

TYPE 94 455 A÷H to 94 460 A÷H

The source meets the following regulations:

ICAO Aerodrome Design Manual, Part 5, Electrical Systems, 1^s edition 1983 (Operation conditions)

FAA Specification AC 150/5345-10E (Resistance against environmental effects)



Basic Information

The **ZKPT.7** constant current source controls luminosity of signal devices in **five** levels: 1%, 3%, 10%, 30% and 100% of the rated value in variants A, C, E, and G, or in **seven** levels: 0.3%, 1%, 3%, 10%, 30%, 80% and 100% of the rated value in variants B, D, F, and H.

The **principle of control** consists in phase regulation of thyristors. The source is equipped with protection against excess voltage and current. A dry transformer provides the source's output circuit with galvanic separation, and an insulation condition watcher controls its electric safety.

The source control is either **remote** or **local**. Variants C, D, G, and H are equipped with the burnt-off bulb watcher, which monitors the added serial loop and signals remotely two levels of the loop's signal devices that are not operational. The source is also furnished with a sum-clock that measures the source's total operational time.

For the **seven-level** control, the source is additionally equipped with the lowest tempering level when the current, which is closely under the value needed for glowing filaments in the signal devices bulbs, runs through the loop.

The **sheet metal box** of the source with lifting lugs has double doors in its front side. The outside door has a transparent cover in its top section under which the source control and signal elements are located on the control panel's right. The regulation module with plug-in units is on the left. The power system is behind the inner door. The source is resistant to the inner environment effects it is exposed to during operation. The box is protected with powder finish.

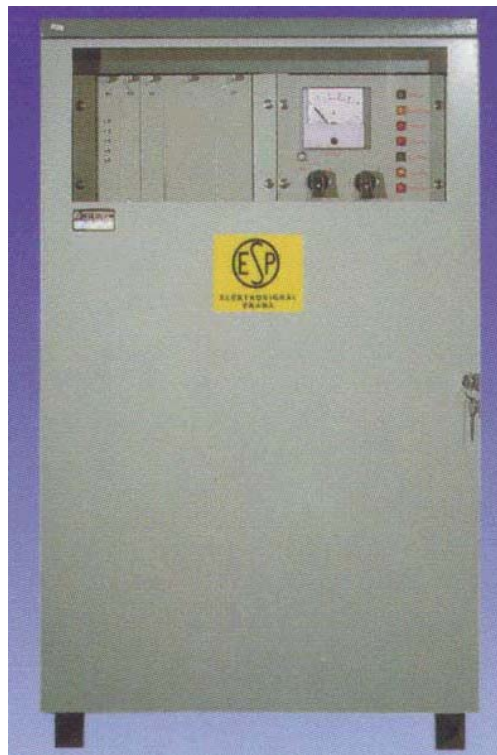
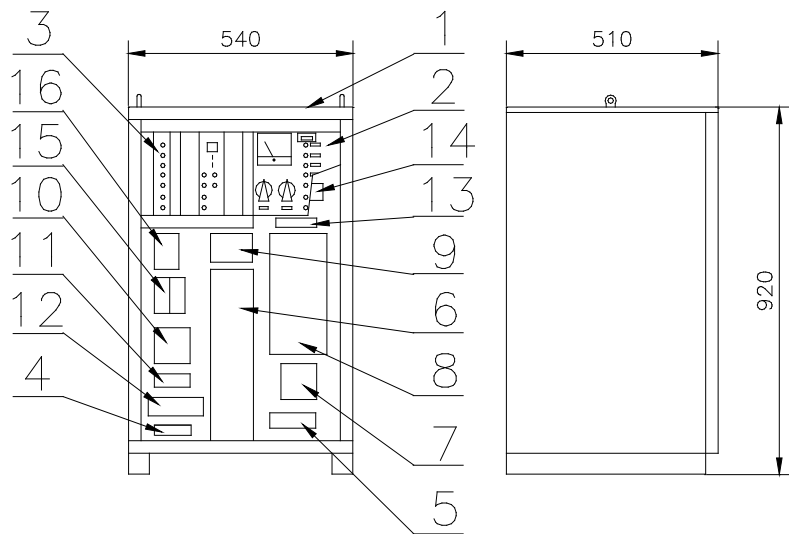
Installation

The constant current source is installed on the floor in the transformer station. The box of arresters that is hung on the wall in the transformer station is also part of the source.

The source does not require compensation capacitors for improving the power factor.

Installation

- 1 – Box
- 2 – Control panel
- 3 – Control module
- 4 – Output terminal plate
- 5 – Input terminal plate
- 6 – Insulation transformer
- 7 – Contactor
- 8 – Filter
- 9 – Supply transformer
- 10 – 230 V socket
- 11 – Current sensor
- 12 – Resistor
- 13 – Thyristor fuse
- 14 – Thyristors
- 15 – Relay
- 16 – Fuses



ZKPT.7 – Front View

Use

The ZKPT.7 constant current source is designed for supplying the serial distribution of the airport signal devices. It is available in six power ranges and variants shown in the **following tables**:

Type	94455	94456	94457	94458	94459	94460
Output	3kVA	6kVA	8 kVA	16kVA	24 kVA	32kVA

Variant	A	B	C	D	E	F	G	H
Output Current	8.3 A				6.6 A			
No. of Levels	5	7	5	7	5	7	5	7
Bulb Watcher	No		Yes		No		Yes	

Basic Technical Data

Mechanical parameters:

Dimensions (WxLxH):

- Type 94 455 ÷ 94 458 540x 880x510 mm
- Type 94 455 ÷ 94 458 700x1,130x700 mm

Mass:

- Type 94 455 106 kg
- Type 94 456 125 kg
- Type 94 457 132 kg
- Type 94 458 163 kg
- Type 94 459 335 kg
- Type 94 460 365 kg

Electrical parameters:

Supply:

3 x 230 V, 50 Hz

Mains

Input:

- Type 94 455 3.9 kVA
- Type 94 456 8.0 kVA
- Type 94 457 10.6 kVA
- Type 94 458 21.3 kVA
- Type 94 459 32.0 kVA
- Type 94 460 42.6 kVA

Insulation resistance:

Input min. 2 MΩ
Output min. 20 MΩ

Protection level:

IP21

Other parameters:

Operation temperature:

-10°C up to +55°C

Contact

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