

HVPC test station

High Voltage Power Cycling

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The Löhnert Elektronik HVPC test station is used for load change measurements on power semiconductors.



This involves applying a high current to the power semiconductors in the direction of flow and testing the blocked power semiconductors with a high reverse voltage in another phase.

The blocking voltage in the HVPC test station is switched on via relays, the high current is switched via power semiconductors.

A galvanically isolated voltage amplifier enables the measurement of the voltage at the UUT during the current phase.

The HVPC test station has been designed for several UUTs. The unit is suitable for testing thyristors, IGBTs and FETs as well as diodes.

The control technology and measurement software consists of a PC and peripheral modules, which are controlled via a soft PLC. The measuring software is programmed via Löhnert's own instant scripting language, LisL for short.

Using this scripting language, the sequences for the HVPC test station are compiled directly in the program interface by creating scripts, which represent a sequence of



commands. As a result, our customers can create procedures themselves to a specified extent. The program is a universal framework, which is adapted to the needs and wishes of our customers.

The storage of result data can be implemented in a database format or in Microsoft Excel format.

The HVPC test station is built as a complete test cell. The supply electronics for the high current and the control technology are housed in the lower area. The upper area is divided into the high voltage supply with capacity cascade and the actual test space. The measurement technology is accommodated in a 19 inch cabinet.

All critical units are protected with door protection switches.

Contacting for the UUTs themselves is not included in the scope and must be provided by the customer.

Technical data:

Nominal voltage	3x 400V / 50Hz
Rated current:	min. 40A, max. 63A
Power:	approx. 24kVA
Fuse:	63A
Control voltage:	24V DC
High voltage:	2500V / 400mA / 1000W with adjustable ramp dU / dt
High current:	15V/1200A
Temperature measuring current:	5V/1000mA
Pneumatics:	Min. 6 bar, max. 8 bar
Humidity:	30 to 60%
Room temperature:	5 to 35°C
Protection class:	IP40
Dimensions (mm):	approx. 2000 x 1120 x 2100 (W x D x H)
Weight:	approx. 810 Kg