

MAMO ENGINEERING

Application Report:
Safety



11 workers die each year in
Australia because of contact with
electricity!



Gemcell Electrical Gems Issue 163 June-July 2021, titled “*The ‘Not My Fault’ Issue*” reports an average of 11 workers die each year according to Safe Work Australia.

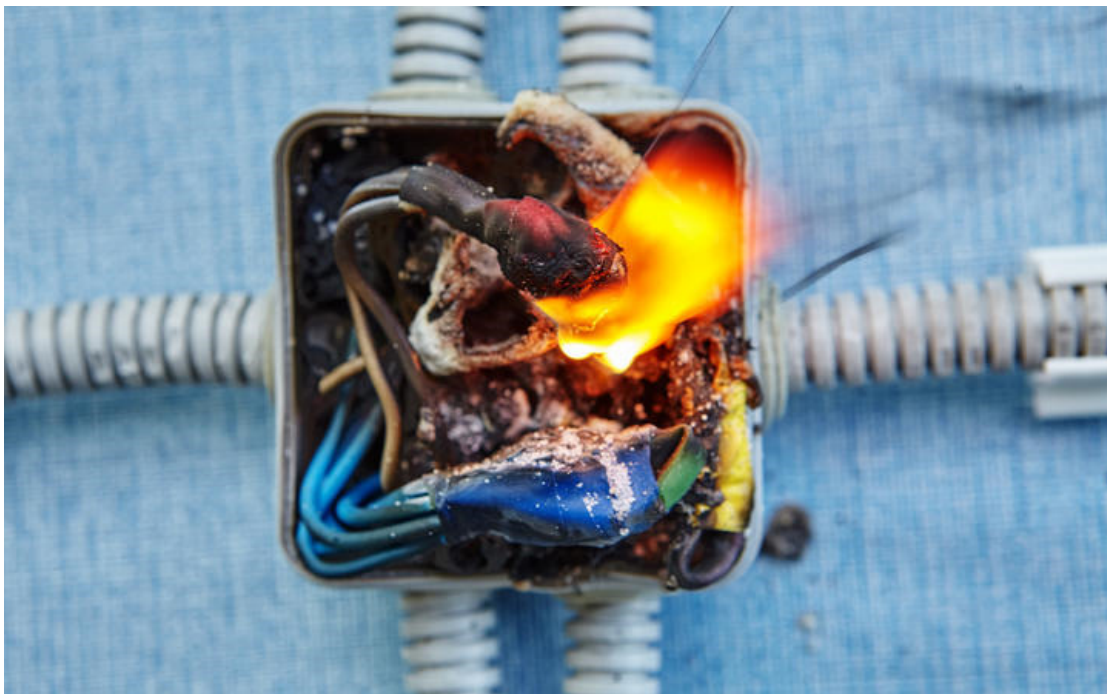
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Are your electrical connections safe?

Poorly terminated wire connections, electrically underrated terminals, or electrical junction boxes not sealed against moisture could be a ticking time bomb.

Are you willing to risk your life, or your castle based on saving a few bucks??



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We all know the dangers of electricity; it is a risky business.

If you have ever had a jolt from an electric shock, it is not exactly a tickle, it is a life changing moment. **You will remember it forever!**

Electric shock or burns after contact with exposed live parts, faults that can cause fires, or explosions in flammable or explosive environment are the main hazards contractors face on the job.

The risks are the greatest in harsh conditions like outdoors in wet surroundings. So, an electrical enclosure to keep out moisture away from electrically powered wires or connections is very important!

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Finding Potential Problems & Weak Points

Most weak points in any electrical circuit is how the wiring is connected. Once a wire is cut, it needs to be terminated. This is where it all starts.

If you have ever done any electrical wiring, you know that twisting electrical wires together into a single terminal doesn't always go very smoothly and can really hurt your fingers from the sharp strands of the wire if you're not careful.

Exposed twisted wires, or exposed conductors are potential threats for electrical shocks or fires. It is simply – not safe!

MAMO Engineering has looked into the specific details, working from inside out, to come up with a **safer** solution to ensure that these potential hazards are minimized by taking simple preventative measures.



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Connections with Confidence

MAMO Engineering has adopted its own “Connections with Confidence” principle. Which is based on the following 3x rules:

Rule No.1: One terminal per wire! No more twisting wires together!

No more screwing is required to hold the wires into our terminals. And certainly, no need for insulation tape.

