



# CASE HISTORY

## Technical data

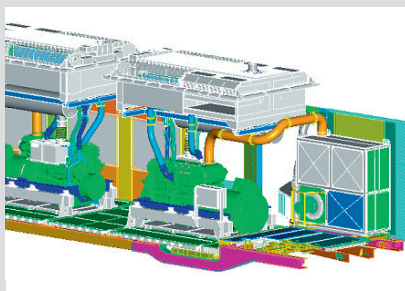
- Two gensets for each control car
- Continuous power 350 kVA
- Max. performance for train supply, both generators working: 520 kVA
- Operating voltage  
3 AC 400/230V 50Hz
- Corresponding standards (EN, DIN, UIC datasheets) are adhered to

## Requirements regarding noise are fulfilled:

- 75 dB(A) in 7,5m distance of track centreline at an ambient temperature of up to 35°C
- With coach at standstill and gensets running on full power

## Fire safety:

- Fire safety standards for passenger coaches according to stage 2 DIN 5510-2 and UIC 564-2 are fulfilled



## Molinari Rail AG

Merkurstrasse 25  
8400 Winterthur · Switzerland  
Phone +41 52 320 60 60  
Fax +41 52 320 60 61  
info@molinari-rail.com

## Generator Sets – Siemens Transportation

### Electric power supply for control cars

In March 2006 a client ordered 87 passenger cars from Siemens including separate electric power supply in the control cars. Molinari was asked to provide the concept for and to deliver the electric power supply by generator sets (for ten control cars).

Molinari formed a cooperation with the most important sub-suppliers for this project: Zeppelin for Caterpillar engines and Hitzinger for the generators. Molinari had the over all system responsibility and was lead manager for the complete delivery of the gensets.

Molinari was responsible for:

- Complete engineering of the genset cabinet
- Supply of roof cooling unit
- Complete exhaust system
- Cooling water pipes and charge air pipes
- Engine room ventilation
- Cyclone air filter with dust discharge
- Air supply for gensets
- Ventilation for electric control cabinet for entire system
- Logistics incl. supply of all components

A special challenge in designing and completing this order was posed by ensuring passenger comfort that must not be disturbed by the

gensets. Molinari was able to fulfill all contractual requirements and to provide high passenger and customer satisfaction.

The railcar bodies of the control cars, which contain the gensets, were built at Siemens Transportation Systems in Slovenia and at Siemens SKV in Prague, where the gensets were also installed and put into operation. Delivery of the gensets started in 2008 and was completed at the beginning of 2009 with options being delivered in 2011.

Our partner companies:



By courtesy of Siemens AG Austria