



## Single car electric powered

### Increased passenger capacity and enhanced environmental control

The vehicles are electrically powered, single cars that operate via an overhead 750 volt DC system.

#### OVERVIEW

UGL supplied 22 LRVs to MTR Corporation as part of its phase four expansion project. Previously, UGL supplied 20 vehicles to MTR Corporation in phase three of the project. The new fleet of vehicles featured a revised crew cab and new interior design and layout, a new CCTV system for enhanced passenger safety, a new passenger information system, and an upgraded air conditioning system with a higher flow rate.

Each vehicle is self-contained with a driving cab at one end. The operating system requires that the vehicles travel in one direction only, with passengers boarding and leaving through three double sliding doors on one side of the vehicle. The doors are bi-parting, externally hung and are installed so that the wide doorway is completely unobstructed by the door leaves when open.

The vehicle structure is stainless steel with extensive use of glass reinforced fibre to form the front and rear canopies and driver's cab. The stainless steel structure is designed and manufactured utilising roll formed and pressed thin wall sections. The minimum section bodyside corrugations maintain the modern pleasing appearance of the vehicle. The design is verified by extensive use of Finite Element Analysis.

Air conditioning within the vehicle is by means of a twin system, sharing a common ducting that ensures an even air flow, and maintains air conditioning to the driver's cab and saloon.

Designed to meet the stringent weight target, the vehicle incorporates advanced composite materials in the driver's cab desk, canopy, air conditioning duct work and other features.

**MODEL:** Light Rail Vehicle (LRV)

**CLIENT:** MTR Corporation (Hong Kong)

**TECHNOLOGY PARTNER:** Mitsubishi Electric



LIGHT RAIL VEHICLE



FEATURES

- Extensive front collision structure to providing improved driver safety
- Three phase AC traction equipment
- Reduced vehicle weight
- Increased passenger capacity
- Enhanced environmental control
- Improved passenger comfort

SPECIFICATIONS

Maximum Operating Speed	80 km/ h
Power Supply	750V DC
Propulsion System	IGBT Converter, AC Traction
Traction Equipment	Mitsubishi Electric
Traction Motors	4 x 120 Kw
Bogie	Siemens
Bogie Wheel Base	1,900 mm
Distance between bogie centres	11,000 mm
Brakes	Faiveley
Number of doors	3 / side, one side only
Length	20,200 mm
Height	3,415 mm - 3,900 mm
Width	2,650 mm - 2,652 mm
Floor Height	960 mm ARL
Train Composition	Single car, up to 4 in a consist
Tare Mass	27.95 Tonnes
Passenger Capacity	242 Passengers 37 Seats



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