



## Managing Director

Gary Smith - 082 359 0898  
gary.smith@semiconduct.co.za



## Sales Manager / Technical

Neels Krieg - 082 820 8653  
neels.krieg@semiconduct.co.za

## Contact Us

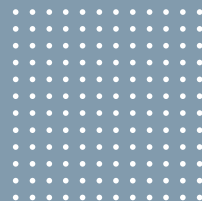
Route 21 Corporate Park,  
Cnr Regency & Sovereign Streets  
Irene, Centurion,  
Pretoria, 0157.



Tel: +27 12 345 6060  
[sales@semiconduct.co.za](mailto:sales@semiconduct.co.za)



**ISO 9001:2015 Certified**  
**BBEE: Level 2**  
**CIDB: Level 6**



## About Us !

Semiconductor Solutions (Pty) Ltd is based in Centurion, Pretoria where business is conducted from a modern manufacturing facility comprising of 600m2 office space and 1200m2 factory area. The company was established 48 years ago as Semikron SA and although it became independent from Semikron International in 2015, remains a distributor of Semikron Danfoss products in Sub Saharan Africa. In 2020 Microelettrica Scientifica Group South Africa acquired 100% Shareholding in the firm.

# Business Brochure

**"WHERE POWER MEETS PRECISION!"**



**MICROELETTRICA**

Semiconductor Solutions (Pty) Ltd



# Hexa-phase, 6 Pulse, Controlled Rectifier

## Application:

Electro Winning, Electro Plating, DC Power supplies, chlorine factories and general industry

Technology: Water cooled rectifiers for various applications.

- 6-40kA
- 0-760V DC
- Small compact design
- High current rating per mechanical volume
- Arms easily repaired and replaced



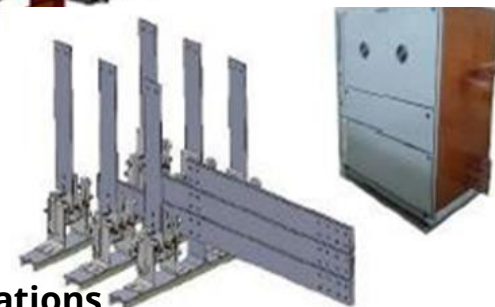
# Traction Rectifier in Metal Housing

## Application:

Rectifiers for Freight and passenger rail applications, DC power supplies, mining and all traction.

Technology: Naturally cooled rectifiers for various applications.

- 6MW
- 750 - 1500V DC
- Reliable and easily maintained
- Robust design can be built according to customer specifications.



6000A HSCB  
MOBILE  
CALIBRATOR

(Specs on  
request)



**MICROELETTRICA**

Semiconductor Solutions (Pty) Ltd

## Products & Quality

Quality and after-sales service and support guaranteed.

Operations focus on design, manufacture, supply and installation of power electronic assemblies and equipment.

The company has, through its years of experience and technical know-how, built up a comprehensive product portfolio for use, particularly in, DC substations in the railway industry.





# HSCB Track Breaker Trolley and Cell

## Application:

On-load overcurrent protection switch for rail industry, DC Substations

Technology: DC High Speed

**Circuit Breakers and Feeder Manager Relays for line fault detection and system protection**

- 3kA - 8kA
- up to 3300V DC
- Integrated, Robust system and removable design for ease of maintenance.

## Open Frame Traction Rectifiers

### Application:

Rail and mining industry

Technology: Fan-cooled rectifiers for various applications

- 1MW - 10MW
- Up to 3300V DC
- Five-minute diode replacement construction
- Fan cooled only after 50% current rating
- Fibre-optic interface between diode and diode monitoring cards
- RC snubbers for voltage sharing
- Transnet approved traction rectifiers supplier in South Africa
- Creepage and flashover distances according to TFR specs.
- Color coded for correct installation



**(INFRASTRUCTURE) Technology:** Fan-cooled rectifiers for various applications

- 1.5 - 2.5 MW
- 1500 - 2500V DC
- Integrated system and small, compact design
- Robust and removable design for easy maintenance



**MICROELETTRICA**

Semiconductor Solutions (Pty) Ltd



# Positive Isolator

**Applications:** Off-load isolating switch for rail industry, DC substations

**Technology:** Manual, interlocked isolator with DC under voltage monitoring

- Up to 3300V DC
- Reliable system requiring minimal maintenance

## REFURBISHMENT OF ON-BOARD RECTIFIER FOR HAUL TRUCKS

**Applications:** Alternator rectifier for haul trucks (Rolling Stock)

**Technology:** Fan-Cooled rectifiers for various applications – customer

- Fan 1.5MW 1600V DC
- Very compact design Isolated from environment.

