/2022
116695	Determine the properties of air from a psychometric chart and carry out basic calculation involving heat and mass transfer	31/12/2022
116699	Determine, define and evaluate operating parameters of a refrigeration system	31/12/2022
116406	Diagnose operational faults in refrigeration systems and take remedial action or propose corrective action	31/12/2022
119470	Evaluate literary texts	31/12/2022
116463	Fault find, repair and maintain AC motors, circuitry and controls as applied to air conditioning, refrigeration and ventilation installations	31/12/2022
262159	Inspect and evaluate the conformance of air-conditioning and refrigeration pressure equipment	31/12/2022
116466	Inspect and maintain electrical control panels and circuitry as used for air-conditioning, refrigeration and ventilation installations	31/12/2022
116716	Install eutectic and multi compartment transport refrigeration systems	31/12/2022
262178	Interpret the effect of operating conditions on components, safety and control devices	31/12/2022
116714	Lead a team, plan, allocate and assess their work	31/12/2022
116710	List the commonly applied air-conditioning systems, state their application and explain their operation	31/12/2022
119461	Make and motivate judgements on selected literary texts	31/12/2022



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PROGRAMME/ SAQA ID	SKILLS PROGRAMME/SKILLS SET/UNIT STANDARD TITLE	APPROVAL DATE
262158	Perform maintenance and repair on specialised marine refrigerated containers and generator sets	31/12/2022
119469	Read/view, analyse and respond to a variety of texts	31/12/2022
116421	Repair and overhaul air-conditioning, refrigeration and ventilation equipment	31/12/2022
9016	Represent analyse and calculate shape and motion in 2-and 3-dimensional space in different contexts	31/12/2022
116403	Service a refrigeration system and set it in operation	31/12/2022
116464	Sketch and construct three-phase circuits as used in air-conditioning, refrigeration and ventilation installations	31/12/2022
116380	Supervise workers at levels 2 and 3	31/12/2022
116392	Understand, implement, maintain and monitor general quality standards within the air-conditioning, refrigeration and ventilation industries	31/12/2022
119471	Use language and communication in occupational learning programmes	31/12/2022
7468	Use mathematics to investigate and monitor the financial aspects of personal, business, national and international issues	31/12/2022
116389	Write a technical report	31/12/2022

Naphtaly Mokgotsane

31/12/2022

**SENIOR MANAGER: QUALITY
ASSURANCE & PARTNERSHIPS**

DATE

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