WOLF NULLO

Wolf Nullo office building located in Warsaw at 2 Francesco Nullo street has exclusive technology solutions. Please find a detailed description below.

Air-conditioning

The whole building is air-conditioned based on the most recent induction system. It enables independent temperature regulation in particular rooms and allows for any arrangement of the usable area, as the Tenant pleases. The work of the air-conditioning system is designed based on extreme parameters of the outside air, which may be 32°C in summer with the relative humidity of 45%, and -20°C in winter, with relative humidity at the level of 100%. The air-conditioning system designed with the above assumed parameters lets the Tenants keep the temperature from 22°C to 26°C throughout the year, with the option of individual regulation by the User in the given range of temperatures. The building is also equipped with air drying and damping system, which keeps air humidity at set parameters and provides very comfortable working conditions for Users. Controllers with digital display screens in rooms let the User read temperature and humidity parameters inside, as well as outside the building. They also allow to change temperature settings and to set the air-conditioning working time in particular hours. All controllers are connected to the central building management system (BMS).

The building is supplied with heat from the municipal thermal network by a triple thermal grid equipped with heat exchangers. The thermal water generated in the thermal grid is led to air-conditioning stations, individual air conditioners and floor convectors.

The ventilation system equips the building with fresh air by intake-exhaust stations with smooth regulation setpoints to control the amount of intake air. Induction points mounted in the ceiling ensure even inflow of fresh air by diffusers placed over the windows. For design purposes the amount of fresh air in office floors is assumed at the level of minimum 35 m^3 per one person per hour, with the assumed air exchange at least eight times per hour.

The above mentioned systems have been manufactured in accordance with the presented description, based on equipment and technologies of Carrier, WOLF, LTG, Kampmann, Honeywell.

Teletechnology

The building is equipped with the Internet, telephone connections and cable TV of several independent suppliers. It has a telephone switchboard installation, which serves both digital and analogical connections.

Vertical shafts and elevated floors allow for a fast and comfortable connection of all joints to working places. The system of elevated floors also enables the User to choose any interior design and location of the working place. Every working place may be connected to 4 teletechnological devices.

The above mentioned systems have been made in accordance with the presented description based on equipment and technologies of Siemens.

Lifts

Vertical communication in the building is ensured by two fast lifts. Lifts grouped in one complex. Both lifts ensure also communication between the garage floors, the office reception floor and the office floors.

The lifts in the building are provided and serviced by ThyssenKrupp Elevator.

Safety

The building is equipped with the electronic safety management system (SMS) and automatic building management system (BMS).

The following installations are operated with the electronic safety management system (SMS):

- access control,
- robbery and burglary signalization,
- closed-circuit TV,
- fire safety,
- detecting dangerous gas concentration,
- intercom,
- alarm communication.

Automatic management system (BSM) serves the following devices and installations:

- air conditioning, ventilation and heating,
- access control,
- robbery and burglary signalization,
- closed-circuit TV,
- fire safety,
- detecting dangerous gas concentration,
- monitoring,
- settlement of the use of electricity by tenants,
- lightening steering,
- lifts.

The above mentioned systems have been made in accordance with the presented description based on equipment and technologies of Honeywell.

Power supply

The building is connected to two independent municipal voltage networks. The design solutions allow for the option of taking over the work of one connecting system, in case of its breakdown, by the other one to ensure an uninterrupted flow of electrical power in the building. In the event of a complete power cutoff from the municipal network there is a back-up supply an electrical power generator, to guarantee power supply for IT

technologies and other devices, which require uninterrupted work. The power generator will start up automatically. For additional safety of a smooth change into the emergency power supply system from the power generator, there is a guaranteed power supply - USP, which will allow to maintain power until the power generator is fully effective.

A system of vertical shafts and elevated floors allows for a fast and comfortable connection to all electrical joints to any working place. Every working place is equipped with 3 sockets to connect computer systems and 1 socket to connect other devices.

In office buildings there is an illuminance of 500 lx with the use of frames, suitable for work with computer monitors. For the area of offices the envisaged power supply is circa 65 W/m^2. The amount of electrical power consumed by Users is calculated by the central counter, which reads particular measurements with the use of a digital system with technical and administrative functions enabling, among others, automatic issue of invoices for used electricity.

The above mentioned systems have been manufactured in accordance with the presented description, based on equipment and technologies of Electraplan ES System, APC Silcon, F.G.Wilson/Perkins, Moeller.

Water supply

The building is equipped with water from the municipal water supply system. Water undergoes a treatment process. This process consists in mechanical filtration with a sand filter and active coal filter, softening, disinfection with UV rays, reversed osmosis and adding mineralizers. Hot water is generated centrally in the building, in the thermal grid.

Wastewater is disposed to the municipal sewage system. Sewage from the ground floor and higher floors is disposed gravitationally and sewage from underground floors is disposed with a pump aggregate. Sewage from the parking area and is initially purified before disposing to the municipal sewage network.

The above mentioned systems have been made in accordance with the presented description based on equipment and technologies of BWT, Grundfos.