

Specification (Measurement)

**Transport and Main Roads Specifications
MRS210 Provision of Mains Power**

November 2021

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1 Introduction

This Specification applies to the requirements for the design, supply of materials and equipment, installation, testing, commissioning and maintenance, and handover documentation of the Provision of Mains Power.

This Specification shall be read in conjunction with MRS01 *Introduction to Specifications* and other Specifications as appropriate.

This Specification forms part of the Transport and Main Roads Specifications Manual.

2 Measurement of Works

Standard Work Items 62101 and 62102 were introduced in order to maintain the consistency with MRS228 *Electrical Switchboards*.

2.1 Standard Work Items

In accordance with the provisions of Clause 2.1.3 of MRS01 *Introduction to Specifications*, the Standard Work Items covered by this Specification are listed in Table 2.1.

Table 2.1 – Standard Work Items

Standard Item No.	Description	Unit of Measurement
Mains connection		
62101	Supply of mains connection equipment including the supply of mains connection cable, [<i>length</i>], [<i>usage</i>], [<i>conductor size</i>], [<i>number of cores</i>] cores, [<i>core insulation</i>], [<i>sheath insulation</i>], [<i>conductor material</i>]	each
62102	Installation of mains connection including mains connection cable	each
Switchboards		
	Refer to MRS228 <i>Electrical Switchboard</i>	
Electrical cable		
62121	Supply, Installation, jointing and termination of underground power cable, [<i>conductor size sq mm</i>], [<i>number of cores</i>] cores, [<i>core insulation</i>], [<i>sheath insulation</i>], [<i>conductor material</i>]	m
Disconnection of mains connection and removal of electrical cable		
62191	Disconnection of mains supply and removal of URD pillar, switchboard and ancillary equipment [<i>Energex / Ergon POS or TMR Switchboard</i>]	each
62192	Disconnection and removal from conduit of underground power cable, [<i>conductor size sq mm</i>], [<i>number of cores</i>] cores for disposal	m

2.2 Work Operations

Item 62101 Supply of mains connection equipment including the supply of mains connection cable, [length], [usage], [conductor size], [number of cores] cores, [core insulation], [sheath insulation], [conductor material]

Work Operations incorporated in the above item include:

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Introduction to Specifications*
- b) supply of mains connection equipment
- c) supply of mains connection cable from pole to switchboard (for Rate 3) or road lighting pole / cable joint (for Rate 2), and
- d) supply of UV-stabilised 50 mm PVC conduit and fittings.

Item 62102 Installation of mains connection including mains connection cable

Work Operations incorporated in the above item include:

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Introduction to Specifications*
- b) installation of mains connection equipment on pole
- c) installation of conduit on pole and to pit
- d) installation of conduit from pit to switchboard (for Rate 3) or road lighting pole / cable joint
- e) (for Rate 2)
- f) installation of cable from pit to switchboard (for Rate 3) or road lighting pole / cable joint (for Rate 2), and
- g) testing of installation.

Item 62121 Supply, Installation, jointing and termination of underground power cable, [conductor size sq mm], [number of cores] cores, [core insulation], [sheath insulation], [conductor material]

Work Operations incorporated in the above item include – Work Operations listed in Clause 2.1.5 of MRS01 *Introduction to Specifications*.

- a) General equipment requirements stated in MRTS201 *General Equipment Requirements*, and
- b) supply, installation, testing and documentation of equipment in accordance with the requirements of MRTS210 *Provision of Mains Power*, MRTS228 *Electrical Switchboards* and MRTS256 *Power Cables*.

Item 62191 Disconnection of mains supply and removal of URD pillar, switchboard and ancillary equipment [Energex / Ergon POS or TMR Switchboard]

Work Operations incorporated in the above item include:

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Introduction to Specifications*
- b) disconnection of electrical supply
- c) disconnection of supply circuit

- d) removal of equipment, and
- e) transport of all components to Principal's storage facility or designated site storage area for reuse.

Item 62192 Disconnection and removal from conduit of underground power cable, [conductor size sq mm], [number of cores] cores for disposal

Work Operations incorporated in the above item include:

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Introduction to Specifications*
- b) disconnection of electrical supply
- c) removal of equipment, and
- d) transport of all components and disposal.

2.3 Method of Measurement of Provision of Mains Power

This specification provides Standard Work Items for:

- a) supply only
- b) installation only, and
- c) supply and installation, of Provision of Mains Power.

Any combination of Standard Work Items relating to these methods of measurement may be used in the Schedule of Rates. However, where a Standard Work Item for supply and installation of a particular component or group of components is included in the Schedule of Rates, no supply only for installation only Standard Work Item shall also apply to that component or group of components, as applicable.

2.4 Supply of Materials

Any materials to be supplied by the Principal will be as stated in the Principal Supplied Material List, Form C6827. All other material shall be supplied by the Contractor.

The responsibility for transport to the site of materials supplied by the Principal shall be as stated in the Principal Supplied Material List, Form C6827. Transport to the site of all other materials shall be the responsibility of the Contractor.

