

Orlí Street Theatre stage lighting

The concept of stage lighting is designed to suit the operation of a multipurpose room with productions of professional and amateur nature, musical performances and experimental programmes.

Individual components are designed to meet the demanding requirements of contemporary arts, especially musicals, opera and experimental productions. In the context of Czech theatre, this is a technologically high-tech equipped workplace.

Power supply:

Electric system is designed for 3NPE 400/230V, 50Hz-TNC-S voltage network, sockets comply with CEE 7/16 "Europlug" EN50075. This is the type E socket, i.e. sockets with a centre pin.

Control voltage 24V DC SELV, control system DMX512, ArtNet, MA2Net

Energy balance - installed capacities

Stage lighting (regulated and unregulated) - 288 kW with max. dimming, permanent 30kW

Work lighting combined with the main, 10 kW

Contemporaneity 0.6

Main RJ protection is designed with 250A/per phase

LIGHTING

Stage lighting stage is designed as a flexible and high quality lighting for individual types of productions and educational programmes (theatre performances, concerts of classical and popular music, performances by musical groups, various meetings and other social events). General lighting layout is expected from the following locations: frontal lighting from the auditorium is located on the front edge of walkways, gratings and bridges. Lights are placed so that shadows of the cast and other illuminated objects do not hit the set at the back. Location of the lights up in the auditorium axis reduces glare for actors. Side lighting from the auditorium is placed on the side walls of the room. These lights complement the frontal lighting from the auditorium.

Side stage lighting is mainly used to produce surround lighting and natural shadows on the actors' faces. Lamps for this lighting are installed on lighting poles on the stage. The top lighting of the stage is realized with lights mounted on a battery. The documentation displays paramount effort to design a universal deployment of stage lights around the stage so that the lights and their placement and types allow the best conditions for the work of designers and actors.

Switching circuits are controlled in the cabin lighting from the associated D2 board. Regulated and switching stage lighting 230V circuits are terminated with CEE 7/16 "Europlug" EN50075, it is therefore a type E socket with a centre pin.

Controlled (dimmed) circuits are designed as follows: 96 fixed, 48 mobile, 24 switched circuits. All lighting positions are connected with a cable for DMX signal distribution via FTP circuits designated as ARTNET. To connect DMX512 devices, FTP patch cords with RJ45-XLR 5pin/3pin are used.

Alternatively, one can use FTP distribution circuits for other protocols such as MA2net, MA1net, etc. There are free converters DMX / ArtNet and MAlighting 2PortNODE available. Alternatively it is possible to use the wireless WDMX system to transmit the control signal.

For protection and control of stage lighting circuits individual switchboards are used as follows:

RJ – main technological switchboard is equipped with protective elements for the supply to individual parts of stage technology.

RSO1 – stage lighting switchboard is equipped with dimmers to control individual circuits. 96 circuits of digital dimmer units 3000VA – dimMA compact MA lighting

Control panels GrandMA2 light + fader wing, MA onPC command wing, Chamsys MagicQ PC Wing, ETC Smartfade 12/48

Panel D2 is placed in a live post and consists of a panel with built-in features that allow you to control the switched outlets, work lighting, main lighting and any other functions as required.

Stage lighting

Stage lights are configured in several types. They are essentially classical theatre PC lights with a smooth planconvex lens of 1000W and 500W. Furthermore, the system is complemented by profile shaping lights of 600W and 1000W. Spot lighting uses simple 1000W spotlights without optics, the divergence angle is given by the right choice of the lighting source used. There are also 1200W halogen tracking floodlights. For the purposes of creating effect, the lighting stock is complemented by intelligent effect lighting with LED and gas-discharge sources. For experimental purposes and music productions the system is equipped with RGBW LED lighting, linear and surface lights and spotlights.

HOUSE LIGHTING (AUDITORIUM LIGHTING) – SWITCHBOARD

Auditorium lighting is designed as a regulated system and is divided into separate dimming circuits. Power, protection and dimming of the auditorium is controlled from the main RJ lighting switchboard located in the substation. Main lighting is controlled from the stage lighting consoles. The working and auxiliary auditorium lighting is controlled from a MSH 1 cabinet which is located by the entrance to the auditorium. The cabinet is covered by an interior door, so that the public does not have access to it.

Video projection

Stage lighting includes a Mediaserver Coolux video projection system, connected with the lighting panel and projectors. The whole video projection technology system can also be controlled separately from a video technician's workplace in the technology booth or any connected location in the room. Experimental projects can use Resolume Arena and Resolume Avenue licensed software.

Orientation list of lighting devices: designations G and S signify different types (different suppliers)

Conventional lights

G	PAR 64 500W	pcs	4
S	PAR 64 500W	pcs	8
G	PC 500W Light + barn doors + light bulbs + frame	pcs	8
S	PC 500W Light	pcs	10
G	Fresnel 500W Light + barn doors + light bulbs + frame	pcs	4
S	Source Four Profile light Junior zoom 25-50	pcs	4
G	Source Four Profile light Junior zoom 25-50 light bulb + frame	pcs	6
G	Pacific Profile lamp + light bulb + iris 12-28° + frame	pcs	8
G	Pacific Profile lamp + light bulb + iris 90° + frame	pcs	2
G	Surface light 500W symmetric + light bulbs + frame	pcs	2
G	AHR 1000 light + barn door + light bulb + frame	pcs	4
S	PC 1000 light + barn door + light bulb	pcs	32
S	ARRI 650 plus light + barn door + light bulb	pcs	4
S	Profile lamp + light bulb Source Four ZOOM 25° - 50°	pcs	20
S	Robert Juliat Profile lamp + light bulb + iris 12-28°	pcs	10
S	Robert Juliat Profile lamp + light bulb + iris 90°	pcs	4
S	Robert Juliat Cricket + spotlight bearing turntable	pcs	2
S	PAR 64 professional lamp + barn doors + light bulb	pcs	24