

# Technical Note - 06

## Variable Speed Drives

### EMC Screen & Output Isolators

#### Background

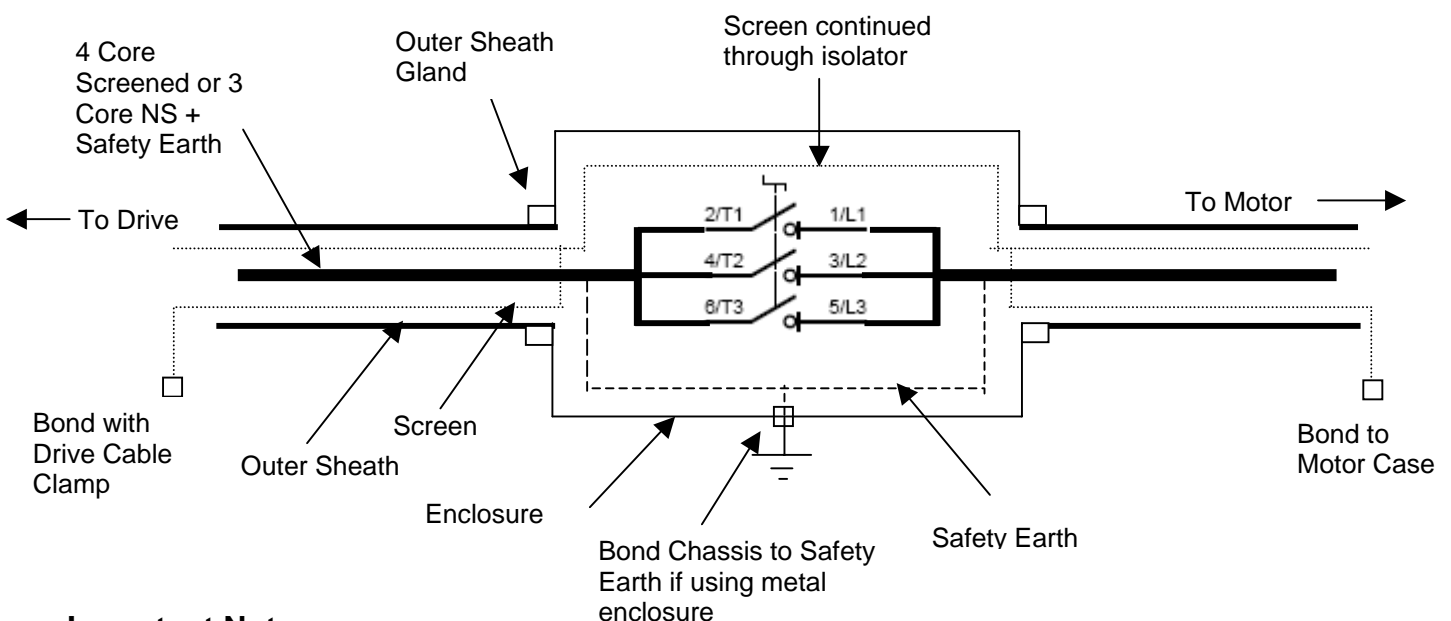
Where motor isolators are placed between a Variable Speed Drive and the Motor, additional care must be taken to ensure that:

1. That Electrical Safety Requirements are met.
2. A dedicated, uninterrupted High Frequency (HF) path is maintained

Common practice is to use an EMC gland to connect the shield into a metal enclosure to continue the Faraday cage, but safety requirements often mean that the enclosure must be bonded to ground at that point as well and hence compromises the EMC HF return path.

The following diagram shows a practical work around for this.

Diag.1 Enclosed Motor Isolator



#### Important Notes

- Continue the screen braid through the isolator ideally using the same braid and keeping this as flat as possible. Avoid pig tailing and/ or twisting the screen.
- The screen is not connected to the chassis or earth at any point other than at the motor and drive.
- Ideally EMC type glands should be used to bond the screen to the motor chassis
- Use the drives EMC shield Clamp to bond as shown.

For details of specific drive installation requirements, please refer to the Technical and Installation documentation that came with the equipment or contact a Schneider Electric Applications Engineer for further information.

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