

# SYSKON P500, P800, P1500, P3000, P4500 **Programmable Laboratory Power Supplies**

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### Attention !

This supplement and the operating instructions include all safety precautions necessary for operator protection, for the protection of the electronic power supply and the connected devices.

Please make sure to read the detailed operating instructions in pdf format at www.gossenmetrawatt.com. This supplement to operating instructions is no substitute for the detailed instructions!

The following general safety precautions must always be adhered to during operation, maintenance and repair of the device. Noncompliance with these safety precautions, or with other explicit warnings included in this supplement and in these operating instructions, is deemed a violation of design-specific safety standards and use for intended purpose. The manufacturer assumes no liability in the event of noncompliance with these safety precautions.

# Initial Inspection

When unpacking the instrument, make sure that the KONSTANTER and all included accessories are fully intact and have not been damaged during transport.

#### Unpacking

- Other than the usual care exercised in handling electronic equipment, no additional precautions are required when unpacking the instrument.
- The KONSTANTER is delivered in recyclable packaging, which provides for adequate protection during transport as substantiated by testing. If the instrument is repacked at a later point in time, the same packaging or its equivalent must be used.

#### Visual inspection

- Compare the order number or type designation included on the packaging and/or the serial plate with the particulars shown in the shipping documents.
- Inspect the packaging, as well as mechanical instrument and accessory components for possible transport damage.

#### Complaints

If damage is discovered, immediately file a claim with the freight forwarder (save the packaging!). If other defects are detected or in the event that service is required, inform your local representative, or contact us directly at the address included on the last page of this handbook.

## Use for Intended Purpose

Use of the KONSTANTER for its intended purpose is only fulfilled if the instrument is used in accordance with the stipulations set forth in the respective operating instructions, and is operated within the specified power limits. The Konstanter may only be used by persons with appropriate technical knowledge, or who have received appropriate instruction.

In order to prevent danger during use, shock-proof connector cables must be used when connecting power consumers. The KONSTANTER's output values (U, I) must be adjusted such that no danger of overloading or destruction exists for the connected power consumer.

Only then can the safety of the user, the instrument and the device under test or the power consumer be assured.

## Warnings and Safety Precautions

The KONSTANTER has been manufactured and tested in accordance with the electrical safety regulations listed under Technical Data as a safety class I device, and has been shipped from the factory in flawless technical safety condition. In order to maintain this condition and to assure safe operation, users must observe all notes and warnings included in these operating instructions.



# Attention !

Meaning: A note concerning operation, practical advice or other information which must be adhered to in order to prevent damage to the KONSTANTER, and to assure correct operation.

# Warning !

Meaning: An operating procedure, practical advice or other information which must be adhered to in order to assure safe operation of the KONSTANTER, and to prevent personal injury.

The most important warnings are summarized below.



## **Opening of Equipment / Repair**

The equipment may be opened only by authorized service personnel to ensure the safe and correct operation of the equipment and to keep the warranty valid. Even original spare parts may be installed only by authorized service personnel.

In case the equipment was opened by unauthorized personnel, no warranty regarding personal safety, measurement accuracy, conformity with applicable safety measures or any consequential damage is granted by the manufacturer.



#### **Opening the Housing Covers**

Remove the mains plug from the outlet before opening the housing. When the housing covers are opened, voltage conducting parts may be exposed. Any contact with these exposed conductive parts is life endangering. For this reason, the instrument may only be opened by trained personnel who are familiar with the dangers involved.



# Warning !

#### **Repair by Trained Personnel**

Maintenance and repair work, as well as internal balancing, may only be performed by trained personnel who are familiar with the respective functions, and the dangers involved.

After the instrument has been disconnected from the mains, wait approximately 5 minutes in order to allow the capacitors to discharge themselves to safe voltage levels.



#### **Replacing Fuses**

Only specified fuse types with the specified nominal current rating may be used to replace blown fuses (see Technical Data and specifications on the serial plate). Manipulation of the fuses and/or the fuse holder is prohibited.



# Attention !

#### Impaired Safety

If it can be assumed that safe operation is no longer possible, the KONSTANTER must be removed from service and secured against inadvertent use. Safe operation is no longer possible:

- If the KONSTANTER demonstrates visible damage or transport damage
- If the KONSTANTER no longer functions
- After lengthy periods of storage under conditions which deviate from the specified storage conditions

### Connection to the Mains



# Warning !

#### **Protective Grounding, PE Connection**

The KONSTANTER may only be placed into operation after the protective conductor has been connected. Interruption or disconnection of the protective conductor may result in danger for the user. The device is connected to the mains by means of a 3 conductor cable with mains plug.

Attention !

Before switching the SYSKON KONSTANTER on, it must be assured that available mains power complies with the supply power values specified at the mains connection on the back of the device.

SYSKON P500/P800/P1500: The device can be operated with either 115 or 230 V mains power. Full output power (1500 W) can be taken advantage of when operated with 230 V mains power. Due to resulting input current, only 750 W of output power can be supplied when operated with 115 V mains power.

SYSKON P3000/P4500: In order to exploit the full nominal power, the device must be operated with a 400 Volt 3-phase current system.

Integrated monitoring circuits detect mains power and limit output power in the event of overloading.

The instrument is connected to a mains outlet with earthing contact via the mains inlet connector [18] at the rear panel with the help of the included power cable (only included with the SYSKON P500/P800/P1500).

For connecting Power Consumers see Operating Instructions.

Edited in Germany • Subject to change without notice • A pdf version is available on the Internet



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