

CASE STUDY



Telecom Data Center, Italy 4 MW@400 V

SUMMARY

Location: Rozzano (Italy)

Power required: 4 MW with power factor 0,8 (5000 kVA)

Power installed: 2 x 2000 kW = 4000 kW (5000 kVA)

Genset model: BA2500SWD

Version: open set on skid base

Genset noise level: 60 dB(A)@7 meters

Dimensions: 4800 x 1550 x 2770 mm (L x W x H)

Warranty: 60 months from delivery

Configuration: diesel gensets to be Tier IV certified, delivered in open set version, installed on skid base with anti-vibration mountings, equipped with double electric starting system, service fuel tank with 1000 liters capacity, double fuel supply pump, soundproofing sections for air inlet and air outlet to guarantee a maximum noise level of 60 db(A)@7 meters at full load condition, room ventilation system and insulated exhaust line.



PURPOSE

The Customer has requested the supply and installation, within a suitable technical room, of n. 2 diesel generators for his Data Center facility, equipped with a properly engineered configuration able to guarantee:

Power redundancy (A+B) for 2 MW + 2MW

Residual noise level of 60 db(A)@7 meters at full load condition

Double electric starting system and fuel supply lines

Remote cooling system including HT and LT circuits

TIER IV certification by the Uptime Institute



SOLUTION

Following a specific study and analysis conducted with the Customer, Ausonia designed and supplied two generators, installed in redundant configuration (A + B) and with each DG feeding a specific power distribution panel.

Each unit has satisfied the requirements specified by the Uptime Institute and, after a severe functional test in the field at full load condition, has contributed to the achievement of the TIER IV certification for the Data Center facility.

The skid-based generators, sized for 2 MW each in DCP power, have been installed in a dedicated technical room, on whose roof the remote cooling unit has been located, with Ausonia supplying and installing the circulators and connection pipes of the HT and LT circuits.

The fuel feeding supply has been guaranteed by a 1000 liters service fuel tank for above ground installation, duly equipped with its leakage collection pan, a redundant fuel pumping system and a control panel with PLC logic

management for simultaneous fuel supply from both the existing storage fuel tanks.

The power control panels and the withdrawable 4000 A air circuit breakers, installed in separated cabinets for floor mounting, have been pre-arranged to house the busway head of the power line to the facility loads.

With the aim to achieve significant low noise emissions levels, a residential exhaust gas silencer with very high noise abatement and soundproofing partitions with relative support structures at the air inlets and outlets have been installed, achieving the post-test certification of 60 dB(A) at 7 meters under full load condition.

Moreover, the room ventilation system has been designed to ensure a maximum temperature variation of 10°C between the fresh air inlet and the hot air outlet, assuming the hypothetical condition of both gensets running at full load and at maximum site temperature of 37,6°C.



For further information on our standard and optional features, please contact our sales office at: sales.dept@ausonia.com

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