

**LIFEGUARD**  
power distribution system  
by **SPINEFEX**

## Product Standards Update:

**AS/NZS 61439 LV SWITCHGEAR & CONTROLGEAR ASSEMBLIES, from AS/NZS 3012 & AS/NZS 3439**

### WHAT DOES THE UPDATED AS/NZS 61439 REALLY MEAN?

The LIFEGUARD® range offers an extensive scope of Portable & Wall Mounted Power, Cabling and Lighting solutions where safe power is required.

For our LIFEGUARD® products, testing and compliance has always been standard procedure.

The previous standard - AS/NZS3439 (Based on IEC 439) - required testing in the form of Type Tests and Partial Type Tests of assemblies (TTA and PTTA).

The latest AS/NZS 61439 is an updated version of a few electrical standards, compiled into one new easy to understand and follow version. We have been following the changes closely as we do with all Standards requirements. Representatives from our team sit on some of these electrical Standards boards - that's how seriously we take it.

The AS/NZS 61439 aligns more to IEC 61439. The IEC Part 4 version has been in place since 2014. The latest AS/NZS 61439 contains many of the same elements as the previous AS/NZS 3439 including creepage and clearance, mechanical impact, short-circuit withstand requirements, temperature rise requirements, IP ratings, insulating requirements, to name a few.

**Don't be confused by other messages stating this is all new.**

**AS/NZS 61439 is mostly the same as what was already in place.**

**With over 25 years industry experience, why risk using anything else?**



### IN SHORT

Lifeguard products have always undergone rigorous testing based on the relevant Standards in place

Trust us, it's not complicated for LIFEGUARD® power products.

The new elements in AS/NZS 61439 have not required a redesign of our product.

### THE NEW ELEMENTS IN AS/NZS 61439 HAVE NOT REQUIRED A REDESIGN OF OUR LIFEGUARD® PRODUCT

One of the many advantages of buying our products is that they are built within the requirements. They are designed by us, made by us. They are tested and compliant. If special changes are required, the latest AS/NZS 61439 Standard provides a clearer way to do this for both us and our customers, ensuring safety and surety for all.

### WHAT DOES THE AS/NZS 61439 STANDARD DO?

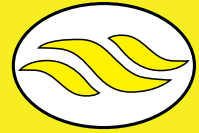
- Brings together the many rules and requirements applicable to low-voltage switchgear and controlgear assemblies, harmonised in one Standard.
- Achieves uniformity of requirements and verification for assemblies.
- Confirms the mandatory design requirements and is a clearer path for compliance.

AS/NZS 61439 moves to a Design Verification (DV) process of testing, assessment (including calculation), and comparison. The path of these options depends on what element is under test. This is all managed by Spinefex, so the customer receives a compliant product.

The updated Standard allows for flexibility. As applications and designs for our products change over time, AS/NZS 61439 allows a path for new technology. It allows a process for the end user, and us as the manufacturer, to reach an agreement on the requirements, changes, or component substitution on a switchboard. We take care of the compliance DV.

Phone | 1800 774 633  
Address | 1/42 Clinker Street, Darra 4076  
Website | [www.spinefex.com.au](http://www.spinefex.com.au)

**For all your Temporary or Permanent Power Needs**



**LIFEGUARD**  
power distribution system  
by **SPINEFEX**

# Product Standards Update:

Continued.

## OTHER CHANGES BETWEEN AS/NZS 3439 AND AS/NZS 61439

From a LIFEGUARD® Assembly for Construction Site board design perspective, not a lot has changed.

Both the previous and the latest Standard require all assemblies to demonstrate that they meet minimum safety and performance elements. UV performance check requirements and EMC review have been added in the latest standard.

Temperature rise requirements have always been included. Some internal temperature rise elements have increased (to do with Busbars in particular), however many of the other elements remain the same.

There is further clarification on arc fault mitigation, this element was in AS/NZS 3439, but now allows testing to IEC TR 61461 - it is also referenced on AS/NZS 3000 and particular to boards >800A.

No.	LIFEGUARD® Characteristics verified under AS/NZS61439.4	Clauses	LIFEGUARD® tested and compliant
1	Strength of material and parts: (10.2.x)		
	Strength to corrosion	10.2.2	✓
	Properties of insulating materials: (10.2.3.x)		
	Thermal stability	10.2.3.1	✓
	Resistance to abnormal heat and fire due to internal electrical effects	10.2.3.2	✓
	Resistance to ultra-violet (UV) Radiation	10.2.4	✓
	Lifting	10.2.5	✓
	Mechanical impact	10.2.6	✓
	Marking	10.2.7	✓
2	Degree of protection of enclosures	10.3	✓
3	Clearances	10.4	✓
4	Creepage distances	10.4	✓
5	Protection against electric shock and integrity of protection circuits: (10.5.x)		
	Effective continuity between the exposed conductive parts of the ACS and the protective circuit	10.5.2	✓
	Short-circuit withstand strength of the protective circuit	10.5.3	✓
6	Incorporation of switching devices and components	10.6	✓
7	Internal electrical circuits and connections	10.7	✓
8	Terminals for external conductors	10.8	✓
9	Dielectric properties: (10.9.x)		
	Power-frequency withstand voltage	10.9.2	✓
	Impulse withstand voltage	10.9.3	✓
10	Temperature-rise limits	10.10	✓
11	Short-circuit withstand strength	10.11	✓
12	Electromagnetic compatibility (EMC)	10.12	✓
13	Mechanical operation	10.13	✓

### HOW CAN WE HELP?

Need changes to an existing standard board design?

Let us know what they are.

We do the review and via the DV in AS/NZS 61439 either calculate, compare, or test the changes in relation to your requirements.

Phone | 1800 774 633  
Address | 1/42 Clinker Street, Darra 4076  
Website | [www.spinefex.com.au](http://www.spinefex.com.au)

For all your Temporary or Permanent Power Needs