Air Circuit Breaker Retrofitting
Modernise your protection system with NHP retrofitting services
Is your ACB and low voltage switchgear ageing?  
Don’t leave it until it is too late!
Are you at risk?

Air Circuit Breakers (ACBs) are commonly used in low voltage (LV) switchboards and due to their typically passive operation, are often forgotten about until there is a trip or circuit breaker failure leading to a power supply disruption.

This is a real issue as many ACBs that were originally installed in the 1960s, 70s and 80s are still in use today, operating well beyond their intended service life. If poorly maintained, this can result in catastrophic failure placing personnel and assets at severe risk.

Why retrofit?

As previously described, the consequence of ACB failure can be financially costly and potentially dangerous to personnel. To help address this issue, NHP provide ‘retro-fit’ solutions which allow end users to modernise their ACBs with minimal downtime. Retrofitting of ACBs offers increased cost savings compared with the replacement of an entire switchboard as the key components of the system can be quickly replaced, leaving the existing copperwork and steelwork intact.

As well as improved safety and functionality, modern ACBs also clear short-circuits much faster than older models. This means that the incident arc energy is correspondingly lower, which in turn, reduces arc flash hazard. On top of this, retrofitting is typically 80% cheaper than switchboard replacement with minimum downtime.

Advantages of using retrofit kit solutions:

- Proven method of installation
- Reduced likelihood of an un-anticipated problem occurring
- Easier to determine costs and shut-down time
- No need to shut-down for prior measurements
- Work is carried out only from the front of the switchboard
- Reduced requirement of switchboard shut down during conversions
- Alterations to busbar work (which may affect the fault rating/clearances of the busbar system) are not needed
Top 5 Reasons to Retrofit

1. **Improve safety and functionality**
   Modern circuit breakers offer safer interlocks, remote switching and circuit monitoring.

2. **Optimise existing plant**
   Static components in a switchboard (the steelwork and busbar system) can be retained. Only the functional, moving parts (the circuit breakers) are replaced. Retrofitting is typically 80% cheaper than switchboard replacement with minimum downtime.

3. **Guaranteed spares availability**
   Terasaki guarantee spare parts availability for at least 10 years after the withdrawal from sale of a circuit breaker.

4. **Modernise the protection system**
   Old protection relays can be removed and replaced with modern microprocessor protection which is integral to the ACB. It is then easier to interface the ACB with automatic plc controls.

5. **Reduce arc flash hazard**
   Modern ACBs clear short-circuits much faster than older types. This means that the incident arc energy is correspondingly lower.
NHP ACB retrofit service

NHP’s ACB retrofit solutions are specifically designed to allow the existing switchboard to remain fundamentally unchanged, with only the obsolete ACB being replaced. Existing busbars and cables remain unaltered, therefore simplifying the installation process and reducing downtime.

The NHP retrofit solution has been designed according to relevant Australian standards and recognised industrial practices, ensuring the controlled removal of ACBs that are obsolete and potentially dangerous.

Any Brand, Any Model

With retrofit and upgrade options available for most brands and models of ACB, NHP can work within your existing switchboard environment to provide a cost effective solution.

SITE ASSESSMENT
RETROFIT DESIGN
RETROFIT IMPLEMENTATION
OPERATOR TRAINING AND SITE HANOVER
Terasaki ACBs – GE P15 Relay upgrade
- exclusive to NHP

Upgrading to the state of the art GE Protection relay is a fast and economical way to extend the life of mechanically sound Terasaki AH and AT series ACBs. Through upgrading and standardising your Terasaki ACBs you can achieve reduced maintenance and downtime costs. Once upgraded, the Terasaki ACB is compatible with existing building management systems, has the capability to integrate with energy management systems, is accessible for service and contains communication protocols.

The upgraded ACB is installed within the existing footprint. Enhanced features delivered by this upgrade include:

- On-board energy management
- Trip history/log
- Configurable I/O
- Optional Comms (Ethernet/RS485)
- Remote breaker isolation capability
- Easy fault finding

This solution is supported by a 12 month warrantee and 10 year parts availability guarantee.

Why NHP?

While our customers’ challenges may be complex, their ultimate goal is simple: run a profitable, safe and sustainable operation. At NHP we’re solely committed to servicing the needs of our customers. With close to 50 years of experience in the electrical and engineering industry. Our specialist teams work collaboratively to design and deliver solutions to maximise the success of your project.

We bring together internationally recognised power distribution and protection products with local knowledge and expertise to deliver best practice services from concept design through to installation and after-sales service, including project management.

A partnership with NHP will provide you with:

- Access to an extensive local stock holding
- A seamless combination of local technical support backed by around the clock service
- A specialist team of professionally qualified project management, design and engineering professionals
- A premium level of customer service and attention to detail no matter how big or small your project.

To find out how NHP can help you provide a more profitable, safer, sustainable operation call us on 1300 NHP NHP (1300 647 647).
Achieve significant cost savings and higher performance while increasing safety of personnel and assets!
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