

Installation Instructions for Advance Electronics Ltd Medical Isolation Transformers (MIT)

1. Introduction

These instructions are supplied as guidance for the installation of an Advance Electronics Medical Isolation Transformer (MIT). For more detailed information regarding these special power conditioning transformers please contact a member of our technical sales team on (01978) 821000.

2. Specification

The full technical description for these products is described in our catalogue data sheet (ds_mit.pdf). Minor variations to the specification are described by the use of suffix numbers in the part number and specific drawings for these items are available on demand.

3. Unpacking & Siting

Remove the unit from its packaging and examine for external damage. Please advise your supplier and/or carrier if the unit is damaged in any way.

Before installation, check the specification/rating label on the rear of the unit and verify that the following four parameters are appropriate for your application:

Nominal input voltage / Nominal output voltage / Input frequency / Power rating

The unit should be installed in a well-ventilated location to allow natural air-cooling, and should be positioned as close as possible to the load it is protecting.

4. Wiring

4.1. Units supplied with socket(s) and plug or cable:

Plug the critical load into the output socket on the unit, and plug the input lead of the unit into a convenient mains socket.

In cases where the input cable is supplied without a plug, the unit must be hard wired to a suitable supply. This supply must have adequate fusing or magnetic circuit breaker protection as described in Section 6.

4.2. Units supplied with screw-in terminal block connections:

The cover or cover plate (if present) must be removed to gain access to the terminals.

Suitably glanded cables/wires should be fed through the appropriate holes, and connected as indicated by the internal connection label.

Units with a "stroke" number suffix in the model number (e.g. MIT 500/23) are bespoke models, and an addition factory drawing may be required for connection details.

5. Earthing

All earthing connections are very important. All units MUST be safety earthed.

Further attention should be given to ensure that the clean earth connections are wired in a 'star' configuration.

6. Fusing

The input to a Medical Isolation Transformer is protected by a factory fitted 2 pole Thermal Breaker, which has been matched to the power rating of the MIT.

The fuse rating for hard-wired MIT units should be the next available size up from the factory fitted thermal breaker fitted to the MIT.

7. Health & Safety Data

7.1. Construction

The transformer consists of insulated copper wires, which have been wound onto an insulated former. These windings are then assembled onto steel laminations.

7.2. Hazards

The transformer must be correctly installed according to the requirements both of the current edition of the IEE Wiring Regulations and the manufacturers recommendations.

7.3. Temperature

All units should be well ventilated as power ratings assume natural air-cooling.

7.4. Chemicals

Once the manufacturing process is complete and all solvents have been burned off, the transformer is chemically benign.

8. Service

Potential MIT problems are limited to:

- Incorrect rating of unit
- Incorrect or poor installation connections
- Winding open circuit
- Winding with short circuit turn
- Insulation failure

Only authorised and trained personnel should attempt repair.

8.1. Spares/Repair

We are committed to providing long-term spares support for our units. Please ask your supplier for the location of your nearest AEL spares and repair centre.



Due to the special impregnation process it is unlikely that a normal re-wind house can repair our units.

It is essential to arrange for the return of damaged units, before shipping them to the factory.

For further information please contact our technical sales team:

Tel: (01978) 821000

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