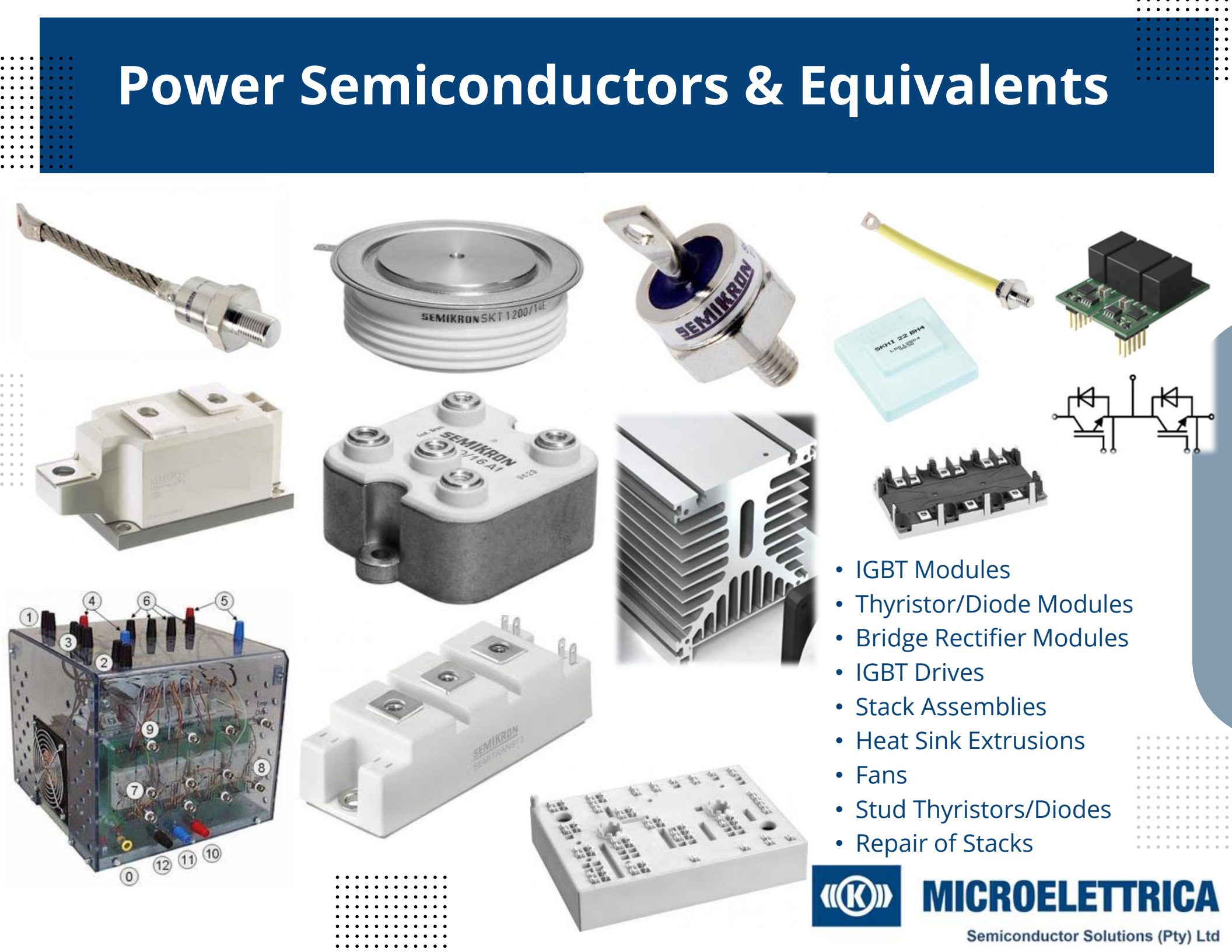
## TRACTION RECTIFIER FOR HAUL TRUCK - OVERHEAD LINES

- **Applications:** Open-pit mines



**MICROELETTRICA**

Semiconductor Solutions (Pty) Ltd



-



# SITE VISITS & TRAINING

## ON- & OFFSITE TRAINING

- Power Semiconductor Solutions
- Traction Equipment
- AC & DC Switchgear
- Batteries for Battery Charger



**MICROELETTRICA**

Semiconductor Solutions (Pty) Ltd