Criteria

# Cable Specifications

All cores are covered in coloured PVC insulation and a separate black outer PVC sheath.

| **Identification No.** | **No. of Cores** | **Cross-Sectional Area (mm2)** | **Core Type** | **Usage** |
| --- | --- | --- | --- | --- |
| 1 | 3 | 2.5 | Solid | Power |
| 2 | 3 | 4 | Solid | Power |
| 3 | 3 | 6 | Solid | Power |
| 4 | 4 | 1.5 | Stranded | Data |
| 5 | 4 | 2.5 | Stranded | Data |

# Cable Stripping Methods Comparison

| **Stripping Method** | **Advantages** | **Disadvantages** |
| --- | --- | --- |
| Laser | * Fast * Experiences no wear * Insulation vaporised | * Manual removal is required * Expensive |
| Chemical | * Cheap | * Not fit for purpose (magnet wires only) * Slow * Not environmentally friendly |
| ***Mechanical (chosen)*** | * **Suitable for multi-core cable cutting.** * **Automatic removal** | * **Need to purchase from China** |
| Abrasive | * Fast | * Leftover insulation dust * single-core cables only |

# Alternative Methods

The following stripping methods were excluded from comparison because they were clearly not fit for purpose:

* Ultrasonic
  + Very uncommon
* None
  + Infeasible for accurate connection