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## **ACS/ACC/ACP 604/607/627 Hardware Manual, Appendix A (55 – 630 kW) Update Note for Australian and New Zealand Market**

### **“C-tick” Marking**

A C-Tick mark is attached to each variable speed drive in order to verify compliance with the relevant standard (“IEC 61800-3 (1996) - Adjustable speed electrical power drive systems - Part 3: EMC product standard including specific test methods”), mandated by the Trans-Tasman Electromagnetic Compatibility Scheme.

### **Definitions**

*EMC stands for Electromagnetic Compatibility.* It is the ability of electrical/electronic equipment to operate without problems within an electromagnetic environment. Likewise, the equipment must not disturb or interfere with any other product or system within its locality.

*The Trans-Tasman Electromagnetic Compatibility Scheme (EMCS)* was introduced by the Australian Communication Authority (ACA) and the Radio Spectrum Management Group (RSM) of the New Zealand Ministry of Economic Development (NZMED) in November 2001. The aim of the scheme is to protect the radiofrequency spectrum by introducing technical limits for emission from electrical/electronic products.

*First environment* includes establishments connected to a low-voltage network, which supplies buildings used for domestic purposes.

*Second environment* includes establishments connected to a network not supplying domestic premises.

*Restricted distribution:* mode of sales distribution in which the manufacturer restricts the supply of equipment to suppliers, customers or users who separately or jointly have technical competence in the EMC requirements of the application of drives.

*Unrestricted distribution:* mode of sales distribution in which the supply of equipment is not dependent on the EMC competence of the customer or user for the application of drives.

### **Compliance with IEC 61800-3**

#### ***First environment (restricted distribution)***

The drive complies with the limits of IEC 61800-3 with the following provisions:

1. The drive is equipped with an EMC filter.
2. The drive is installed according to the instructions given in the *Hardware Manual*.
3. The motor and control cables used are selected as specified in the *Hardware Manual*.
4. Maximum cable length is 100 meters.

#### **Notes:**

- The drive must not be equipped with the EMC when installed to IT (unearthed) networks. The mains become connected to earth potential through the EMC filter capacitors. In IT systems this may cause danger or damage the unit.
- EMC filters are not available for 690 V.

#### ***Second environment***

The drive complies with the limits of IEC 61800-3 with the following provisions:

1. It is ensured that no excessive emission is propagated to a neighbouring low-voltage network (refer to page A-29 **Figure**). In some cases, the natural suppression in transformers and cables is sufficient. If in doubt the use of EMC filters and/or supply transformers with static screening between primary and secondary windings is strongly recommended.
2. The drive is installed according to the instructions given in the *Hardware Manual*.
3. The motor and control cables used are selected as specified in the *Hardware Manual*.