

NESMA Seminar 2011



National Electrical Switchboard Manufacturers Association



The Perfect Specification

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Relec Switchboards



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Introduction

- Why do we need a specification?
- Using the standard. AS/NZS3439.1 2002
- What information do I need to include?
- How else is this information passed on?



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How to get what you want.

- ❏ How often have you asked for something and received something different?
- ❏ Does what you received resemble what you had in mind?
- ❏ Could you have received something closer to what you wanted by changing the way you asked?



The request.

- ☐ I want something that goes from 0-100 in under 4 seconds.
- ☐ My favourite colour is silver

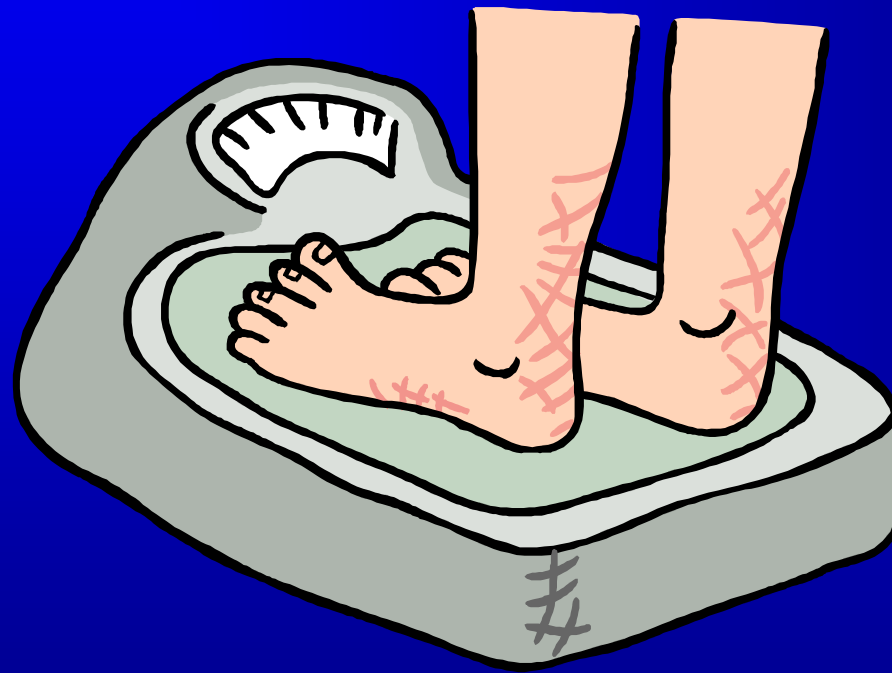
- ☐ Get me what I asked for.



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Not quite what you had in mind.



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THE WISH LIST

How we can best provide you with the equipment you both want and need.

Its what we want to.



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AS/NZS 3439.1 2002

- ☐ Forms of separation
- ☐ Form 1 to Form 4
- ☐ The use of “i” and “h” suffixes
- ☐ Annex E

Items subject to agreement between manufacturer and user



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“i” = Insulation

- ☐ The same basic principles apply but insulation such as PVC dipping may be used as separation.

“h” = Housing

- ☐ The same basic principles apply but the housing of the circuit breaker may be used as separation.



Form 3b



Form 3bih



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If you don't want it, please exclude it.

- Now that “i” and “h” form a part of the standard, they are being widely used. If there is no stipulation that you would like the traditional form 3 or 4 etc. then you may be offered something like form 3bih for example



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Switch room details

- ❏ Is there a space issue in the switch room?
- ❏ Is the switchboard required as top or bottom entry?
- ❏ Is the switchboard front or rear connect?
- ❏ Is the position of the mains or bus-way already decided?
- ❏ Are there any access restrictions, standard doorways etc.?



Concise and complete sections in the specification.

- ➔ Switchboard section contains all the relevant information.
- ➔ Eg. No details on BMS points in the BMS section that actually requires each breaker to have an auxiliary contact.



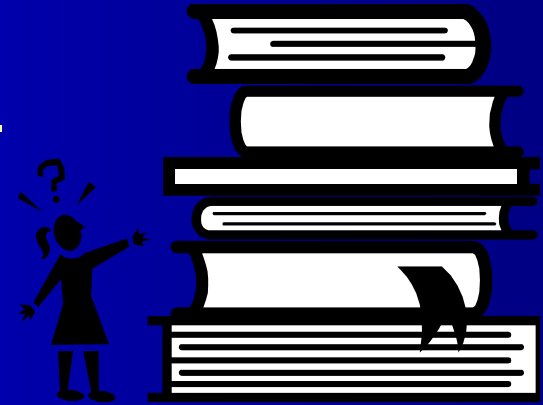
The drawings are different to the specification

- ❏ What do I do? The spec calls for form 3b but the drawings call for form 2.
- ❏ The Spec indicates 35kA fault level when the drawings indicate 30kA



The drawings override the specification

- ❏ Where we have conflicting information it is long accepted that the drawings will be used as correct.
- ❏ Why?
- ❏ We use a lot of generic information in producing the mounds of paper we need to pass on the information required to complete a project.
- ❏ Drawings are always specific to a job.



How does the information get where its needed?

Clear and informative drawings

- ❏ The complete specification is not always forwarded when we receive a request for quotation
- ❏ Some specifications are 5-10MB
- ❏ Notes on drawings ensure they are passed on.
- ❏ If we've got the drawings we must have the notes.



Example of notes

- ☞ Fault level in kA (not kVA).
- ☞ IP rating.
- ☞ Front connect or rear connect.
- ☞ Form of separation.
- ☞ Busbar temperature rating.
- ☞ Top or bottom entry
- ☞ **Colour**
- ☞ **Yes colour, can you imagine changing colour after a board is built.**





This board used to be orange



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Order what you want.

- You can request what you want.
- Clearly indicate any deviations from the standards you would like and then everybody understands what they need to provide.
- It's a competitive world, level the playing field.
- Its all about communication and working together.

- How to achieve all this?



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Deal with a NESMA member.

- ☐ Support of the association and interstate members.
- ☐ Regular discussions and forums for improvement of the industry and its practices.
- ☐ Strength of experience.
- ☐ Assistance in design and practical application.
- ☐ This is what we can do for you.



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