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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 |