



# Saft MRX batteries provide vital backup power for Malaysia's new commuter trains



**CSR Zhuzhou ordered Saft onboard battery systems to support critical safety and control circuits on the new EMU trainsets now being rolled out for the Malaysia KTM**

## Supporting critical control and safety circuits

Saft has delivered a major contract for CSR Zhuzhou Electric Locomotive Co., Ltd. to supply the onboard battery systems that provide reliable, low-maintenance support for critical control and safety circuits on the new EMU (Electric Multiple Unit) trainsets now entering service on Malaysia's KTM Komuter commuter train routes.

to supply 38 six-car EMU trainsets for the Malaysia KTM. The vehicles, with a top speed of 140 km per hour, are replacing existing inter-urban vehicles on the busiest South-North intercity line in Kuala Lumpur.

The Saft battery systems, based on Saft MRX batteries, provide reliable, low-maintenance onboard backup power to support:

- emergency lighting,
- air conditioning,
- door operation,
- communication systems.

Saft delivered the battery systems to CSR Zhuzhou over a nine month schedule in 2011.

## Case study

In 2010, CSR Zhuzhou, China's leading rolling stock manufacturer, won the order



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## Local manufacture in China

The battery systems were manufactured at Saft's Zhuhai plant. This facility enables Saft to provide not only extensive local service support for its growing customer base in China, but also local battery system engineering and assembly.

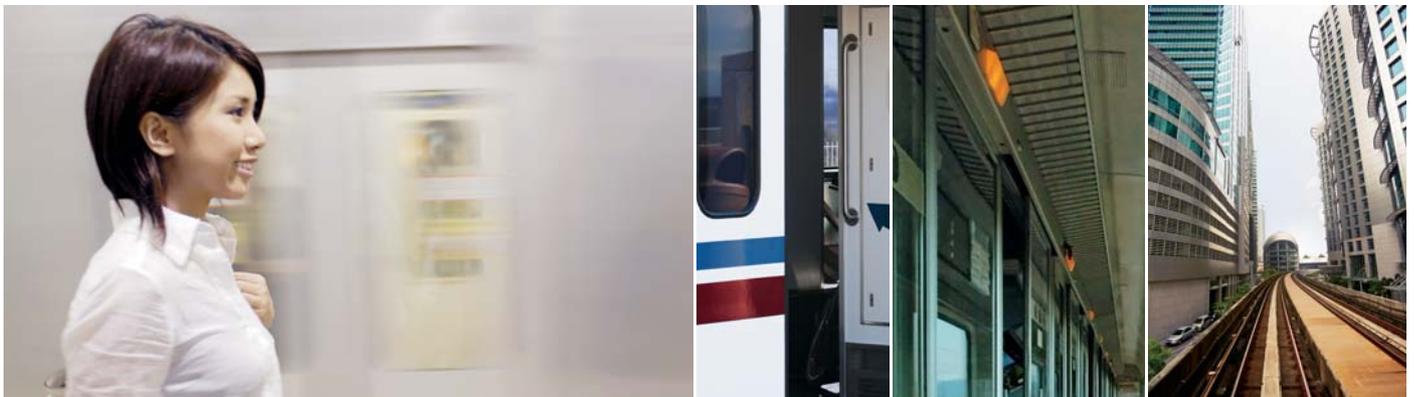
## Saft battery systems - key features

- 110 V battery systems based on Saft MRX batteries.
- Saft MRX batteries are purpose-designed to deliver maximum performance, reliability and low TCO (Total Cost of Ownership) in rapid transit applications.
- Each battery system was supplied as a complete unit, ready to install, in locally manufactured stainless steel raft made in China.
- Together with the specially designed battery box, the whole system provides the low maintenance and long service life benefits of Sintered/PBE technology within a compact package.



## Saft MRX specialized nickel-based rail batteries - key benefits

- 30% lighter and smaller than conventional Ni-Cd batteries, offering significant increases in passenger-carrying capacity, while enabling OEMs and operators to specify the optimum battery system for the installation
- robust Sintered/Plastic Bonded Electrode (S/PBE) construction
- very low lifecycle cost since Saft's superior nickel-based technology is field-proven to last more than 15 years with no risk of sudden-death failure
- integrated water filling system; two-year topping up interval
- strong, flame-retardant plastic container, highly resistant to shock and vibrations
- wide operating temperature range of - 20°C to + 50°C; resistant to extreme temperatures from - 50°C to + 70°C.



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Document N°21838-2-0912  
Edition: September 2012

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Attitudes design&communication - C246/2

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