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| Title | **Install three-phase wiring** | | |
| Level | **3** | **Credits** | **20** |

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| Purpose | This competency standard is intended for those who carry out electrical operations. People holding credit for this competency standard are able to: Plan wiring layout; lay cable; perform wiring test; and complete work. |

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| Classification ISCED | 0713 Electricity and energy |

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| Available grade | Competent / Not yet competent |

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| Modification history | N/A |

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| **Competency Unit** | **Performance Criteria** | **Knowledge and Understanding** |
| **C1:**  **Plan wiring layout** | **P1-** Draw wiring layout  **P2-** Measure distance to connection points  **P3-** Estimate material in meters, lenght  **P4-** Prepare tools, equipment and materials **P5-** Size cable diameter (mm2) | **K1-** Interpretation of drawings, symbols, cable number according to load, and colour coding  **K2-** Measuring of units and conversion  **K3-** Quality of different conductor and insulator types  **K4-** Application of tools, equipment and materials |
| **C2:**  **Lay cables** | **P1-** Prepare installation of cable  **P2-** Install conduit, GI pipes, PVCpipesand/or ducts  **P3-** Pull-in cables  **P4-** Connect cables  **P5-** Connect fixtures | **K1-** Chiselling, ducting, PVC and GIpipe wiring procedures  **K2-** Properties of materials  **K3-** Application of cables and tools  **K4-** Types of joints  **K5-** Types and purpose of fixtures |
| **C3:**  **Perform wiring test** | **P1-** Inspect wiring and distribution board  **P2-** Conduct tests  **P3-** Document test results  **P4-** Understand & implement, safety requirements | **K1-** Importance of continuity and factors of loose fittings  **K2-** Application of equipment and tools used for testing; Importance of earthing  **K3-** Importance of documenting compliance & noncompliance of test results and subsequent steps to be taken |
| **C4:**  **Complete work** | **P1-** Complete work related documents and procedures when testing and commissioning  **P2-** Perform final quality inspection  **P3-** Clean up and store tools, equipment and materials | **K1-** Importance of documentation; Customer care procedures and techniques  **K2-** Importance of quality; handing over to client  **K3-** Waste disposal procedures; Care of tools and equipment |