

The Temperature Limiter – unique to SIBA.

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Fuses have been an integral part of our electricity system for many decades. Their designs have been developed over time to the point where generally speaking, design improvements are now incremental. Therefore, it is quite rare to see major innovations in established products, let alone new innovations that revolutionise the way products are applied.

In recent years, SIBA introduced such a new innovation in their range of high voltage fuses – the integrated Temperature Limiter. The Temperature Limiter is a built-in device which monitors the internal core temperature of the fuse. If the core temperature of the fuse rises above a designated value, the temperature limiter will activate the fuse's striker pin, thus tripping the switchgear and opening the circuit. Therefore, the fuse becomes not only a current limiting device but also a temperature limiting device.

For technical information about this feature, please refer to the document "SIBA Temperature Limiter – SIBA".

From an engineering perspective, this feature addresses what has traditionally been a very challenging problem: How do we deal with high core temperatures in fuses and associated switchgear?

Since the introduction of the Temperature Limiter, the European market has made the SIBA fuse its preferred choice.

Australia has quickly followed. Once introduced as an option, the electrical engineering standards departments of companies such as Energy Australia (NSW), Energex (QLD), Western Power (WA), ACTEW (ACT), ETSA (SA) and Integral Energy (NSW) have not only adopted the technology, but in many cases they are insisting that certain high voltage fuses must have the Temperature Limiter feature.

In response to the success of SIBA's temperature limiter feature, two manufacturers have attempted to create a temperature limiter system (*Busmann and ABB*) by resurrecting a very old obsolete method called 'M-effect'. This is essentially adding a small mass of low melting point alloy to each fuse element. This allows the fuse to run slightly cooler but is only attempting to mask a very poor I_{min} performance and does not give a fuse an ability to react to all types of inadmissible core temperatures. Busmann cannot actually incorporate a real temperature limiter in their design because they use a primitive pyrotechnic striker pin system, not a modern heavy duty spring striker system required for a real temperature limiter mechanism.

Therefore, SIBA fuses are the only fuses available that incorporate an integrated temperature limiter mechanism.

The Temperature Limiter function, coupled with the fact that all SIBA fuses are manufactured to the highest standards in Germany means that SIBA high voltage fuses represent excellent value and peace of mind.

It takes just one catastrophic switchgear event to realise that the choice of fuse brand is vital.

Please contact Fuseco for further information.

SIBA – Not just another fuse