

Facts and Figures

German branch of Mitsubishi Electric, Ratingen

The Building

- New Mitsubishi Electric German branch on a 9,000 sq. metre plot in Ratingen
- Construction began in March 2014.
Relocation in November 2015
- 16,000 sq. metres of office space for up to 750 employees over five and a half floors
- Offices and meeting rooms, as well as training and technology centres
Underground parking for 500 cars
- Highly insulated building shell and thermally glazed windows meeting statutory requirements of the German Renewable Energy-saving Regulation (EnEV).



German branch of Mitsubishi Electric

The Technology

- Air-to-Air and Air-to-Water Heat Pumps supplying the building with 2 MW of heating and 2 MW of cooling. Up to three-quarters of the energy is generated from ambient air
- City Multi Air-to-Air Heat Pumps with VRF-R2 technology simultaneously heat and cool the office space. Integrated heat recovery delivers up to 40% energy-savings.
- The training wing is air conditioned by a Hybrid (HVRF) R2 system. In this area refrigerant and water are both used as for energy transport .
- Mr. Slim Air-to-Air Heat Pumps supply centralised ventilation units for heating or cooling. Patented Zubadan technology ensures full heating capacity at temperatures as low as -15°C.
- Ecodan Air-to-Water Heat Pumps produce heat for the underfloor heating system in the foyer. Inverter technology allows the output to be precisely adjusted to meet demand.



Meeting room

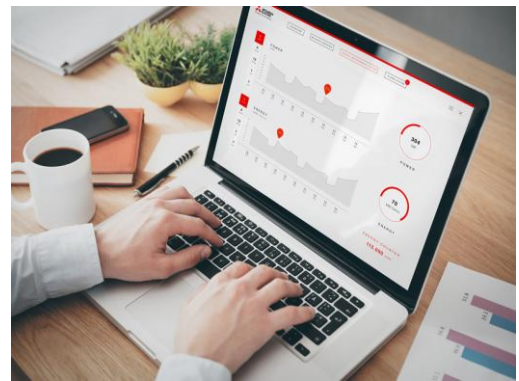


Mr. Slim (left) and Ecodan heat pumps on the roof

- 50 Jet Towel hand dryers used in the washrooms
- Just under 20km of bus cables, 6,800 metres of remote control cables and 21km of refrigerant pipes with diameters from 6 to 28 mm were laid
- 40 MELSEC L-series controllers installed
- MAPS integration tool: MAPS life-cycle software tool (Mitsubishi Adroit Process Suite)
- Over 4,000 circuit breakers and residual current devices
- High-voltage AC power switches and contactors
- Digital Mitsubishi Electric video surveillance system
- Passenger lifts
- Flat screen monitors
- Video wall



Jet Towel hand dryers



MAPS

Certification

- Leadership in Energy and Environmental Design (LEED) certification is an internationally recognised certification for resource-efficient, sustainable and environmentally-friendly building management
- The evaluation criteria include sustainable site development, energy and air quality, materials and resources, indoor climate, design and innovation and regional priorities.
- Categories: Certified / Silver / Gold and Platinum



Switching contactors