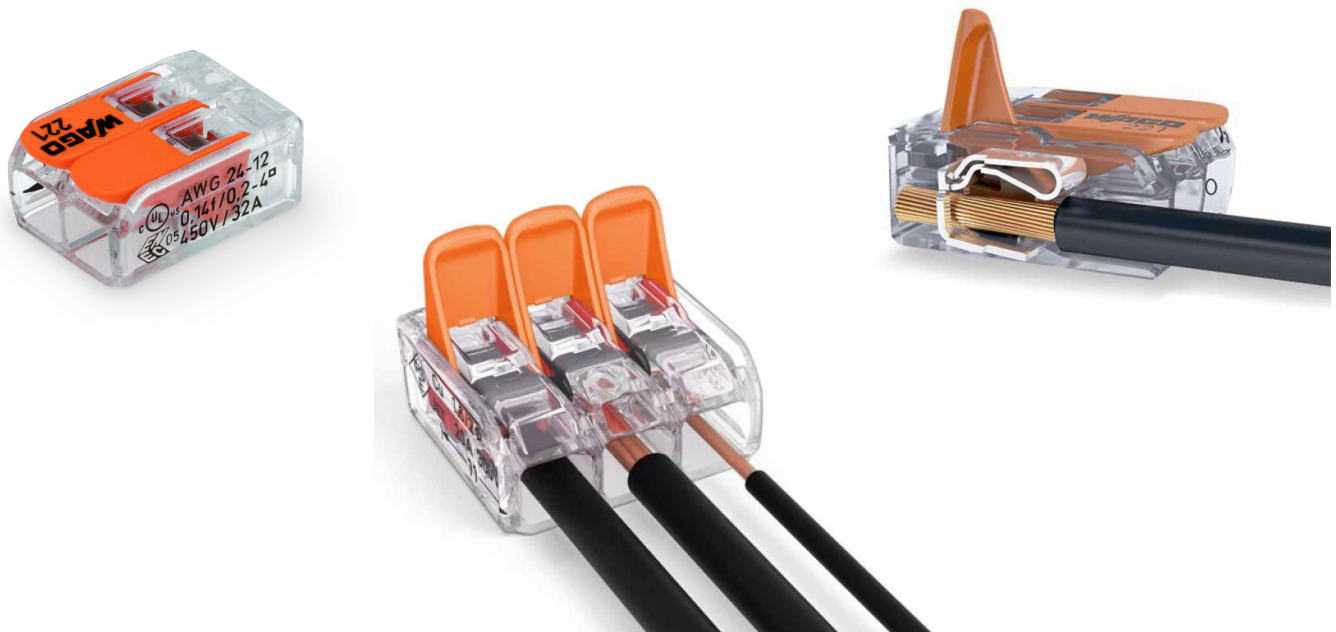
Rule No. 2: Simple, Secure, Faster & Flexible

We know time is of the essence, life is busy. Therefore, to save time, all of our terminals are easy to open with either simple push button or lever actuated technologies making it faster to connecting the wires into the terminals.

Terminals also come internally with “cage clamp” technology so you can ensure that the wire conductors are held firm & secure in place and are suitable for both solid and stranded wires keeping it **safe** and free from damage.

Rule No. 3: Ratings

Another reason for **safety**, is that all terminals need to be electrically rated with a maximum voltage, surge voltage, current & wire size. Every sparky knows that it is very important to know these electrical ratings, and the intended load it is connecting to, so you are not overloading the wires or terminal.



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MAMO Engineering have a range of non-metallic, flame retardant, glow wire tested, halogen free junction boxes with suitably rated terminals neatly mounted and ready to terminate with correctly sized wires.

All junction boxes and enclosures offered by MAMO Engineering have a minimum Ingress Protection rating of IP65 or greater & with UV stabilized material meaning that they are suitable for all outdoor applications in Australia.

As with the terminals, all junction boxes are also electrically rated to a specific voltage, current and maximum wire size, so therefore both the junction box and terminals as a combination must be suited with an “overall” specific rating.

A range of rated junction boxes with suitably rated terminals is available from MAMO Engineering suitable for the following power requirements:

1-phase (250Vac) – up to 32Amps (4mm² wires)

3-phase (415Vac) – up to 57Amps (10mm² wires)

3-phase (690Vac) – up to 76Amps (16mm² wires)

We have done all the hard work, so you can work with electricity safer!

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Refer to the below checklist to ensure electrical connections are **safer!**

Checklist:

Parameter	Notes	MAMO Checklist	Your Checklist
Electrical Enclosure	IP65 or greater	✓	
Enclosure Material	Non Metallic - Halogen Free	✓	
Weatherproof Enclosure	With UV stabilisers	✓	
Flame Retardant Enclosure	Glow Wire Tested (750°C)	✓	
No Exposed Metal Conductors	No screws or twisted wires	✓	
Wire Connections	One terminal per wire	✓	
Ratings (Voltage, Current, Wire)	Enclosure & Terminals	✓	

MAMO ENGINEERING ELECTRICAL ENCLOSURES

- ✓ IP65/66 Non-Metallic Enclosures
- ✓ Halogen Free & Fire Safe
- ✓ M20/M25 Threaded Knockouts
- ✓ No predrilling or locknuts required
- ✓ Weatherproof and UV Stabilized



BOXES THAT TICKS ALL THE BOXES



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